U.S. Department of Justice
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Office of Sex Offender Sentencing, Monitoring, Apprehending, Registering, and Tracking

SEX OFFENDER MANAGEMENT ASSESSMENT and PLANNING INITIATIVE

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SMART
Office of Sex Offender Sentencing, Monitoring, Apprehending, Registering, and Tracking

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The Adam Walsh Child Protection and Safety Act of 2006 authorized the establishment of the Office of Sex Offender Sentencing, Monitoring, Apprehending, Registering, and Tracking (SMART) within OJP. SMART is responsible for assisting with implementation of the Sex Offender Registration and Notification Act (SORNA), and also for providing assistance to criminal justice professionals around the entire spectrum of sex offender management activities needed to ensure public safety.

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The Office of Justice Programs provides federal leadership in developing the nation's capacity to prevent and control crime, administer justice, and assist victims. OJP has six components: the Bureau of Justice Assistance; the Bureau of Justice Statistics; the National Institute of Justice; the Office of Juvenile Justice and Delinquency Prevention; the Office for Victims of Crime; and the Office of Sex Offender Sentencing, Monitoring, Apprehending, Registering, and Tracking.

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Kevin Baldwin, Ph.D., is a clinical psychologist with a dual emphasis on research and forensics. A senior researcher at Applied Research Services, a national consulting firm specializing in criminal justice research and policy analysis, Dr. Baldwin also serves as Director of Forensic Services at the Highland Institute—Atlanta, an outpatient clinic specializing in the assessment and treatment of people with sexual behavior problems. He has directed federally funded research projects, authored more than a dozen articles in peer-reviewed journals, and has both designed and evaluated substance abuse treatment programs. He has provided evaluation and technical assistance to various problem-solving courts, including family drug courts, mental health courts, and child support courts. He also performs forensic examinations for state and federal courts and probation/parole authorities, serves as an expert witness in both juvenile and adult courts, and has worked in both inpatient and community-based mental health settings. Dr. Baldwin is a frequent presenter at regional and national conferences and has provided training and technical assistance to treatment and court staff in various settings. He earned his Ph.D. at Georgia State University after completing an adult forensic internship at the University of North Carolina at Chapel Hill School of Medicine and the Federal Bureau of Prisons.

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Section 1, Chapter 2. Etiology of Adult Sexual Offending

Susan Faupel, M.S.W., has been the Training Director for the Illinois Coalition Against Sexual Assault (ICASA) since 2001. In this capacity, Ms. Faupel is responsible for the development, coordination, and implementation of mandated trainings for statewide sexual assault staff, including counselors, advocates, educators, and managers. She also coordinates ICASA's annual statewide sexual assault conference and develops and coordinates training with other professional allied organizations, including the Illinois Department of Human Services, Illinois Department of Children and Family Services, and others.

Prior to directing ICASA's Training Institute, Ms. Faupel directed ICASA's Sexually Aggressive Children and Youth Project with the Illinois Department of Children and Family Services from 1995 to 2001. This involved developing and implementing standards to guide the department's response to children and youth with sexual behavior problems as well as developing and implementing training for all departmental staff. She is a past member of the Illinois Sex Offender Management Board of the Illinois Attorney General's office.

Ms. Faupel is an outspoken and passionate activist against violence in all forms, especially violence directed toward women, children, and disenfranchised populations. She conducts statewide and national presentations on issues related to sexual violence and other issues of oppression. She has worked actively in the movement opposing violence against women and children since 1981, providing direct services and program management in local domestic violence and sexual assault programs in Arkansas, Kentucky, and Illinois. In 1987, Ms. Faupel, then Program Director of A Woman's Place in Urbana, Illinois, walked more

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Tom Leversee

Section 2, Chapter 2. Etiology and Typologies of Juveniles Who Have Committed Sexual Offenses

Tom Leversee is a licensed clinical social worker with 39 years of clinical and administrative experience in the Colorado Division of Youth Corrections and in private practice. He retired from the Division of Youth Corrections in July 2008 and is currently an adjunct professor at the University of Denver Graduate School of Social Work. He has more than 30 years of experience working with sexually abusive youth. Mr. Leversee developed the Moving Beyond Sexually Abusive Behavior group therapy curriculum and student manual and co-edited/authored the third edition of Juvenile Sexual Offending: Causes, Consequences, and Correction with Gail Ryan and Sandy Lane. He also has written journal articles and chapters in numerous books. Mr. Leversee was presented the National Adolescent Perpetration Network's Pioneer Award in 2005 for his "21 years of unique contributions to prevent perpetration of sexual abuse." He continues to provide clinical services, consultation, and training focused on juveniles who have committed sexual offenses. Mr. Leversee is a member of the Colorado Sex Offender Management Board and the Board of ATSA.

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Section 2, Chapter 1. Unique Considerations Regarding Juveniles Who Commit Sexual Offenses

Section 2, Chapter 3. Recidivism of Juveniles Who Commit Sexual Offenses

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Mr. Lobanov-Rostovsky would like to acknowledge the assistance of Roger Przybylski for his guidance in preparing the chapter on recidivism in section 2.

Roger Przybylski

Introduction

Section 1, Chapter 5. Adult Sex Offender Recidivism

Section 1, Chapter 7. Effectiveness of Treatment for Adult Sex Offenders

Section 2, Chapter 1. Unique Considerations Regarding Juveniles Who Commit Sexual Offenses

Section 2, Chapter 5. Effectiveness of Treatment for Juveniles Who Sexually Offend

Roger Przybylski is a consultant and founder of RKC Group, a private company that provides applied research, program evaluation, and training and technical assistance services to public, private, and nonprofit organizations working on public safety issues. Prior to forming RKC Group in 1997, Mr. Przybylski held research and management positions in criminal justice agencies at both the state and local levels. He most recently served as Associate Director for the Illinois Criminal Justice Information Authority, where he directed the agency's research division. He also has served as coordinator of research for the Chicago Police Department, the nation's second largest local law enforcement agency. Mr. Przybylski is a past president of the Justice Research and Statistics Association (JRSA) and a current member of JRSA's Executive Committee. He also serves as chairman of the American Evaluation Association's crime and justice interest group. Mr. Przybylski has been an adjunct faculty member at Loyola University Chicago and the University of Illinois at Chicago and an associate editor for the Justice Research and Policy journal and the Journal of Offender Rehabilitation. He also has served with the Illinois Legislative Committee on Juvenile Justice, the Governor's Commission on Gangs in Illinois, and the Illinois Task Force on Crime and Corrections. Mr. Przybylski recently authored What Works: Effective Recidivism Reduction and Risk-Focused Prevention Programs, A Compendium of Evidence-Based Options for Preventing New and Persistent Criminal Behavior, and he served as guest editor for the 2012 special issue of Justice Research and Policy focused on evidence-based policy and practice.

Mr. Przybylski would like to acknowledge the assistance of Scott Matson, Senior Policy Advisor at the SMART Office, for his assistance in writing the Introduction and Christopher Lobanov-Rostovsky for his review of the chapter on treatment effectiveness in section 2.

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Phil Rich, Ph.D., a licensed independent clinical social worker for more than 30 years, specializes in working with sexually abusive youth. He presents, trains, and consults nationally and internationally. For 13 years, he was the Clinical Director of the Stetson School, a residential treatment program for sexually reactive children and adolescent and young adult sexual offenders in Massachusetts. Dr. Rich is the author of Understanding Juvenile Sexual Offenders: Assessment, Treatment, and Rehabilitation (first and second editions); Attachment and Sexual Offending: Understanding and Applying Attachment Theory to the Treatment of Juvenile Sexual Offenders; Juvenile Sexual Offenders: A Comprehensive Guide to Risk Evaluation; and the four Stages of Accomplishment workbooks for sexually abusive youth in treatment. Dr. Rich holds a Ph.D. in applied behavioral and organizational studies and a master's degree in social work.

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Dominique A. Simons

Section 1, Chapter 3. Sex Offender Typologies

Dominique Simons has conducted research for the Colorado Department of Corrections Sex Offender Treatment and Monitoring Program for 16 years. In addition to program and treatment evaluation, she consults on projects regarding juvenile sexual offender recidivism, Good Lives Model and self-regulation model treatment, and what works with sexual offenders in Colorado. She also conducts research and gathers statistics for various health and mental health organizations. Ms. Simons has presented on and authored journal articles and book chapters regarding the developmental experiences of sex offenders, sexual interest in children among the general population, sex offender typologies, process issues in sex offender treatment, the therapeutic relationship, crossover sexual offenses, the formulation of prevention strategies from etiological models, the prevalence and treatment of multiple paraphilias, offense patterns of female sexual offenders, and the prevalence of intimate partner rape among domestic violence and sexual offenders.

Jane Wiseman

Section 1, Chapter 1. Incidence and Prevalence of Sexual Offending

Jane Wiseman has been improving government operations, as an appointed official in government and a financial advisor and consultant, for more than 25 years. An innovator herself, Ms. Wiseman has learned from both the successes and challenges of creating a new program from scratch, which she has done as a federal and state official. Her passion for excellence in government and her ability to share an insider's perspective on innovation are invaluable to her clients.

Ms. Wiseman's consulting clients have included the U.S. Departments of Justice, Veterans Affairs, and Commerce; National Governors Association; National Criminal Justice Association; University of Massachusetts Medical School; Massachusetts Executive Office of Housing and Economic Development; U.S. Postal Service; and the State of Michigan.

Ms. Wiseman has provided consulting services to a wide range of businesses, from IBM to local small businesses. Her consulting work has included organizational strategy, performance management, and eGovernment strategy for Accenture and Price Waterhouse. Ms. Wiseman served as Assistant Secretary, Massachusetts Executive Office of Public Safety, where she was recognized for her organizational reform efforts in the Pioneer Institute's Better Government Competition. Other government service includes an appointment as Assistant to the Director for Strategic Planning, National Institute of Justice, U.S. Department of Justice. Ms. Wiseman has also served as a staff assistant for the U.S. House of Representatives Appropriations Committee and as an intern for the Office of Management and Budget. Ms. Wiseman holds a bachelor's degree in government from Smith College and a master's degree in public policy from the John F. Kennedy School of Government at Harvard University.

Executive Summary

Policymakers, practitioners, and the public have come to view sex offenders as a unique group of offenders in need of special management. As a result, numerous laws, policies, and programs focusing specifically on sex offenders have been implemented across the country, most without the support of research. The criminal justice community, however, has recognized that crime control efforts, prevention strategies, and treatment methods based on scientific evidence are far more likely to be effective and cost-beneficial.

In 2006, the Adam Walsh Child Protection and Safety Act (AWA) authorized the establishment of the Office of Sex Offender Sentencing, Monitoring, Apprehending, Registering, and Tracking (SMART Office) within the U.S. Department of Justice—the first federal office devoted solely to sex offender management-related activities—to implement the Sex Offender Registration and Notification Act (Title I of AWA).

In 2011, the SMART Office began work on the Sex Offender Management Assessment and Planning Initiative (SOMAPI) to assess the state of research and practice in the field and inform OJP's research and grant-making efforts. As part of this effort, the office gathered information and enlisted practitioners to (1) provide details about sex offender management programs and practices that are promising or effective and (2) identify the needs of the various disciplines involved in managing this population.

The SMART Office contracted with the National Criminal Justice Association (NCJA) and a team of subject-matter experts to review and summarize the scholarly literature on sex offending and sex offender management. To gain insight into emerging issues, promising practices, and pressing needs at the state and local levels, NCJA conducted an informal national inventory of sex offender management professionals in 2011. Thereafter, the SMART Office hosted the Sex Offender Management Research and Practice Discussion Forum (SOMAPI forum) in February 2012, where researchers and practitioners discussed the research summaries and inventory results to refine what is known about sex offender management, identify gaps in research and practice, and assess the needs of the disciplines involved in this work. Recommendations from the SOMAPI forum informed this report, which reviews the literature on adult sex offenders and juveniles who commit sex offenses. Given their fundamental differences, it is critical to distinguish between these populations when describing their characteristics or discussing research on etiology, recidivism, risk, and the effectiveness of interventions.

Adult Sex Offenders

Incidence and Prevalence of Sexual Offending

FINDINGS

- At least 16 different data sources report on sex crimes and victimization.
- There is no single definition of sex offending.
- An accurate accounting is virtually impossible because so many sex crimes are hidden from public view:
  - The vast majority of victims do not report crimes.
  - Sex offenders do not typically self-report sex crimes.

This chapter presents data on sex crimes and assesses the relative strengths and weaknesses of various data sources on their ability to document the true incidence and prevalence of sex offending.

Survey data reveal that sex crimes are not only often unreported, they are often unseen by anyone other than the victim and perpetrator. Nevertheless, statistics on the incidence and prevalence of sex crimes, as well as trend data, can provide insight into the nature and extent of sexual violence that policymakers and practitioners can use to design and deliver more effective prevention and intervention strategies.

It is difficult to create an accurate accounting of the extent of sex offending because definitions of sex offending, reference periods, and sample measurements vary. Nevertheless, several sources are considered authoritative for measuring the incidence and prevalence of sex crimes, including Uniform Crime Reports (UCR), National Crime Victimization Survey (NCVS), National Violence Against Women Survey (NVAWS), and National Intimate Partner and Sexual Violence Survey (NISVS).

These sources, among others described in this chapter, provide various measures of sex offending and sexual victimization among various groups—from national estimates among the general population to estimates of victimization among specific demographic groups (e.g., college students, individuals with disabilities) to self-reports of offending by incarcerated offenders. What is known about victims and offenders is based on an incomplete picture of the true extent of victimization. Sources that rely on official police reports tend to understate sex offending because the crime is often not reported, whereas those that rely on victim self-reports may fail to count victimizations that the respondent does not consider to be crimes.

Recommendations

- Additional research is needed to determine how the criminal justice system may contribute to underreporting and the steps that can be taken to address the problem and improve support for victims.
- Investigate whether the wording of questions on victimization surveys influences reported levels of sexual violence.
- The literature on what works in preventing sexual abuse is neither complete nor rigorous. More study in this area could provide insight into how best to allocate scarce resources.
- More research is needed to understand the extent and nature of sexual victimization of individuals in vulnerable situations.

Etiology of Adult Sexual Offending

FINDINGS

- There is no simple answer to the question of why people engage in this behavior.
- The problem of sex offending is too complex to attribute solely to a single theory.
- What is known—
  - Sexual abuse is a learned behavior.
  - Negative or adverse conditions in early development—particularly poor relationships with caregivers—can contribute to the problem.
  - Sex offenders engage in cognitive distortions.
  - Repeated exposure to sexually violent pornography can contribute.
  - Problems with self-regulation and impulse control can contribute.
  - Short-term relationships and negative attitudes toward women can contribute.

Knowledge about the origins, causes, and pathways to sexual offending can play a critical role in the development and delivery of effective public safety strategies. Therefore, this chapter focuses on research related to the etiology of sex offending behavior.

Our understanding of the causes and origins of sexually abusive behavior is rudimentary. Two types of theories have been advanced to explain sex offending—(1) those that rely on a single factor and (2) those that hypothesize an interaction among multiple factors.

Single-factor theories include those that attribute sex offending to biology, evolution, personality, cognition, behavior, social learning, and the structure of gender relations. Some of these theories lack empirical evidence. Others correlate with some aspects of sex offending but do not explain why some people sexually offend and others do not. For example, those who were sexually abused as children are more likely to grow up to be abusers, and a correlation exists between the age of first victimization, the number of perpetrators, the violence of the sex acts, and the duration of the abuse and the likelihood of later offending. Nevertheless, most abused children (particularly girls) do not grow up to be abusers, and most sex offenders were not sexually abused as children.

These limitations have led to theories that combine multiple factors to explain sex offending behavior:

- **Precondition theory** posits four preconditions: the motivation to abuse, overcoming internal and external inhibitors, and victim resistance.
- **Integrative theory** posits that the prominent causal factors for sex offending are developmental experiences, biological processes, cultural norms, and the psychological vulnerability that can result from a combination of these factors.
- The **quadripartite model** looks at four factors in relation to sex offending: deviant sexual arousal, negative thought processes, lack of emotional control, and personality problems or disorders.
- The **pathways model** identifies five causal pathways to sex offending based on different clusters of symptoms: intimacy deficit, deviant sexual scripts, emotional deregulation, antisocial cognition, and multiple dysfunctional mechanisms.
- The **confluence model** hypothesizes that sexual promiscuity and hostile masculinity merge to result in sexually aggressive behavior.
- **Multimodal self-regulation** theory integrates various psychological perspectives and implicates self-regulatory deficits as key to developing sexually inappropriate interests and behaviors.

Two major shortcomings are noted from review of the literature: sampling used in the research and a lack of intersection and balance among the different theoretical perspectives. Much of the etiological research undertaken to date is based on sex offenders who are either in treatment, in prison, or both. This is problematic because the evidence is clear that many sex offenders are never identified by authorities. Equally important is the propensity

of etiological theories to focus on explanations for sex offending that reside within the individual. Few consider the ways in which social structures and cultural phenomena contribute to sex offending behavior.

Recommendation

- Further study is needed regarding the integration of theories and the ways that different factors involved in sex offending relate to one another.

Sex Offender Typologies

FINDINGS

- **Typologies are based on theories postulating that sex offenders specialize:**
  - **Child abusers.**
  - **Rapists.**
  - **Females.**
  - **Internet offenders.**
- **Crossover offending presents a challenge to traditional typologies.**
- **Recent advances: developmental risk factors and offense pathways.**

This chapter reviews offender typologies that may serve to determine offender risk and criminogenic needs for the effective treatment and management of sex offenders. Although other typologies exist, this chapter only includes the classification systems that have been empirically derived and validated.

Most theories regarding sexual deviance postulate that sex offenders specialize in types of victims and offenses. The most frequently used and empirically tested sex offender typologies follow:

- **Child sex abusers.** Pedophilia, the most important distinction among child sex abusers, is a sexual preference for children that may or may not lead to child sexual abuse, but when it does lead to abuse, it is a strong predictor of repeated offending. Not all individuals who sexually assault children are pedophiles.
- **Rapists.** Compared to child sex abusers, rapists tend to be younger, to be socially competent, to have engaged in an intimate relationship, and to resemble violent offenders or criminals in general. They have a greater number of previous violent convictions, tend to use greater levels of aggression and force, and are more likely to reoffend violently rather than sexually.
- **Female sex offenders.** Female offenders are more likely to sexually assault males and strangers, and less likely than male offenders to sexually reoffend. They report extensive childhood abuse and are often motivated by power and sexual arousal.
- **Internet offenders.** Internet offenders are motivated by a sexual interest in children, but not all Internet offenders are pedophiles. Conventional contact sex offenders have a greater risk of sexual recidivism than online-only offenders.

For the past 25 years, several studies have reported that rapists often sexually assault children and incest offenders often sexually assault children both within and outside their family. In addition, studies have shown crossover between Internet and hands-on offending, which presents significant challenges to traditional sex offender typologies.

Recent models of the sex offense process include etiological theories of sex offending and treatment-relevant factors based on clusters of behaviors and psychological processes. The most promising models are the developmental pathways of sex offending model, the self-regulation model, and the specialist vs. generalist model. These models take into account problematic behaviors, distorted thought processes, and offense histories and may ultimately replace traditional typologies to inform treatment and management of sex offenders.

Recommendation

- Advances in developmental risk factors and offense pathways can assist with risk and need evaluation; however, additional research is needed to develop models of sexual deviance.

Internet-Facilitated Sexual Offending

FINDINGS

- Types:
  - Possession, distribution, and production of child pornography.
  - Sexual solicitation.
  - Conspiracy crimes.
- Offender characteristics:
  - One in eight had an official record for contact sex offending.
  - Fifty-five percent admitted to a history of contact sex offending.
  - Offenders were relatively low risk compared to contact sex offenders.
  - Child pornography offenders are likely to be pedophiles.
  - Solicitation offenders are primarily interested in adolescent girls.

This chapter describes what is known about the motivations and other psychological characteristics of Internet offenders, as well as differences between child pornography and solicitation offenders, in order to better understand the individuals who commit these kinds of crimes and their correctional and clinical needs.

Arrests for Internet sex crimes have tripled in the United States. This increase has been paralleled by a decrease in the number of reported child sexual abuse cases and in violent crime more broadly. This indicates that Internet sex offending is a new phenomenon that may not be influenced by the same factors as other sexual or violent crimes. Given that Internet offending outstrips law enforcement resources, prosecutors have made the following types of cases priorities:

- Cases involving the production or high-level distribution of child pornography.
- Solicitation cases involving attempts to meet face to face.
- Cases involving Internet offenders who have already sexually assaulted children or are currently doing so.

Many, but not all, Internet offenders are motivated by a sexual interest in children. However, pedophilia is not the sole motivation for Internet offending involving children; some offenders cite indiscriminate sexual interests, an "addiction" to pornography, and curiosity.

Solicitation offenders primarily target young adolescent females, and some researchers suggest that these offenders may have more in common with statutory sex offenders than with pedophiles. Some researchers suggest that a distinction exists between fantasy-driven and contact-driven solicitation offenders, and that the fantasy-driven group is not interested in or likely to commit contact sex offenses. Solicitation offenders are similar or lower in potential risk for reoffending than child pornography offenders.

Sex offender treatment and supervision professionals are struggling to respond to the increasing influx of Internet offenders. Key questions have yet to be addressed regarding intervention, including what the priority treatment targets are, how they should be targeted, and whether interventions can reduce recidivism.

The most clearly articulated intervention program to date—the Internet Sex Offender Treatment Programme in the United Kingdom—was created as a result of treatment provider concerns about mixing Internet and contact offenders in group therapy as well as questions about the applicability of some treatment components and targets of conventional contact sex offender treatment programs.

Recommendation

- More research on the onset and maintenance of Internet sex offending is needed to design effective interventions. Although other areas require research attention, intervention is the area with the largest gaps in knowledge.

Adult Sex Offender Recidivism

FINDINGS

- Observed recidivism rates of sex offenders are underestimates of actual reoffending.
- Measurement variations across studies (operational definitions, length of the followup period, populations being studied, methods used) often produce disparate findings.
- Sexual recidivism rates range from 5 percent after 3 years to 24 percent after 15 years.
- The rates of recidivism for general crime are higher than those for sex crime.
- Different types of sex offenders have different rates of recidivism.

This chapter summarizes what is scientifically known about the recidivism rates of adult sex offenders and presents key, up-to-date research findings on both sexual and general recidivism for sex offenders as a whole as well as for female and male sex offenders, rapists, child molesters, and exhibitionists.

Recidivism is difficult to measure, particularly involving sex offenders. The surreptitious nature of sex crimes, the fact that few sex offenses are reported to authorities, and variation in the ways researchers calculate recidivism rates all contribute to the problem. This has no doubt contributed to the lack of consensus among researchers regarding the proper interpretation of some research findings and the validity of certain conclusions.

Knowledge about general recidivism is important because many sex offenders engage in both sexual and nonsexual criminal behavior. Sex offenders are more likely to recidivate with a nonsex offense than a sex offense. In addition, some crimes legally labeled as nonsexual may be sexual in their underlying behavior.

All Sex Offenders

The largest single study of sex offender recidivism conducted to date found a sexual recidivism rate of 5.3 percent for the entire sample of sex offenders based on an arrest during the 3-year followup period. The violent and overall arrest recidivism rates were much higher: 17.1 percent of sex offenders were rearrested for a violent crime and 43 percent were rearrested for a crime of any kind. Sex offenders had a lower overall rearrest rate than nonsex offenders, but their sex crime rearrest rate was four times higher. Other studies have produced similar findings.

Recidivism rates of sex offenders increase as followup periods lengthen and with the number of convictions. A set of studies that followed offenders at 5-year intervals up to 20 years found that rearrests for sex offending increased steadily from 14 percent to 27 percent over that time. In addition, the 15-year rearrest rate for offenders who had a prior conviction for sex offending was nearly twice that of first-time offenders. However, offenders who were not rearrested for sex offending within the first 5 years were progressively less likely to sexually recidivate the longer they remained offense-free.

Female and Male Sex Offenders

Although most known sex offenders are male, estimates suggest that females commit between 4 and 5 percent of all sex offenses. Research indicates that female sex offenders reoffend at significantly lower rates than male sex offenders.

Rapists and Child Molesters

Rapists have a lower overall recidivism rate than nonsex offenders but a higher sexual recidivism rate. Those with multiple prior arrests were twice as likely to be rearrested within 3 years as those with only one prior arrest. Rapists also have a greater propensity to reoffend in the long term than other sex offenders.

Child molesters were more likely than any other type of offender—sexual or nonsexual—to be arrested for a sex crime against a child following release from prison. In addition, those offenders with multiple prior arrests for child molesting were three times more likely to be rearrested for child molesting than those with only one prior arrest.

Recommendations

- Research documenting the recidivism patterns of crossover offenders and other specific sex offender subtypes is needed.
- Research is needed to develop a way to bridge the gap between the perspective that "few sex offenders reoffend" and the evidence that few victims report their victimization.
- Far more policy-relevant research is needed on the absolute and relative risks that different types of sex offenders pose.

Sex Offender Risk Assessment

FINDINGS

- The three generations of risk assessment methods are—
  - Unstructured professional opinion.
  - Actuarial measures using static predictors.
  - Measures that include both static and dynamic factors.
- No single risk factor is the best predictor; there is no single best instrument.
- The field is moving toward measures of risk that incorporate both static and dynamic risk factors. These measures also have the benefit of providing targets for intervention, given the changeable nature of dynamic risk factors.

This chapter summarizes advances in assessment practices and the current state of risk assessment in use with sex offenders.

Risk assessment is used during sentencing and criminal adjudications; determinations of treatment needs, settings, and modalities; registration and notification proceedings; and civil commitment proceedings.

Risk assessment methods include unstructured professional opinion, actuarial methods using static predictors, and methods that include both static and dynamic factors, which are becoming more prevalent. These instruments also provide targets for intervention.

Factors often considered as potential adjustments to actuarial measures are "criminogenic needs" or psychologically meaningful risk factors. For a risk factor to be psychologically meaningful, there must be a plausible rationale that it is a cause of sex offending and there must be strong empirical evidence that it predicts sexual recidivism.

A meta-analysis of risk assessment instruments concluded that empirically derived actuarial approaches were more accurate than unstructured professional judgment in assessing risk. However, although significant advances have been made regarding the reliability and predictive validity of risk assessment instruments, some experts are skeptical that a single actuarial scale containing all relevant risk factors could ever be developed. Clinicians often use more than one instrument, especially in civil commitment evaluations. One expert has provided the following set of qualities to guide the future of sex offender risk assessment:

- Assess risk factors whose nature, origins, and effects can be understood.
- Enable reliable and valid assessment of clinically useful causal factors.
- Provide precise estimates of recidivism risk.
- Consider all relevant factors.
- Use risk assessment to help develop treatment targets and risk management strategies.
- Allow the assessment of both long- and short-term changes in risk.
- Incorporate protective and risk factors.
- Engage the patient/offender in the assessment process.
- Use risk assessment methods that are easy to implement in a broad range of settings.

Recommendations

- Evaluators need to be trained and monitored to ensure that risk assessment procedures and instruments are used appropriately and with integrity.

- Treatment and management efforts must be tailored to match the appropriate intervention with each sex offender's risk level and criminogenic needs.

- Science-based, actuarial methods for assessing risk are advisable based on current knowledge.

Effectiveness of Treatment for Adult Sex Offenders

FINDINGS

- Certain treatment approaches work:
  - Cognitive-behavioral/relapse prevention approaches.
  - Adherence to risk, need, and responsivity principles.
- Treatment impact is not the same:
  - Those offenders who respond to treatment do better than those who do not respond well.
  - Moderate- to high-risk offenders benefit most.
- Treatment can reduce sexual recidivism over a 5-year period by 5–8 percent.
- Recent treatment advances are the self-regulation model and the Good Lives Model.

This chapter summarizes what is scientifically known about the impact of treatment on the recidivism of adult sex offenders. It presents key, up-to-date research findings from single studies of treatment effectiveness as well as from research that synthesizes information from multiple studies.

According to a recent survey, 1,307 sex-offender-specific treatment programs were operating in the United States in 2008. That year, treatment programs for sex offenders were operating in all 50 states and the District of Columbia, and more than 80 percent were community based, providing therapeutic services to more than 53,811 offenders.

The first major sex offender treatment program evaluation to use a randomized controlled trial found no significant treatment effects overall; however, high-risk offenders and child molesters who responded to treatment were less likely to sexually recidivate than other participants. Several other large-scale studies found similar effects.

The most systematic and rigorous meta-analysis of treatment effectiveness studies found significant differences between the recidivism rates of treated and untreated offenders. Physical treatments had larger treatment effects. Among psychological treatments, cognitive-behavioral treatments and behavior therapy had significant effects. Treatment effects also were greater for sex offenders who completed treatment, as dropping out doubled the odds of recidivating.

Another review of high-quality studies found that cognitive-behavioral/relapse prevention treatment, behavioral treatment, and hormonal medication all significantly reduced sexual recidivism. A meta-analysis of six rigorous studies of adult sex offender treatment with aftercare found that these programs reduced recidivism, on average, by 9.6 percent. In addition, they produced a net return on investment of more than $4,000 per program participant, or more than $1.30 in benefits per participant for every $1 spent.

The risk-need-responsivity (RNR) principles used in treating general offenders also applies to sex offender treatment. That is, higher risk offenders are more likely to benefit from treatment than lower risk offenders, programs that target offenders' criminogenic needs are more successful at reducing recidivism, and successful programs respond to the motivation, cognitive ability, and other characteristics of the offender.

In sum, findings from recent systematic reviews and meta-analyses suggest that certain treatment approaches can and do work. Matching treatment to the risk levels and criminogenic needs of sex offenders may help maximize treatment effectiveness and the return on investment of treatment resources. Adhering to the RNR principles is important. High- and moderate-risk offenders benefit most from treatment.

Two treatment approaches that have grown in prevalence in recent years are the Good Lives Model (GLM) and self-regulation model (SRM). GLM attempts to equip sex offenders with the skills, attitudes, and resources needed to lead a prosocial, fulfilling life, thereby reducing the likelihood of reoffending. SRM identifies four offense pathways

that address an individual's offending behavior goals and the manner in which the individual tries to reach them. SRM was recently integrated with GLM to create a more comprehensive treatment approach. Unfortunately, little is known about the efficacy of these treatment models (either alone or in tandem) for reducing the recidivism of sex offenders. Research examining their effectiveness with sex offenders is needed.

Recommendations

- The SOMAPI forum participants acknowledged the differential impact of treatment and the need for tailored rather than uniform treatment approaches.
- The experts who participated in the SOMAPI forum acknowledged the long-identified need for more high-quality studies on treatment effectiveness and identified both randomized control trials and highly rigorous quasi-experiments that employ equivalent treatment and comparison groups as future research needs.
- A key research priority that is important for both policy and practice is the gathering of empirical evidence that specifies what works for certain types of offenders, and in which situations.

Sex Offender Management Strategies

FINDINGS

- Juveniles and adults differ in their cognitive capabilities, capacity for self-management and regulation, susceptibility to social and peer pressure, and in other areas related to judgment and criminal intent.
- Risky behavior is more prevalent during adolescence than it is during either preadolescence or adulthood.
- The ability to plan ahead, be aware of time, and anticipate future consequences significantly increases with age.

This chapter reviews the research related to several sex offender management strategies. The review describes research studies within each strategy, the limitations of the current research, and a summary of the research and notes recommendations for future research.

Despite the intuitive value of using science to guide decision-making, laws and policies designed to combat sex offending are often introduced or enacted without empirical support. The reasons why this occurs are complex and are not explored here. However, there is little question that both public safety and the efficient use of public resources would be enhanced if sex offender management strategies were based on evidence of effectiveness.

A number of sex offender management strategies are widely used:

- **Specialized supervision.** Specially trained probation and parole officers manage sex offenders using specific supervision strategies that include special conditions of supervision, multidisciplinary collaboration with a treatment provider, and, if appropriate and permissible, the use of GPS and polygraph. There is empirical support for such models when they are delivered in conjunction with treatment, but not when used in isolation or without treatment.
- **Circles of Support and Accountability (COSA).** The COSA model begins after offenders have completed legal supervision. It helps offenders garner community resources while holding them accountable to a self-monitoring plan. Studies of COSA have consistently found that its participants sexually recidivate at a significantly lower rate than the comparison group.
- **Polygraph.** The use of polygraphs in managing sex offenders is somewhat more controversial than other strategies, although their use has increased greatly since the 1990s. Multiple studies across various jurisdictions indicate that polygraphs lead sex offenders to disclose additional victims, offenses, and offense categories; high-risk behaviors; age of onset, duration of offending, and frequency of offending; and details of offending strategies. Polygraph testing should be one component of

an overall sex offender management strategy, but should not be relied on exclusively for sex offender management.

- **Electronic monitoring, including GPS.** Studies of the effectiveness of electronic monitoring overall have been inconclusive, although a Florida study found promising results in reducing criminal recidivism and absconding. Although GPS may eventually be found to be effective as one strategy in an overall approach for managing sex offenders, existing empirical studies do not establish that it is effective when used alone.

- **Sex offender civil commitment.** Twenty states, the District of Columbia, and the federal government allow for sex offender civil commitment (SOCC) procedures, believing that some offenders will continue to be at high risk for committing a new sex offense if they are not preventively detained and offered treatment. Most SOCC statutes require the state to demonstrate that a potential candidate for civil commitment has (1) a history of criminal sexual behavior and (2) a "mental abnormality" that, without treatment, would preclude him or her from being able to manage his or her criminal sexual propensities in the community. There has not been adequate empirical study to determine the effectiveness of SOCC in terms of its impact on postrelease offending.

- **Sex Offender Registration and Notification (SORN).** The public supports SORN laws and believes that they make families and communities safer. Offenders often report negative social and personal consequences but may also report positive effects in terms of deterring offenses or promoting rehabilitation. Research results are mixed concerning the impact of SORN laws on matters such as sex crime rates and recidivism. The import of past research is also clouded by methodological problems in existing studies and more recent developments in sex offender registration and notification. No study to date has examined the multifaceted elements of registration laws generally or SORNA specifically. SORNA incorporates registration requirements and procedures, and information sharing and enforcement mechanisms, going beyond those prevalent in registration and notification systems examined in past studies.

- **Residency restrictions.** Restrictions that prevent convicted sex offenders from living near schools, daycare centers, and other places where children congregate have generally had no deterrent effect on sexual reoffending, particularly against children. In fact, studies have revealed that proximity to schools and other places where children congregate had little relation to where offenders met child victims.

Recommendations

- Jurisdictions should use specialized supervision with a rehabilitation orientation as one component of an overall sex offender management strategy.

- Given COSA's ability to facilitate collaboration with members of the community, the SOMAPI forum experts recommend COSA as a sex offender management strategy.

- Given the limitations of scope and methodology in existing SORN research, further research is desirable to inform any future changes to SORN.

- SOMAPI forum participants do not recommend expanding the residency restriction policy.

Juveniles Who Commit Sex Offenses

Unique Considerations Regarding Juveniles Who Commit Sexual Offenses

FINDINGS

- The sex offending of some adolescents represents a reenactment of their own sexual victimization.
- For some adolescents, sexual aggression is a learned behavior modeled after what they observe at home.
- Adolescents who commit sex offenses have much less extensive criminal histories, fewer antisocial peers, and fewer substance abuse problems compared with nonsexual offenders.
- Meaningful differentiation can be made between youth who sexually offend against younger children and those who target peers and adults.
- Individualized treatment is needed, rather than a "one size fits all" approach.

This chapter serves as an overview of section 2 of this report, which focuses specifically on research pertaining to juveniles who sexually offend.

The evidence regarding adolescent development from neuroscience and developmental criminology has important implications for policy and practice aimed at juvenile offenders of all types, including those who commit sex offenses. Recent advances have identified extensive and profound developmental differences between juveniles and adults, such as the capacity to plan ahead and to consider the future consequences of their actions, regulate emotions, control behavior, and weigh the costs and benefits of decisions.

Etiology and Typologies of Juveniles Who Have Committed Sexual Offenses

This chapter addresses the etiology of sexual offending by juveniles and the typologies for juveniles who commit sexual offenses. The etiological research reviewed in this chapter addresses the origins of juvenile sexual offending and the pathways related to the development, onset, and maintenance of sexually abusive behavior in this population. The typological research addresses classification schemes based on types or categories of offenders or victims and offense characteristics.

Etiology

Sexual victimization plays a disproportionate role in the development of sexually abusive behavior in adolescents, whether in a direct path from sexual victimization to sexually abusive behavior or an indirect path that is mediated by personality variables. Sex abuse should not be examined in isolation, however, as it clearly co-varies with other developmental risk factors, such as traumatic physical and sexual abuse, neglect, and chaotic family environments. Early childhood maltreatment increases the likelihood of sexually abusive behavior later in life, either directly or indirectly, in relationship with personality variables.

Adolescents who have been sexually abused are more likely to sexually victimize other youth than youth who have not been sexually abused. Juveniles who have been sexually victimized are more likely to select sexual behaviors that reflect their own sexual victimization regarding the age and gender of the victims and the types of sexual behaviors they perpetrate against the victims.

Adolescent sex offending cannot be explained as a simple manifestation of general antisocial tendencies. Most adolescents who sexually offend come from a disturbed family background, and significant proportions suffer from attention deficit/hyperactivity, posttraumatic stress, and mood disorders. They likely also lack protective factors such as emotional support and social competence. Adolescent alcohol abuse and early exposure to pornography also may play a role in juvenile sexual coercion.

Typologies

Research has primarily differentiated subtypes of juveniles who have committed sex offenses based on victim age, delinquency history, and personality characteristics.

Victim age. There are meaningful differences between youth who sexually offend against younger children (5 or more years younger) and those who target peers and adults. Offenders who target children are younger at the time of offense, more likely to have same-sex victims, more likely to target relatives, less likely to use aggression, and more likely to suffer from clinical depression and anxiety, poor self-esteem, and deficits in psychosocial functioning. Offenders who assault peers or adults are more likely to use force and weapons, to act in a group, to offend in a public place, and to be under the influence of alcohol and drugs. They are also more likely to assault a member of the opposite sex, assault a stranger or acquaintance, and commit the offense in association with other criminal activity. Data suggest that youth who assault peers or adults are not substantially different from other delinquent youth on most measures of adolescent social development.

Delinquency history. Adolescents who committed only sex offenses had significantly fewer childhood conduct problems, better current adjustment, more prosocial attitudes, and a lower risk for future delinquency than adolescents who committed both sex and nonsex offenses. Adolescents who committed sex and nonsex offenses are at higher risk for general reoffending than adolescents who committed only sex offenses and are more likely to benefit from treatment targeting general delinquency factors.

Victim age and delinquency history. One study has suggested a dimensional approach, based on the following factors, for describing juveniles who have committed sex offenses:

- Single offender with severe molestation of a related child.
- Persistent general delinquent.
- Older offender with alcohol use and family constraints.
- Multiple and aggressive offender with social adversities.
- Offender with unselected and multiple victims.

Victim age and personality characteristics. Evidence suggests that treatment programs may be enhanced by considering the type of victim (child or peer). A comparison of the personality characteristics of adolescents who commit sex offenses against their peers and those who offend against younger children indicates that adolescents who offend against children are more schizoid, avoidant, and dependent than those who offend against peers.

Recommendation

- It is important to use individualized treatment and supervision strategies.

Recidivism of Juveniles Who Commit Sexual Offenses

FINDINGS

- There is no significant difference in the rate of either sexual or general recidivism between juveniles with older victims and those with younger victims.
- The sexual recidivism rates of juveniles who commit sex offenses range from about 7 percent to 13 percent after 59 months.
- Recidivism rates for juveniles who commit sex offenses are generally lower than those observed for adult sex offenders.
- A relatively small percentage of juveniles who commit a sex offense will sexually reoffend as adults.
- Juveniles who commit sex offenses have higher rates of general recidivism than sexual recidivism.

This chapter reviews recidivism research on juveniles who commit sex offenses and presents research findings concerning both sexual and general recidivism.

Many juveniles who commit sex offenses also engage or will engage in nonsexual criminal offending. Data on the recidivism rates of juveniles who commit sex offenses, through official statistics, underreport the true extent of reoffending. However, these data can help policymakers and practitioners develop interventions that are effective, appropriate, and proportionate for juvenile offenders by examining how they compare to rates found for both adult sex offenders and other juvenile offenders.

Research found no significant difference in sexual recidivism between juveniles who committed sex offenses who were released from correctional and residential settings and those who were released from community-based settings, indicating that placement decisions may not have been appropriately based on assessed risk. Research also has not found a significant difference in sexual recidivism between juveniles who commit sex offenses against peer or adult victims and those who commit sex offenses against child victims.

Comparisons involving juveniles who commit sex offenses with those who commit nonsex, general offenses produced mixed results. Some studies found that juveniles who commit sex offenses had significantly higher rates of sexual and general recidivism than their general-offending juvenile counterparts, while others did not.

Recommendations

- More policy-relevant research is needed on the absolute and relative risks posed by different types of juveniles who commit sex offenses.
- Policies designed to reduce sexual recidivism for juveniles who commit sex offenses should be evaluated for their effectiveness and their potential iatrogenic effects on juveniles, their families, and the community.
- Intervention efforts should be concerned with preventing sexual and general recidivism.
- Given that there may be fundamental differences between juveniles who commit sex offenses and adult sex offenders, sex offender management policies commonly used with adult sex offenders should not automatically be used with juveniles. Empirical evidence concerning both the effectiveness and potential unintended consequences of policies should be considered carefully before they are applied to juveniles.

Assessment of Risk for Sexual Reoffense in Juveniles Who Commit Sexual Offenses

FINDINGS

- The contention that actuarial assessment can predict risk more accurately than clinical assessment is not universally accepted, and many have noted that both assessment models have strengths and weaknesses. It is generally recognized, however, that unaided professional judgment by mental health practitioners is not a reliable or accurate means for assessing the potential for future dangerous behavior.
- The goals of a comprehensive risk assessment process extend beyond the assessment of risk alone.
- Empirical research indicates that it is the presence and interaction of multiple risk factors, rather than the presence of any single risk factor alone, that is most important in understanding risk.
- Although there is a developing research base, the empirical evidence concerning the validity of commonly identified risk factors for juvenile sex offending remains weak and inconsistent.
- Although the literature features some empirical support for the predictive validity of the J–SOAP–II, ERASOR, and JSORRAT–II assessment tools, the instruments do not perform in a manner that suggests or proves their ability to accurately predict juvenile sexual recidivism.
- Despite the apparent importance of protective factors, few of the instruments commonly used with juveniles incorporate protective factors, and those that do either have no empirical support or are in development and have not yet been empirically validated.

This chapter reviews the literature on the assessment of risk for sexual recidivism for juveniles who commit sexual offenses, summarizes what is scientifically known about risk assessment, and presents key, up-to-date research findings on the defining features and predictive accuracy of commonly used assessment instruments.

Researchers have identified six goals for juvenile risk assessment:

1. Identify patterns of troubled thoughts, feelings, and behaviors.

2. Recognize and understand learned experiences and processes that contribute to developing and maintaining juvenile sexually abusive behavior.

3. Identify situational contexts and correlates of sexually abusive behavior.

4. Evaluate the probability of recidivism of sex offending.

5. Assess the juvenile's motivation for engaging in treatment approaches aimed at emotional and behavioral regulation.

6. Gather the information required to develop interventions and treatment.

Two general models are used in juvenile risk assessment: actuarial and clinical. In the actuarial model—also known as statistical or mechanical assessment—risk is determined entirely by a statistical comparison between the personal characteristics and past behavior of the juvenile and those of known recidivists. Clinical risk assessment, on the other hand, is based on observation and professional judgment, either unaided or guided by a structured risk assessment instrument.

Both models have strengths and weaknesses, and studies have found that combining static (actuarial) and dynamic (clinical) risk factors significantly improves prediction of sexual recidivism in juveniles who commit sex offenses. Third- and fourth-generation risk assessment instruments combine both approaches, and fourth-generation methods also incorporate factors relevant to treatment interventions, case management, and monitoring.

Most important to understanding risk is the presence and interaction of multiple risk factors rather than any single risk factor alone. Research on the risk factors for sexual recidivism has produced inconsistent and sometimes contradictory results. Moreover, as some researchers have pointed out, risk factors for sexual recidivism may operate differently in different people and at different points in child and adolescent development.

In North America, the two most commonly used risk assessment instruments for juvenile sex offending are the Juvenile Sex Offender Assessment Protocol–II (J–SOAP–II) and the Estimate of Risk of Adolescent Sexual Offense Recidivism (ERASOR), both of which are structured and empirically informed instruments designed for clinical assessment. The only actuarial assessment instrument currently available for use with juveniles who commit sex offenses is the Juvenile Sexual Offense Recidivism Risk Assessment Tool–II (JSORRAT–II), but it is not used as extensively as either J–SOAP–II or ERASOR.

The research on J–SOAP–II and ERASOR offers inconsistent and weak support for their predictive validity. Few studies focusing on JSORRAT–II have been undertaken to date, and their findings offer little empirical support for its predictive validity.

The Multiplex Empirically Guided Inventory of Ecological Aggregates for Assessing Sexually Abusive Adolescents and Children is a structured clinical risk assessment instrument being developed for use with males and females ages 5–19 and of all IQ levels. Targeting such a wide range of subjects in terms of age, gender, and cognitive capacity with a single instrument may undermine its capacity to predict recidivism accurately. One recent study found that the effect of both static and dynamic risk factors on recidivism, and hence predictive validity, varied by adolescent age. The researchers suggested not only that different risk assessment instruments be used for juveniles and adults, but also that different instruments be used for different age groups within adolescence.

Despite their importance in mitigating risk, few juvenile risk assessment instruments incorporate protective factors, and those that do either have no empirical support or have not yet been empirically validated.

Recommendations

- There is a clear need for juvenile risk assessment instruments and processes to focus on estimates of short-term rather than long-term risk. Estimates of risk more than 1 to 3 years into the future are unlikely to account sufficiently for the fluid nature of child and adolescent development.

- Funds for training and technical assistance are needed to ensure that evaluators are well trained and understand the nature of the risk assessment process and the limitations of assessment instruments that are available.

- Protective factors should be incorporated into juvenile risk assessment instruments, both those in use and those that will be developed in the future.

Effectiveness of Treatment for Juveniles Who Sexually Offend

FINDINGS

- Single studies have consistently found at least modest treatment effects for sexual and nonsexual recidivism.
- Meta-analysis studies have consistently found that sex offender treatment works, particularly multisystemic and cognitive-behavioral treatment approaches.
- Cost-benefit analysis demonstrates that sex offender treatment programs for youth can provide a positive return on taxpayer investment.

This chapter reviews the scientific evidence on the effectiveness of treatment for juveniles who commit sexual offenses, summarizes what is scientifically known about the impact of treatment on recidivism, and presents key, up-to-date research findings from single studies of treatment effectiveness as well as from synthesis research.

In 2008, more than half of the sex-offender-specific treatment programs operating in the United States provided services to juveniles. Most juvenile programs served adolescents, but about 30 percent provided treatment to children ages 11 and younger. Overall, adolescents accounted for about 23 percent and children ages 11 and younger accounted for about 3 percent of all clients treated in these programs.

Juveniles who commit sex offenses vary in their offending behaviors and future risk. Therapeutic interventions for juveniles increasingly take this diversity into account, along with family, peer, and other social correlates that relate to sexually abusive behavior in youth.

Systematic reviews employing meta-analysis have consistently found that sex offender treatment for juveniles works, particularly multisystemic therapy (MST) and cognitive-behavioral treatment approaches. MST is a community-based intervention that works within multiple systems (i.e., individual, family, school) to address the causes of a child's delinquency.

Cost-benefit analysis also demonstrates that sex offender treatment programs for youth can provide a positive return on taxpayer investment.

Treatment approaches that are developmentally appropriate, take motivational and behavioral diversity into account, and focus on family, peer, and other contextual correlates of sexually abusive behavior in youth, rather than on individual psychological deficits alone, are likely to be the most effective.

Recommendations

- Programs need to tailor treatment to individual juvenile offenders rather than follow a uniform treatment approach for all offenders.

- High-quality studies are needed to help identify offender- and situation-specific treatment approaches that work.

- There is a pressing need for trustworthy evidence on the treatment modalities used with juvenile offenders and elements that are effective with juveniles who have committed sex offenses.

Registration and Notification of Juveniles Who Commit Sexual Offenses

FINDINGS

- Conclusions about the impact of sex offender registration and notification (SORN) with juveniles are difficult to make because few studies have been conducted, available research has not isolated SORN's impact from other interventions, and the overall sexual recidivism rate among juveniles is low.
- Juvenile cases have been pled to non-registration offenses at the expense of the juvenile not being eligible for treatment.

This chapter reviews studies that have been conducted on the effectiveness of sex offender registration and notification as it pertains to juveniles who commit sex offenses. Findings from studies comparing the recidivism rates of juveniles who commit sex offenses with those of two groups—adult sex offenders and juveniles who commit nonsexual offenses—are also presented to shed light on any comparative differences that exist in the propensity to reoffend.

To date, 41 states have some kind of registration for juveniles adjudicated delinquent of sex offenses; 30 states either permit or require public website posting for those juveniles, and the vast majority require registration and public notification for juveniles transferred for trial and convicted as an adult. The SORNA standards, enacted by Congress in 2006, include registration for juveniles ages 14 and older who are adjudicated delinquent for certain violent sex offenses.

Two before-and-after studies of juvenile SORN did not find statistically significant decreases in sex crime arrest rates or sexual recidivism. Recidivism studies suggest at least a marginal difference in propensity to reoffend between juveniles who commit sex offenses and adult sex offenders. A number of comparison studies have reported higher sexual recidivism rates for juveniles who commit sex offenses than for other juvenile offenders, but in most of the studies, the differences did not reach the level of statistical significance.

Recommendations

- Further expansion of SORN with juveniles is not recommended in the absence of more empirical evidence supporting the utility of this strategy.
- Research using scientifically rigorous methods is needed to assess the impact of SORN on juveniles who commit sex offenses.

Introduction

by Roger Przybylski, Scott Matson,[1] and Christopher Lobanov-Rostovsky

Sex offenders have received considerable attention in recent years from both policymakers and the public. This is due to the profound impact that sex crimes have on victims and the larger community and also due to the increased identification and apprehension of sex offenders. Perpetrators of sex crimes have come to be viewed by policymakers, practitioners, and the public as a unique group of offenders in need of special management practices. As a result, a number of laws and policies focusing specifically on sex offenders have been implemented across the country in recent years, often with extensive public support.

There also has been a growing recognition in the criminal justice community that crime control and prevention strategies—including those targeting sex offenders—are far more likely to be effective and cost-beneficial when they are based on scientific evidence about what works. Indeed, crime control policy and program development processes are increasingly being informed by scientific evidence; in addition, many practices in policing, corrections, and other areas have been and continue to be shaped by evidence generated through research. Incentives and mandates for evidence-based programming are now frequently used by funding sources, and the demand for trustworthy, research-generated evidence about what works is rapidly increasing (Przybylski, 2012).

Recognizing the important role scientific evidence plays in the development and implementation of effective policies and practices, including those focused on sex offenders, the U.S. Department of Justice's Office of Justice Programs (OJP) and OJP's Office of Sex Offender Sentencing, Monitoring, Apprehending, Registering, and Tracking (SMART Office) began to identify and disseminate information from state-of-the-art research on central and emerging issues in sex offender management to inform policy and practice in the field.

Since 1996, OJP has worked to promote advances in the field of sex offender management. In the 1980s and 1990s, several high-profile sex crimes led to the enactment of state and federal legislation directed toward tracking and controlling sex offenders. These laws were passed without the benefit of strong research to support particular approaches to managing sex offenders. In response to this flurry of legislative activity and heightened public concern, OJP convened a national summit in 1996 that brought together nearly 200 practitioners, academic researchers, and other experts to discuss the most effective management strategies for this offender population.[2] During the summit, OJP received recommendations about the needs of the field regarding sex offender management training and technical assistance. In response to these recommendations, OJP initiated research projects on sex offender management, developed sex offender-specific grant programs, and supported the Center for Sex Offender Management's training and technical assistance to the field.

In the ensuing years, OJP sponsored more than 100 research projects, publications, and training curricula related to sexual assault and sex offender management. Grant programs provided funds to approximately 200 state, local, and tribal jurisdictions to enhance and improve the management of sex offenders in their communities. These jurisdictions have created standards for the treatment and supervision of adults and juveniles, employed sex offender-specific assessment and truth-verification tools, enhanced victim advocacy and support, developed specialized sex offender courts, and improved information sharing and collaboration within and across disciplines and jurisdictions.

In 2006, the Adam Walsh Child Protection and Safety Act (AWA) authorized the establishment of the SMART Office—the first federal office devoted solely

to sex offender management-related activities. The office is responsible for helping to implement the Sex Offender Registration and Notification Act (Title I of AWA) and also for providing assistance to criminal justice professionals and the public about the entire spectrum of sex offender management activities needed to ensure public safety.

Building on OJP's efforts, the SMART Office began work in 2011 on the Sex Offender Management Assessment and Planning Initiative (SOMAPI), a project designed to assess the state of research and practice in sex offender management and to inform OJP's research and grant-making efforts in this area. As part of this effort, the office gathered information about research and practice in the field and enlisted practitioners to (1) provide details about sex offender management programs and practices that are promising or effective, and (2) identify the needs of the various disciplines involved.

The SMART Office contracted with the National Criminal Justice Association (NCJA) and a team of subject-matter experts to review the scholarly literature on sexual offending and sex offender management and to develop annotated summaries of the research for dissemination to the field. To gain insight into emerging issues, promising practices, and pressing needs in the sex offender management field at the state and local levels, NCJA conducted an informal national inventory of sex offender management professionals in 2011. Finally, the SMART Office hosted the Sex Offender Management Research and Practice Discussion Forum (SOMAPI forum) in February 2012. At this event, national experts—both researchers and practitioners—gathered in the District of Columbia to discuss the research summaries and inventory results in order to further refine what is known about the current state of sex offender management, gaps in research and practice, and the needs of the different disciplines involved in this work.[3] Recommendations from the SOMAPI forum informed this report and will help guide OJP's sex offender management research, policy, and grant-making efforts in the future and provide direction to the field on how best to protect the public from sexual violence.

Organization of the Report

This report is divided into two main sections. A review of the literature on adult sex offender topics is presented in section 1 and a review of the literature on topics pertaining to juveniles who commit sexual offenses is presented in section 2. Given the fundamental differences between adults and juveniles, it is critically important to distinguish between these two populations when describing their characteristics or discussing research on issues such as etiology, recidivism, risk, or intervention effectiveness.

Section 1: Adult Sex Offenders

This section reviews contemporary research focused specifically on adult sex offenders and presents key findings and policy implications in the following eight topic areas:

1. Incidence and prevalence of sexual offending and victimization.
2. Etiology of sexual offending.
3. Sex offender typologies.
4. Internet-facilitated sexual offending.
5. Recidivism.
6. Risk assessment.
7. Treatment effectiveness.
8. Sex offender management strategies.

Section 2: Juveniles Who Commit Sexual Offenses

This section reviews contemporary research focused specifically on juveniles who commit sexual offenses and presents key findings and policy implications in the following five topic areas:

1. Etiology and typologies.
2. Recidivism.
3. Assessment of risk for sexual reoffense.

4. Treatment effectiveness.

5. Registration and notification.

Chapter Organization

Each topic area addressed in sections 1 and 2 is presented in a separate chapter,[4] and all chapters are generally structured in a similar manner. Each begins with a summary of the chapter's key findings followed by a brief introduction to the topic being addressed and, when relevant, a description of the key issues that need to be considered when interpreting research reviewed in the chapter. Contemporary research on the topic is then described, and findings and key recommendations for policy and practice are presented. Each chapter closes with a narrative summary of the chapter's key findings, the research or data limitations that need to be considered when interpreting the findings, gaps in the knowledge base pertaining to the topic area, and future research needs, where appropriate. Key insights and recommendations drawn from both the 2012 SOMAPI forum and the national inventory of sex offender management professionals are noted throughout each chapter, where appropriate. References are included at the end of each chapter.

It is important to note that each chapter has been prepared by a different author and may reflect their individual writing styles. Further, any opinions, conclusions, or recommendations expressed in this report are those of the authors and contributors and do not necessarily represent the official position or policies of the SMART Office or U.S. Department of Justice.

Review Methods

Each chapter is based on a review of the scientific literature that addresses the chapter's topic area. Source materials for the literature review were identified using several methods. Chapter authors—

- Conducted keyword searches of abstract databases such as the National Criminal Justice Reference Service, the Social Science Research Network, Academic Search Complete, Criminal Justice Abstracts, Google Scholar, JSTOR, PubMed, PsycNET, ScienceDirect, Wiley Online, and Sage Online.
- Performed Internet searches using common search engines.
- Reviewed websites of organizations such as the Association for the Treatment of Sexual Abusers, Center for Sex Offender Management, Civic Research Institute, and Washington State Institute for Public Policy.
- Reviewed reference pages and bibliographies from both online and print documents for potential source material.
- Contacted experts in the field to obtain guidance and insight regarding the acquisition, relevance, and interpretation of source material.[5]

This process produced a number of published and unpublished documents deemed potentially relevant for this report. Documents written from 1990 to the present that could be obtained with a reasonable investment of resources were collected and reviewed with a focus on study characteristics and findings. Because literature reviews on selected sex offender management topics have been undertaken in the past, this report focuses primarily on studies conducted within the past 15 years. The key criteria for discussing a particular study in this review were the saliency of the research findings, the recency of the research findings, and the study's methodological characteristics. With regard to the latter, emphasis was placed on individual studies that employed scientifically rigorous methods and on synthesis studies (e.g., systematic reviews, meta-analyses) that examine the results of many individual studies.

Issues To Consider

Although there is growing interest in crime control strategies that are based on scientific evidence, it is not uncommon for studies of the same phenomena to produce ambiguous or even conflicting results. In addition, there are many examples of empirical evidence misleading crime control policy or practice because shortcomings in the quality of the research

or limitations concerning the trustworthiness of findings were overlooked (see, e.g., Sherman, 2003; McCord, 2003; Boruch, 2007). Hence, both the quality and consistency of the evidence must be considered when interpreting the research findings presented in this report, and conclusions and their implications for policy and practice must be appropriately drawn—and often tempered—based on the trustworthiness of the evidence. While the specific methodological and data quality issues that need to be considered vary by topic, the limitations of official statistics on sexual offending tend to be relevant in every chapter of the report.

The terms "evaluation" and "evaluator" are used throughout the report. In the chapters on risk assessment, these terms refer to the risk assessment process and the clinician or practitioner performing the risk assessment, respectively. In all other chapters, these terms refer to evaluation research (typically focused on a program or other intervention) and the researchers conducting an evaluation study, respectively.

In conclusion, this report is designed to advance the ongoing dialogue related to effective interventions for the sex offender population. Although the report was developed primarily to provide policymakers and practitioners with trustworthy, up-to-date information they can use to identify what works to combat sexual offending and prevent sexual victimization, it also identifies knowledge gaps and unresolved controversies that emerge from the extant research and that might serve as a catalyst for future empirical study.

It is hoped that the culmination of the SOMAPI project will help guide OJP's and the SMART Office's sex offender management research, policy, and grant-making efforts in the future and provide direction to the field on how best to protect the public from sexual violence. To learn more about the SMART Office, visit www.smart.gov. For more information about OJP's grant-making efforts, visit www.ojp.gov/funding/solicitations.htm.

Notes

1. Senior Policy Advisor, U.S. Department of Justice, Office of Justice Programs, SMART Office.

2. The national summit, "Promoting Public Safety Through the Effective Management of Sex Offenders in the Community," was held November 24–26, 1996, in the District of Columbia.

3. See the appendix for a list of the forum participants.

4. Section 2 also includes an overview chapter.

5. The "Etiology of Sexual Offending" chapter in section 1 draws heavily on two published volumes of relevant literature: Theories of Sexual Offending by Tony Ward, Devon L.L. Polaschek, and Anthony R. Beeck; and Sex Offending: Causal Theories to Inform Research, Prevention, and Treatment by Jill D. Stinson, Bruce D. Sales, and Judith V. Becker.

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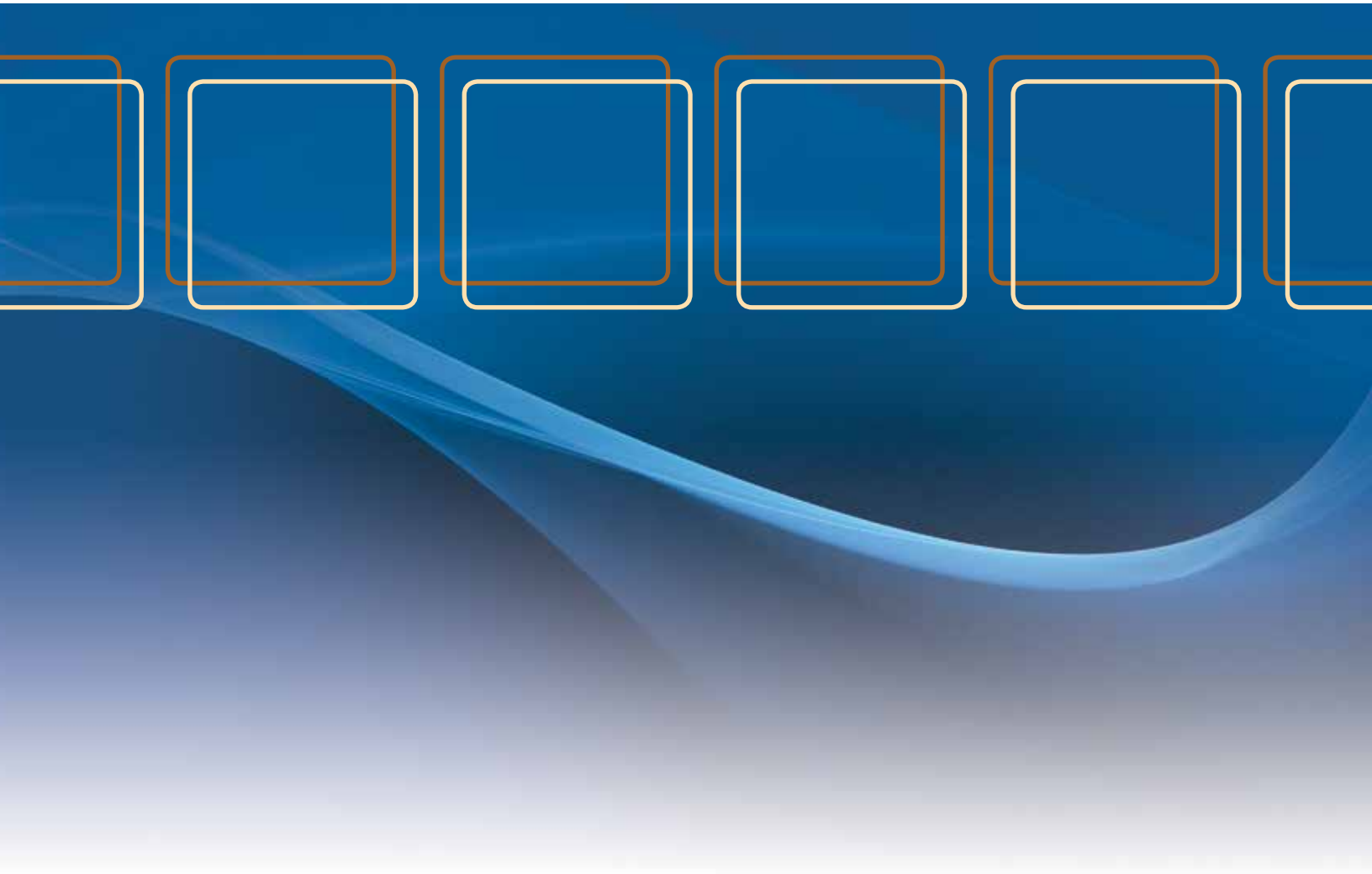
SECTION 1: ADULTS



Chapter 1: Incidence and Prevalence of Sexual Offending

by Jane Wiseman

Introduction

Simple questions do not always have easy answers. For example, the answers to, "How many sex offenses are committed each year?" and "How great is an individual's lifetime risk of being a victim of a sex crime?" vary greatly depending on the source consulted. Even with the best sources of data, it is extremely difficult to estimate the actual number of sex crimes committed because of low levels of reporting. Sex crimes are not only often unreported, they are often unseen by anyone other than the victim and perpetrator. One group of researchers puts it aptly:

> Among highly personal and sensitive behaviors and experiences, including other forms of interpersonal violence, rape and other forms of sexual violence are probably the most difficult experiences to measure. They are rarely observed and occur in private places (Cook et al., 2011, p. 203).

Nevertheless, statistics on the incidence and prevalence of sex crimes, as well as trend data, can provide important insight into the nature and extent of sexual violence that policymakers and practitioners can use to design and deliver more effective prevention and intervention strategies. This chapter presents empirically derived information that helps paint a portrait of what we currently know about the incidence and prevalence of sexual offending and victimization. It also describes the strengths and weaknesses of the available data so policymakers and practitioners can better assess and interpret the existing knowledge base.

Key Data Sources

and What They Can Tell Us About the Incidence and Prevalence of Sexual Offending

Creating a complete and accurate accounting of the extent of sexual offending is challenging. First, there is no single definition of sexual offending. Statutory definitions of sex offenses differ from jurisdiction to jurisdiction; a sex crime committed in one state might not be classified as a sex crime in an adjacent state. State laws differ on whether rape must involve physical force or threats of physical force, and so on. Even when using national standards, such as the categories reported by the 17,000 police departments submitting Uniform Crime Report (UCR) data to the Federal Bureau of Investigation (FBI), it is impossible for each of the officers in each of the departments to use the same exact criteria for deciding how to classify a crime. Comparing recorded crime and

victimization statistics is also challenging due to the variety of reference periods. UCR data are reported on a calendar year basis while National Crime Victimization Survey (NCVS) data, also completed annually, are compiled based on reports of victimization in the 12 months prior to the time of the interview. Comparing victimization data from different sources is even difficult, as some sources measure lifetime victimization while others measure annual or college semester victimization. Finally, rate comparison can be problematic given the different ways in which the sample being studied is measured.

With these challenges in mind, following is a review of key data sources and what they reveal about the incidence and prevalence of sexual offending.

DEFINITIONS

- **Incidence** refers to the number of separate victimizations, or incidents, perpetrated against people within a demographic group during a specific time period.
- **Prevalence** refers to the number of people within a demographic group (e.g., women or men) who are victimized during a specific time period, such as the person's lifetime or the previous 12 months.

Source: Tjaden & Thoennes, 2006.

Uniform Crime Reports

The FBI compiles its UCR from data submitted by law enforcement agencies across the nation. Law enforcement agencies reporting crimes to the FBI oversee approximately 93 percent of the total U.S. population (FBI, 2004). As part of the UCR program, the FBI collects data on 8 serious crimes[1] as well as arrest data for 21 additional crime categories. Prior to 2012, for the purposes of UCR reporting, the FBI defined forcible rape as the carnal knowledge of a female by force (including threats of force) and against her will.[2] Conversely, the NCVS definition of sexual assault measures the extent of sexual assaults against both men and women. Also, UCR does not count sexual assault, statutory rape without force, or simple assault.

UCR indicates that 88,097 forcible rapes were reported to law enforcement in 2009, a rate of 28.7 crimes per 100,000 inhabitants of the United States. Slightly more than 4 out of 10 rapes reported to

UCR STRENGTHS AND WEAKNESSES

- Strengths—**UCR's key strength is that it is a consistently collected source of data that covers most of the nation.** This data source has credibility among law enforcement and provides a basis for analysis of long-term trends.
- Weaknesses—**UCR's key weakness for purposes of assessing sexual offending is that UCR crime incident data reflect only crimes reported to police, and this type of crime frequently is not reported to police.** An additional weakness is that the classification of crimes by police officers in the field can be subjective—what one officer calls a rape, another may classify as an aggravated assault. Finally, until 2012, UCR used a definition of rape that excludes many sexual assault crimes even if they are reported to the police. Some examples include:
  - Sex crimes not meeting the FBI definition of rape, including oral and anal sexual assaults, penetration with a finger or foreign object, and sexual battery.
  - Sexual assaults facilitated with drugs and/or alcohol, or of an unconscious victim.
  - Sexual assaults when the victim is male.
  - Sexual assaults when the victim has a disability that precludes the individual from legally being able to give consent.
  - Sexual assaults of children under the age of 12 (reported as child sexual assault) (Lonsway, 2010).

police in 2009 were cleared by arrest or exceptional means (FBI, 2009a). Overall, an estimated 21,407 arrests for forcible rape were made by law enforcement agencies in the United States in 2009 (FBI, 2009b). Offenders arrested for rape in 2009 were predominantly young, white, and (as would be expected) overwhelmingly male. Only 1 percent of the offenders arrested for rape in 2009 were female. About 15 percent of the nation's rape arrestees in 2009 were under the age of 18, and 37 percent were 18–29 years old. Whites accounted for 65 percent of the rape arrestees, African-Americans accounted for 33 percent, and other races made up about 2 percent of the arrestees (FBI, 2009c).

National Crime Victimization Survey

NCVS was established by the Bureau of Justice Statistics (BJS) in 1973 to provide a source of information on the characteristics of criminal victimization in the United States. NCVS collects information on the frequency and nature of rape, sexual assault, personal robbery, aggravated and simple assault, household burglary, theft, and motor vehicle theft. Murder is not included in NCVS as victim reporting is the method for collecting these data. A nationally representative sample of approximately 42,000 households is included in the survey. Each household is included in the survey for 3 years, and all individuals over age 12 in the household are interviewed. The initial interview is in person and subsequent interviews are conducted by phone. NCVS collects data on crimes reported to police as well as those not reported and assesses the victim's experience with the criminal justice system. NCVS gathers data on the nature and circumstances of the crime, such as where it occurred, when it occurred, and whether the victim knew the perpetrator.

Based on NCVS data, an estimated 243,800 rape/sexual assault victimizations[3] occurred in the United States in 2011, a rate of 0.9 victimizations per 1,000 persons age 12 and over (Truman & Planty, 2012).

NCVS STRENGTHS AND WEAKNESSES

- Strengths—Two key strengths of NCVS are that it measures unreported victimization incidents as well as victimization reported to police, and that these data are collected and reported annually. An additional strength is that it includes sex crimes against both men and women. The survey includes semiannual interviews over 3 years; the first interview is conducted in person and subsequent interviews are conducted by phone. This may lead to development of rapport, trust, and interviewer credibility, possibly leading to increased rates of disclosure. Administration by the U.S. Census Bureau brings added credibility to NCVS. The survey is a convenient platform for more indepth studies and has periodically administered supplements to study specific topics (e.g., stalking, crime on college campuses).* Finally, in 1993, NCVS was redesigned and began to more accurately estimate incidents of violence perpetrated by intimate partners and family members, and also to ask more directly about unwanted sexual contact (Bachman & Taylor, 1994).
- Weaknesses—One challenge with NCVS is that, because it is a crime victimization survey, some respondents may not report victimizations that they do not personally label as a crime, such as unwanted sexual contact by an acquaintance. This may lead to an undercount of sex crimes. Additionally, the questions have a two-stage design: respondents are first asked if they were raped, and are only asked about specific aspects of the victimization if they respond affirmatively to this initial question. This approach may underestimate victimization compared to strategies that ask about specific behaviors† rather than a specific label.‡ For example, Fisher (2009) found that in comparing two samples of college-age women, rates of reported sexual victimization were 11 times higher when using behaviorally specific questions versus asking the yes/no rape screening question alone. **Another weakness of NCVS is that it omits crimes committed against victims younger than age 12.** Finally, because the survey is administered at the respondent's home, there is the possibility that a family member or partner who perpetrated a crime against the respondent is present at the time of the interview and that the victim would fail to report the crime committed by that person.

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* See later sections in this chapter for more information about these topics.
† For example, "Were you subject to sexual contact after you said 'no' or 'stop'?"
‡ Strategies that ask behaviorally specific questions allow for the categorization of a sex crime based on the answers to these questions.

NCVS data also indicate that most rape/sexual assault victims are female, white, and under age 30. Based on the 2010 survey, when victim gender information was most recently reported, more than 9 out of every 10 rape/sexual assault victims in the United States were female (Truman, 2011). Further, based on the results of the 2008 national survey (the latest survey for which comprehensive rape/sexual assault victim demographic information is available), an estimated 63 percent of victims are white, 28 percent are African-American, and 9 percent are other races. In 2008, the rape/sexual assault victimization rate for African-American females was about three times higher than it was for white females. Among different age groups, people ages 16–19 and 20–24 had the highest rape/sexual assault victimization rates in 2008—2.2 and 2.1 per 1,000 persons in each age group, respectively. By comparison, BJS (2011) found that people ages 35–49 had an estimated rape/sexual assault victimization rate of 0.8 per 1,000 persons in the age group in 2008, and people ages 12–15 had an estimated rate of 1.6 (although the latter estimate is based on a small sample of cases) (Truman & Rand, 2010).

Although NCVS data provide valuable insights about the incidence and prevalence of sexual offending nationwide, BJS acknowledges—

> The measurement of rape and sexual assault represents one of the most serious challenges in the field of victimization research. Rape and sexual assault remain sensitive subjects that are difficult to ask about in the survey context. As part of the on-going redesign of NCVS, BJS is exploring methods for improving the reporting of these crimes (Truman & Rand, 2010).

National Violence Against Women Survey

Sponsored by the National Institute of Justice (NIJ) and the Centers for Disease Control and Prevention (CDC), the National Violence Against Women Survey (NVAWS) was administered in the mid-1990s to assess the extent of violence against women in the United States. A nationally representative sample of 8,000 men and 8,000 women ages 18 and older were surveyed between November 1995 and May 1996.

NVAWS STRENGTHS AND WEAKNESSES

- Strengths—**The key strength of NVAWS is that it was a nationally representative sample of both men and women.** Another key strength of this study was the design—respondents were asked a series of questions (referred to as a scale) about their experience of sexual assault, rather than being asked yes/no questions. This means that victims who did not label their experience as a crime could be included in measures of sexual victimization. Questions included items identical to those used in the National Women's Study, which is described later in this chapter, allowing for comparability across studies (Tjaden & Thoennes, 2006). Finally, a strength of this study is that it measured both per-year and lifetime victimization.
- Weaknesses—The key weakness of NVAWS is its age. **Conducted 15 years ago, the findings may or may not reflect the experiences of women today.** Another weakness is that the survey was conducted by phone. Individuals without phones would not be included in this sampling frame. At the time of this study, individuals without phones were more likely to have low incomes.

NVAWS found that 17.6 percent of female and 0.3 percent of male respondents had been the victim of a rape at some time in their lives. Based on this finding, the authors estimate that almost 18 million women and almost 3 million men in the United States have been raped. Rape prevalence rates were the same for minority and nonminority women, but Native American/Alaska Native women were significantly more likely to have experienced a rape in their lifetime. Rape was more likely to affect younger women than older women, with more than half of female victims and nearly three-quarters of male victims being victimized prior to age 18. Overall, 86 percent of rape victims were female, while most rapists were male. Finally, female victims were significantly more likely than male victims to have been the victim of a rape by a current/former intimate partner and to be injured during the rape (Tjaden & Thoennes, 2006).

NISVS STRENGTHS AND WEAKNESSES

- Strengths—Key strengths of NISVS are its use of a public health approach, its exclusive focus on sexual violence, its assessment of 60 different violent behaviors, its coverage of more than select populations (e.g., college students), and its use of both cell phone and landline phone samples. NISVS also collects information on forms of sexual violence that have not been measured in a national survey before, and it is the first survey to provide both national and state-level data on sexual violence, stalking, and intimate partner violence. It also is the first study to produce national prevalence estimates of intimate partner violence, sexual violence, and stalking victimization among lesbian, gay, and bisexual women and men.
- Weaknesses—NISVS relies on self-reports of victimization experiences. In addition, "although NISVS includes a large sample size, in some cases statistically reliable estimates for all forms of violence among all populations and sub-populations are not able to be calculated from annual data" (National Center for Injury Prevention and Control, 2011b, p. 2).

National Intimate Partner and Sexual Violence Survey

The National Intimate Partner and Sexual Violence Survey (NISVS) is an ongoing, nationally representative telephone survey that collects information about sexual violence, stalking victimization, and intimate partner violence among adult women and men ages 18 and older in the United States. CDC launched the survey in 2010, with the support of NIJ and the U.S. Department of Defense (Black et al., 2011). NISVS data will be collected annually as long as funding for the survey is available.

NISVS is unique because it is the first ongoing survey designed to describe and monitor sexual violence, stalking, and intimate partner violence from a public health rather than crime perspective. Survey respondents are first asked about various health conditions to establish a health context for the survey. Then they are asked about victimization experiences using behaviorally specific questions. Research has shown that this health-based approach increases disclosure of violent victimization.[4]

NISVS also collects data on victimization involving sexual violence other than rape, control of reproductive health, and other forms of sexual victimization that have not been measured in the past. It is also the first survey to provide national and state-level data on sexual violence, stalking, and intimate partner violence.

At the time of this review, findings from the first year of NISVS data collection were available.[5] Based on 16,507 completed interviews (9,086 women and 7,421 men), **the 2010 survey found that nearly 1 in 5 women (18.3 percent) and 1 in 71 men (1.4 percent) have been raped in their lifetime.** About one-half (51.1 percent) of female rape victims reported being victimized by an intimate partner, while 40.8 percent reported being victimized by an acquaintance. **More than 4 in 10 (42.2 percent) female rape victims experienced their first completed rape before age 18. More than 1 in 4 (27.8 percent) male rape victims experienced their first rape victimization when they were age 10 or younger.**

The 2010 survey also found that about 1 in 6 women (16.2 percent) and 1 in 19 men (5.2 percent) have experienced stalking victimization "in which they felt very fearful or believed that they or someone close to them would be harmed or killed" (Black et al., 2011, p. 2). Female victims were most often stalked by a current or former intimate partner, while men were stalked primarily by an intimate partner or acquaintance. Nearly 1 in 4 women (24.3 percent) and 1 in 7 men (13.8 percent) reported experiencing severe physical violence[6] perpetrated by an intimate partner, while nearly half of all women (48.4 percent) and men (48.8 percent) reported experiencing psychological aggression by an intimate partner.

One percent of the female respondents in the 2010 survey reported being raped in the 12 months prior to taking the survey. That equates to an estimated 1.3 million women nationally. About 1 in 20 women

and men (5.6 percent and 5.3 percent, respectively) reported being victims of sexual violence other than rape, while about 4 percent of women and 1.3 percent of men reported being stalked in the 12 months before the survey.

The 2010 NISVS also found that about 1 in 5 African-American and white non-Hispanic women (22 percent and 18.8 percent, respectively) and 1 in 7 Hispanic women (14.6 percent) have been raped in their lifetime. More than 1 in 4 (26.9 percent) Native American/Alaska Native women and 1 in 3 (33.5 percent) multiracial non-Hispanic women reported being raped in their lifetime. More than 4 out of every 10 women of non-Hispanic African-American or Native American/Alaska Native race/ethnicity (43.7 percent and 46.0 percent, respectively), and 1 in 2 multiracial non-Hispanic women (53.8 percent) reported experiencing rape, physical violence, and/or stalking by an intimate partner in their lifetime.

The 2010 NISVS produced the first national data on the prevalence of sexual violence, stalking, and intimate partner violence victimization among lesbian, gay, and bisexual women and men. Lesbians and gay men were found to have sexual violence victimization rates equal to or higher than those reported by heterosexuals, while bisexual women had significantly higher lifetime prevalence rates of rape and sexual violence other than rape compared to both lesbian and heterosexual women (National Center for Injury Prevention and Control, 2011a).

NCWSV STRENGTHS AND WEAKNESSES

- Strengths—**Key strengths of NCWSV are its sample size (4,446 women) and the sample of colleges was a probability sample proportionate to female student enrollment and college location (urban, suburban, and rural)** (Fisher, Cullen, & Turner, 2000). Additionally, in an attempt to capture victimization that may not be classified by the victim as rape, the survey used a two-stage process to ask behaviorally specific questions to assess victimization (Fisher, Cullen, & Turner, 2000).
- Weaknesses—**A key weakness of this study is that it addresses a narrow population—women attending college.** Other weaknesses are that comparisons to other studies are difficult because the reference period is 7 months rather than 12 months and that lifetime victimization is not measured. Finally, the two-stage process for categorizing experiences as rape is not without methodological challenges and may require fine-tuning if it is to consistently estimate rates of victimization in the future (Cook et al., 2011).

National College Women Sexual Victimization Study

The National College Women Sexual Victimization Study (NCWSV), funded by NIJ, surveyed a randomly selected, national sample of 4,446 women attending 2- or 4-year colleges during the fall semester of 1996 (Fisher, Cullen, & Turner, 2000). Students were asked via telephone about events that occurred that school year, a period of approximately 7 months (Fisher, Cullen, & Turner, 2000). Lifetime exposure to sexual victimization was not assessed.

Fisher, Cullen, and Turner (2000) found that **2.8 percent of college women who responded to the survey had experienced either a completed or attempted rape during the semester. Of those who reported rape, 23 percent reported multiple rapes.** As the study period included only one semester of college, the authors caution that over the years of the participants' college experience, rates of victimization may be higher than reported for the time period under study. Further, they also found that many women did not characterize their sexual victimization as a crime. For the incidents categorized as rape by the researchers, 49 percent of the women responded "yes" when asked if they would describe the incident they experienced as a rape (Fisher, Cullen, & Turner, 2000). The reasons survey respondents gave for not describing the incident as rape were varied, and they included embarrassment, not clearly understanding the legal definition of rape, not wanting to define someone they know who victimized them as a rapist, or because they blamed themselves for their sexual assault (Fisher, Cullen, & Turner, 2000). Most victims knew their offender—the authors found that 9 out of 10 offenders were known to their victim. Most often the offender was a boyfriend, ex-boyfriend, classmate, friend, acquaintance, or coworker (Fisher, Cullen, & Turner, 2000). Campus rape victims were

SES STRENGTHS AND WEAKNESSES

- Strengths—**A key strength of this instrument is the wide range of sexual victimization that is characterized by the questions asked.** Also, the instrument does not use the word "rape," but rather uses behaviorally specific descriptions of unwanted sexual acts. This is done to minimize victim underreporting in cases in which the unwanted sexual act is not labeled as a rape by the victim.
- Weaknesses—**Different methods (e.g., sampling frame, sample size, method of survey administration) in using SES can lead to variability in responses.** Some scholars suggest that such a comprehensive set of questions may lead to overcounts of victimization incidents. Further, basing definitions on the laws of the state of Ohio could limit the applicability in other states. An additional weakness is that in some cases questions are lengthy, possibly leading the respondent to become confused or distracted. In the revised SES, "each item queries the sexual act, tactic used, and expression of non-consent or reason for inability to consent."(Cook et al., 2011, p. 207).

not likely to report the crime to police; fewer than 5 percent of completed and attempted rapes were reported. However, in approximately two-thirds of the cases, the victim did report the incident to another person, most typically a friend rather than a family member or college official (Fisher, Cullen, & Turner, 2000).

Sexual Experiences Survey

The Sexual Experiences Survey (SES) was developed in the late 1970s to "operationalize a continuum of unwanted experiences that at the extreme reflect legal definitions of attempted rape and rape" (Koss et al., 2007, p. 359). Unlike the other sources described here, SES is neither an annual data collection instrument nor a one-time national sample. Instead, it represents a standard set of questions that have been used repeatedly by scholars, particularly in the public health field, to study unwanted sexual experiences. In some studies, the survey has been used in its original form, while in others it has been adapted by researchers who have customized the questions to suit their specific research needs. This self-report survey instrument was revised in 1987 and again in 2007. Its questions were modeled on the statutory definition of rape in the state of Ohio. Separate versions of the survey assess victimization and perpetration of sex crimes. The survey tool is available in both short form and long form, allowing for screening or for indepth study. Respondents are asked about incidents since age 14 and in the past year, thus providing both annual results and lifetime rates of victimization.

Using SES questions, **Testa and colleagues (2004) conducted in-person interviews with 1,014 women living in or near Buffalo, NY, between May 2000 and April 2002. Of the respondents, 38 percent indicated they had experienced sexual victimization since age 14.** The most common experience reported by respondents was unwanted sexual contact. Of the respondents, 27 percent reported unwanted sexual contact, 17 percent reported a rape, and 12 percent reported an attempted rape (Testa et al., 2004).

National Child Abuse and Neglect Data System

The National Child Abuse and Neglect Data System (NCANDS) has provided annual counts of incidents of child sexual abuse since 1992. NCANDS data are based on reports from participating state child protection agencies. NCANDS includes case-level data on the characteristics of screened-in reports of abuse and neglect made to the agencies, including the children involved, the types of maltreatment alleged, the disposition of the investigation, the risk factors of the child and the caregivers, the services provided, and information about the perpetrators.[7] The U.S. Department of Health and Human Services publishes an annual report—Child Maltreatment—that summarizes NCANDS data reported from the states. Each state has its own definition of child abuse and neglect based on federal law (Children's Bureau, 2010). Child sexual abuse is reported annually along with incidents of neglect, physical abuse, and psychological maltreatment. **For 2009, NCANDS estimates that nearly 66,000 children were victims of sexual abuse.**

NCANDS STRENGTHS AND WEAKNESSES

- Strengths—This data source provides annual data that are published and made available on the U.S. Department of Health and Human Services website. **State participation is nearly universal—as of 2007, all 50 states were providing summary data, and many also provide case-level data.** In place since 1992, this data source can help track trends over time.
- Weaknesses—Data from this source reflect incidents of abuse by caretakers reported to child protection agencies. **Sexual abuse committed by a nonfamily member or a noncaretaker may not be included in this data set.** Sexual abuse reported directly to law enforcement, and not to a child protective agency, would also not be included in this data set.

National Survey of Children's Exposure to Violence

The National Survey of Children's Exposure to Violence (NatSCEV) is sponsored by the Office of Juvenile Justice and Delinquency Prevention (OJJDP) and supported by CDC. This is the first national survey to measure both past-year and lifetime exposure to conventional crime, child maltreatment, victimization by peers and siblings, sexual victimization, witnessing and indirect victimization, school violence and threats, and Internet victimization for children ages 17 and younger. (For more on "Internet-Facilitated Sexual Offending," see chapter 4 in the Adult section.) This study was designed by the Crimes Against Children Research Center at the University of New Hampshire. It attempted to measure children's experience of violence in the home, school, and community. Telephone interviews were conducted with respondents ages 10–17. For respondents ages 9 and under, their adult caregivers were interviewed.

Key research findings were that 6.1 percent of children had been sexually victimized in the past year and 9.8 percent had been a victim during their lifetime. Sexual victimization includes attempted and completed rape, sexual assault, flashing or sexual exposure, sexual harassment, and statutory sexual offenses. In addition, 16.3 percent of youth ages 14–17 had been sexually victimized in the past year and 27.3 percent had been sexually victimized during their lifetime. This study found that children were often the victims of multiple types of violence. A child who was physically assaulted in the past year was found to be five times as likely to have been sexually victimized (Finkelhor et al., 2009).

In addition, the majority (61 percent) of reported past-year peer victimizations (including assault, bullying, sexual victimization, and property crime) occurred at school (Turner et al., 2011). Emotional bullying by peers was most likely to occur at school, while sexual assault and rape were most likely to occur elsewhere (Turner et al., 2010). Considering only serious violent events (rape, sexual assault, robbery, and aggravated assault), the rates for these crimes at school for adolescents ages 12–18 are lower than those occurring away from school. In 2008, the serious violent victimization rates

NATSCEV STRENGTHS AND WEAKNESSES

- Strengths—This survey is notable for its large sample size (4,549 respondents). **A major strength of this study is the care taken to oversample in certain populations to allow for subgroup analysis.** For example, areas with high concentrations of African-American, Hispanic, and low-income households were oversampled so that analysis could be performed for these subgroups. This study also examines lifetime exposure to violence, crimes against children younger than age 2, threats of violence, and Internet victimization.
- Weaknesses—**A weakness of this study is that it is not conducted annually, so annual comparisons to other data sources are not possible.** Further, while NCVS includes interviews every 6 months, NatSCEV includes a single interview. Some respondents may have difficulty accurately recalling incidents in the past year, versus the past 6 months.

DVS STRENGTHS AND WEAKNESSES

- Strengths—**The strengths of DVS are its large sample size (n= 2,030) and the wide range of screening questions asked of the child sample.**
- Weaknesses—**DVS interviews were administered in English only, thereby missing non-English speakers, and only using the telephone, eliminating from the sample those households that did not have a phone.** Further, interviewing of children younger than age 10 was done with the child's caregiver, which may have limited the reporting of victimization (particularly if perpetrated by the caregiver) (Finkelhor et al., 2005). Finally, DVS did not sample children younger than age 2 or ask questions related to a broader assessment of types of violence (e.g., witnessing intimate partner violence and other violence in the home). Many of the weaknesses of DVS have been addressed by the more current NatSCEV.

were 4 per 1,000 students at school and 8 per 1,000 students away from school (Robers, Zhang, & Truman, 2010). Children living in households with lower incomes have higher rates of exposure to sexual and physical assault than those living in households with middle and high incomes (Crouch et al., 2000).

Developmental Victimization Survey

A precursor to NatSCEV and conducted by the same researchers, the Developmental Victimization Survey (DVS) was a random-digit-dial survey of households conducted in 2003. The survey sample consisted of 2,030 children ages 2–17 within the households surveyed. One child from each household was randomly selected (the child with the most recent birthday). Telephone interviews were conducted directly with children ages 10–17, while a caregiver was questioned regarding children ages 2–9. DVS uses the Juvenile Victimization Questionnaire, which is widely known and used to screen individuals for incidence of violence (Finkelhor et al., 2005). DVS results indicated that 1 in 12 children in the sample (82 per 1,000) had experienced a sexual victimization in the sample year, including 22 per 1,000 who experienced an attempted or completed rape and 32 per 1,000 who experienced a sexual assault (Finkelhor et al., 2005).

National Incidence Studies of Missing, Abducted, Runaway, and Thrownaway Children–2

The National Incidence Studies of Missing, Abducted, Runaway, and Thrownaway Children–2 (NISMART–2) was an estimate of the number of missing children based on surveys of households, juvenile residential facilities, and law enforcement agencies. Data were collected via telephone interviews in 1999 and have been reported in several publications.

Key research findings were that an estimated 285,400 children were victims of a sexual assault, for a rate of approximately 4.1 victims per 1,000 children in the United States. Of these, an estimated 141,400 children were victims of a rape (anal, oral, or vaginal penetration) and 60,400 experienced an attempted rape. Eighty-nine percent of victims were female and 95 percent were assaulted by a male. Eighty-one percent of victims were ages 12–17. Victimization of whites and African-Americans was proportionate to their presence in the general child population. Hispanics constituted 9 percent of victims and 16 percent of the U.S. child population. Seventy-one percent of child sexual assault victims were victimized by someone they knew or recognized by sight, 18 percent were victimized by a stranger, and 10 percent were victimized by a family member (Finkelhor, Hammer, & Sedlak, 2008).

National Women's Study

The National Women's Study (NWS) is a 3-year longitudinal study of a national probability sample of 4,008 adult women in the United States ages 18 and older. Three waves of interviewing were completed: at the time of the initial study and at 1 and 2 years after the initial interview.

The results indicated that 13 percent of women reported being the victim of at least one completed

NISMART–2 STRENGTHS AND WEAKNESSES

- Strengths—**This was a national survey using a probability sample of households.** In developing national estimates from the interviews conducted, youth and adult interview data were weighted to reflect the Census-based population of children. The sample size was very large; more than 16,000 adult caretakers were interviewed, representing nearly 32,000 children. Additionally, 5,000 youth were also interviewed. Care was taken not to double-count incidents that were reported by both a caretaker and a child. Another key strength is that definitions of crimes used in NCVS were used for NISMART–2, allowing comparisons between the results of both surveys. NISMART–2 counted incidents that would not be included in NCVS, such as those with victims younger than age 12 and incidents in which the adult caretaker but not the victim had disclosed (Finkelhor, Hammer, & Sedlak, 2008).
- Weaknesses—**This study is not conducted annually.** NISMART–2 was conducted only in 1999 and NISMART–1 was conducted only in 1988, making comparison between the two difficult. In addition, data collected on sexual assault were different between the two studies, preventing direct comparison. Also, for children younger than age 10, sexual abuse could only be reported by an adult caretaker who both knew about and chose to report the abuse. This could have led to an undercount of such incidents. According to Finkelhor, Hammer, and Sedlak (2008, p. 9):

> [M]ore than half of the youth who were interviewed after their caretaker disclosed the youth's victimization did not disclose the assault in their own interview. As a result, one would expect that a considerable number of additional youth whose caretakers did not know about the assault also failed to disclose. Additionally, the accuracy of the proxy reports by caretakers could be influenced by their not wanting to disclose the abuse to a telephone interviewer. The latter situation would have a proportionally larger effect on underreporting for victims younger than 10, for whom caretaker proxy reports were the only source of information.

rape in their lifetime. Based on this, it was estimated that **12.1 million women in the United States have been the victim of one forcible rape in their lifetime.** In addition, .07 percent of women surveyed reported having been raped in the past year, equating to 683,000 adult women in the United States. Of those who reported being raped, 56 percent reported one rape and 39 percent indicated they were raped more than once (with 5 percent uncertain how many times they were raped). Twenty-nine percent of the rapes occurred when the victim was younger than age 11 and another 32 percent occurred when the victim was between 12 and 18. In total, 61 percent of rapes were committed against a female victim younger than age 18. In terms of the relationship between the perpetrator and the victim, 22 percent were raped by a stranger, while the vast majority of rapes were perpetrated by an intimate partner, family member, friend, or neighbor (National Victim Center & Crime Victims Research and Treatment Center, 1992).

Drug-facilitated, Incapacitated, and Forcible Rape: A National Study

For the Drug-facilitated, Incapacitated, and Forcible Rape (DAFR) national study, Kilpatrick and colleagues (2007) conducted a national telephone survey of 5,000 women ages 18–86, including approximately 3,000 who represented all women in the United States and 2,000 women attending college.

The research results indicated that for women of all ages, an estimated 18 percent had been raped during their lifetime. This translates into an estimated 20 million victims of rape out of 112 million women in the United States. In looking at past-year victimization alone, the authors estimated that more than 1 million women had been raped. Of those who reported that they were raped, 16 percent indicated they had reported the crime to law enforcement. The study found that victims of drug-facilitated or incapacitated rape were less likely to report the crime to the police than victims of forcible rape (Kilpatrick et al., 2007).

National Survey of Adolescents

The National Survey of Adolescents consisted of interviews of 4,023 adolescents (ages 12–17) on various topics that included victimization history. The survey used random-digit dialing and stratified sampling techniques to identify households that had

NWS STRENGTHS AND WEAKNESSES

- Strengths—**The strength of this study was the probability sampling process that created greater representation in the sample.** In addition, the longitudinal nature of the study allowed for variation in response over three interviews in a 2-year period.
- Weaknesses—**A telephone survey is limited to those who live in households with a phone; therefore, those without phones were not represented in the sample.** In addition, this survey excluded females younger than age 18 and males from the survey and is therefore only valid for adult women in the United States.

a telephone, an adolescent ages 12–17 with a parent or legal guardian, and both a parent or guardian and an adolescent who spoke English or Spanish.

Results of the survey indicated that 8.1 percent of those responding had a history of sexual victimization. Native American adolescents had the highest prevalence rate of sexual victimization (15.7 percent), compared to 13.1 percent for African-Americans, 10 percent for Hispanics, 6.7 percent for whites, and 6.5 percent for Asians. Adolescent females were at greater risk of sexual assault than males (13 percent compared to 3.4 percent). Seventy-four percent of victims reported knowing the perpetrator prior to the sexual offense. Finally, only 13 percent of victims reported the sexual offense to the police (Kilpatrick, Saunders, & Smith, 2003).

Adverse Childhood Experiences

The Adverse Childhood Experiences (ACE) study was conducted with members of the Kaiser Permanente Health Plan who had visited the San Diego Health Appraisal Clinic. Data were collected from 17,337 study participants between 1995 and 1997. Unlike some of the other studies described above, the ACE study surveyed adults about a variety of previous childhood experiences: psychological, physical, and sexual abuse during childhood; substance abuse; mental illness; violence against the respondent's mother; and criminal behavior in the household. The results indicated that 20.7 percent of the sample experienced childhood sexual abuse, including 24.7 percent of women and 16 percent of men (Felitti et al., 1998).

Youth Risk Behavior Survey

The Youth Risk Behavior Survey (YRBS) is a national school-based survey conducted biennially by CDC. In 2009, 16,460 questionnaires were completed in 158 schools. This survey monitors several categories of health-risk behaviors among youth and young adults, including violence. Both public and private schools in the United States with students in grades 9–12 are included in the sampling frame for this survey. YRBS includes violence measures for dating violence, rape, and bullying. The 2009 study indicated that 8 percent of the sample had been subject to forcible sexual intercourse, with 11.8 percent of females and 4.5 percent of males reporting such an incident (Eaton et al., 2012). (For a discussion of adult "Sex Offender Risk Assessment," see chapter 6 in the Adult section.)

Survey of Inmates in Local Jails

BJS's Survey of Inmates in Local Jails (SILJ) has been conducted periodically over approximately the past 40 years and consists of interviews with a national sample of jail inmates. Based on the 2002 survey of nearly 7,000 jail inmates, it is estimated that the most serious offense for 3.4 percent (nearly 21,200 inmates) of the 623,492 jail inmates in the United States was for rape (0.6 percent) or another type of sexual assault (2.8 percent) (James, 2004). This survey and the 2004 Survey of Inmates in State and Federal Correctional Facilities (SISFCF) both provide information about the prevalence of sexual offenders within local, state, and federal correctional/detention facilities.[8]

Trend Data

Historical data on the incidence of sexual assault can provide important insight about trends over time. **Data from law enforcement as well as from**

victimization surveys suggest that sexual assaults, much like other types of crime, have substantially declined over the past 10 to 20 years.

"No single definition of sexual offending is used across data sources."

According to the FBI, the number of forcible rapes reported to the police fell 14 percent between 1990 and 2009, from 102,555 to 88,097. The number of rapes reported to police per 100,000 U.S. residents also fell during that time (from 41.1 to 28.7), a decline of 30 percent (FBI, 2009). Data on sexual assault victimization surveys follow a similar pattern. According to NCVS, the number of rape/sexual assault victimizations for those ages 12 and older in the United States fell by more than 30 percent between 2002 and 2011, dropping from 349,810 to 243,800 over the 9-year period. Overall, the estimated number of rape/sexual assault victimizations fell by more than one-third in 2011 (from about 383,000 in 1990 to 243,800) (Rennison, 2000; Truman & Planty, 2012). Finally, data from NCANDS indicate that substantiated cases of child sexual assault in the United States have also fallen in recent years, dropping by 53 percent between 1992 and 2006 (Finkelhor, Hammer, & Sedlak, 2008).

Limitations of the Data

Although increased scholarly attention has been paid to sexual victimization and victimization surveys in the past two decades, and notable improvements regarding the reporting of sexual assault crimes have recently been made in the national UCR program, much remains to be done to develop standard definitions of sex crimes and to measure victimization in a way that elicits self-report of a traumatic experience many victims may choose not to discuss. As Cook and colleagues (2011, p. 210) point out, the field "remains hampered by the lack of a standard definition of rape and its components of act, tactics, and non-consent." What is known about victims and offenders is based on an incomplete picture of the true extent of victimization. Studies of victims rely on self-report, resulting in dramatic undercounts of victimization. What we know to date is that sexual victimization is far more common than existing sources indicate and that more needs to be done to develop a credible literature on the extent, causes, and consequences of sexual victimization.

Summary of the Data

Information on the incidence and prevalence of sexual offending in the United States can be obtained from a diverse range of sources. Some sources, such as the FBI's UCR program, focus on sex crimes reported to the police and the offenders arrested for those crimes. Others, such as NCVS, focus on victims of sex crimes. Some sources collect and report data on a regular, ongoing basis. Others do so only periodically or on a one-time basis. A wide range of methods are used to collect incidence and prevalence data as well. Despite these differences, the available data provide important insight about the extent of sexual offending in the United States, along with the characteristics of victims and known offenders.

The FBI's UCR statistics indicate that in 2009, slightly more than 88,000 forcible rapes were reported to law enforcement and that just over 21,000 arrests for forcible rape were made (FBI, 2009a, 2009b). Arrestees for forcible rape are typically young, white males (FBI, 2009c). Based on NCVS data, nearly 244,000 rape/sexual assault victimizations are estimated to have occurred in the United States in 2011 (Truman & Planty, 2012). NCVS data also indicate that most rape/sexual assault victims are female, white, and younger than age 30 (Truman, 2011). Based on NCANDS estimates, nearly 66,000 children were victims of sexual abuse in 2009 (Children's Bureau, 2010).

NVAWS found that 17.6 percent of women and 0.3 percent of men had been the victim of a rape at some time in their life, meaning that almost 18 million women and almost 3 million men in the United States have been raped (Tjaden & Thoennes, 2006). Data from NWS indicated that 13 percent of

women reported being the victim of at least one completed rape in their lifetime. Based on this, it was estimated that 12.1 million women in the United States have been the victim of one forcible rape in their lifetime (National Victim Center & Crime Victims Research and Treatment Center, 1992). Trend data indicate that the number of forcible rapes reported to the police fell 14 percent between 1990 and 2009, and that the estimated number of rape/sexual assault victimizations fell by more than one-third between 2002 and 2011 (Rennison, 2000; Truman & Planty, 2012).

"At least 16 different data sources report on sex crimes and victimization."

Although these data provide insight into the incidence of sexual offending and victimization, the gap between sexual victimizations and sex crimes reported to police, and the characteristics of victims and perpetrators, they must be interpreted in light of their limitations. Differences in the methods used to collect data as well as when the data were collected can render the comparison of statistics from certain sources difficult and sometimes meaningless. Users of the data must also recognize that quantitative statistics on sexual offending and victimization lack precision. An accurate accounting of sexual offending and victimization is virtually impossible because so many sex crimes and victimizations are hidden from public view. Although the available data can help policymakers and practitioners better understand incidence patterns and trends, efforts to enhance existing data systems and improve both the quality and comparability of the data are needed.

Underreporting of Sex Crimes

One of the greatest challenges to developing an accurate estimate of the incidence and prevalence of sexual offending is the fact that not every victim will disclose the incident to law enforcement, and many will also not disclose the incident to a researcher during a survey. Research has clearly demonstrated that many sex offenses are never reported to authorities. For example, NCVS data suggest that only about one in four rapes or sexual assaults have been reported to police over the past 15 years, with some between-year fluctuations (Bachman, 1998; Truman & Planty, 2012). In addition, Tjaden and Thoennes (2006) found that only 19 percent of women and 13 percent of men who were raped since their 18th birthday reported the rape to the police. Several studies of victims have shown that the likelihood that a sexual assault will be reported to law enforcement decreases with the victim's age (Kilpatrick, Saunders, & Smith, 2003). Finally, NWS results indicated that 84 percent of victims did not report the rape to the police. Of the 16 percent who did report the rape to the police, 12 percent did so within 24 hours of the rape and 4 percent did so more than 24 hours after the rape (National Victim Center & Crime Victims Research and Treatment Center, 1992).

"The vast majority of victims do not report sex crimes."

Attrition is the dropping of a legal case by authorities, for various reasons. Larcombe (2012, p. 483) argues that "the attrition of sexual offenses ... both before and after reporting to police, ensures that the minority of cases that secure a conviction for a sexual offense are not reflective of the most common or injurious forms of sexual violence experienced by women and children." Citing two Australian studies on police and prosecutorial discretion (Statewide Steering Committee to Reduce Sexual Assault, Victoria, 2006; Lievore, 2004, as cited in Larcombe, 2012, p. 482), she points out that cases "clearly interpretable as violence" and not involving what appears to be "potential sexual partners" are more likely to proceed to conviction. Examples include cases involving male and younger victims and victims whose perpetrators were strangers, particularly when force, threats, and weapons are used and result in physical injury to the victim

and when verbal resistance is offered. Further, Larcombe (2012) reports that women ages 15–24, those with a psychiatric disability or a mental health issue, and indigenous women are less likely to see their cases result in conviction. In terms of the offenders, those who have a prior history of criminal behavior (particularly violent and sexual offenses), are indigenous, and have a disability (intellectual or psychiatric) are more likely to have their cases proceed to conviction (Larcombe, 2012). Given the evidence that sex crimes and sex offenders that are identified by authorities and processed in the criminal justice system are not representative of sexual crimes and perpetrators overall, Larcombe (2012) suggests that policies, practices, and research need to consider attrition dynamics and their implications. Although the studies cited by Larcombe may have limited applicability because they used Australian samples, research on attrition dynamics and characteristics using American samples likely would strengthen our understanding of the incidence and prevalence of sexual victimization in the United States.

Special Populations and Related Topic Areas

Some studies have focused on a number of special populations and related topic areas regarding the incidence and prevalence of sexual victimization.[9] Several of these areas are addressed below: stalking, sexual offending on college campuses, and sexual offending against individuals with disabilities, members of the military, and Native Americans in Indian Country.

Stalking

Stalking was first defined as a crime in 1990 by the state of California. Since that time, every state and the District of Columbia have passed a law against stalking. State statutes define stalking behavior rather differently, however, and no single legal definition of stalking applies across all states. Even for a victim, defining stalking can be difficult, as behaviors that often appear as a part of stalking (e.g., gifts, notes, and visits) are not in themselves criminal. Rather it is the nature of the behavior—unwanted attention, unwanted gifts, persistent or threatening notes, harassing visits, and so forth, that defines the act as stalking. In some states, stalking laws are invoked for verbal threats, while in other states the threat must be written or implied by the conduct (Klein et al., 2009). In some states the perpetrator must act in a way that makes the victim fearful, and in other states it is sufficient if the perpetrator acts in a way that would make a reasonable person fear the behavior (Fox, Nobles, & Bonnie, 2011). As Tjaden (2009, p. 263) points out, "Nearly 20 years after the first stalking law was enacted, many policymakers and practitioners still are unclear about what constitutes stalking."

With this confusion among state laws, it is not surprising that there has been no standard definition used by researchers in studying the crime of stalking. Fox, Nobles, and Bonnie (2011) found that the four major national assessments of the extent of stalking all used different questions, making comparisons across the studies problematic. A few of the questions are similar, but in no case are the exact same questions used. Fox, Nobles, and Bonnie (2011) also point out that the major studies have failed to publish reliability estimates for their scales, reducing the ability to generalize beyond the sample population. It also should be noted that the sampling frame used in each of the four national stalking victimization studies is different. NVAWS, NCVS, and the National Intimate Partner and Sexual Violence Surveillance System (NIPSVSS) sample the general population, while NCWSV samples only female college students (Fox, Nobles, & Bonnie, 2011). In reviewing 56 peer-reviewed assessments of stalking, Fox, Nobles, and Bonnie (2011) found that 55 percent of the studies examined a college-age population while 45 percent examined the general population; they also found that many studies of stalking rely on subpopulations, such as college students or nonprobability samples.[10]

Tjaden and Thoennes (1998) conducted the first-ever national study of stalking within NVAWS and found that 8 percent of women and 2 percent of men have been stalked in their lifetime. This telephone survey of 8,000 men and 8,000 women found that most stalking victims were female

(78 percent) and most perpetrators were male (87 percent). In most cases, stalking involved perpetrators and victims who knew each other—only 23 percent of female victims and 36 percent of male victims reported being stalked by strangers. Stalking was in many cases the continuation of a violent relationship—81 percent of women who were stalked by a present or former spouse or partner had also been sexually assaulted by that person and 31 percent had been raped by that person (Tjaden & Thoennes, 1998). These findings demonstrate the importance of looking at domestic violence, stalking, and sexual assault as a connected constellation of behaviors, given that the risk to the victim increases with the presence of these factors. In addition, Tjaden and Thoennes (1998) found that about half of stalking victimizations (55 percent for women and 48 percent for men) were reported to the police. In one out of five cases reported to the police, the victim indicated the police did not take any action. Only 24 percent of women and 19 percent of men who reported a victimization to the police indicated that their stalker had been criminally prosecuted (Tjaden & Thoennes, 1998).

In 2006, NCVS included a Supplemental Victimization Survey to assess the extent of stalking. Approximately 65,000 men and women completed the survey between January and June 2006. This survey estimated that 2.4 percent of the population experienced stalking or harassment in the year prior to the study (Baum et al., 2009). The study did not seek to assess lifetime victimization. Women were at greater risk of stalking victimization than men (3 percent of women reported being a victim of stalking compared to 1.7 percent of men). Stalking and harassment rates for those ages 18–24 were significantly higher than for other age groups, with the rate of victimization decreasing with age. For those who reported stalking, many reported being victimized by persistent offenders—46 percent of stalking victims experienced at least one unwanted contact per week, and 11 percent of victims said they had been stalked for 5 years or more (Baum et al., 2009). **Most offenders were known to their victims (73 percent), and more than half of stalking victims lost 5 or more days from work due to their victimization (Baum et al., 2009).** One-third of women and one-fifth of men reported stalking or harassment to law enforcement. However, many other victims did not categorize their experience as stalking. Researchers asked questions about seven types of harassing or unwanted behavior and classified a respondent as a victim of staking if he or she had experienced at least one of the behaviors on at least one occasion and felt fear as a result. Respondents who experienced the behavior but did not feel fear were categorized as victims of harassment. Researchers did not use the term "stalking" until the final question. Of those whose experiences were classified as stalking, 60 percent reported that the experience was "not stalking" (Baum et al., 2009). This finding raises the issue of definitions and terminology, and underscores the complexity of accurately providing a picture of the national experience of victimization in general and stalking in particular.

Sexual Offending on College Campuses

College campuses have frequently been used by researchers at universities seeking convenience samples for small studies. College campuses have also become of interest to researchers and policymakers in order to better understand the unique risks for young people during their first experience of living without parental supervision.

In a special study on the victimization of college students, BJS found that students experience both violent crime and serious violent crime at lower rates than nonstudents of the same age (Hart, 2003). Campuses themselves may provide some protection, as BJS found: "The number of off-campus victimizations of college students was over 14 times greater than the number of on-campus victimizations" (Hart, 2003, p. 1). The only category of violent crime for which the rates were not lower on college campuses was rape. Unlike robbery, aggravated assault, and simple assault, rape was reported at the same rate for those on campuses and same-age nonstudents. Several studies further examine rape and sexual victimization on college campuses.

In examining lifetime exposure to sexual violence, higher rates of rape victimization tend to be found for college women. Kilpatrick and colleagues

(2007) conducted a national telephone survey of drug-facilitated, incapacitated, and forcible rape[11] that included 2,000 women attending college. **The study found that 11.5 percent had experienced rape during their lifetime. When looking at past-year victimizations, they found that 5.2 percent of college women were raped. Of those reporting rape in this study, about 12 percent of the crimes were reported to law enforcement.** Victims of drug-facilitated and incapacitated rape were less likely than victims of forcible rape to report to the authorities (Kilpatrick et al., 2007).

A larger and more recent study found that similar levels of college women reported being sexually victimized in their lifetime. McCauley and colleagues (2009) interviewed a national sample of 1,980 college women and found that 11.3 percent reported having been sexually victimized at some point in their life.

The link between alcohol or drug use and sexual victimization has been studied, with consistent findings of a strong connection. Mohler-Kuo and colleagues (2004) surveyed nearly 24,000 women between 1997 and 2001 in the College Alcohol Study. They found that 4.7 percent had been raped and of those, 72 percent were intoxicated at the time the incident occurred (Mohler-Kuo et al., 2004). In a survey of approximately 300 female college students, Lawyer and colleagues (2010) found that 29.6 percent of the respondents reported a drug-related sexual assault or rape, and 5.4 percent reported a forcible sexual assault or rape. Voluntary incapacitation (via drugs or alcohol) preceded 84.6 percent of drug-related assaults, and involuntary incapacitation preceded 15.4 percent of drug-related assaults. The majority of drug-related assaults (96.1 percent) involved alcohol consumption prior to assault (Lawyer et al., 2010).

Finally, when looking at stalking behavior on college campuses as part of NCVS, Fisher, Cullen, and Turner (2000) found that 13 percent of college women had been stalked. This rate of victimization is much higher than that reported by Tjaden and Thoennes (2006). The key difference in the studies is the age of the sample population. While Tjaden and Thoennes (2006) studied all ages, Fisher, Cullen, and Turner (2000) studied college students exclusively, and this is an age group at higher risk for stalking.

In summary, college students seem to be at unique risk for sexual violence and warrant the increased attention paid by policymakers in the form of sexual violence prevention and intervention programs.

Sexual Offending Against Individuals With Disabilities

The rate at which individuals with disabilities are victimized is not well understood. Until mandated by law, no national statistics on this population were gathered in the United States. The few studies that have been conducted are mainly outside the United States or are exploratory in nature. Petersilia (2001, p. 658) described the state of literature in the field as "… not a scientifically rigorous literature, consisting mostly of anecdotal evidence, data from convenience samples, and nonrandom program evaluations."

Key issues for individuals with disabilities include challenges reporting crimes and being believed or taken seriously when they do report crimes. This problem is documented in Sorensen (2002), who refers to crime victims with disabilities as "invisible." Another challenge is repeat victimization. In a Canadian study of 162 individuals with cognitive disabilities, Sobsey and Doe (1991) found that 80 percent of those who had been sexually assaulted had been victimized more than once, while 49.6 percent had experienced 10 or more sexual assaults.

In one of the few studies specifically designed to gather data from individuals with cognitive disabilities, Wilson and Brewer (1992) surveyed 174 individuals at a sheltered workshop in Australia. The study found that the rate of sexual assault was 10.7 times greater in the sheltered workshop than for the general population (Wilson & Brewer, 1992). Further, Wilson and Brewer (1992) found that rates of victimization were greater for individuals living in institutions. The Crime Victims with Disabilities Awareness Act became law in 1998 to "increase public awareness of the plight of victims of crime with developmental disabilities, to collect data to measure the magnitude of the problem, and to

develop strategies to address the safety and justice needs of victims of crime with developmental disabilities" (P.L. 105–301, October 27, 1998). NCVS now includes statistics on the rate of victimization of individuals with disabilities.

In examining the data collected as part of the 2008 NCVS, Harrell and Rand (2010) found that the rate of violent crime against individuals with disabilities is twice that of individuals without disabilities. When adjusted for age, the rate of victimization for individuals with disabilities is two to three times higher than it is for individuals without disabilities for each type of violent crime measured (rape/sexual assault, robbery, aggravated assault, and simple assault). When measuring rates of victimization for rape/sexual assault, the age-adjusted victimization rate for individuals with disabilities is more than twice that of individuals without disabilities. Individuals with disabilities were slightly less likely than individuals without disabilities to offer resistance to the offender during a crime. Within measured categories of disability (hearing, vision, ambulatory, cognitive, self-care, and independent living), individuals with cognitive disabilities had the highest risk of victimization (Harrell & Rand, 2010).

These data are limited in that they do not include those residing in institutions. A significant number of individuals with disabilities reside in institutions, particularly those with severe disabilities. In addition, the format for the NCVS interviews may limit the ability of individuals with hearing or cognitive disabilities to participate. Individuals with cognitive disabilities may have difficulty understanding the terminology used in the interview questionnaire, and individuals with hearing impairments may not be able to participate in telephone interviews. Finally, when proxy interviews are allowed for individuals who are not able to answer for themselves due to cognitive or communication challenges, it may lead to underreporting of victimization. The proxy responder may not know about the victimization, or could even be the perpetrator of abuse. In these cases, the crime would go unreported (Harrell & Rand, 2010).

The issue of sexual offending against individuals with disabilities is receiving more attention today than in the past, yet both the rate and characteristics of sexual victimization involving individuals with disabilities is not well understood. Clearly, more and better data are needed to determine the extent of sexual offending against this population.

Sexual Offending Against Members of the Military

Depending on the population studied and the definitions used, the extent of sexual offending against members of the military varies widely. **Studies have produced estimates suggesting that as few as 4 percent and as many as 78 percent of armed forces members have been the victim of a sex offense** (Bastian, Lancaster, & Reyst, 1995).

Unfortunately, there has been little consistency across studies in the methodologies, sample population characteristics, definitions of sexual offending, and the wording of questions used to determine if a sex offense has occurred. In response to congressional reporting requirements, the U.S. Department of Defense (DoD) now collects data on sexual offending against members of the active-duty military. However, this data collection effort addresses only active-duty personnel and has only been in place since 2002. A major shortcoming of the data collected by the department is the reluctance of service members to report acts of sexual misconduct. Scholars are beginning to look at the experience of military personnel both during active military service and after, but far more work is needed to understand the incidence and prevalence of sexual offending against this population.

In recent decades, increasing numbers of women have entered military service, and they now serve in a variety of roles. The Navy's Tailhook convention scandal in 1991 and the cases of sexual harassment and sexual assault at the Army training camp in Aberdeen, MD, in 1996 drew public attention to how women are treated in the military.

The department undertook a study of sexual harassment among active-duty military members in 1994 and published the results in 1995. This was the

first study of its kind since 1988 (Bastian, Lancaster, & Reyst, 1995). Results of this study showed that 55 percent of women and 14 percent of men reported one or more incidents of harassment at work during the prior year. When asked about unwanted "sex-related attention" at work or off duty, 78 percent of women and 38 percent of men reported that they had been harassed in the prior year (Bastian, Lancaster, & Reyst, 1995). Five types of unwanted sex-related attention reported are sexual assault, sexual coercion, unwanted sexual attention, sexist behavior, and crude/offensive behavior. Table 1 shows the results for women and men respondents.

Many service members did not consider the experiences they reported to be sexual harassment. Although 78 percent of women and 38 percent of men reported experiences that fell into the five categories presented in table 1, only 52 percent of women and 9 percent of men indicated that their experiences constituted sexual harassment (Bastian, Lancaster, & Reyst, 1995). Of those who indicated sexual harassment in the survey, 24 percent reported their experience to someone else, including 40 percent of women and 17 percent of men (Bastian, Lancaster, & Reyst, 1995). For those who reported the experience to someone else, the vast majority were not investigated, with only 14 percent of women and 4 percent of men indicating that the harassment was being investigated. Further, 10 percent of women and 7 percent of men were encouraged to drop their complaint, and 23 percent of women and 16 percent of men indicated their report was not taken seriously. Of those who reported the incident, 21 percent of women and 12 percent of men indicated that a supervisor or coworker was hostile after the complaint was reported (Bastian, Lancaster, & Reyst, 1995).

Since 2002, the department has been required by law to conduct a quadrennial Workplace and Gender Relations Survey of Active Duty Members. This survey assesses the extent of "unwanted sexual contact"[12] between military service members (Rock et al., 2011). Data from 2006 found that 6.8 percent of women and 1.8 percent of men on active duty experienced some form of unwanted sexual contact during the previous year (Whitley, 2010). In the same study, 34 percent of women and 6 percent of men experienced some form of sexual harassment. These statistics may underestimate the extent of unwanted sexual contact, as "8 of 10 sexual assaults in the military go unreported" (Whitley, 2010, p. 1).

In a national cross-sectional study of women serving in the military from 1971 to 2002 (Vietnam era to Persian Gulf era), Sadler and colleagues (2003) found that 79 percent reported sexual harassment during their military service, 54 percent reported unwanted sexual contact, and 30 percent reported one or more completed rapes (Sadler et al., 2003). Of those who had been raped, 14 percent indicated they had been gang raped. The study found that rape occurred more frequently on base, often in the barracks. The definition of rape used in this study was that adopted by the American Medical Association and the American College of Obstetricians and Gynecologists.

TABLE 1. PERCENTAGE OF WOMEN AND MEN SUBJECT TO UNWANTED SEX-RELATED ATTENTION, BY TYPE

Type	Percentage of All Respondents Reporting	
	Women	Men
Any type (one or more)	78	38
Sexual assault	6	1
Sexual coercion	13	2
Unwanted sexual attention	41	8
Sexist behavior	63	15
Crude/Offensive behavior	70	35

Source: Bastian, Lancaster & Reyst, 1995.

In examining the extent of sexual offending against veterans of military service while they were still active, recent attention has focused on Military Sexual Trauma (MST), defined by the U.S. Department of Veterans Affairs as sexual assault or harassment during military service. Recognizing the importance of providing services, department hospitals now provide free services to survivors of MST, regardless of their eligibility for any other department services (Center for Women Veterans, 2011). The department has also supported research to understand the extent and consequences of MST.

Since 2002, the Veterans Health Administration has implemented universal screening for MST for veterans returning from Afghanistan and Iraq. The first national, population-based study of veterans accessing administration services after returning from Afghanistan or Iraq shows MST in 15.1 percent of women and 0.7 percent of men (Kimerling et al., 2010). This study was a cohort analysis of the medical records of 22,000 women and 143,000 men. High rates of postdeployment mental health conditions were found among all patients, and those with MST were significantly more likely to have a mental health diagnosis. This study may underestimate the extent of MST due to underreporting. Burnam and colleagues (2009) documented the stigma associated with seeking help among Afghanistan and Iraq war veterans. Examples of the stigma associated with help-seeking for MST are shame, desire to maintain unit cohesion, and fear related to reporting a fellow service member with whom the victim may continue to work.

Underreporting of incidents of sexual offending is a serious problem. A U.S. Government Accountability Office (GAO) survey found that half of service members who had indicated they had been sexually assaulted in the prior year did not report the assault (GAO, 2008). The office also found that even after being trained, 13 to 43 percent of military personnel were not sure how to report an assault (GAO, 2008). Sadler and colleagues (2003) reported that one-third of military women were uncertain of specific steps to take to report a rape and only 26 percent of victims reported their rape to a superior officer. It has been suggested that the range of reasons for not reporting include the victim's fear that he or she will not be believed, shame, and fear of retaliation, being negatively judged, being revictimized, having to continue to serve alongside the perpetrator, and being prosecuted for other problematic or illegal behavior that occurred at the time of the attack, such as underage drinking, adultery, and so forth (DoD, 2004; GAO, 2008; Mullins, 2005; U.S. Air Force, 2002). Sadler and colleagues (2003, p. 5) found that one-fifth of victims did not report their attack because they believed that "rape was to be expected in the military."

In a study with a convenience sample of 196 female veterans, 72 percent reported that they had experienced sexual abuse (Himmelfarb, Yeager, & Mintz, 2006). This study differs from others in that it asked participants about sexual abuse that occurred during their childhood, during adulthood but before military service, during the time of their military service, and after their military service. Many other studies of MST among female veterans focus on the time of military service or solely on adulthood, and therefore are not comparable. This study was conducted at a Veterans Administration hospital in Los Angeles. The sample is not representative of the ethnic makeup of female veterans as a whole, or of those in other regions. The study participants volunteered to be in the study and may differ in their level of MST from those who chose not to participate. Also, the sample may not be representative of female veterans as clinical populations typically report higher levels of trauma than nonclinical populations (Himmelfarb, Yeager, & Mintz, 2006).

The issue of sexual offending against members of the military has received significant attention in the media in recent years, and DoD has placed a renewed emphasis on prevention and intervention policies and practices. Still, more study on the extent, nature, and dynamics of sexual offending involving members of the military is warranted to determine future policy directions.

Sexual Offending Against Native Americans in Indian Country

Although .9 percent of the U.S. population is Native American (U.S. Census Bureau, 2011), these 2.9 million individuals are not a uniform group. There are 565 federally recognized tribes, according to the Bureau of Indian Affairs (BIA); each tribe has its own culture, history, and traditions. No single, standardized repository of crime data exists to measure the extent of sexual offending against victims in Indian Country. Even though none of the existing estimates regarding the extent of sexual offending or victimization in Indian Country are precise, **the available data consistently indicate that Native American women experience violent victimization and sexual victimization at significantly higher rates than other women in the United States.**

NCVS's most recently published results do not provide victimization rates for Native Americans.[13] This is due to the reduction in the overall sample size for NCVS that recently occurred and the impact it had on the size of subsamples for certain groups, such as Native Americans. In short, Native Americans are no longer sampled in sufficient numbers to provide valid statistics for the group. To have an accurate national estimate of victimization against Native American women, NCVS would need to return to its original sample size.

In NVAWS, conducted in 1995 and 1996, 34 percent of Native American women reported a victimization of rape at some point in their life—the highest victimization rate of any racial or ethnic group and nearly twice the national average for all ethnic groups. The number of male rape victims cannot be estimated from this source due to the low numbers reported (Tjaden & Thoennes, 2006). The data sample for this survey included telephone interviews with a total of 88 Native American women and 105 Native American men. Caution is necessary when generalizing about 2.9 million Native American women and men from this sample of 193 individuals.

In their 1998 research, Tjaden and Thoennes found that lifetime victimization rates for stalking are higher for Native American women than for women of any other ethnicity examined in their study. For Native American women, the lifetime rate of victimization for stalking was 17 percent, while the rate for the study population as a whole was 8.2 percent (Tjaden & Thoennes, 1998). Similarly, Native American men reported higher lifetime victimization for the crime of stalking, with a rate of 4.8 percent compared to the 2.3 percent lifetime rate for men in the study population as a whole.

Available estimates of the extent of victimization are consistent in indicating high levels of victimization among Native American women. Few large-scale studies exist to describe the nature of victimization of Native American women. However, the studies that do exist point to a need for further research.

Hamby found that Native American women were twice as likely as women of other racial and ethnic groups to say that police would not believe them or would blame them if they reported a rape (Hamby, 2008). Hamby also found other barriers for Native American victims in seeking help from law enforcement, including prejudice, conflict between Western and native values, language barriers, and poverty. Getting help is also complicated by jurisdictional issues if the crime takes place in Indian Country, as often it is not clear which law enforcement entity has jurisdiction to prosecute the crime. For crimes that occur on Indian lands, jurisdiction for handling the investigation may fall to federal, state, or tribal law enforcement, depending on whether the perpetrator is Native American or not as well as on the nature of the crime (e.g., felony, misdemeanor).

Bachman and colleagues (2010) found that rapes involving Native American women are more severe than rapes committed against other women. Analyzing archived data from NCVS, Bachman and colleagues (2010) found that 94 percent of rapes reported by Native American women involved physical assault, compared to 74 percent of rapes reported by non-Native American women. Fifty percent of Native American women rape victims were physically injured during the rape, compared to 30 percent of non-Native American women rape victims. Finally, more than three times as many rapes of Native Americans involved weapons—34 percent compared to 11 percent (Bachman et al., 2010).

Hamby and Skupien (1998) conducted in-person interviews with 117 women living on the San Carlos Apache reservation and found that in their current relationship, 75 percent had experienced physical violence from their partner and 62 percent had been injured by their partner. In a study of 341 women who visited health clinics located on the Navajo reservation, Fairchild, Fairchild, and Shirley (1998) found that 42 percent had been physically assaulted and 12 percent had been sexually assaulted by a partner in their lifetime.

Comparisons across these studies are difficult as the sample sizes, sampling methods, study methods, and definitions used are different. Many of the studies use convenience samples, which may make the results less generalizable to the broader population. Further, there may be differences in the experience of Native American women in rural areas and urban areas, yet this has not been studied. Also, methods of data collection differ. For example, Tjaden and Thoennes used a telephone survey with random-digit dialing to select participants; Fairchild, Fairchild, and Shirley (1998) used in-person interviews conducted among medical clinic populations; and Hamby and Skupien (1998) used in-person interviews but recruited volunteers via media outreach.

Amnesty International found that Native American victims seeking help at their local health facility may not get the help they need, as facilities often lack rape kits or the specialized training needed to preserve evidence for use at trial. The organization reported that 44 percent of Indian Health Service facilities lack personnel trained to provide emergency services to respond to sexual violence, and 30 percent lack the basic protocols for treating victims (Amnesty International, 2007).

Similarly, the scarcity of resources in the criminal justice system in Indian Country is also a challenge. For Fiscal Year 2008, the Bureau of Indian Affairs reported that more than 30 Indian reservations had violent crime rates that exceeded the national average. Many of these reservations have law enforcement staffing shortages that require a handful of officers to cover geographically large areas. For example, according to the Senate report accompanying the Tribal Law and Order Act of 2009 (Report 111–93), the Wind River Indian Reservation in Wyoming (with a violent crime rate that is more than three times higher than the national rate) has only six or seven officers to patrol 2.2 million acres of Reservation land. With two or three officers on duty at any given time, each could be responsible for covering 1 million acres (U.S. Senate, 2009).

Sexual assault has a significant impact on members of the Native American community. Despite the limitations of the available data, sexual victimization appears to occur disproportionately among Native American women, and resources for preventing and responding to sexual offenses in Indian Country appear to be inadequate and fragmented. While more research and better data collection systems are needed to document and understand sexual offending and victimization in Indian Country more thoroughly, there is little question that the problem of sexual offending against Native Americans warrants greater attention.

Summary

Although credible conclusions are difficult to make given the limitations of the available data, statistics from several key sources suggest that the incidence of sexual offending may be declining. UCR data on sex crimes reported to the police, NCVS data on sexual victimizations, and NCANDS data on substantiated reports of child abuse and neglect all present a consistent picture of declining incidence over time. Whether this pattern can be explained by factors other than a true decline remains subject to debate, but the convergence of key indicators and other empirical evidence suggests that the true decline hypothesis should be further examined and not dismissed (Finkelhor & Jones, 2004). Keeping in mind the limitations of the data, policymakers are encouraged to monitor key indicators of incidence over time and to work with researchers to better understand the factors influencing patterns in the data, including the roles of various policies and practices designed to prevent, treat, or otherwise intervene in sexual offending behavior.

RESULTS FROM THE SOMAPI INVENTORY OF PROMISING PRACTICES

- **Q: What would you identify as gaps or needs in your field?**
  - Additional specialized training, ongoing professional development for treatment and supervision staff.
  - Appropriate release placements for sex offenders….
  - Better communication with the releasing agency about where the offender is going to reside.
  - Qualified sex offender therapists to handle these cases.
  - Community education and involvement.
  - Public education ... housing restrictions have significantly negatively influenced offender success in the community.
- **Q: What type of assistance can the SMART Office provide to help you do your job better or address these gaps/needs?**
  - Support of research; start-up financing for new approaches; political support for evidence-based initiatives.
  - Remain aware of trends and actual best practices, and serve as information dissemination and sharing source, and help to define standards for best practice.
  - Develop mechanisms to make sex offender case files and court documents more accessible to law enforcement.
  - Provide resources to train parole about effective case management collaboration.

Knowledge Gaps and Recommendations for Future Research

With so many inconsistencies and uncertainties in the available data, identifying the most important knowledge gaps and priorities for future research is a daunting task. Nevertheless, to improve our understanding of the incidence and prevalence of sexual offending, several of the most pressing issues that warrant examination are as follows:

- **Rates of disclosure.** Evidence indicates that victims choose not to disclose crimes that have been committed against them. In some cases, it may be to save themselves from reexperiencing the trauma of the event. **The SOMAPI forum participants identified the need for additional research concerning the ways the criminal justice system contributes to underreporting and the steps that can be taken to address the problem and improve support for victims.**

- **Victim perception of the crime.** With so many victims not labeling a sexual victimization as a crime or a rape, further study is needed to help identify the factors within the victimization experience (e.g., offender manipulation, posttraumatic stress disorder) that shape victims' perceptions of the offending behavior.

- **Wording of questions.** Some evidence suggests that the way in which questions are worded in a victimization survey will influence reported levels of sexual violence. For example, Cook and colleagues (2011) reported that when the question uses the tactic of leading with a behaviorally specific description of an unwanted sexual act rather than a question about the

sexual act, greater rates of victimization and perpetration are described by both men and women. This merits further investigation.

- **Prevention.** The literature on what works in preventing sexual abuse is neither complete nor rigorous. More study in this area could provide insight into how best to allocate scarce resources.

- **Vulnerable populations.** More research is needed to understand the extent and nature of sexual victimization of individuals in vulnerable situations, including children in schools or youth programs, young adults on college campuses, the elderly, individuals with disabilities, and those living in rural and hard-to-reach areas (including Native American and Alaska Native women and men). Individuals in settings such as these may have limited ability to protect themselves or seek help after victimization.

Without valid data on the nature and extent of sexual victimization, policymakers and practitioners are more likely to rely on anecdotes, opinions, or stereotypes rather than facts when developing prevention and intervention strategies. Gaining a better understanding of the extent and nature of sexual victimization will help policymakers and practitioners develop responses that are both more effective and more responsive to the needs of victims.

Given the current state of our knowledge base, there is an acute need to both improve and expand our data on the incidence and prevalence of sexual victimization. In particular, work should be done to enhance the comparability of incidence and prevalence data from different sources and time periods. Currently, methodological variations—including differences in the ways sex crimes and victimizations are defined—make comparisons across data sources and time periods challenging. Agencies responsible for administering data collection efforts should actively seek opportunities to implement common and consistent data collection methodologies when possible. Funding for such efforts and for the expansion of data collection is critically needed.

"Sex offenders do not typically self-report sex crimes."

There also is an acute need to learn more about the underreporting of sex crimes. Steps should be taken to create an environment in which victims feel appropriately supported and protected in the criminal justice and service delivery systems. **Many of the barriers to reporting have already been identified through research, but SOMAPI forum participants acknowledged the need for further study in this area.** In addition, policymakers must be committed to making the types of changes within the criminal justice and service delivery systems that are needed to overcome reporting barriers. Just as importantly, steps should be taken to help ensure that victims are not re-traumatized when reporting any victimization to authorities or when supporting the prosecution of perpetrators.

"An accurate accounting of sexual offending is virtually impossible because so many sex crimes are hidden from public view."

Finally, it is important to acknowledge that even when sex offender management approaches are designed and delivered based on scientific evidence, hidden offending presents significant challenges. (For more on "Sex Offender Management Strategies," see chapter 8 in the Adult section.) Given the number of sex crimes that go unreported, the number of sex offenders that have never come to the attention of authorities, and the disproportionate attrition of certain sex offenses and sex offenders within the criminal justice system, any perception or expectation on the part of the public or policymakers that sex offender management professionals working in the community are providing victims and the public with protection against all sex offenders is unrealistic. Simply put, there are many unidentified sex offenders who are not being managed within existing systems and much reoffending that is not accounted for in the management process. Therefore, practitioners must be up front about these limitations and expectations for sex offender

management on the part of the public, and policymakers must be tempered accordingly.

Notes

1. The following eight crimes that are reported to the police make up Part I of UCR: criminal homicide, forcible rape, robbery, aggravated assault, burglary (breaking or entering), larceny-theft (other than motor vehicle theft), motor vehicle theft, and arson.

2. The limitations of the pre-2012 definition are highlighted in the sidebar "UCR Strengths and Weaknesses." Based on the noted weaknesses, Attorney General Eric Holder announced a revision to the UCR definition of rape to include penetration of the anus by any body part or object and penetration of the mouth by a sex organ, and also to add male victims (Holder, 2012).

3. Similar to the UCR definition of forcible rape, the NCVS definition of rape/sexual assault is also currently being revised to facilitate the development of standard measurements of rape and sexual assault.

4. In 2000, NIJ and BJS compared the methodologies of NCVS and NVAWS and found that behaviorally specific questions outside of the crime context substantially increased reporting of violence.

5. The following results are discussed in Blake (2011).

6. For example, being hit with a fist, beaten, or slammed against something.

7. Screened-in reports are those that the state child protection agency has determined warrant further investigation or some other type of response (screened out = no further action).

8. Both SILJ and SISFCF are currently being reformulated, and SISFCF will next be completed for inmates in 2012.

9. A number of other specialized topic areas related to sexual victimization are not addressed here (e.g., sexual victimization occurring within detention centers, jails, and prisons, as emphasized by the Prison Rape Elimination Act [PREA]). For more information on this topic, read PREA Data Collection Activities, 2011, http://bjs.ojp.usdoj.gov/content/pub/pdf/pdca11.pdf.

10. Nonprobability samples can include a convenience sample, which is a study of subjects taken from a group that is accessible to the researcher (e.g., college students), or snowball sampling, which is typically used for harder-to-access groups, by targeting the social networks between group members to build a sample.

11. See the previous section in this chapter on the DAFR study.

12. The term "unwanted sexual contact," although not defined in the Uniform Code of Military Justice (UCMJ), is an umbrella term designed to encompass certain acts prohibited by UCMJ, including rape, nonconsensual sodomy (oral or anal sex), and indecent assault (unwanted, inappropriate sexual contact or fondling) (Rock et al., 2011).

13. The "other race" category in NCVS now includes "American Indians, Alaska Natives, Asians, Native Hawaiians, and other Pacific Islanders" (BJS, 2011).

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Chapter 2: Etiology of Adult Sexual Offending

by Susan Faupel, M.S.W.

Introduction

The etiology of adult sexual offending refers to the origins or causes of sexually abusive behavior, including the pathways that are associated with the behavior's development, onset, and maintenance. Even though questions about the causes of sexual offending have been asked for many years, they remain important today, primarily because definitive answers have been exceptionally hard to find. While research has generated important insights about the etiology of sexual offending, our understanding of the causes and origins of sexually abusive behavior arguably remains rudimentary.[1]

There are multiple reasons why it is important to be concerned with the etiology of sexual offending. First, the development of effective prevention strategies is contingent on having credible knowledge about the underlying causes of sexual offending and victimization. Without credible etiological knowledge, prevention efforts are likely to be haphazard and inefficient. Second, knowledge about causes can help sex offender management professionals manage and mitigate risk more effectively. (For a discussion of adult "Sex Offender Risk Assessment," see chapter 6, and for more on "Sex Offender Management Strategies," see chapter 8, both in the Adult section.) Simply put, knowledge about causes and pathways to offending can provide important insights into the characteristics of various sex offending behaviors (including victim preferences) and the likelihood that they will persist over time. Third, knowledge about causes can help sex offender management professionals develop more effective treatment interventions. (For more on "Effectiveness of Treatment for Adult Sex Offenders," see chapter 7 in the Adult section.) Rather than focusing on symptoms or using a one-size-fits-all approach, rehabilitation efforts can target the specific underlying causes and pathways to offending that apply to the individual offender. Fourth, etiological information can inform both discourse and decision-making at the policy level, whether the focus is on sentencing, oversight in the community, civil commitment, or any other criminal justice or societal response to sexual offending. In short, knowledge about origins, causes, and pathways to sexual offending can play a critical role in the development and delivery of effective public safety strategies.

Single-Factor Theories of Sexual Offending Behavior

Biological Theories

Biological theories of sexual offending have centered on abnormalities in the structure of the brain, hormone levels, genetic and chromosomal makeup, and deficits in intellectual functioning.

Key research findings concerning the validity of various biological theories are—

- A number of studies have found abnormalities in the brains of some sexual offenders; however, the evidence is clear that such abnormalities do not exist in the majority of cases (Aigner et al., 2000; Corley et al., 1994; Galski, Thornton, & Shumsky, 1990; Hucker et al., 1986; Langevin et al., 1988, 1989; Wright et al., 1990).
- Studies examining the link between hormonal abnormalities and sexual offending have focused on the role of certain hormones (e.g., testosterone) known to be related to physical changes in males. To date, these studies have not found evidence of a clear link between hormone levels and sexual offending (Bain et al., 1987; Hucker & Bain, 1990).
- Consideration has also been given to the possibility of a genetic defect in sex offenders that makes them more likely to engage in aggressive sexual behavior. The few studies that have examined this issue have been based on a small sample size, and far more research is needed before conclusions about a causal relationship to sex offending can be made (Beckmann et al., 1974; Harrison, Clayton-Smith, & Bailey, 2001).
- Links between deficits in intellectual functioning and sexual offending have also been hypothesized, but empirical evidence supporting these theories has not been produced. Moreover, it should be noted that aggression is not the norm in this population (Day, 1994; Murray et al., 2001; O'Callaghan, 1998).

Summary of the Evidence on Biological Theories

The empirical evidence produced to date does not indicate that the presence of a particular biological phenomenon has a causal relationship with sexual offending. However, biological studies are still relatively new. With improved methodologies, future research may demonstrate that certain aspects of biological theories yield beneficial information for understanding and explaining the origins of sexual offending behavior (Stinson, Sales, & Becker, 2008).

Evolutionary Theories

Evolutionary theories have been proposed to explain a variety of human behaviors, including sexual aggression. Evolutionary theory views human behavior as the result of millions of years of adaptive changes designed to meet ongoing challenges within the environment.

Several theories rely on evolutionary postulates about sexual selection and sexual strategies to explain sexual aggression. One is that sexual coercion is a conditional sexual strategy. In this theory, sexual coercion is postulated to be merely a type of reproductive strategy, as it is in nonhuman species (Bailey, 1988; Malamuth & Heilmann, 1998; Thornhill & Palmer, 2000). Another evolutionary theory views rape as an outcome of a competitive disadvantage for some men that causes them to lack the resources or ability to obtain a mate by more appropriate means (Figueredo et al., 2000; Lalumiere et al., 1996; Malamuth & Heilmann, 1998; Quinsey & Lalumiere, 1995). Another theory describes rape as a "courtship disorder" that results from an interruption in normal mating processes (Freund, 1990; Freund, Scher, & Hucker, 1983, 1984).

Summary of the Evidence on Evolutionary Theories

It is very difficult to empirically test the validity of evolutionary theories. They present a unique perspective in that they view sex offending behavior as an adaptation to environmental or interpersonal events. While this is a new direction that may deserve further consideration, **researchers in the**

field have largely disregarded these hypotheses as the cause of sexual offending because of their limitations (Travis, 2003).

Personality Theories

Personality theories are among the earliest sources of explanation for sexual offending behavior. They emerged based on the work of Sigmund Freud, who believed that sexual deviance is an expression of the unresolved problems experienced during the early stages of an individual's development. Due to a lack of empirical evidence, Freud's personality theories have fallen out of favor with etiological researchers in deference to other theories. Later personality theorists, however, suggested that early childhood relationships involving trauma or mistreatment could lead a child to internalize negative attitudes and beliefs about both the self and relationships with others, thus altering how the child perceives sex and his or her role in sexual relationships (Leguizamo, 2002).

One of these later personality theories—attachment theory—was first introduced by Bowlby (1988) to explain the relationship between a child and his primary caretaker, and how this early relationship affects later adjustment. According to attachment theory, humans have a propensity to establish strong emotional bonds with others, and when individuals have some loss or emotional distress, they act out as a result of their loneliness and isolation. Later research indicates that there is a relationship between poor quality attachments and sexual offending. Marshall (1989) found that men who sexually abuse children often have not developed the social skills and self-confidence necessary to form effective intimate relations with peers. This failure creates frustration that causes them to seek intimacy with young partners (Marshall, 1989; Marshall and Marshall, 2000).

Seidman and colleagues (1994) conducted two studies aimed at examining intimacy problems and the experience of loneliness among sex offenders. According to these studies, sex offenders have deficiencies in social skills that seriously restrict the possibility of maintaining intimacy. Ward and colleagues (1995) proposed that sex offenders are likely to have difficulty forming attachments with others and will engage in distorted thinking, such as "courting" a child and treating him or her as his lover.

Personality theorists also use formulations of personality development based on the results of testing instruments designed to profile personality types. Studies concerning this approach, however, have produced diverse and contradictory findings, and they have been criticized for failing to adequately demonstrate how the results obtained from testing instruments can add to the understanding of the origins of sexually deviant behavior (Stinson, Sales, & Becker, 2008). Further evidence is needed to show how certain personality traits relate specifically to the cause of sexual offending behavior.

Summary of the Evidence on Personality Theories

Personality theories are successful in demonstrating that sex offenders have poor social skills and problems with intimacy, and that there is a connection between poor relationships with others (particularly caregivers) and sexual offending behavior. **The primary criticism of personality theories is that while they show that disturbances exist within the personalities of sex offenders, they fail to explain why these disturbances occur.** Hence, personality theories alone do not provide a complete explanation of the cause of sexual offending behavior (Stinson, Sales, & Becker, 2008).

Cognitive Theories

Cognitive theories address the way in which offenders' thoughts affect their behavior. It is well documented that when individuals commit deviant sexual acts, they often try to diminish their feelings of guilt and shame by making excuses or justifications for their behavior and rationalizing their actions (Scott & Lyman, 1968; Scully, 1990; Sykes & Matza, 1957). These excuses, justifications, and rationalizations are commonly referred to as "cognitive distortions" or "thinking errors." They allow offenders to absolve themselves of responsibility, shame, or guilt for their actions.

Thinking errors on the part of sex offenders have been identified and supported frequently in research. These errors include denial, minimization of harm done, claiming the right or entitlement to the behavior, and blaming the victim (Marshall, Anderson, & Fernandez, 1999; Ward & Keenan, 1999). The literature also suggests that many sex offenders hold feelings of resentment and use these feelings as justification for their behaviors. Marshall, Anderson, and Champaigne (1997) theorized that sex offenders are more likely to be self-protective and self-serving due to low self-esteem, poor relationships with others, and emotional discomfort or anxiety. When challenged about their behavior, sex offenders reframe the situation to maintain feelings of self-worth.

Another type of cognitive distortion common among sexual offenders is a sense of entitlement, which involves the belief that the need to offend is more important than the negative consequences experienced by the victim (Hanson, Gizzarelli, & Scott, 1994). Hanson, Gizzarelli, and Scott (1994) found that this sense of entitlement in incest offenders led to decreased self-control, while Ward, Hudson, and Keenan (1998) found that thinking errors lead sex offenders to pay attention to information consistent with their distorted beliefs and to reject information that is inconsistent with their beliefs. For example, a child molester may interpret a child's hug as sexual interest because that interpretation conforms to his or her distorted beliefs, or a child molester may ignore a child's crying because it conflicts with his or her beliefs. Further, egocentricity or self-interest allows the sex offender to justify deviant sexual behavior on the basis that it satisfies his or her needs. The offender will see victims as deserving of victimization or may have distorted views of what the victim wants from the offender. He or she may display a consistent tendency to blame others or negate personal responsibility through such statements as "I just couldn't help myself" (Hanson, 1999; Hanson, Gizzarelli, & Scott, 1994: Segal & Stermac, 1990; Ward, 2000; Ward, Hudson, & Keenan, 1998).

Finally, the way sex offenders process both internal and external cues may explain how and why they manipulate information. Research suggests that sex offenders misinterpret social cues and have difficulty recognizing and interpreting the emotional state of others. Further, they do not make good choices based on the information they perceive and do not consider the perceptions of others in making decisions about their own behavior (Keenan & Ward, 2000; Ward, 2000).

Summary of the Evidence on Cognitive Theories

Cognitive theories have contributed to a better understanding of sex offenders and their behaviors. **There is evidence demonstrating that sex offenders engage in cognitive distortions or thinking errors, and that these distorted thinking patterns have the capacity to drive deviant sexual behavior.** Cognitive theories serve as a core component of many of the sex offender treatment programs in existence today, and most treatment programs incorporate some type of intervention to help the perpetrator identify and correct his or her thinking errors.

Despite the contributions made by cognitive theories and their use in treatment models, these theories have limitations. First, no method has been identified for connecting in a causal manner what the offender reports about his or her thought processes and a sex offending act itself. Second, cognitive theories do not explain where the cognitive distortion thought processes originate. Third, the research that is available on cognitive theories reflects few differences between sex offenders with cognitive distortions and non-sex offenders with cognitive distortions. In short, cognitive theories do not explain why some individuals commit sexually offensive acts specifically (Stinson, Sales, & Becker, 2008).

Behavioral Theories

Behavioral theories explain sexually abusive behaviors as a learned condition. Behavioral theories are based on the assumption that sexually deviant arousal plays a pivotal role in the commission of sex crimes and that people who engage in sex with, or have sexual feelings toward, inappropriate stimuli are more like likely to commit sexual violence than those with appropriate sexual desires (Becker, 1998; Hunter & Becker, 1994; Lalumiere & Quinsey, 1994).

In behavioral theory, the occurrence of continued deviant sexual behavior (as with all behavior) depends on reinforcement and punishment. Sexual gratification and the perceived lack of negative consequences for sexual offending, coupled with a lack of support for not engaging in sexual offending behavior, increases the likelihood for sex offenses to continue. The key factor is that if the negative consequences of the behavior (punishment) are sufficiently strong, the negative behavior (sex offending) is less likely to occur (Laws & Marshall, 1990).

Self-regulation is also a behavioral theory that has been applied to sexually deviant behaviors. Self-regulation involves the selection of a goal and strategies to reach that goal. The goals of sexual satisfaction, intimacy, mood control, or other rewards related to sexual deviance can affect recall, judgment, and information processing (Ward, 2000). According to self-regulation theory, the goal of engaging in sexually deviant behavior and the strategies employed to reach that goal become automatically integrated into the behavior of the offender because they have been consistently reinforced in the past (Ward & Hudson, 1998).

Summary of the Evidence on Behavioral Theories

Research offers support for sexual abuse being a learned behavior. Acknowledgment of the role of self-regulation also appears to be a necessary component of a thorough understanding of sexual behavior problems. Further research in these areas certainly seems merited. **Nonetheless, behavioral theories have limitations.** First, it is important to recognize that many male sex offenders lack deviant sexual arousal patterns; in fact, many male sex offenders have arousal patterns similar to those of non-sex-offending men (Looman & Marshall, 2005). This limits the ability to generalize the deviant arousal patterns of some sex offenders to all such offenders. In addition, no research has predicted which reinforcements or consequences are likely to increase or inhibit sexual offending behavior. This seems critical both in understanding etiology and prescribing treatment and public policy. Research is also limited on the effect of "mediators"—such as support for nonoffending behavior, levels of supervision, and restricting access to victims—in the process of sexual offending. Other variables such as the lack of victim empathy, moral values, or remorse in some individuals may also play a role in the development of deviant sexual behavior patterns. Behavioral theories postulated to date do not take these variables into consideration. Additionally, the theories are based on the assumption that individuals are influenced by the threat of negative consequences (punishment). However, no empirical evidence substantiates this assumption consistently. Therefore, **sex offenders may not consider the consequences of their behavior as a deterrent to their actions** (Stinson, Sales, & Becker, 2008).

Social Learning Theories

Two primary social learning hypotheses have been suggested as possible explanations for sexual offending behaviors. The first is that children who are sexually abused grow into sexually abusive adults, and the second is that sexually explicit material contributes to sexual offending behavior.

Much research has examined the impact of victimization on future victimizing behavior. However, early childhood victimization does not automatically lead to sexually aggressive behavior. While sex offenders have higher rates of sexual abuse in their histories than would be expected in the general population, the majority of perpetrators were not abused as children (Berliner & Elliot, 2002; Putnam, 2003). There is relatively good evidence to support this, including the disproportionate number of women who were victimized as children who do not go on to sexually abuse others (Berliner & Elliot, 2002; Putnam, 2003).

"Negative or adverse conditions in early development have been linked to sexual offending later in life."

Even so, a large percentage of sex offenders do report being sexually abused as children (Becker, 1998; Craissati, McClurg, & Browne, 2002; Graham, 1996; Jonson-Reid & Way, 2001; Seghorn, Prentky, & Boucher, 1987; Veneziano, Veneziano, & LeGrand, 2000; Worling, 1995; Zgourides, Monto, & Harris, 1997). Certain types of offenders, such as those who

sexually offend against young boys, have higher rates of child sexual abuse in their histories (Becker & Murphy, 1998; Burgess, Hartman, & McCormack, 1987; Burton, Miller, & Schill, 2002; Freeman-Longo, 1986; Freund & Kuban, 1994; Garland & Dougher, 1990; Ryan, 2002). For those victims who later become perpetrators, the majority are male (Berliner & Elliot, 2002; Stinson, Sales, & Becker, 2008). Therefore, in this regard, researchers have focused on male victims, the way they perceive their abuse, and how it affects them later in life. The aspects of the abusive experience that influenced their learning have been of most interest.

Using social learning theory, researchers have identified the process through which this learning occurs and the key variables that help to determine whether deviant sexual behavior patterns will be adopted. For example, a child who has internalized the victimization experience as normal or pleasurable in some way is more likely to adopt a belief system that is favorable to offending (Briggs & Hawkins, 1996; Burton, Miller, & Schill, 2002; Eisenman, 2000; Freeman-Longo, 1986; Hummel et al., 2000). Several different types of thought patterns may lead more easily to the development of sexually abusive behaviors in victims. For example, the victim may think "this must be normal" or "it isn't a bad thing because someone who loves me is doing it to me" or even "this feels good and I like it" (Briggs & Hawkins, 1996; Burton, Miller, & Schill, 2002; Eisenman, 2000; Freeman-Longo, 1986; Hummel et al., 2000). A child who internalizes these thought processes in reaction to his or her own abuse is more likely to grow into an adult who views sexually abusive acts as less harmful and more pleasurable to the victim.

Studies have identified other factors that can play an important role in the link between being sexually abused and later exhibiting sexually abusive behaviors. These include the age of victimization, the relationship between the perpetrator and the victim, the type of sex act and amount of force used, the sex of the perpetrator, the duration of the abuse, and the number of perpetrators (Burton, Miller, & Schill, 2002; Garland & Dougher, 1990). The younger the victim, the more violent and intrusive the sexual acts, the longer the duration of abuse, and the greater the number of perpetrators, the more likely it is that sexually deviant behavior will develop in victims (Burton, 2000; Burton, Miller, & Schill, 2002; Hummel et al., 2000; Seghorn, Prentky, & Boucher, 1987).

The manner in which others respond to an individual who discloses victimization is also a factor that has been shown to be related to the social learning process involved in victimization. An indifferent response or a response of disbelief to a disclosure of sexual abuse has been shown to contribute to a victim internalizing negative sexual behaviors and developing future abusive sexual behavior (Burton, Miller, & Schill, 2002; Garland & Dougher, 1990). All of this suggests that the experience of sexual abuse in childhood has some impact on the development of sexually abusive behavior patterns, but exactly how the abuse is modeled and manifested is still somewhat unclear. More research is needed in this area.

Another social learning theory related to sexual offending behavior suggests that pornography serves as a model for sexually aggressive behavior for some individuals, encouraging them to engage in behaviors depicted in pornography that they viewed. The literature defines sexually violent pornography as pornography in which women are portrayed in humiliating or degrading situations or are the victims of forced or coerced sexual interactions (Marshall, 1988).[2] Based on this theory, an individual who views sexually violent pornography can experience a change in attitudes toward women and can internalize myths about rape. Burt (1980) defined rape myths as prejudicial, stereotyped, or false beliefs about rape, rape victims, and rapists. Lonsway and Fitzgerald (1994, p. 134) expanded on the concept of rape myths and defined them as "attitudes and beliefs that are generally false but are widely and persistently held, and that serve to deny and justify male sexual aggression against women."

Evidence suggests that repeated exposure to sexually aggressive pornography contributes to increased hostility toward women, acceptance of rape myths, decreased empathy and compassion for victims, and an increased acceptance of physical violence toward women (Check & Guloien, 1989; Knudsen, 1988; Lahey, 1991; Linz, Donnerstein, &

Penrod, 1988; Malamuth & Check, 1980, 1981, 1985). From a social learning perspective, the likelihood that these views will lead to abusive behavior depends on the reinforcement in the learning process. One such reinforcer is a core feature of much pornography: the portrayal of women as desiring and enjoying both the sexual activity and degradation involved in the images (Check & Guloien, 1989; Knudsen, 1988; Norris, 1991; Sinclair, Lee, & Johnson, 1995). Another reinforcer lies in social cues from others—both the participants in the pornography and other viewers. If the participants in the pornographic material seem to be enjoying it and watching it appears to be socially acceptable based on the reaction of others, the viewer is more apt to see the sexually aggressive content as positive and desirable to imitate (Norris, 1991; Sinclair, Lee, & Johnson, 1995).

Another type of pornography believed to play a role in the etiology of socially learned sexual aggression is child pornography—material that either uses children or uses technology that makes the participants appear to be children. Social learning theory suggests that individuals use child pornography, internalize this behavior as acceptable, and adopt it into their own behavior. Since child pornography is illegal, research on the role of child pornography is somewhat limited. Nonetheless, it is known that child molesters report increased use of pornography prior to sexually abusing children (Howitt, 1995; Marshall, 1988). Recent research has suggested the use of child pornography as a reliable indicator of sexual interest in children (Seto, Cantor, & Blanchard, 2006). Across multiple studies, offenders have reported the use of pornography to desensitize and arouse them so they can engage in abusive behaviors with children (Knudsen, 1988; Marshall, 1988). Child pornography also appears to reduce empathy toward child victims (Knudsen, 1988). Portrayals of enjoyment on the part of the children and lack of negative consequences may serve as reinforcers of these behaviors.

Summary of the Evidence on Social Learning Theories

Social learning theories do not offer the only explanation for sexual offending behavior. However, they do provide valuable insights for understanding sexual offending and there is evidence to support various tenets of social learning theory in the context of sexual offending. For example, **there is sound empirical evidence that sexual offending is a learned behavior.** Also, while it is true that a direct connection between the use of pornography and rape does not exist, research has made it clear that the use of pornography is a factor in shaping the attitudes and behaviors in some men who use it and that it is a factor in some men's sexual aggression. Scholars may differ about the specific nature of pornography's effects, but none have argued about pornography's articulation of the myths about rape and the contributions of these thinking errors to sexual offending behaviors.

Social learning theory also introduces the notion of environmental influences on sexual offending, which is contrary to the notion of other theories that have assumed that abusive behaviors are inherent within some individuals. Insights about the impact of childhood abuse and its ramifications for sexual offending are also valuable contributions.

The most often cited criticism of social learning theory is that there is little evidence that suggests internalized beliefs or attitudes actually result in related behaviors. More research on children who are victimized but do not go on to abuse others may be helpful. Further, much of the research on social learning theory, as in many other theoretical approaches, depends on self-reports of abusers. Because offenders may be motivated to distort stories to place themselves in a more positive light, relying on self-reporting can be problematic. These concerns call into question the validity of social learning theory as the sole explanation of sexually abusive behavior (Stinson, Sales, & Becker, 2008).

Feminist Theories

Although there are many forms of feminist theory, one of the more prominent focuses on the structure of gender relations and the imbalance of power between men and women. This feminist analysis assumes that the elimination of sexual violence is linked to gender equality because it is male power that enables the acceptance and perpetuation of sexual assault.

Feminists have argued that male sex offenders are no different from "normal" men but rather are conditioned within a culture that accepts, tolerates, condones, and even perpetuates sexual violence toward women and children. Perpetrators within this framework are extended to male partners and acquaintances who cajole, pressure, harass, threaten, coerce, and/or force women into any sexual behavior to which they do not or are unable to consent. This makes it possible to examine acts of sexual coercion that remain hidden or taken for granted as "normal" social practices within the confines of heterosexual dominance (Chung, 2005; Cossins, 2000).

According to Cossins (2000), child sexual abuse is the way some men alleviate a sense of powerlessness and establish their ideal image of masculinity. Because masculinity is learned, according to feminist theorists, in order for a man to experience power, he must engage in accepted social practices (such as sexual violence) that prove his masculinity. Connell (2000) suggests that there can be different concepts of masculinity with varying degrees of social acceptance and power. Connell proposes this as the foundation for why sexual violence occurs. This perspective has given rise to treatment approaches that shift the focus to positively reconstructing a man's sense of masculinity to exclude the use of sexual violence (White, 2000). Jenkins (1990) also developed an approach to therapy that focuses on what restrains men from engaging in respectful relationships with women, as opposed to what causes them to engage in these relationships.

Summary of the Evidence on Feminist Theories

Currently, there is insufficient evidence to scientifically support the feminist theory of gender imbalance as the sole cause of sexual violence. However, **while the imbalance of power between men and women may not be the sole or direct cause of sexual offending, it is clearly a factor.** Psychological theorists have long neglected the fact that an overwhelming number of perpetrators are male, and thus they have failed to explain the role of gender in sexual violence. Additionally, it is important to keep in mind that many feminist theories go beyond the binary of gender and discuss the intersections of gender, race, class, ethnicity, culture, and other factors. This makes the simple gender/power relationship much more complex than that described above, and research that explores both the impact of these interactions and their value for understanding sexual offending is clearly needed.

Multifactor Theories of Sexual Offending Behavior

Believing that single-factor theories are inadequate, a number of scholars have developed theories that combine multiple factors to explain sexual offending behavior. The most prominent of these theories are discussed below.

Finklehor's Precondition Theory

The first integrated theory of sexual offending behavior was put forth by Finkelhor in 1984. Finklehor's theory, which applies only to child sexual abuse, outlines four preconditions that must exist for a sex offense to occur:

1. The motivation to abuse (e.g., sexual satisfaction, lack of other sexual outlets, a desire to have intimacy, a relationship with the child).

2. The overcoming of internal inhibitions (e.g., personal sense of morals, values, ethics; fear of being caught). Internal inhibitors may be overcome due to poor impulse control, the use of alcohol or drugs, engaging in excuses and justifications, or impaired mental ability.

3. The overcoming of external inhibitors (e.g., lack of privacy, adequate supervision, strong personal boundaries of the child, good support system around the child, negative social consequences). For an offender to overcome external inhibitors, he or she must locate both an opportunity for privacy and a child with poor boundaries and inadequate supervision. The offender also must consider that the possibility of negative consequences is unlikely.

4. The overcoming of victim resistance (e.g., taking advantage of a trusting relationship with

the child or caregiver; using bribes, trickery, or manipulation). These strategies are called "grooming behaviors" and are used by the offender to successfully engage the potential victim.

Summary of the Evidence on Finklehor's Precondition Theory

Although the existence of motivating conditions (overcoming internal and external inhibitors as well as victim resistance) has been supported, **Finklehor's Precondition Theory never explained why someone would possess such motivation in the first place.** For example, Howells (1994) noted that while poor social skills or lack of available sources of sexual gratification (among other factors) may be important, they are not direct causes of sexual offending. It is also unclear whether deviant sexual interest, deficits in intimacy, or a need for power and control may be at work when an individual offends.

Marshall and Barbaree's Integrated Theory

In this theory, the prominent causal factors for sexual offending are developmental experiences, biological processes, cultural norms, and the psychological vulnerability that can result from a combination of these factors. Marshall and Barbaree (1990) proposed that early negative experiences in childhood (e.g., sexual abuse, physical abuse, neglect) cause children to view their caregivers as emotionally absent, and to see themselves as being unworthy to receive love or be protected. This results in low self-esteem, poor interpersonal skills, and weak coping skills. The presence of antisocial and misogynist attitudes in the home can be aggravating factors. If adolescent males feel inadequate, the theory argues, they are more likely to accept messages that elevate men to positions of power and dominance. Another key feature of the theory is that sex meets a number of psychological needs beyond sexual gratification. These may include an increased sense of competence, elevated self-esteem, personal connection and fulfillment, and a sense of achieving the ideal image of masculinity.

Marshall and Barbaree suggested that a key developmental task for adolescent boys is to learn to distinguish between sexual impulses and aggression. They argued that this task is difficult because both types of impulses are generated by the same brain structure. Hence, adolescent boys may find it difficult to know when they are angry, sexually aroused, or both, and they must learn how to inhibit aggression in sexual situations. Combined with the influx of hormones that occur in adolescence, these factors render the young male vulnerable to developing sex-offending behaviors. Situational factors such as loneliness, social rejection, or a loss of a relationship may then trigger the sexually abusive acts committed by adolescents. The more vulnerable a person is to committing a sexual offense, the less intense these situational experiences need to be to trigger sexually aggressive behavior.

A later addition to the theory by Marshall and Barbaree is that mood states initially associated with sexual arousal may later be able to elicit sexual desire on their own through the process of conditioning. For example, if a young man frequently uses masturbation to cope with loneliness, eventually the state of loneliness itself creates sexual arousal.

Summary of the Evidence on Marshall and Barbaree's Integrated Theory

Marshall and Barbaree's Integrated Theory has been the subject of much research. **Many of the theory's hypotheses—such as the presence of poor impulse control and a lack of sufficient social skills in sexual offenders—have been supported through research** (Smallbone & Dadds, 2000). Additionally, Smallbone and Dadds (2000) found that insecure childhood attachment, especially parental attachment, can be linked to coercive sexual behavior. Thus, the theory is an important achievement. It is both innovative and has many compelling features. One of its key strengths is its ability to unite multiple influences. **Even so, a number of the theory's features merit closer examination** (Ward, 2000). One concern is the issue of embedded offense pathways to sexual offending behavior. There are distinct and possibly competing offense pathways (e.g., early exposure to problematic relationships, unsuccessful relationships, negative consequences for masturbation, deviant

sexual fantasies to boost self-esteem and a sense of power or worth) in the model. Once these etiological pathways are identified and distinguished from one another, it becomes difficult to explain why a specific pathway leads to specific sexual rather than other offending behavior.

Another weakness relates to impulse control. In their theory, Marshall and Barbaree placed great emphasis on the loss of impulse control, stating that individuals commit sex offenses due to their failure to inhibit deviant impulses. However, the empirical evidence indicates that while some sex offenders have trouble with sexual impulse control, this is not the case for all sexual offenders. In fact, research shows that a comparably small number of sex offenders have problems with self-regulation (Proulx, Perreault, & Ouimet, 1999). Another weakness is the claim that adolescent males have difficulty distinguishing sexual drives from aggression because sexual urges and aggression are generated by the same general neurological structures. The assumption that basic human drives and capacities share neurological structures has been cast into doubt by the results of several studies (Kolb & Whishaw, 1995; Symons, 1979; Tooby & Cosmides, 1992).

Hall and Hirschman's Quadripartite Model

Hall and Hirschman (1991) grouped sex offender personality traits and characteristics derived from other studies into four factors they believed to be most significant in the etiology of sex offending: 1) sexual arousal, 2) thought processes, 3) emotional control, and 4) personality problems or disorders. Hall and Hirschman proposed that while all four factors are important, one is generally prominent in the individual sexual offender.

> *"Many sex offenders have problems with self-regulation and impulse control."*

For example, Hall and Hirschman determined that it is not only sexual arousal that is driving the deviant sexual behavior, but the individual's thoughts regarding the arousal. Thought processes—particularly those involving justifications and myths—may disinhibit an individual to such an extent that deviant sexual behavior seems acceptable or even appropriate. Believing rape myths is a prime example. Negative emotional moods also often precede sexual offending, with anger being an important aspect of negative emotion for rapists and depression being the same for child molesters. These emotional states become so uncomfortable that the individual has further difficulty controlling behavior. The final factor includes negative childhood conditions that contribute to personality characteristics highly associated with personality disorders. They include traits such as selfishness, a manipulative and exploitative personality, lack of remorse, and an unstable or antisocial lifestyle. These traits interact with deviant sexual arousal, lack of emotional control, or negative thought processes and intensify their respective impacts.

Summary of the Evidence on Hall and Hirschman's Quadripartite Model

Hall and Hirschman's theory is based on sound empirical research about the traits of sex offenders, including the use of cognitive distortions, the presence of poor impulse control, and problems with self-regulation of emotions and mood. Additionally, the notion that individual offenders display contrasting problems has empirical support. **Nevertheless, the theory has serious limitations.** One significant shortcoming is the failure of the theory to adequately explain the relationships that exist and interactions that take place among the theory's four etiological factors. Another shortcoming is the theory's inability to identify causal mechanisms behind each factor. A third is the theory's failure to explain how the factors function as motivations to abuse (Ward, 2000; Ward, Polachek, & Beech, 2006; Stinson, Sales, & Becker, 2008). Ward (2001) also argues that Hall and Hirschman seem to confuse typology with theory. (For an explanation of "Sex Offender Typologies," see chapter 3 in the Adult section.) Taken together, these shortcomings significantly limit the theory's etiological and clinical utility.

Ward and Siegart's Pathways Model

Ward and Siegert's Pathways Model attempts to combine the best of all of the integrated theories previously mentioned. The model suggests that a number of different pathways lead an individual to engage in sexually abusive behavior. Within each pathway is a unique set of factors that contribute to the problem of sexual abuse. The theory focuses primarily on the sexual abuse of children by adults.

Based on different symptom clusters, Ward and Siegert created five different causal pathways for the development of problematic and abusive sexual behavior:

1. The **intimacy deficit pathway** describes an offender who takes advantage of an opportunity to offend if a preferred sexual partner is not available. This offender has significant problems with intimacy and turns to sex to ease feelings of loneliness.

2. The **deviant sexual scripts pathway** suggests that sex offenders have distorted thought processes that guide their sexual and intimate behaviors. This involves a fundamental confusion between sex and intimacy as well as difficulty in determining when sexual contact is appropriate or desirable.

3. The **emotional deregulation pathway** is the primary cause of abusive sexual behavior with children. Offenders in this category demonstrate significant problems regulating emotional states. In this pathway, the offender experiences negative mood states that he or she is unable to manage.

4. The **antisocial cognition pathway** involves attitudes and beliefs supportive of criminal behavior. Such offenders have an antisocial lifestyle, a significant sense of entitlement, and little regard for the emotional and psychological needs of others. They commonly endorse cultural beliefs consistent with their offending lifestyle.

5. The **multiple dysfunctional mechanisms** pathway involves all symptom clusters associated with the previous pathways, with no single prominent feature among them.

In the pathways model, situational stressors serve as triggers to sexually abuse children. The specific triggers will vary according to the particular profile of causes underlying each individual's pathway. For example, for offenders who have distorted thought processes, the sexual need combined with the judgment that it is safe to abuse will result in a sexual offense. For an offender with deficits in emotional competence, intensely stressful situations can precede an offense (Ward, Polachek, & Beech, 2006).

Summary of the Evidence on Ward and Siegert's Pathways Model

This theory lacks a substantial evidential base. The data supporting the basic tenets came from other areas of psychology and there is little direct support from the sex offender research. It has also yet to be subjected to explicit evaluation. Additionally, there is no empirical justification for grouping offenders into separate categories. In fact, there is research to suggest that individuals in all five pathways share many of the same traits and they are not characteristic of only one pathway (Simon, 1997a, 1997b, 2002).

The theory also relies heavily on cognitive distortions related to deviant sexual attitudes and beliefs. However, similar to other cognitive theories, Ward and Siegert did not fully explain how an individual moves from a thought to a behavior. Nor did they address the origin of the symptom clusters or the role of each cluster. Finally, Ward and Siegert do not address the role of pedophilia in the sexual abuse of children. They mention that offenders experience deviant sexual arousal but do not explain the origin of this arousal. Rather, they focus on the psychological variables that interact with this arousal to result in sexual offending (Stinson, Sales, & Becker, 2008).

Nonetheless, the pathways model has a number of strengths. The model addresses some of the issues that have been empirically linked to sex offending behaviors. For example, problems with self-regulation of emotions and a sense of

entitlement have been shown to be associated with sex offending behavior, though not in a causal way. Perhaps the theory's greatest strength is its indepth description of the factors involved in sexual offending and the ability to unify promising aspects of other theories.

Malamuth's Confluence Model

The main idea behind Malamuth's Confluence Model is that two factors—sexual promiscuity and hostile masculinity—merge to result in sexually aggressive behavior. Sexual promiscuity is a preference for impersonal sex with many partners. A desire for intimacy through sex and the development of long-term relationships or monogamous sexual activity is lacking. The relevance of sexual promiscuity to sexually aggressive behavior is related to evolutionary theory. In short, natural selection has created fundamentally different psychological mechanisms in the brains of women and men with regard to sex and intimacy, resulting in the male's preference for short-term over long-term mating patterns. If men are adapted for sexual performance in impersonal contexts, then a disinterested or unwilling partner may fail to inhibit or may even entice sexual aggression.

Hostile masculinity involves dominating and controlling personality traits, particularly in regard to women. According to Malamuth's theory, it is in women's reproductive interest to withhold sex from insufficiently invested partners. Drawing on an earlier study that found that withholding sex angers men (Buss, 1998), Malamuth theorized that if a woman repeatedly withholds sex from a man, or does so at a developmentally significant time, the male may develop a chronically hostile interpersonal style. Thus, the male will be easily angered and resort to coercion and force to assert his dominance whenever he perceives that a woman is threatening his reproductive success (Malamuth, 1996).

Dean and Malamuth (1997) introduced a third component to the confluence model—the influence of a high-dominance, low-nurturance approach to interpersonal relationships. This personality style is distinguished by self-interested motives and goals, a lack of compassion or insensitivity, and little concern for potential harm to others (Malamuth, 1998). Malamuth suggested that the level of dominance or nurturance traits develops as a result of early childhood socialization and the incorporation of familial and cultural messages. Malamuth also believed the development of a dominant personality style was due in part to evolutionary processes (Dean & Malamuth, 1997; Malamuth, 1998).

Summary of the Evidence on Malamuth's Confluence Model

Research on the confluence model suggests that a number of important tenets of the theory are valid. For example, a relationship between dominance and sexual aggression has been documented empirically. There is also empirical evidence that those who use sexual coercion are more likely to endorse short-term mating strategies, and that hostile masculinity is related to negative attitudes toward women (Dean & Malamuth, 1997; Malamuth et al., 1995). Research has also found that men with self-interested motives are far more likely to act on aggressive thoughts than those with more compassion or empathy (Malamuth, 1998). **Still, the confluence model has limitations, many of which relate to the shortcoming of evolutionary theory,** including using animal models as a basis for modeling human behavior (Stinson, Sales, & Becker, 2008). Also, the confluence model does not take into consideration situational factors, emotional dysregulation, or strong cognitive rationalizations. These and other variables that may contribute to sexual aggression have not been considered in the confluence model, and their absence from the model has not been adequately explained.

Stinson, Sales, and Becker's Multimodal Self-Regulation Theory

Multimodal Self-Regulation Theory was recently introduced as an etiological explanation of sexual offending by Stinson, Sales, and Becker (2008). The theory integrates various psychological perspectives and implicates self-regulatory deficits as a key variable in the development of sexually inappropriate interests and behaviors. As part of the theory, Stinson, Sales, and Becker (2008) argue that significant self-regulatory deficits resulting from negative childhood experiences combine for the development of deviant sexual interest and

arousal. When certain biological and temperamental vulnerabilities are also present, the individual is unable to manage his or her behavior and sexual offending can result.

Key to this theory is the premise that sexual arousal becomes linked with a deviant or inappropriate stimulus at some early point in sexual development. This occurs through the mind's attempt to label the experience of sexual arousal and to associate a source with the arousal. Since this scenario is unlikely to occur on its own, other dynamics are necessary for the connection to occur. The individual would have to normalize the experience in some way and also lack other sources to achieve the same results. Stinson, Sales, and Becker (2008) suggested that behavioral conditioning in the development of abusive sexual behaviors also occurs, as sexual gratification coupled with a lack of corrective action helps to solidify the behavior. Over time, the reinforcing effects of these practices, combined with a lack of negative consequences, will contribute to the development of a deviant sexual interest. Stinson, Sales, and Becker (2008) also suggested that cognitive beliefs and personality traits could serve as mediators in the development of deviant sexual behaviors. These include egocentricity, a need for excitement and sensation, resentment and a sense of entitlement, impulsivity, and irresponsibility. Finally, external factors (e.g., parental support for violence against women) and the development of offense-supportive cognitive beliefs (e.g., a man's right to control a woman) solidify the behavior in the individual.

Summary of the Evidence on Stinson, Sales, and Becker's Multimodal Self-Regulation Theory

Given the relatively recent introduction of the **multimodal self-regulation theory, there is a paucity of empirical research regarding its validity.** However, **there is empirical support for many tenets of the theory,** including the roles that negative developmental experiences, cognitive distortions, and a lack of emotional control play in sexual offending. Still, some of the linkages hypothesized in the theory have been criticized for being implausible (a criticism the authors themselves acknowledge) because deviant sexual interests are not found among all sex offenders, making it difficult to generalize the theory to the larger sex offender population (Stinson, Sales, & Becker, 2008). Far more evaluative research needs to be undertaken before the validity and utility of the multimodal self-regulation theory can be determined.

Summary

The field of sex offender management has yet to find a clear explanation or cause for sexual offending behavior. Despite many unanswered questions, research has produced a number of important findings about the etiology of sexual offending:

1. No single factor or cause of sexual offending has yet been identified. Research suggests that a combination of factors likely contribute to sexual offending behavior.

2. Negative or adverse conditions in an individual's early development lead to poor attachment to others, particularly caregivers, and these conditions contribute to the development of sexual offending behaviors. These negative or adverse conditions may include sexual and/or physical abuse, as well as emotional neglect or absence.

3. Like other behaviors, sexual abuse appears to be a learned behavior. Further, the learning of sexually abusive behavior is influenced by reinforcement and punishment. If the perceived punishment for sex offending is sufficient, the behavior is less likely to occur. However, the specific punishments needed to mitigate sexual offending remain unclear, particularly in light of the cognitive distortions maintained by many sex offenders.

4. Many sex offenders have cognitive distortions or thinking errors, and these distorted thinking patterns appear to be involved in maintaining deviant sexual behavior. Many child victims of sexual assault who have thinking errors related to their own assault develop sexual offending behaviors as adults. These thinking errors often

parallel common myths about sexual assault (e.g., there's nothing wrong with it, no harm is done, the victim wants it and enjoys it).

5. Repeated exposure to sexually violent pornography may contribute to hostility toward women, acceptance of rape myths, decreased empathy and compassion for victims, and an increased acceptance of physical violence toward women. Positive reinforcement for the behavior, coupled with thinking errors, increases the likelihood that these beliefs will lead to sexually abusive behaviors.

6. Sex offenders appear to have a problem with self-regulation of emotions and moods as well as with impulse control. Self-regulation and impulse control problems both appear to be related to sexual offending behavior. However, a causal relationship has not been clearly established.

7. Men who use sexual coercion are more likely to engage in short-term relationships and maintain negative attitudes toward women. Men with self-interested motives are more likely to act on aggressive thoughts than those with more compassion or empathy.

It also should be noted that other etiological variables that are not addressed in this chapter have been linked to sexual offending. These include alcohol and drugs, domestic violence, and mental illness. These variables have been found to be factors in sex offending in some cases; however, there is no scientific evidence that any of these factors are the cause of sexual violence. In addition, there is evidence that some individuals who are already prone to sexual offending behavior become more likely to engage in that behavior when certain situational factors or variables are present. These factors may include limited intellectual functioning, the use of alcohol or drugs, stress within the family/home, or loss of a relationship or job. **These situational factors, however, do not cause the sexual offending behavior but may increase the likelihood that it will occur in an individual who is already prone to the problem.**

"There is no simple answer to the question of why people engage in sexual offending behavior. The problem of sexual offending is too complex to attribute solely to a single theory. Multifactor theories provide greater insight into the causes of sexual offending."

Although numerous theories concerning the etiology of sexual offending have been proposed and empirically tested, knowledge about the causes of sexual offending remains somewhat rudimentary. This is due, at least in part, to two sets of factors—one related to etiological research and the other to etiological theories themselves. Two major, overwhelming shortcomings are noted from this review of the literature: the problem of sampling used in the research and a lack of intersection and balance among the different theoretical perspectives.

Much of the etiological research undertaken to date is based on populations of sex offenders who are either in treatment, in prison, or both. This is problematic because the evidence is clear that many sex offenders are never identified by authorities; hence, these studies generally represent a very small percentage of individuals who engage in sexually aggressive or abusive behavior. Many etiological studies also rely on data self-reported by sexual offenders. Because sex offenders are commonly known to engage in cognitive distortions, the validity of their self-reporting remains questionable. There may also be incentives for cooperation in treatment, such as reduced sentencing. Offenders who deny their offenses altogether typically are not included in research. Because many perpetrators who engage in sexually aggressive and abusive behaviors deny it, this implies that a large percentage of the population is ignored in research.

Equally important is the propensity of etiological theories to focus on explanations for sexual offending that reside within the individual. Most etiological theories are steeped in the traditional

scientific fields of biology, psychology, and psychiatry. Hence, the focus largely has been on psychopathological and cognitive-behavioral causes of sex offending. These perspectives, in turn, have strongly influenced policy debates regarding sex offender management and intervention. Few of the integrated theories that have been proposed consider the ways in which social structures and cultural phenomena contribute to sexual offending behavior. Some theories acknowledge situational and environmental factors as related variables or mediators, but the overwhelming emphasis is related to problems within the individual. Consideration of a broader range of theoretical perspectives may be necessary to understand and effectively combat sexual offending behavior. **Ending sexual violence may require knowledge and change at the individual, social, and institutional levels.**

Several other dynamics identified in etiological research warrant further study. They include:

1. Early maltreatment in childhood development and its impact on attachment.

2. The role of distorted thinking, how thinking errors originate, and why some individuals act on these thoughts and others do not.

3. How sexual behavior is learned and, more specifically, the role of punishment (e.g., what punishment is most effective, when and how punishment should be administered) and reinforcement (including the lack of reinforcement for nonoffending sexual behaviors).

4. The impact of sexually violent and exploitive images in the culture, not only in pornography but also in advertising, videos, and music (among others).

Because much of the etiological research undertaken to date is retrospective in nature, there is a clear need for prospective, longitudinal research, particularly to explore antecedents to sex offending and changes in sexually aggressive behavior over time. Efforts to employ samples that are more representative of the range of individuals who commit sex crimes also are needed, along with studies that include samples of nonoffenders and studies that incorporate the experiences of victims. Victims—both female and male—could contribute valuable information about offender motivations and behaviors through detailed disclosures of their interactions with offenders. This would also allow more opportunity to include the experiences of female victims, as opposed to the current focus on male victims who become sexual abusers. Rather than focusing on why some male victims go on to abuse others, perhaps it is time to ask why most victims, particularly females, do not go on to engage in offending behavior. Including family members associated with the offender could be useful as well. More research into the area of gender relations within the culture is also merited. **There also is a need for further study regarding the integration of theories and the ways that different factors involved in sexual offending relate to one another. This need was identified by the national experts at the SOMAPI forum.** Success in this area, however, requires more openness and collaboration among researchers with different theoretical perspectives and less loyalty to a particular focus or field of study.

Notes

1. This chapter does not distinguish between offenders who sexually abuse adults and those who sexually abuse children. However, when a theory focuses specifically on one of those populations, it is noted in the discussion. In addition, this chapter does not present research findings on the etiology of sexual offending perpetrated by juveniles. (For that discussion, see chapter 2, "Etiology and Typologies of Juveniles Who Have Committed Sexual Offenses," in the Juvenile section.)

2. Feminist theorists argue that all pornography is violent because it is based on the sexual exploitation and degradation of women.

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Chapter 3: Sex Offender Typologies

by Dominique A. Simons

Introduction

Sexual violence remains a serious social problem with devastating consequences. However, scarcity of resources within the criminal justice system continues to impede the battle against sexual violence. The challenge of "making society safer" not only includes the need for resources, but also requires a comprehensive understanding of accurate offense patterns and risk. (For a discussion of adult "Sex Offender Risk Assessment," see chapter 6 in the Adult section.) This knowledge may be used to devise offense typologies, or classification systems, that will inform decisions regarding investigation, sentencing, treatment, and supervision. (For more on "Effectiveness of Treatment for Adult Sex Offenders," see chapter 7 in the Adult section.)

Although other typologies exist, this chapter only includes the classification systems that have been empirically derived and validated. Two empirically validated typologies—Massachusetts Treatment Center: Child Molester Version 3 (MTC: CM3) and Rapist Version 3 (MTC: R3) (Knight & Prentky, 1990)—were not included because some researchers (e.g., Barbaree et al., 1994; Camilleri & Quinsey, 2008; Hudson & Ward, 1997) have questioned their clinical utility.[1]

The crossover offending section encompasses more than 25 years of research using different methodologies and populations. Although not considered a classification system due to the dynamic nature of the offense pathways, the self-regulation model (SRM) was reviewed due to its clinical utility and relationship to risk. SRM has been validated using several offender populations and methodologies. Due to the limited scope of this chapter, this review focuses on adult sexual offenders, although some juvenile studies are included, where relevant. (For a discussion of "Etiology and Typologies of Juveniles Who Have Committed Sexual Offenses," see chapter 2 in the Juvenile section.)

Summary of Research Findings

Traditional Typologies

The majority of theories regarding sexual deviance postulate that sexual offenders specialize in types of victims and/or offenses (Simon, 1997). Researchers have developed specific classification-unique offender characteristics (Knight & Prentky, 1990; Simon et al., 1992). Most of these typologies imply

that victimization (i.e., who is a potential victim) is linked to the specific type of sexual offender (e.g., rapists sexually assault adults/peers, child sexual abusers sexually assault children).

Traditional typologies have been developed to provide a comprehensive understanding of deviant sexual behaviors required for treatment intervention and effective supervision. However, classifying sexual offenders has been shown to be problematic. Sexual offenders exhibit heterogeneous characteristics, yet they present with similar clinical problems or criminogenic needs (e.g., emotional regulation deficits, social difficulties, offense supportive beliefs, empathy deficits, and deviant arousal); the degree to which these clinical issues are evident varies among individual offenders (Ward & Gannon, 2006). Overall, traditional typologies have demonstrated considerable problems, as indicated by inadequate definitions and inconsistent research findings. In addition, most of the typologies have failed to address treatment issues and to predict recidivism (Camilleri & Quincy, 2008; Knight & Prentky, 1990). (For information on "Adult Sex Offender Recidivism," see chapter 5 in the Adult section.) This section reviews the most frequently used and empirically tested sex offender typologies for child sexual abusers, rapists, female offenders, and Internet sexual offenders.

Child Sexual Abusers

Finkelhor (1984) provides the most comprehensive definition of child sexual abuse—child sexual abuse is the use of force/coercion of a sexual nature either when the victim is younger than age 13 and the age difference between the victim and the perpetrator is at least 5 years, or when the victim is between 13 and 16 and the age difference between the victim and perpetrator is at least 10 years. In this definition, coercion does not necessarily imply a direct threat. Child sexual abusers often develop a relationship with a child to manipulate him or her into compliance with the sexual act, which is perhaps the most damaging component of child sexual abuse (John Jay College, 2004). Indeed, a defining feature of child sexual abuse is the offender's perception that the sexual relationship is mutual and acceptable (Groth, 1983).

Differences Between Child Sexual Abusers and Rapists

Child sexual abusers have been difficult to classify as they vary in economic status, gender, marital status, ethnicity, and sexual orientation. Child sexual abusers are often characterized as exhibiting poor social skills, having feelings of inadequacy or loneliness, or being passive in relationships (Groth, 1979; Marshall, 1993). They differ from rapists with respect to thought processes and affect, and often describe their offending behaviors as uncontrollable, stable, and internal, whereas rapists attribute their offenses to external, unstable, and controllable causes (Garlick, Marshall, & Thorton, 1996). Child sexual abusers display deficits in information-processing skills and maintain cognitive distortions to deny the impact of their offenses (e.g., having sex with a child is normative; Hayashino, Wurtele, & Klebe, 1995). In contrast, rapists display distorted perceptions of women and sex roles, and often blame the victim for their offense (Polaschek, Ward, & Hudson, 1997). With respect to affect, child sexual abusers assault to alleviate anxiety, loneliness, and depression. Rapists typically assault as a result of anger, hostility, and vindictiveness (Polaschek, Ward, & Hudson, 1997). Many of these characteristics have been incorporated into the typologies of rapists and child sexual abusers (Camilleri & Quinsey, 2008; Groth, 1979; Knight & Prentky, 1990).

Pedophilic and Nonpedophilic Distinction

The most important distinction among child sexual abusers is whether they are pedophilic or nonpedophilic, because pedophilia is a strong predictor of sexual recidivism (Hanson & Bussiere, 1998). **Not all individuals who sexually assault children are pedophiles. Pedophilia consists of a sexual preference for children that may or may not lead to child sexual abuse (e.g., viewing child pornography), whereas child sexual abuse involves sexual contact with a child that may or may not be due to pedophilia** (Camilleri & Quinsey, 2008). According to the Diagnostic and Statistical Manual of Mental Disorders, 4th Edition, Text Revision (American Psychiatric Association, 2000), a diagnosis of pedophilia requires an individual to have recurrent, intense, and sexually arousing fantasies, urges, or behaviors directed toward a prepubescent

child over a period of at least 6 months; to have acted on these urges or to be distressed by them; and to be at least 16 years old and at least 5 years older than the child victim.

Types of Child Sexual Abusers

One of the first typologies was formulated from the delineation of pedophilic and nonpedophilic child sexual abuse. Groth, Hobson, and Gary (1982) classified child sexual abusers based on the degree to which the sexual behavior is entrenched and the basis for psychological needs (fixated-regressed typology). The fixated offender prefers interaction and identifies with children socially and sexually (Simon et al., 1992). These individuals often develop and maintain relationships with children to satisfy their sexual needs (Conte, 1991). In contrast, regressed child sexual abusers prefer social and sexual interaction with adults; their sexual involvement with children is situational and occurs as a result of life stresses (Simon et al., 1992). The majority of fixated child sexual abusers are individuals who sexually assault male children who are not related; regressed child sexual abusers often consist of incest offenders or offenders who sexually assault female adolescents (Priest & Smith, 1992). The fixated-regressed typology has been incorporated into the current models of sexual offending (e.g., self-regulation model; Ward & Hudson, 1998, 2000) discussed later in this chapter.

Victim Characteristic Distinction

Of the traditional models, the victim gender-relationship typology is the only model that has demonstrated clinical utility because it accounts for much of the variability in child sexual abuse, addresses treatment issues, and is related to recidivism (Camilleri & Quinsey, 2008). The gender of the victim remains an important distinction among child sexual abusers because this factor has been shown to be a strong predictor of sexual reoffense (Hanson & Bussiere, 1998), although exactly what can be predicted is unclear. One study showed that male child sexual abusers who assault males are twice as likely to recidivate in comparison to offenders who abuse females (Quinsey, 1986). Yet, contradictory findings have also been reported in the literature. Several studies found that child sexual abusers who sexually assault females report over twice as many victims as same-sex child offenders (Abel et al., 1981). More recent studies have shown that mixed-gender child sexual abusers reported the highest number of victims and offenses (Simons & Tyler, 2010) and the highest rates of risk for reoffense (Abel et al., 1988). However, small sample sizes have limited the extensive investigation of this group.

"Extrafamilial child sexual abusers are more likely to be diagnosed with pedophilia and are often unable to maintain adult relationships."

Within this typology, child sexual abusers are also categorized based on their relationship to the victim (i.e., intrafamilial or extrafamilial). According to Rice and Harris (2002), intrafamilial child sexual abusers (i.e., incest offenders) are less psychopathic, less likely to report male victims, cause less injury, are less likely to exhibit pedophilia, and have lower sexual and violent recidivism rates. Extrafamilial child sexual abusers are more likely to be diagnosed with pedophilia and are often unable to maintain adult relationships (Prentky et al., 1989). Although intrafamilial child sexual abusers substitute a child for an adult sexual partner, they often maintain their adult sexual relationships (Miner & Dwyer, 1997). Studies have reported that intrafamilial child sexual abusers have fewer victims as compared to extrafamilial sexual offenders (Miner & Dwyer, 1997). However, these studies relied on official records (i.e., criminal convictions) and do not take into account the possibility that many incest offenders may have undisclosed victims to whom they are not related. Nonetheless, the gender/relationship typology is the most frequently used and researched typology of child sexual abusers.

Rapists

In comparison to child sexual abusers, rapists are more likely to be younger, to be socially competent, and to have engaged in an intimate relationship (Gannon & Ward, 2008). Rapists differ from child sexual abusers in that they tend to be of lower socioeconomic status and are more likely to abuse substances and exhibit a personality disorder

(e.g., antisocial disorder) or psychosis (Langstrom, Sjostedt, & Grann, 2004). In addition, rapists often display the following criminogenic needs: intimacy deficits, negative peer influences, deficits in sexual and general self-regulation, and offense-supportive attitudes (e.g., justification of the sexual offense and feelings of entitlement in relation to the expression of a strong sexual desire) (Craissati, 2005).

Rapists and Violent Offenders

Rapists have been found to have a greater number of previous violent convictions, and they tend to use greater levels of aggression and force than child sexual abusers (Bard et al., 1987). Likewise, rapists are more likely to reoffend violently rather than sexually. A meta-analysis conducted by Hanson and Bussiere (1998) found that of 1,839 rapists, 19 percent (n = 349) sexually recidivated and 22 percent (n = 405) violently recidivated over an average followup of 5 years.[2] The researchers assessed recidivism from several studies that reported the commission of another sex crime (e.g., rape) or violent crime (e.g., assault) through reconviction records (84 percent), arrest records (54 percent), self-reports (25 percent), and parole violation records (16 percent).[3] They caution that these findings are based on diverse methods and followup periods.

Rapists have been shown to resemble violent offenders or criminals in general. Similar to violent offenders, Simon (2000) found that rapists displayed significant diversity in their offense records in comparison to child sexual abusers and had committed equivalent proportions of drug-related offenses, thefts, and burglaries. Harris, Mazerolle, and Knight (2009) suggest that rape can be explained by the general theory of crime. Rapists are versatile criminals who engage in many different types of crime over time; sexual offending reflects only one manifestation of an underlying antisocial condition (Gottfredson & Hirschi, 1990).

Types of Rapists

The majority of traditional rapist typologies have focused on the relationship to the victim, degree of aggression, motivation, sexual versus nonsexual nature of the assault, and degree of control (impulsive vs. planned). Like child sexual abusers, rapists are often classified by their relationship to the victim (i.e., stranger vs. acquaintance). Seventy-three percent of rapists know their victims (Bureau of Justice Statistics, 2012). Acquaintance rapists are characterized as coercive, less violent, and less opportunistic than stranger rapists (Bruinsma, 1995). In contrast, stranger rapists are more hostile and use more expressive violence (i.e., inflicting pain or injury as the goal itself) toward women (Polaschek, Ward, & Hudson, 1997).

"Rapists have been shown to resemble violent offenders or criminals in general.

Acquaintance rapists are less violent and opportunistic than stranger rapists, who are more hostile and use expressive violence."

Rapists have also been classified based upon motivational characteristics. Groth (1979) created a typology based upon the degree of aggression, the underlying motivation of the offender, and the existence of other antisocial behaviors, which resulted in four types of rapists. The power-reassurance or sexual-aim rapist is characterized by feelings of inadequacy and poor social skills and does not inflict injury upon his victims (National Center for Women and Policing, 2001). The violence used by the power-reassurance rapist is only sufficient to achieve the compliance of the victim or to complete the sexual act. Such an individual may perceive that the victim has shown a sexual interest in him, or that by the use of force the victim will grow to like him (Craissati, 2005). The power-assertive or antisocial rapist is impulsive, uses aggressive methods of control, and abuses substances. His sexual assaults are often unplanned and he is unlikely to use a weapon (Groth, 1979). The third type of rapist is the anger-retaliation or aggressive-aim rapist, who is motivated by power and aggression. This individual sexually assaults for retaliatory reasons and often degrades or humiliates the victim.

The fourth type is the sadistic rapist, who reenacts sexual fantasies involving torture or pain. Sexual sadism is defined as the repeated practice of cruel sexual behavior that is combined with fantasy and characterized by a desire to control the victim (MacCullock et al., 1983). This type is characterized by extensive planning and may often result in sexual murder (Groth, 1979). Although it has been reported in only 5 percent of rapists (see Craissati, 2005, for a review), sexual sadism has consistently been shown as a strong predictor of both sexual and violent recidivism (Hanson & Morton-Bourgon, 2005).

Although inherently useful for research purposes, these traditional rapist typologies demonstrate little clinical utility because they exclude the irrational cognitions (i.e., offense-supportive beliefs) displayed by most men who commit rape (Hudson & Ward, 1997).

Female Sexual Offenders

Differences between male and female sexual offenders are identified in the literature. In contrast to male sexual offenders, female offenders are more likely to sexually assault males and strangers (Allen, 1991). Studies have also shown that female sexual offenders are less likely than male sexual offenders to sexually reoffend (Freeman & Sandler, 2008). For example, Cortoni and Hanson (2005) found a female sexual recidivism rate of 1 percent over a 5-year average followup period with a sample of 380 females. Yet the most evident distinction between male and female offenders is that female offenders are more likely to sexually assault with another person or group (i.e., co-offenders). In a sample of 227 female sexual offenders, Vandiver (2006) found that 46 percent offended with another person and the majority of these co-perpetrators were male (71 percent), 62 percent offended with one individual, and 38 percent offended within a group. Studies have differentiated female co-offending according to whether the female participated in an active or passive role (Grayston & De Luca, 1999; Nathan & Ward, 2002). Females who take an active role in the abuse engage in direct sexual contact with the victim. Females who participate passively do not engage in direct sexual contact; instead, these women may observe the abuse but not intervene, procure victims for others to sexually assault, or expose children to pornography or sexual interaction (Grayston & De Luca, 1999).

"Typologies of female offenders include the co-offender and the teacher lover/heterosexual nurturer."

Recently, more extensive typologies of female sexual offending have been developed to summarize these female offense characteristics (Matthews, Mathews, & Speltz, 1991; Nathan & Ward, 2002; Vandiver & Kercher, 2004). Most of the typologies differentiate female offenders based on the presence of a co-offender, the age of the victim, and the motivation for the offense. Females who co-offend with a male (i.e., accompanied abusers) have been described as emotionally dependent, socially isolated, and displaying low self-esteem (Matthews, Mathews, & Speltz, 1991; Nathan & Ward, 2002). These individuals are further differentiated based on the use of coercion by the accomplice. Female offenders coerced into sexual offending are motivated by fear and dependence upon the co-offender (Matthews, Mathews, & Speltz, 1991). Although they initially perpetrate under duress, some later initiate the abuse on their own (Saradjian & Hanks, 1996). These females have been shown to report a history of childhood sexual and physical abuse. Female offenders who accompany a male co-offender and take an active role in the abuse have been shown to be motivated by jealousy and anger and often offend in retaliation (Nathan & Ward, 2002).

Female offenders who sexually abuse alone (i.e., self-initiated abusers) are differentiated based upon age of the victim and motivation for the offense (Nathan & Ward, 2002). One typology, the teacher lover/heterosexual nurturer, describes female offenders who sexually abuse adolescent boys within the context of an acquaintance or position–of-trust relationship (Matthews, Mathews, & Speltz, 1991; Vandiver & Kercher, 2004). These females exhibit dependency needs and often abuse substances. They are less likely to report severe child maltreatment; instead, their sexual abuse behaviors often result from a dysfunctional adult relationship and attachment deficits. Female offenders within this category attempt to meet intimacy and/or sexual needs through sexual offending.

Self-initiated female offenders who sexually assault prepubescent children, and who are also referred to as predisposed offenders, have been shown to display significant psychopathologies (Matthews, Mathews, & Spletz, 1991). They are more likely than other female offenders to display symptoms of posttraumatic stress disorder (a serious psychological condition that occurs as a result of experiencing a traumatic event) (Foa, Keane, & Friedman, 2000) and depression. These female offenders report extensive physical and sexual abuse by caregivers. Researchers contend that they are often motivated by power (i.e., to reenact their childhood trauma, this time as the aggressor) and sexual arousal.

Recently, additional typologies have been added to describe female offenders who sexually assault adult or postpubescent females (Vandiver & Kercher, 2004). Female offenders who engage in the exploitation or forced prostitution of other females have been reported to be motivated by financial gain. These individuals also have higher number of arrests for nonsexual crimes. Female offenders who themselves sexually assault other female adults often offend within an intimate relationship as a form of domestic violence (i.e., aggressive homosexual offenders). They are motivated to assault out of anger, retaliation, and jealousy.

"To reduce the incidence and prevalence of sexual violence in the future, there remains a need for etiological research to provide an empirical basis for treatment interventions."

Although these female typologies are useful to describe offense characteristics, they (like the male typologies) do not provide a theoretical framework for the etiology of sexual offending (Logan, 2008). (For a discussion of the "Etiology of Adult Sexual Offending," see chapter 2 in the Adult section.) To reduce the incidence and prevalence of sexual violence in the future, there remains a need for etiological research to provide an empirical basis for treatment interventions for female offenders.

Internet Offenders

The widespread availability of pornography on the Internet has facilitated the development and maintenance of sexual deviance (Delmonico & Griffin, 2008; Quayle, 2008). The Internet has been used as a vehicle for child sexual abuse in at least three ways: viewing pornographic images of children, sharing pornographic images of children, and luring or procuring child victims online (Robertiello & Terry, 2007). Individuals download pornographic pictures of children to aid arousal and masturbation, as a collecting activity, as a way of facilitating social relationships, and as a substitute for child sexual contact (Quayle & Taylor, 2003).

"Internet offender typologies: impulsivity/curiosity, fueling sexual interests, accessing victims/disseminating images, seeking financial gain."

In comparison to child sexual abusers, Internet child pornography offenders reported more psychological difficulties in adulthood and fewer sexual convictions (Webb, Craissati, & Keen, 2007). In this study of 90 Internet offenders and 120 child sexual abusers (Webb, Craissati, & Keen, 2007), Internet offenders were more likely to succeed in the community (4 percent characterized as failures) and less likely to engage in sexually risky behaviors (14 percent) as compared to child abusers (29 percent and 26 percent, respectively). Formal failure was defined by reconviction, violation, and return to prison. With respect to demographics, the majority of offenders are male, younger than other sexual offenders, and likely to be of white European descent (Webb, Craissati, & Keen, 2007; Quayle, 2008; Seto, Hanson, & Babchishin, 2011). In a recent meta-analysis, Seto, Hanson, and Babchishin (2011) reported that in a sample of 2,630 online offenders, 4.6 percent recidivated sexually after an average followup period of 4 years. Likewise, of 983 online offenders, 4.2 percent recidivated with a violent offense. With respect to risk factors, Seto and Elke (2008) reviewed Canadian police files of 282 child pornography offenders to examine sexual contact

and predictors of recidivism; 10.3 percent of the sample sexually recidivated and 6.6 percent violently recidivated. Researchers reported substance abuse and criminal history predicted future contact sexual offenses; self-reported sexual interest in children, criminal history, and substance use problems predicted future violent offending among child pornography offenders.

Several typologies have been created to categorize Internet offenders. In their review of Internet offenders, Beech and colleagues (2008) summarized these typologies into four groups. The first group consists of individuals who access pornographic images impulsively and/or out of curiosity. This group includes those who never exhibited sexual problems until they discovered the Internet (Delmonico & Griffin, 2008). The second group is composed of individuals who access or trade pornography to fuel their sexual interest in children (Beech et al., 2008). For these individuals, the Internet facilitates an extension of an already existing pattern of sexual deviance (Delmonico & Griffin, 2008). The third group consists of sexual offenders who use the Internet as part of a pattern of offline contact offending, including those who use it to acquire victims and/or disseminate images that they produce (Beech et al., 2008; Delmonico & Griffin, 2008). The fourth group consists of individuals who download pornographic images for nonsexual reasons (e.g., financial gain). To date, studies have not examined the personality characteristics, criminogenic needs, or risk factors of these offenders. In addition, it is not known if these offenders are pedophiles and whether they view pornographic images more than the general population (Quayle, 2004).

For more on "Internet-Facilitated Sexual Offending," see chapter 4 in the Adult section.

Limitations of Traditional Typologies: Crossover Offending

Traditional typologies rely on an official record and/or self-report data. Over 25 years of research (including victim and offender studies) have shown that only 1–3 percent of offenders' self-admitted sexual offenses are identified in official records (Abel et al., 1988; English et al., 2003; Heil, Ahlmeyer, & Simons, 2003; Tjaden & Thoennes, 2006). These studies reported a "crossover effect" of sex offenders admitting to multiple victims and offenses atypical of criminal classification. Specifically, studies (e.g., Abel et al., 1988; English et al., 2000; Heil, Ahlmeyer, & Simons, 2003; O'Connell, 1998) have shown that rapists often sexually assault children and incest offenders often sexually assault children both within and outside their family. These findings are consistent among populations (e.g., community, prison, parole, probation) and methodologies (e.g., guaranteed confidentiality, polygraph testing). This section reviews the evidence of crossover offending, which challenges the validity of traditional sex offender typologies (those that are based on a known victim type).

"Crossover offending presents significant challenges to traditional sex offender typologies."

Despite differences in location and supervision status of offenders, crossover offending has been reported in studies using guaranteed confidentiality, anonymous survey, or treatment with polygraphy[4] (Abel et al., 1988; Emerick & Dutton, 1993; English et al., 2003; Heil, Ahlmeyer, & Simons, 2003; O'Connell, 1998; Simons, Heil, & English, 2004; Weinrott & Saylor, 1991; Wilcox et al., 2005). The findings indicate that offenders, on average, admit significantly more victims and offenses than are documented in official records. Using polygraph testing combined with treatment, Heil, Ahlmeyer, and Simons (2003) examined offense patterns of 223 incarcerated and 266 paroled sex offenders. This study found that the average number of victims reported in official records (2 for incarcerated offenders and 1 for paroled offenders) increased to 18 and 3, respectively, after polygraph testing. The average number of offenses reported in official records increased from 12 for incarcerated offenders and 3 for paroled offenders to 137 and 14 respectively, after polygraph testing.

These studies have also demonstrated that male sexual offenders engage in crossover sexual offending at higher rates than reported in other studies (e.g., Guay et al., 2001; Marshall, Barbaree, & Eccles, 1991; Smallbone & Wortley, 2004). Age

crossover (i.e., victimizing both children and adults) ranged from 29 to 73 percent (Simons, Heil, & English, 2004; Wilcox et al., 2005). Of further interest is the high percentage of official record-identified rapists who admit child sexual victimization. Studies have reported prevalence rates from 32 to as high as 64 percent; the majority of studies found rates in the range of 50 to 60 percent (Abel & Osborn, 1992; English et al., 2000; Heil, Ahlmeyer, & Simons, 2003; O'Connell, 1998; Wilcox et al., 2005). With respect to gender crossover (i.e., victimizing both males and females), findings have been relatively consistent and range from 20 to 43 percent (Abel & Osborn, 1992; English et al., 2000; Heil, Ahlmeyer, & Simons, 2003). The majority of offenders who assault males have also assaulted females (63–92 percent), but not the reverse (23–37 percent). With respect to relationship crossover, studies have shown that 64–66 percent of incest offenders report sexually assaulting children who they were not related to (Abel and Osborn, 1992; English et al., 2000; Heil, Ahlmeyer, & Simons, 2003).

Heil, Simons, and Burton (2010) reported similar findings with respect to offense patterns among female sexual offenders. Using polygraph testing, Simons and colleagues (2008) examined the offense patterns of incarcerated female sex offenders and female sex offenders who had been released in the community. The sample consisted of 74 incarcerated adult female sexual offenders and 22 female sexual offenders in the community who were under supervision at the Colorado Department of Corrections (CDOC). All participants received cognitive-behavioral treatment. Offense patterns disclosed during treatment with polygraph testing revealed similar findings to those of male offenders. Female sexual offenders reported more extensive offense patterns (i.e., number of victims and offenses, crossover offending) than otherwise indicated by their criminal history.

Simons and colleagues (2008) demonstrated that the average number of victims—reported in official records as one for both incarcerated offenders and offenders in the community—increased to four and three, respectively, after polygraph testing. The average number of offenses increased from 33 for incarcerated offenders and 5 for offenders in the community to 44 and 13, respectively. In comparison to female sexual offenders in the community, incarcerated female sexual offenders reported significantly more offenses, but these groups were comparable in the number of victims. After polygraph testing, 21 percent of incarcerated females and 11 percent of female offenders in the community reported age crossover (i.e., offending against children and adults). Both incarcerated offenders (30 percent) and those in the community (21 percent) disclosed relationship crossover (i.e., offending against individuals from more than one relationship). This study indicates that female sexual offense patterns may be less extensive than those of male sexual offenders. Nonetheless, this research indicates that female offenders report poor sexual boundaries regarding illegal behaviors and they also disclose legal, but sexually problematic, behaviors. In addition, female offenders were more likely to co-offend than male offenders. Based on polygraph testing, these co-offenses were seldom coercive and the majority of women sexually assaulted alone either before or after the co-offense.

Polygraph testing has also recently been used to distinguish Internet offenders who commit "hands-on" child sexual assault from those who do not attempt physical sexual contact. Some Internet sex offenders do not attempt physical contact or engage in hands-on sexual offending (e.g., Surjadi et al., 2010; Quayle & Taylor, 2003; Webb, Craissati, & Keen, 2007). This classification is important because those individuals who view or download child abuse images but do not have inappropriate contact with children may not pose a direct threat. A recent meta-analysis examined the prevalence of child sexual abuse among Internet offenders. Seto, Hanson, and Babchishin (2011) reviewed 24 studies and found that 12.5 percent of Internet offenders engaged in hands-on offending as indicated by official records; however, this rate increased to approximately 50 percent using self-report. In this meta-analysis, only one study used polygraph testing to verify the self-report. Bourke and Hernandez (2009) demonstrated significant increases in the number of previously undisclosed victims, offenses, and paraphilic interests when self-report is corroborated through polygraph examination. Using polygraph testing, these researchers examined the

prevalence of hands-on sexual offending among 155 Internet child pornography offenders. Prior to testing, 74 percent (n = 115) of the Internet offenders had no known sexual contact with children. After polygraph examination, 85 percent of 155 (n = 132) offenders disclosed hands-on sexual abuse. These findings suggest that crossover to hands-on offending may be more prevalent among Internet offenders and further support the use of the polygraph to classify offenders. However, additional research is needed in this area due to the limitations of this study. The sample consisted of volunteers and the majority reported hands-on offenses prior to Internet pornography use. Future research should differentiate between those who view pornography and later commit sexual abuse from those who use pornography as a supplement to or a substitute for sexual contact. (For more on "Internet-Facilitated Sexual Offending," see chapter 4 in the Adult section.)

"The interaction of biological and social learning factors influences the development of sexual offending."

Taken together, crossover findings suggest that traditional typologies based on victim type may not be useful to allocate resources, evaluate risk, or devise individualized treatment interventions. Although crossover findings have been reported in numerous studies using different methodologies, some suggest that the prevalence of age crossover or multiple paraphilias is overstated, particularly in studies that use polygraph testing. Kokish, Levenson, and Blasingame (2005) report that 5 percent of individuals stated that they provided false admissions in response to a deceptive result on a polygraph exam. In addition, Marshall (2007) contends that very few sexual offenders commit more than one type of offense.

Accurate self-reporting of victim and offense information remains critical for risk assessment. According to Gannon, Beech, and Ward (2008), when offense crossover is disclosed, assigned risk level increases because child sexual abuse of males (i.e., gender crossover), impulsivity and regulation deficits (as suggested by age crossover), and stranger victims (i.e., relationship crossover) are shown to be significantly associated with sexual recidivism (Hanson & Morton-Bourgon, 2004). To address the issue of heterogeneity and crossover offending with respect to offender typologies, researchers (e.g., Robertiello & Terry, 2007) have suggested that the best way to regard typologies is as a continuum rather than discrete categorizations, and they emphasize the importance of classifying offenders based on characteristics that have been shown to be related to recidivism.

Recent Advances in the Development of Sexual Offense Patterns

Recent models of the sexual offense process have been devised to include etiological theories of sexual offending and treatment-relevant factors. Assessment, classification, and treatment should be formulated from rehabilitation theories, which are integrative practice frameworks that contain elements of etiology, ethics, and research (Ward, Yates, & Willis, 2011). They are based on clusters of behaviors and psychological processes to account for the heterogeneity of offending. The most promising models are the developmental pathways of sexual offending model, the self-regulation model, and the specialist vs. generalist model. These models take into account problematic behaviors, distorted thought processes, and offense histories. Developmental factors have been shown to be predictive of high-risk sexual behaviors, treatment failure, and dynamic risk (Craissati & Beech, 2006), and the self-regulation model has been shown to be associated with static and dynamic risk for reoffense (Yates & Kingston, 2006; Simons et al., 2009). The generalist theory of crime (Gottfredson & Hirshi, 1990) has also been examined in sexual offender research (e.g., Lussier, Proulx, & LeBlanc, 2005). **Similar to crossover findings, studies have shown that few sexual offenders "specialize" in sexual offending** (Harris, Mazerolle, & Knight, 2009; Lussier, Proulx, & LeBlanc, 2005). Specialization has been associated with child sexual abusers who sexually prefer children, while rape has been associated with criminal versatility (Harris, Mazerolle, & Knight, 2009). This section reviews models that may ultimately replace traditional typologies to inform treatment and management of sexual offenders. (For more on "Sex Offender Management Strategies," see chapter 8 in the Adult section.)

Developmental Histories of Sexual Offenders

Due to advanced statistical methods that evaluate the unique and combined contributions of risk factors, more comprehensive descriptions of the psychological processes, developmental histories, and offense patterns have been devised to explain sexual deviance. Although they are not described as typologies, they have been shown to be related to different trajectories of offending and they are able to identify criminogenic needs, which have been shown to be predictive of sexual recidivism (Craissati & Beech, 2006).

Etiological research has suggested that it is the interaction of biological and social learning factors that influences the development of sexual offending behaviors (Ward & Beech, 2008). Researchers explain that genetic factors may predispose an individual to pursue a specific human need (e.g., sex or intimacy), but it is the environmental experiences that provide the methods through which these needs are met—either appropriately through the development of relationships or inappropriately through the use of violence (Ward & Beech, 2008). Negative developmental experiences figure prominently in many models of sexual offending behavior. Indeed, a recent meta-analysis has confirmed the association between the experience of sexual abuse and subsequent sexual offending against children (Jespersen, Lalumiere, & Seto, 2009). Yet, not all sexual offenders report being sexually victimized during childhood. Recent findings indicate that there may not be only one type of abuse that serves as a developmental risk factor for later sexual offending. Instead, multiple types of abusive experiences, or a pathological family environment, may precede offending behaviors (Dube et al., 2001). **Researchers have also suggested that different types of maltreatment may be associated with different types of sexual offending behaviors** (e.g., Lee et al., 2002; Simons, Wurtele, & Heil, 2002). This section reviews the current research findings that compare the developmental risk factors of various offender characteristics.

Child Sexual Abusers

Researchers have found that child sexual abusers exhibited heightened sexuality in childhood. Meta-analysis results indicate that juveniles who commit sexual offenses were more likely than non-sex offenders to have been exposed to sexual violence, sexual abuse, emotional abuse, and neglect (Jespersen, Lalumiere, & Seto, 2009). Within the adult sex offender population, Simons, Wurtele, and Durham (2004) found that child sexual abusers, as compared to rapists, reported more experiences of child sexual abuse, early exposure to pornography, sexual activities with animals, and an earlier onset of masturbation.

"Rapists, when compared to child sexual abusers, reported more frequent experiences of physical abuse, parental violence, and emotional abuse."

Rapists

In contrast, the childhood histories of rapists appear more indicative of violence. Simons, Wurtele, and Durham (2004) found that rapists, when compared to child sexual abusers, reported more frequent experiences of physical abuse, parental violence, emotional abuse, and cruelty to animals. Researchers contend that physical abuse, parental violence, and emotional abuse result in externalizing behaviors only when they are considered in combination (Lee et al., 2002; McGee, Wolfe, & Wilson, 1997). As an illustration, Beauregard, Lussier, and Proulx (2004) found that physical and verbal abuse during childhood led to antisocial behavior and callous personality traits, both of which led to aggressive sexual fantasies. Likewise, Salter and colleagues (2003) indicate that the combination of physical violence, domestic violence, emotional abuse, and neglect predicted subsequent sexual offending. Researchers (e.g., Craissati, McClurg, & Browne, 2002a) explain that an individual who has been raised in an emotionally impoverished environment is often unable to identify his emotions in an

accurate manner and, as a result, is likely to become confused when confronted with emotionally charged situations. These individuals often react to confusing situations with overt aggression.

Crossover Offenders

In studies that examined the developmental risk factors of crossover offenders or indiscriminate offenders (e.g., Heil & Simons, 2008; Simons, Tyler, & Heil, 2005), findings indicate that indiscriminate offenders report childhood histories of both violence and heightened sexuality. Indiscriminate offenders, also known as mixed offenders, report sexually abusing both adults and children equivalently. With respect to heightened sexuality, Simons, Tyler, and Heil (2005) found that indiscriminate offenders were less likely than child sexual abusers to be sexually abused, but they were more likely to report early sexual experiences with peers (before age 10), to have witnessed sexual abuse as a child, and to have had more frequent exposure to pornography before age 10. Similar to child sexual abusers (i.e., 62 percent), 58 percent of indiscriminate offenders reported an early onset (before age 11) and high frequency of masturbation. A great majority of indiscriminate offenders (81 percent) disclosed engaging in bestiality during childhood in comparison to fewer child sexual abusers (59 percent) and rapists (30 percent). With respect to childhood violence, both indiscriminate offenders and rapists described childhood experiences consistent with physical and emotional abuse. However, indiscriminate offenders were exposed to domestic violence significantly more frequently than rapists. Results indicated that parental violence and bestiality were strong predictors of crossover offending.

Female Sexual Offenders

Similar to indiscriminate offenders (of both genders), the majority of female sexual offenders report both violent and sexualized childhoods (Heil, Simons, & Burton, 2010). Of a subsample of 42 female sexual offenders, Simons and colleagues (2008) reported that the majority (81 percent) had been sexually abused by multiple perpetrators at a young age with high frequency. Female offenders masturbated later than male offenders (i.e., during adolescence instead of childhood) and with less frequency, but like male offenders who abuse children, they are more likely to masturbate to their abuse experiences and report masturbation to deviant fantasies during adolescence. Likewise, many female offenders were exposed to pornography before age 10, but early exposure is significantly more prevalent among male sexual offenders. Similar to male offenders, females report engaging in bestiality during adolescence, but the prevalence rates for females are significantly lower than for child sexual abusers and indiscriminate offenders of both genders. Similar to indiscriminate offenders, Simons and colleagues (2008) also found that the majority of female sexual offenders reported physical abuse, emotional abuse, and witnessing of domestic violence. Although the frequency of physical abuse among female sexual offenders was less than for males, females were more likely to be abused by both male and female perpetrators. Yet, female sexual offenders were more likely than male offenders to report witnessing violence perpetrated by a female; male rapists and indiscriminate offenders more often witnessed violence by a male perpetrator.

Attachment

In addition to childhood abuse, the majority of sexual offenders (93 percent) exhibited insecure attachment (Marsa et al., 2004). According to researchers, childhood adversities may result in the failure to establish secure attachment bonds to parents (Cicchetti & Lynch, 1995). Marshall (1993) contends that the failure of sex offenders to develop secure attachment bonds in childhood results in their failure to develop sufficient social skills and self-esteem necessary to achieve intimacy with adults. Recent models of sexual deviance suggest that poor parental bonding enhances the effects of child maltreatment and may subsequently initiate the processes that lead to sexual offending by creating vulnerability in the child (Marshall & Marshall, 2000), a lack of empathy for others (Craissati, McClurg, & Browne, 2002b), or intimacy deficits (Ward et al., 1995).

"Poor parental bonding enhances the effects of child maltreatment and may contribute to sexual offending by creating vulnerability, a lack of empathy, and intimacy deficits."

Early attachment research recognized four patterns of attachment: secure attachments that develop when caregivers are consistently responsive to their child's needs; insecure-ambivalent (anxious) attachments that develop when caregivers respond inconsistently to the needs of their child; insecure-avoidant attachments that develop when caregivers are consistently unresponsive to their child's needs; and insecure-disorganized attachment, a category established to describe children who fail to demonstrate a coherent pattern of response to parental separation (Ainsworth & Bowlby, 1991). Recently, attachment style has been associated with different types of offending. Rapists have been shown to exhibit avoidant parental attachments, whereas child sexual abusers display anxious or ambivalent attachment (Simons & Tyler, 2010; Simons, Wurtele, & Durham, 2008; Ward et al., 1995). Studies have found that indiscriminate and female offenders were more likely to exhibit disorganized attachment (Simons, Tyler, & Heil, 2005; Simons, Wurtele, & Durham, 2008).

Etiological Theory

Taken together, these findings support Marshall and Barbaree's (1990) integrated theory of sexual offending, which postulates that individuals who experienced child maltreatment are likely to exhibit distorted internal working models of relationships, which result in poor social skills and emotional self-regulation. The lack of social skills, especially during adolescence, is likely to result in rejection by others, which in turn will decrease self-esteem, increase anger, and produce cognitive distortions about peers and relationships. Negative emotions combined with cognitive distortions may increase the intensity of sexual desire and deviant sexual fantasies (e.g., those about children, whom they perceive as less threatening). Masturbation to these fantasies may serve as a coping mechanism from stress, as a means to exert control, and ultimately, as a behavioral rehearsal to sexual offending. These developmental factors interact with disinhibiting factors (e.g., intoxication, stress, negative affect) and the presence of a potential victim to impair an individual's ability to control their behaviors, which in turn may result in a sexual offense. The emotional and psychological reinforcement of the behavior may be approach oriented (i.e., to achieve a goal directly) or avoidant oriented (i.e., to avoid an unpleasant result). The actual sexual offense combined with cognitive distortions serves to maintain sexual offending behaviors.

The assessment of developmental risk factors is important to determine the criminogenic needs of the individual offender; the assessment also contributes to static predicting (Craissati & Beech, 2006). Consistent with Marshall and Barbaree's (1990) integrated theory of sexual offending, bestiality and masturbation to abuse experiences contribute to the development of deviant sexual interest, and frequent masturbation suggests problems with emotional self-regulation. Frequent masturbation coupled with frequent pornography use increases the likelihood of sexual compulsivity. Likewise, insecure attachments suggest intimacy deficits, empathy deficits, antisocial lifestyle, and social difficulties. Violence in the home has been shown to be predictive of antisocial lifestyle, hostile attitudes toward women, emotional callousness, and hostile masculinity (Malamuth et al., 1991), all of which suggest pro-offending attitudes toward rape. In addition to difficulties with self-regulation, a heightened sexual childhood may lead to the development of child sexual abuse-supportive beliefs (e.g., sexual entitlement, sex with a child is beneficial). As summarized by Craissati and Beech (2006), developmental experiences (sexual and violent experiences and insecure attachment) predict dynamic risk that, when combined with static markers (e.g., male victims, single status), increase the likelihood of reoffense.

Self-Regulation Model

Ward and Hudson (1998, 2000) developed a nine-stage model of the sex offense process, which takes into account the heterogeneity of sexual offending. The self-regulation model (SRM) summarizes the offense process by examining situational precipitants

(e.g., desire for deviant sex), cognitive distortions (whether entrenched or function to justify the offense), degree of control over behavior (i.e., impulsiveness or extensive planning), evaluation of sexual assault after the offense, and attitude with respect to future offending (positive or negative). SRM contends that individuals are goal-directed as sexual abusers and offend to achieve a desired state—either to satisfy or to avoid offending.

This model proposes that four pathways lead to sexual offending. Two pathways characterize offenders who attempt to avoid offending (avoidance oriented) but do not have adequate strategies (i.e., they have either underregulation or misregulation of self-control) to avoid the undesired behavior (the sexual offense). The two remaining pathways characterize individuals who seek to achieve goals associated with sexual offending (approach oriented) and experience positive feelings as a result. These approach-oriented individuals vary with respect to self-regulation; some of them exhibit deficient self-regulation (i.e., impulsivity), whereas others display intact, effective self-regulation. Thus, the assessment of SRM offense pathways depends on whether the offender attempted to avoid (indirect) or to engage (direct) in the sexual offense, the ability to self-regulate (underregulation, misregulation, effective regulation), and the degree of awareness associated with the sexual offense (implicit or explicit).

The avoidant-passive pathway consists of an offender who attempts to prevent offending (indirect route) but does not have the ability or awareness to prevent the offense (underregulation, implicit awareness). Similarly, the avoidant-active pathway is characterized by the desire to avoid offending (indirect), but the offender uses counterproductive strategies to control deviant thoughts and fantasies (misregulation, explicit awareness). For example, an individual who follows the avoidant-active pathway masturbates to deviant fantasies as an alternative to acting on these fantasies, but this behavior inadvertently increases his/her likelihood to offend. In contrast, the approach-automatic pathway is characterized by the impulsive desire to sexually offend and assault (direct route). Indeed, approach-automatic pathway offenders fail to control their behavior as they respond to situational cues on the basis of well-entrenched cognitive-behavioral scripts that support sexual offending. Individuals on the approach-explicit pathway desire to sexually offend (direct), but they carefully plan their offenses (effective regulation, explicit). Individuals on the approach pathways experience positive emotional states from offending; cognitive dissonance is absent. These offenders do not experience an internal conflict after the offense because they achieved their goal to sexually offend.

Research on SRM supports the validity of the model and its use in classification and treatment. Specifically, SRM pathways have been shown to differentiate offense characteristics and static and dynamic risk. With respect to offense pathways, incest offenders have been shown to follow the avoidant-passive pathway (Bickley & Beech, 2002, 2003). Rapists are more likely to follow the approach-automatic pathway because their goal is to offend, but they offend impulsively to situational cues (Yates, Kingston, & Hall, 2003). Child sexual abusers who offend against male victims are more likely to follow the approach-explicit pathway (Simons & Tyler, 2010). Their goal is to offend and they carefully plan their offenses by establishing relationships with their victims. The indiscriminate (or crossover) offenders who sexually assault both children and adults of both genders and from multiple relationships are more likely to follow the approach-automatic pathway (Simons, McCullar, & Tyler, 2008; Simons & Tyler, 2010).

Specialist vs. Generalist Model

The specialist vs. generalist model is another theory that explains the sexual offense process, taking into account the risk and needs of offenders. Although the implicit assumptions about sexual offenders are that they engage in distinct types of crimes and differ significantly from nonsexual offenders, some sexual offenders have been shown to be more versatile in their criminal behaviors and to share attributes with nonsexual offenders. (Lussier, Proulx, & LeBlanc, 2005). According to this model, sexual offenders may be characterized as specialists who commit **sexual crimes persistently or as generalists who do not restrict themselves to one type of crime; they commit different crimes over time** (Lussier, 2005).

One of the assumptions of the traditional explanatory models of sex offending (i.e., the specialist) is that offenders who sexually abuse children engage in sexual offending exclusively. This model has been shown to have a distinct etiology—specifically, a history of childhood sexual abuse (Burton, 2003; Marshall & Marshall, 2000). As previously discussed, developmental studies have demonstrated the association between childhood sexual experiences and sexual abuse of children (Jespersen, Lalumiere, & Seto, 2009). Child sexual abusers who are specialists are more likely than generalists to exhibit sexual deviance and sexual preoccupation and to have an emotional congruence with children (Groth, 1979; Harris, Mazerolle, & Knight, 2009; Laws & Marshall, 1990).

"Advances in developmental risk factors and offense pathways can assist with risk and need evaluation, but additional research is needed to develop models of sexual deviance."

Similar to rapists, generalist (versatile) offenders resemble violent nonsexual offenders (Craissati, 2005; Langstrom, Sjostedt & Grann, 2004; Simon, 2000). The generalist theory contends that offenders participate in a broad array of activities that are manifestations of low self-control and impulsivity, such as excessive alcohol use, unprotected sex, and reckless driving (Gottfredson & Hirschi, 1990). Hanson (2002) concluded that, in addition to sexual deviance, variables such as low self-control, criminal lifestyle, impulsivity, and opportunity are important factors associated with sexual offending. Sexual offenders (the majority of rapists and a subset of child sexual abusers) have demonstrated substance abuse and relationship problems, antisocial behavior in adolescence, employment instability, and evidence of psychopathy (Harris, Mazerolle, & Knight, 2009; Lussier, Proulx, & LeBlanc, 2005).

Lussier, Proulx, and LeBlanc (2005) examined whether sexual offending among 388 convicted sexual offenders could be explained by a generalist theory of crime using structural equation modeling. They reported differences among child sexual abusers and rapists and concluded that, similar to traditional typologies, the offense patterns of rapists were versatile and that rapists displayed extensive antisocial tendencies. In contrast, child sexual abusers were more likely than rapists to specialize in sexual offending.

Harris, Mazerolle, and Knight (2009) examined 374 male sexual offenders to compare these models of sexual offending. The researchers found that the majority of sexual offenders followed the generalist model. Rapists and child sexual abusers exhibited extensive criminal histories, substance abuse issues, antisocial tendencies, and psychosis. In addition, few rapists specialized in sexual crimes. Those who did specialize in sexual crimes were more likely to exhibit characteristics similar to child sexual abusers, such as sexual deviance and sexual preoccupation. As Lussier, Proulx, and LeBlanc (2005) found, the specialist model was evident in child sexual abusers. Child sexual abusers assessed as specialists were more likely than nonspecialists to know the victim, exhibit sexual preoccupation, and display emotional congruence with children.

These findings are consistent with many traditional typologies of rapists and child sexual abusers; however, the results suggest that the generalist vs. specialist model is a better way to assess sexual offenders, regardless of victim type. Future research in this area is needed to further identify factors that characterize specialist offenders from generalist offenders.

Summary

The prevention of sexual violence requires a balance of community safety with effective resource allocation. Recent advances in our knowledge of developmental risk factors and offense pathways can assist with risk and need evaluation, but additional research is needed to develop more extensive models to explain sexual deviance. Nonetheless, through a comprehensive understanding of treatment needs and subsequent effective intervention, an offender can attend to the process, learn skills and alternative strategies to sexual violence and, ultimately, strive to live a healthy lifestyle without offending.

Notes

1. MTC: CM3 contains two axes that assess psychological issues, abuse behaviors, and the degree of sexual fixation. Axis I includes fixation, or the degree of pedophilic interest and the degree of social competence. Axis II includes the amount of contact with the child (low or high), the meaning of high contact (either interpersonal or narcissistic), the level of physical injury for low contact, and whether the injuries were sadistic or nonsadistic. Although this typology has been validated in several studies, it has not demonstrated clinical utility with respect to recidivism or treatment (Camilleri & Quinsey, 2008). MTC: R3 includes nine subtypes that differentiate rapists by motivation, impulsivity, criminality, and social competence. Rapists are classified as opportunistic (with high or low social competence), pervasively angry, sadistic (overt or muted), sexual nonsadistic (also with high or low social competence), and vindictive (with high or low social competence). Studies have failed to classify rapists according to these nine subtypes without refinement (Barbaree et al., 1994).

2. Hanson and Bussiere (1998) conducted a meta-analysis based on 61 studies for a total sample of 28,972 sexual offenders. (A meta-analysis combines the results of many evaluations into one large study with many subjects.) With respect to sexual recidivism, the total sample consisted of 23,393 sexual offenders (including 1,839 rapists and 9,603 child sexual abusers whose recidivism rates were compared). The recidivism rate for rapists was significantly higher (18.9 percent) in comparison to child sexual abusers (12.7 percent).

3. Note these recidivism measures exceed 100 percent as 27 of the 61 studies included in the meta-analysis included multiple indexes of recidivism.

4. The use of polygraphs is controversial. See the "Polygraph" section of chapter 8, "Sex Offender Management Strategies," in the Adult section.

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Chapter 4: Internet-Facilitated Sexual Offending

by Michael Seto, Ph.D.

Introduction

There is increasing public and professional concern about Internet-facilitated sexual offending, reflected in a greater number of prosecutions and clinical referrals for these crimes (Middleton, Mandeville-Norden, & Hayes, 2009; Motivans & Kyckelhahn, 2007; U.S. Department of Justice, 2010). Internet sexual offending comprises a range of crimes, including possession or distribution of child pornography; production of child pornography; sexual solicitations[1] (online interactions with minors for sexual purposes, including plans to meet offline); and conspiracy crimes (e.g., collaborating with others to distribute or produce child pornography or to solicit minors). The large majority of online offenses involve possession or distribution of child pornography.

It is hard to obtain precise estimates of Internet sexual offending in the United States, as there is no national system for integrating information about Internet offenders at the state level and there are state-by-state variations in the applicable laws. However, the National Juvenile Online Victimization Study, conducted in 2000 and again in 2009, indicates that the number of arrests in the United States for Internet sex crimes has tripled over that time (Wolak, 2012; Wolak, Finkelhor, & Mitchell, 2011). Average sentences are getting longer for comparable child pornography offenses, indicating that Internet offenders will occupy custodial beds longer and will require longer terms of supervision if they become eligible for probation/parole (Wolak, Finkelhor, & Mitchell, 2009).

Given the nature of the Internet, this type of sexual offending is clearly an international problem, with political, legal, and geographic complexities. Many child pornography sites are based outside the United States (e.g., Eastern Europe, Southeast Asia), where laws differ substantially. The International Centre for Missing & Exploited Children (2010) reviewed laws in 196 countries and found that almost half (89 countries) did not have specific child pornography laws. Some of the remaining countries prohibited child pornography under more general obscenity laws, but some countries had no legal prohibitions. There is also variation in prohibitions of child pornography; for example, some countries (such as the United States) prohibit only visual depictions of real children, whereas other countries (such as Canada) prohibit depictions of fictional children (e.g., anime) or nonvisual depictions (e.g., audio recordings or stories).

FINDINGS

- The different types of Internet-facilitated crime are—
  - Possession, distribution, and production of child pornography.
  - Sexual solicitation.
  - Conspiracy crimes.
- The characteristics of Internet offenders are—
  - One in eight had an official record for contact sexual offending.
  - Fifty-five percent admitted to a history of contact sexual offending.
  - Offenders were relatively low risk compared to contact sex offenders.
  - Child pornography offenders are likely to be pedophiles.
  - Solicitation offenders are primarily interested in adolescent girls.

The increase in Internet sexual offending has been paralleled by a decrease in the number of reported child sexual abuse cases, and a decrease in violent crime more broadly (Mishra & Lalumière, 2009; Finkelhor & Jones, 2006). This indicates that Internet sexual offending is a new phenomenon that may not be influenced by the same contextual factors as other kinds of sexual or violent crime. An important research question is the extent to which Internet sex offenders represent a new type of sex offender, or whether they reflect the transformation of conventional sexual offending through the adoption of new technologies (Seto & Hanson, 2011).

Whatever the explanations for this increasing demand, it is clear that the number of potential Internet offending investigations already greatly exceeds law enforcement resources. For example, two programs (Fairplay and Roundup) have identified millions of computers involved in peer-to-peer sharing of child pornography files in the United States (U.S. Department of Justice, 2010). Many law enforcement agencies are still dealing with a backlog of cases arising from Operation Avalanche (an investigation that began after the discovery of Landslide Productions in Texas and its large database of members purchasing access to child pornography Web sites) and other, more recent international police operations that have identified very large numbers of online offending suspects. Although more resources are being devoted to peer-to-peer investigations, many police investigators continue to conduct proactive, undercover investigations—in which they pretend to be a minor online—in anticipation of solicitation attempts by adults (Mitchell, Wolak, & Finkelhor, 2005; Briggs, Simon, & Simonsen, 2011). Although resources for law enforcement in this area are increasing, the reality is that only some cases will be fully investigated and prosecuted.

Prioritization of Cases

Faced with more cases than they can handle in a timely fashion, law enforcement and other professionals who deal with these offenders need to prioritize their resources. But how should they assign priority? Given an overarching goal to protect children from sexual exploitation and abuse, it makes sense to prioritize and triage child pornography cases involving production or high-level distribution over possession alone or "passive" distribution (e.g., uploading images to file-sharing programs but not actively trading with others); solicitation cases involving attempts to meet in real life over online fantasy activities (e.g., sexually explicit chat); and cases involving Internet offenders who have already sexually assaulted children or are currently doing so over those with no known contact offending history. High-priority cases, in which children are suspected to already be victims or are at imminent risk, should receive the most attention. The scientific and practical challenge is determining how investigators can distinguish, with relatively limited initial evidence, which cases are more likely to involve production, solicitation of minors, and/or contact offending.

Summary of Research Findings

Offender Motivations

Sexual Interest in Children

Many, but not all, Internet offenders are motivated by a sexual interest in children. This has been demonstrated in a recent study showing that the majority of Canadian child pornography offenders assessed at a sexual behavior clinic showed more sexual arousal (assessed through penile plethysmography responses in the laboratory) to children than to adults, and in fact show a stronger relative response than do offenders with contact victims (Seto, Cantor, & Blanchard, 2006). As well, one-third to one-half of child pornography offenders interviewed by police or by clinicians admitted they were sexually interested in children or in child pornography content (e.g., Seto, Reeves, & Jung, 2010). Other studies have also demonstrated a link between sexual interest in children and child pornography use through self-report surveys (e.g., Buschman et al., 2010; Riegel, 2004).

These results are consistent with what we know about the modal child pornography image seized

by police, which depicts young girls who appear to be younger than age 12 and often depicts children in sexually explicit conduct (Collins, 2012; Quayle & Jones, 2011). It is a reasonable assumption that individuals will seek out pornography content that reflects their sexual interests (Seto, Maric, & Barbaree, 2001). Thus, pedophilic individuals will tend to seek out content depicting young children, while nonpedophilic individuals who are involved with child pornography will tend to seek out content depicting underage adolescents. The relationship between child pornography offending and pedophilia is sufficiently robust that child pornography use has been included as specific behavioral evidence in the proposed revision of the psychiatric diagnostic criteria for pedophilia, defined clinically as "persistent sexual attraction to prepubescent children" (American Psychiatric Association, 2013; Seto, 2010).

However, pedophilia is not the sole motivation for Internet offending involving children; that is, not all child pornography offenders show a sexual preference for children over adults. The offenders in Seto, Reeves, and Jung (2010) gave other explanations for their child pornography offending, including indiscriminate sexual interests, an "addiction" to pornography, and curiosity (see also Merdian et al., 2013). These explanations are based on self-report alone and should be interpreted cautiously because offenders may have offered alternative explanations (other than pedophilia) for their crimes in response to the stigma associated with the pedophilia label.

Sexual Interest in Adolescents

In addition, research by the Crimes against Children Research Center suggests that solicitation offenders target young adolescents, typically between ages 13 and 15, which would not be consistent with the clinical diagnosis of pedophilia (because many of the adolescents involved would be showing some signs of sexual and physical maturation) (Wolak et al., 2008). Although it is illegal and is a contravention of social norms about sexual behavior, a sexual interest in young to mid-teen adolescents is not indicative of pedophilia.

"Solicitation offenders primarily target young adolescent females."

Briggs, Simon, and Simonsen (2011) have suggested that there is a distinction between fantasy-driven and contact-driven solicitation offenders. The former group engages in online activities (such as sexual chat, exchange of pornographic images, or exhibitionism via Webcam) that are gratifying in and of themselves, often resulting in orgasm while online. These activities appear to reflect the sexual fantasies of the offenders and likely fuel those same fantasies by providing experiences and images for future occasions. Briggs, Simon, and Simonsen (2011) suggest that this fantasy-driven group is not interested in or likely to commit contact sexual offenses against children. The latter group, in contrast, engages in online activities to arrange real-world meetings; their online activity is more directed toward meeting offline and shorter in duration than the online interactions of fantasy-driven offenders. Briggs, Simon, and Simonsen (2011) identified 30 offenders who were considered to be contact driven and 21 who were deemed to be fantasy driven. Given the small sample size and exploratory nature of this study, more research is needed to determine if this distinction between solicitation offenders is valid and meaningful.

For cases resulting in actual meetings between an adult and a minor, sexual contact typically occurred on multiple occasions (Wolak et al., 2008). Use of threat or physical force was rare (4–5 percent of cases). Wolak and colleagues (2008) concluded that solicitation offenders may have more in common with statutory sex offenders—who have sexual contacts with minors who agree to the interactions but are below the legally defined age of consent—than they do with pedophilic offenders, who target prepubescent children or seek child pornography depicting prepubescent children. It is rare for solicitation offenders to target young children, stalk or abduct unsuspecting minors, or use physical coercion or force to engage in sex with minors. However, only cases involving contacts with real minors that were subsequently reported to police were included in this research. It is possible that unreported cases, or cases involving online contacts

but no real-world meetings, do involve younger children and/or more violent behavior.

Krueger, Kaplan, and First (2009) compared 22 solicitation offenders and 38 child pornography-only offenders. Although this study was limited because of the small sample size, there were no significant group differences in the prevalence of paraphilia diagnoses, anxiety or mood disorder diagnoses, or substance abuse disorder diagnoses. As one might expect given the nature of their offenses, solicitation offenders were more likely to be identified as having a hypersexuality disorder (a proposed psychiatric diagnosis for individuals with an excessive interest or involvement in sexual behavior) in terms of excessive online sexual activity, whereas child pornography-only offenders were more likely to be identified as having a hypersexuality disorder in terms of dependence on pornography.

Seto and colleagues (2012) compared 70 solicitation offenders to 38 child pornography offenders and 38 contact sex offenders on demographic variables; self-reported and self-rated sexual deviance; dynamic risk factors assessed using the Stable-2007; and risk estimated on two modified actuarial risk measures, the Static-99 and the VASOR (Seto et al., 2012). (For a discussion of adult "Sex Offender Risk Assessment," see chapter 6 in the Adult section.) They found that solicitation offenders were similar or lower in potential risk to reoffend than child pornography offenders, with fewer men in the former group disclosing undetected sexual offenses, fewer admitting sexual interest in prepubescent or pubescent children, and lower scores on ratings of sexual deviance. This was surprising because most of the solicitation offenders had actually attempted to meet with someone they thought was a minor (usually an undercover police officer), whereas child pornography offenders might never have approached a minor directly.

Contact Offending History

In a recent meta-analysis, Seto, Hanson, and Babchishin (2011) reviewed available studies and identified 21 samples of Internet offenders (a total of 4,464 mostly child pornography offenders, although some samples also included solicitation offenders) with information about their contact offending histories.[2] On average, one in eight online offenders had an official criminal record for contact sexual offending. In the six samples with self-report data, a little more than half (55 percent) admitted to a history of contact sexual offending,[3] usually as a result of clinical involvement and/or polygraph examination.

"One in eight Internet offenders has a history of contact sexual offending in their official criminal records."

Seto, Hanson, and Babchishin's (2011) meta-analysis produced several important findings:

- Many Internet offenders have no known prior contact offending history (identifying a major gap in the literature, as the established risk measures that are available for contact sex offenders may not apply to the Internet population.
- There is a sizable difference between undetected and detected offenses, when comparing the self-report prevalence rates with the official record rates.
- Though some of the offenders who deny any history of contact offending may be lying, despite being in treatment or undergoing a polygraph examination, it does not appear that most or all Internet offenders have committed a contact sexual offense. (For more on treatment, see chapter 7, "Effectiveness of Treatment for Adult Sex Offenders," in the Adult section.)

"More than half of Internet offenders self-reported a history of contact sexual offending."

Buschman and Bogaerts (2009) noted that polygraph examination can increase disclosures not only of prior contact sexual offenses but also of sexual interest in young children, including admissions of masturbating to sexual fantasies of children and seeking opportunities to have sexual contacts with children.

"Online-only Internet offenders have a relatively low risk for sexual recidivism compared to offline contact sexual offenders."

Further research is needed to identify the factors that distinguish those who have committed hands-on offenses against a child from those who do not commit such offenses. This empirical knowledge would advance the understanding of risk of recidivism and the relationship between online and offline offending. (For information on "Adult Sex Offender Recidivism," see chapter 5 in the Adult section.) For example, it has been hypothesized that Internet offenders who are lower in self-control (e.g., more impulsive, higher in risk-taking) will be more likely to commit hands-on offenses than those who are higher in self-control (Seto, 2008). Consistent with this idea, Lee and colleagues (2012) found that online offenders who had committed contact offenses scored higher on a measure of antisocial behavior and traits than online offenders who had no known history of hands-on victims. McCarthy (2010) found that "dual" offenders (i.e., individuals who had committed both contact and online sexual offenses) were more likely to be diagnosed with pedophilia and more likely to have prior sexual offenses in their histories.

Contact Offending in the Future

Seto, Hanson, and Babchishin (2011) also reviewed recidivism rates from 9 samples of Internet offenders (a total sample size of 2,630 online offenders) followed for an average of slightly more than 3 years (ranging from 1.5 to 6 years at risk). Approximately 1 in 20 (4.6 percent) Internet offenders committed a new sexual offense of some kind during this time period, with 2 percent committing a contact sexual offense and 3.4 percent committing a new child pornography offense; some offenders committed both types of crimes. Although the followup times are relatively short for this kind of research, and recidivism rates are expected to increase with more opportunity, these recidivism rates are lower than those observed in recidivism studies of offline offenders (Hanson & Morton-Bourgon, 2005) and belie the idea that all Internet offenders pose a high risk of committing contact offenses in the future. Indeed, there may be a subgroup of online-only offenders who pose relatively little risk for a contact sexual offense.

In a recent preliminary analysis of data from 101 federal child pornography offenders in the United States, using data obtained from the U.S. Sentencing Commission, Burgess, Carretta, and Burgess (2012) noted that a majority of the offenders were employed (68 percent), had some college education (58 percent), were married or had previously been married (59 percent), and had no prior criminal offenses (53 percent). Offenders with these kinds of characteristics are relatively unlikely to criminally offend again (compared to those who are unemployed, did not complete high school, had never married, and had prior offenses).

Internet offenders are not homogeneous with regard to risk. Some of them pose a relatively high risk of directly victimizing children (or indirectly victimizing children by again accessing child pornography), and an important task for law enforcement and for clinicians is to identify those higher risk individuals in order to prioritize cases and make more efficient decisions about resources.

Recidivism Risk Factors

Research is beginning to emerge on the factors that predict recidivism among Internet sex offenders, although more studies using large samples, a set of theoretically or empirically plausible risk factor candidates, longer followup times, and comprehensive criminal records are clearly needed. These initially identified risk factors appear to be the same kinds of risk factors seen in decades of research on contact sex offenders, and in research on all kinds of offenders generally. For example, recent studies have shown that well-established nonsexual criminological factors such as offender age at time of first arrest, prior criminal history, and failure on prior conditional release (such as bail or parole) can predict sexual recidivism among child pornography offenders (Seto & Eke, 2005; Eke, Seto, & Williams, 2011). Unpublished data suggest that other factors (such as substance use problems and admissions of sexual interest in children) can also predict contact sexual offending (e.g., Eke & Seto, 2012). Among child pornography offenders, the

ratio of content depicting boys compared to girls predicts child pornography recidivism (Eke & Seto, 2012), which is in line with much research showing that contact sex offenders who target boys are more likely to be pedophiles and more likely to sexually reoffend than those who target girls (Seto, 2008).

Other researchers are finding similar results. Faust, Renaud, and Bickart (2009) examined predictors of recidivism in a sample of 870 child pornography offenders assessed by the Federal Bureau of Prisons between 2002 and 2005. The average length of followup was almost 4 years, with a sexual offense rearrest rate of 5.7 percent for contact or noncontact offenses, including child pornography. Of the 30 predictors examined, 5 were significant predictors of sexual rearrest: lower education level, being single, possessing non-Internet child pornography, prior sex offender treatment (likely a proxy for having a prior sexual offending history), and **not** possessing depictions of adolescent minors (suggesting that those who show a preference for depictions of prepubescent children are at greater risk).

As well, Wakeling, Howard, and Barnett (2011) showed that a modified version of an established risk measure (the Risk Matrix 2000; Thornton, 2007) could predict sexual recidivism in a large sample of Internet offenders in the United Kingdom. Risk Matrix items include offender age, sexual and any other sentencing history, having a male victim, having a stranger victim, ever having a live-in romantic relationship, and having any noncontact offenses. Wakeling and her colleagues obtained recidivism data on 1,326 offenders followed for 1 year (2.1 percent recidivism rate) and 994 of these offenders followed for 2 years (3.1 percent recidivism rate). Although the base rate of sexual recidivism was relatively low after 1 or 2 years, making it more statistically difficult to identify significant predictors, the measure was nonetheless significantly predictive—to a similar degree as established risk measures with contact offenders. Three-quarters of the new sexual offenses were for Internet crimes.

If this research—showing that the same risk factors that are useful in predicting recidivism among conventional contact sex offenders operate similarly for Internet offenders—holds up in subsequent replications, then clinicians will be empirically justified to use modified versions of existing risk measures to assess Internet offenders, such as the Static-99 (Harris et al., 2003) or Risk Matrix 2000. This research is at an early stage and thus it is too soon to confidently conclude that existing risk measures (modified or not) will accurately predict sexual recidivism by Internet offenders who have no history of contact sexual offending. The applicability and validity of risk measures to Internet offenders who do have a history of contact sexual offending is not in question. Clinicians and others are clearly justified in using existing risk measures to assess the risk of Internet offenders who are known to have a history of contact sexual offending.

Intervention

There is relatively little literature on the treatment of Internet offenders. Typically, knowledge about characteristics and risk of recidivism is established before knowledge about treatment approaches and outcomes because of the time it takes to develop and implement programs and then evaluate them for recidivism. Sex offender treatment and supervision professionals are struggling to respond to the increasing influx of Internet offenders. Key questions have yet to be addressed regarding intervention, including what the priority treatment targets are, how they should be targeted, and whether interventions can reduce recidivism.

The most clearly articulated program at this time appears to be the Internet Sex Offender Treatment Programme (i-SOTP) developed by Middleton and Hayes (2006). This program was created as a result of treatment provider concerns about mixing Internet and contact offenders in group therapy as well as questions about the applicability of some treatment components and targets of conventional contact sex offender treatment programs (McGrath et al., 2009). The program is based on contemporary models of contact sexual offending that emphasize cognitive-behavioral principles, but it also draws in elements of positive psychology, 12-step, and self-help approaches (which is also common among conventional contact sex offender programs). The program is intended to be less intense than the standard conventional sex offender program

available in the United Kingdom; it involves fewer (20 to 30) sessions in either individual or group format and more Internet-relevant content. The evidence available so far on risk of recidivism suggests that more intensive interventions are required only by a minority of Internet offenders (Seto, Hanson, & Babchishin, 2011). A substantial number of Internet sex offenders (e.g., child pornography possession-only offenders with no prior criminal history) are likely to be served well by less intensive interventions (Andrews & Bonta, 2006).

The i-SOTP content is organized into six modules corresponding to major dynamic risk factors identified in contact sex offender research, including general self-regulation problems (e.g., difficulties in controlling impulses), sexual self-regulation problems (e.g., specific difficulty controlling sexual urges), offense-supportive attitudes and beliefs (e.g., believing that children depicted in child pornography images are not crime victims), and interpersonal deficits (e.g., poor social skills). These factors are dynamic because they can change over time (e.g., after consuming alcohol) and any such changes are associated with fluctuations in risk to reoffend. Dynamic risk factors can be distinguished from static risk factors that do not or cannot change (e.g., history of alcoholism) and are typical of well-validated and commonly used sex offender risk measures such as the Static-99. Static risk factors provide the best long-term prediction of recidivism but they do not identify potential treatment and supervision targets. Treatments and other interventions that can successfully target dynamic risk factors are more likely to lead to reductions in recidivism.

Middleton, Mandeville-Norden, and Hayes (2009) reported preliminary results from a pre-/post-treatment evaluation of 264 Internet offenders. There were significant changes on 10 of 12 psychological measures, many corresponding to the treatment targets just described. However, there was no comparison group, so it is not clear how much of these changes can be attributed to the treatment as opposed to the passage of time, probation involvement, or participation in other programs. Another more rigorous evaluation is needed with either a no-treatment (e.g., waiting list) or treatment-as-usual comparison group in order to know if changes over time can be attributed to the i-SOTP program. Continuing followup is also needed to determine if treatment participation (especially treatment-related changes on specific targets) are related to changes in recidivism in the desired direction.

Another interesting self-help treatment approach is provided by the Croga.org Web site. Also adopting a blend of cognitive-behavioral, 12-step, and self-help techniques, this Web site includes many of the topics covered by i-SOTP but is available to anyone with an Internet connection. The main aim of this Web site is to reach individuals who are engaging in problematic online behaviors before they commit contact offenses. Given that many such individuals are undetected by authorities (U.S. Department of Justice, 2010), any comprehensive response to Internet offending will need to include a self-help component. A similar service is provided by nongovernmental organizations such as Stop It Now!, which provides a free, confidential, toll-free helpline along with access to online resources for individuals who are concerned about their sexual interests or behavior involving children. One benefit of self-help and confidential approaches is that a larger group of at-risk individuals can be reached, especially in light of evidence that many online offenders go undetected. Another benefit is the relatively low cost of such interventions. A disadvantage is the likelihood that the highest risk individuals (those who have an antisocial orientation and already engage in contact sexual offending) are probably less likely to seek self-help options. Another disadvantage is that followup data will not be available to evaluate the efficacy of these services.

Undetected Internet offenders are unlikely to seek help given the severe stigma associated with self-identifying as being sexually interested in children or engaging, directly or indirectly, in the sexual exploitation of children. Undetected offenders are also likely to be inhibited by mandatory reporting requirements, as they cannot talk honestly about illegal acts they have committed. A research and treatment project (the Dunkelfeld Project) currently underway in Berlin, Germany, was able to recruit a large sample of self-identified individuals who were sexually interested in children (Beier et al., 2009;

Neutze et al., 2011). Most individuals in the sample (95 percent) had engaged in illegal behavior at some time in their lives, but some had been inactive and had not committed a sexual offense in the previous 6 months. These men were reached through a mass media campaign involving billboard and other public advertisements as well as television and radio spots. An evaluation of the project is currently underway.

Summary

It is clear from this review that research on Internet offending is relatively new and that there are substantial gaps in our knowledge about Internet offenders and the crimes they commit. At the same time, research conducted over the past 10 years (paralleling the emergence of the Internet in everyday life) sheds some helpful light on some key issues.

Increasing Demand

There is consistent evidence that the number of Internet sexual offending cases is increasing rapidly, with major implications for law enforcement, criminal justice, correctional, and clinical agencies. More precise state-by-state data are needed, however, to better understand the breadth and depth of this increasing demand in order to allocate resources wisely and to determine if there are meaningful geographic differences that might suggest solutions to this demand (e.g., states with sex offender management boards may be better able to cope with the demand than states that do not have this integration of systems and services). (For more on "Sex Offender Management Strategies," see chapter 8 in the Adult section.)

Solicitation Offenders

Most of the research on Internet offenders has focused on child pornography offenders. Less is known about the characteristics, contact offending history, and risk of recidivism posed by solicitation offenders and the extent to which they differ from child pornography offenders (who also use online technologies to commit their crimes) and contact sex offenders (who have actually attempted to make or have made physical contact with a victim). Also, little is known about offenders who use the Internet to commit sex crimes against adults (e.g., using Craigslist or other online services to meet women whom they intend to sexually assault) or to commit conspiracy crimes (e.g., organizing child sex tourism to other jurisdictions, child pornography trading rings, "abuse on demand" via live streaming of images or video).

Internet Offending Types

Emerging research suggests that solicitation offenders are different from child pornography offenders in meaningful ways. In particular, child pornography offenders are likely to be pedophiles, whereas solicitation offenders appear to be predominantly interested in adolescent girls. This apparent difference might result from two different selection effects. First, individuals who are primarily interested in images of underage but sexually mature minors (e.g., girls between ages 15 and 17) are less likely to be prosecuted because of the challenges in establishing the ages of the depicted minors, in contrast to the relatively straightforward prosecution of someone in possession of images depicting prepubescent or pubescent children. Second, there may indeed be individuals interested in sexually soliciting younger children, but younger children are less likely to be on social networking and similar sites (many of which have age restrictions; e.g., Facebook has a minimum age criterion of 13, although this may be flouted by some younger children). This apparent difference in Internet offender motivations may translate to differences in contact offending history, risk of recidivism, and the likely targets of other criminal sexual behavior (young children versus adolescent minors).

"Internet-facilitated sexual offending includes various types of crimes, including possession, distribution, and production of child pornography; sexual solicitations; and conspiracy crimes."

Overlap With Contact Offending

Only one in eight Internet offenders has an official record for contact offending, based on available studies (Seto, Hanson, & Babchishin, 2011). The proportion goes up to approximately four in eight when self-reported offending is added, but this still falls short of the idea that most or all Internet offenders have already committed contact offenses. Internet offenders and conventional sex offenders are not synonymous groups.

> *"Child pornography offenders are likely to be pedophiles."*

An important area for future research is to explore the relationship between Internet and contact offending. This encompasses multiple research questions, including: What predicts the onset of online offending? How do dual offenders (those who commit both online and offline offenses) differ from online-only or offline-only offenders? What predicts the progression from Internet to contact offending? Related questions are whether child pornography and solicitation offenders differ in their contact offending histories and the trajectories leading to these different forms of Internet crime.

Risk of Reoffending

More research is needed, but an analysis of nine available followup studies suggests that Internet offenders, as a group, have a relatively low risk of reoffending compared to conventional contact sex offenders (based on official records, which are conservative estimates of recidivism because of reporting biases and other factors). This has implications for how we respond to Internet offending, given that the risk principle of effective corrections would suggest that legal, policy, and clinical responses to Internet offenders should be proportional to risk. The minority of offenders who have a higher risk of reoffending—based on age, criminal history, and other factors that are being identified in ongoing research—require different responses than offenders with no prior criminal history and clear evidence of stability and prosocial conduct in all other domains of their lives. Research distinguishing between different types of Internet offenders will likely be helpful in this regard.

Intervention

More research on the onset and maintenance of Internet sexual offending is needed to design effective interventions for those who require it. Existing interventions represent adaptations of current sex offender treatment models, which may or may not work for Internet offenders. Although other areas require research attention, intervention is the area with the largest gaps in knowledge.

Notes

1. Solicitation offenders have also been called "travelers" in previous research on this population, while child pornography offenders have been called "traders." Briggs, Simon, and Simonsen (2011), discussed in more detail later in the chapter, have distinguished between solicitation offenders who appear to be fantasy driven (restricting their sexual interactions to online behavior such as sexually explicit chat, exhibitionism via Webcam, and/or transmission of pornography) and those who appear to be contact driven (whose online interactions are directed at arranging face-to-face meetings where sexual activities might take place).

2. A meta-analysis combines the results of many evaluations into one large study with many subjects.

3. The Butner Redux study by Bourke and Hernandez (2009), which is often cited in court proceedings pertaining to online offenders, was a statistical outlier in the Seto, Hanson, and Babchishin (2011) meta-analysis. This indicates that the study found an unusually high prevalence of contact offending history: 24 percent of the sample of 155 child pornography offenders had a known history of contact offending prior to treatment; however, following treatment (and polygraph examination for approximately half of the sample), 85 percent admitted to contact offenses or had an official contact offense history.

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Chapter 5: Adult Sex Offender Recidivism

by Roger Przybylski

Introduction

Recidivism has been conceptually defined as the reversion to criminal behavior by an individual who was previously convicted of a criminal offense (Maltz, 2001). It reflects both the individual's recurrent failure to abide by society's laws and the failure of the criminal justice system to "correct" the individual's law-breaking behavior (Maltz, 2001). While the etiology of criminal behavior is complex (see chapter 2, "Etiology of Adult Sexual Offending," in the Adult section) and recidivism results from a range of personal and social factors, it is important to recognize that recidivism is not simply another term for repeat offending. Rather, it refers to the recurrence of illegal behavior after an individual experiences legal consequences or correctional interventions imposed, at least in part, to eliminate that behavior or prevent it from occurring again (Henslin, 2008).[1]

While recidivism has long been a concern of criminal justice practitioners and policymakers, it has received renewed attention in recent years due to the record number of convicted offenders living in our communities.[2] Research has demonstrated that repeat offenders account for a disproportionate amount of crime and that offenders released from prison are arrested at rates 30 to 45 times higher than the general population (Rosenfeld, Wallman, & Formango, 2005). As a result, there is widespread recognition today that recidivism has a direct impact on public safety and that recidivism reduction should be a key goal of the criminal justice system. This is particularly true with regard to crimes that are sexual in nature, given their impact on individual victims and the larger community (see chapter 1, "Incidence and Prevalence of Sexual Offending," in the Adult section).

Unfortunately, recidivism remains a difficult concept to measure, especially in the context of sex offenders. The surreptitious nature of sex crimes, the fact that few sexual offenses are reported to authorities, and variation in the ways researchers calculate recidivism rates all contribute to the problem.

The measurement problems found in sex offender recidivism research no doubt have contributed to a lack of consensus among researchers regarding the proper interpretation of some research findings and the validity of certain conclusions. While there is broad agreement that observed recidivism rates are not true reoffense rates, the magnitude of the gap between observed and actual reoffending, the propensity of sex offenders to reoffend over the life course, and whether it is valid to characterize sex offender recidivism rates as low or high are examples of key issues that are subject to divergent viewpoints.[3] While debate concerning the interpretation and policy implications of research

findings occurs in many public safety areas, it is both pronounced and ongoing in the context of sex offender recidivism.

Despite the limitations and controversies outlined above, research findings on the extent of sex offender recidivism can help policymakers and practitioners in several meaningful ways: (1) they can provide an empirical basis for better understanding the differential public safety risks posed by different types of convicted sex offenders; (2) they can help identify the risk factors that are related to recidivism; and (3) they can help policymakers and practitioners design and deliver more tailored and effective recidivism reduction strategies. (For a discussion of adult "Sex Offender Risk Assessment," see chapter 6 in the Adult section.)

Knowledge about general recidivism, in addition to sexual recidivism specifically, is important because **many sex offenders engage in both sexual and nonsexual criminal behavior.** Research has shown that sex offenders are more likely to recidivate with a nonsexual offense than a sexual offense (see, e.g., Hanson & Bussière, 1998). Studies have also shown that some crimes legally labeled as nonsexual in the criminal histories of sex offenders may indeed be sexual in their underlying behavior (Doren, 2010; Rice et al., 2006; Heil et al., 2009). Rice and colleagues, for example, reported that "Murder and kidnapping are clear examples of apparently nonsexual violent crimes that, when perpetrated by sex offenders, are usually sexually motivated" (2006, p. 526). In addition, a charge or conviction that appears in a criminal history record might not reflect underlying sexual motivation for the crime due to plea bargaining.

"Measurement variation across studies can produce disparate findings regarding the recidivism rates of sex offenders."

Information about the recidivism rates of different types of sex offenders is equally important. Although sex offenders are often viewed as a homogenous group by the public, they are in reality a diverse mixture of individuals who have committed an array of illegal acts, ranging from noncontact offenses such as exhibitionism to violent sexual assaults (Center for Sex Offender Management [CSOM], 2001). Disaggregating sex offenders in recidivism research unmasks important differences in both the propensity to reoffend and the factors associated with reoffending for different types of individuals who have committed sexual crimes.

Issues To Consider

Numerous scholars have described the key measurement issues that can affect findings from sex offender recidivism research. Rather than reviewing these issues in their entirety or discussing them indepth, the most important matters that policymakers and practitioners should be concerned with are briefly summarized below.

Recidivism Rates Are Not True Reoffense Rates

Recidivism rates are typically based on officially recorded information, such as an arrest, criminal conviction, or incarceration. Because these official statistics reflect only offenses that come to the attention of authorities, they are a diluted measure of reoffending. **Research has clearly demonstrated that many sex offenses are never reported to authorities.** For example, Bachman (1998) found that only about one in four rapes or sexual assaults were reported to police. More recently, Tjaden and Thoennes (2006) found that only 19 percent of women and 13 percent of men who were raped since their 18th birthday reported the rape to the police. Several studies of victims have shown that the likelihood that a sexual assault will be reported to law enforcement decreases with the victim's age (Kilpatrick, Saunders, & Smith, 2003; Sorenson & Snow, 1991).[4]

It is also important to recognize that, once reported to law enforcement, only a subset of sex offenses result in the arrest of the perpetrator. Grotpeter and Elliot (2002) found that only 2.5 percent of sexual assaults and 10 percent of serious sexual assaults resulted in an arrest, and Snyder (2000) found that an arrest was made in only 29 percent

of reported juvenile sexual assaults. In addition, a number of studies have found that sex offenders disclose in treatment or in surveys that they had committed a large number of sex crimes before they were first caught or arrested. Abel and his colleagues interviewed paraphiliacs (i.e., those with a diagnosed psychosexual disorder) under conditions of guaranteed confidentiality and found that only 3.3 percent of their self-admitted hands-on sex offenses, such as rape and child molestation, resulted in an arrest (Abel et al., 1988). Simons, Heil, and English (2004) found that only 5 percent of rapes and child sexual assaults self-reported during prison treatment were identified in official records. Likewise, another study found that only 1 percent of contact and noncontact sexual offenses self-reported during treatment were identified in official records (Ahlmeyer et al., 2000).

Studies also have demonstrated a "disproportionate and patterned attrition of sexual offenses and sexual offenders from the criminal justice process" (Larcombe, 2012, p. 482). While case attrition (the dropping of a legal case by authorities, for various reasons) occurs for all types of offenses, it appears to be particularly pronounced for sexual crime and offenders (Gelb, 2007). Moreover, certain types of sexual crimes and offenders are more likely to be subject to criminal justice system processing and ultimately conviction, and these cases are not representative of sexual offenses or sexual offenders overall (Lievore, 2004; Kelly, Lovett & Regan, 2005). As Larcombe (2012, p. 482) points out, police, prosecutors, jurors, and the community tend to take more seriously those assaults that are "clearly interpretable as violence" and "least similar to potentially appropriate sex." Further, among all sexual offenders, those who have had "prior contact with the police" and those who have assaulted "children, male victims, and female victims who are strangers" are most likely to be arrested, charged, and prosecuted (Larcombe, 2012, p. 493; SSCRSA, 2006; Kelly, Lovett, & Regan, 2005; Temkin & Krahé, 2008). Research indicates that victim characteristics can also play a role in attrition. For example, females who are young, who have disabilities, or who are members of other vulnerable populations have been found to be "proportionally overrepresented as victims of rape" yet underrepresented among rape cases processed in the criminal justice system (Larcombe, 2012, p. 489; SSCRSA, 2006). This systematic and patterned attrition of sexual offenses within the criminal justice system ensures that the relatively small number of sex crimes that are reported, prosecuted, and ultimately result in conviction do not reflect "the most common or injurious forms of sexual violence experienced by women and children" (Larcombe, 2012, p. 483). Hence, findings from recidivism studies need to be interpreted within the context of sexual assault incidence, prevalence, and attrition research.

Due to the frequency with which sex crimes are not reported to police, the disparity between the number of sex offenses reported and those solved by arrest, and the disproportionate attrition of certain sex offenses and sex offenders within the criminal justice system, **researchers widely agree that observed recidivism rates are underestimates of the true reoffense rates of sex offenders.** Hidden offending presents significant challenges for professionals working in sex offender management as it is difficult to know whether offenders who appear to be nonrecidivists based on official records are truly offense free. (For more on "Sex Offender Management Strategies," see chapter 8 in the Adult section.) In addition, perceptions of the public safety risk associated with sex crimes and certain sexual offenders may be distorted when they are based solely on crime and on offender profiles identified in official records.

Recidivism Rate Measurements Vary by Study

Even though the basic meaning of recidivism is rather clear cut, recidivism rates are often measured differently from one study to the next. Different ways of measuring recidivism rates can produce substantially different results, and comparing rates that were derived in different ways can lead to inaccurate conclusions. Some of the most common ways in which measurement variation occurs in recidivism research are summarized below.

Operational Definition of Recidivism

An operational definition states in very concrete terms precisely how something is to be measured. When researchers operationally define recidivism for

a study, they must specify the event that constitutes recidivism—such as an arrest, a conviction, or a return to prison. In some studies, recidivism is defined as an arrest during the followup period; in others, recidivism may be defined as a conviction for a criminal offense or a return to prison for a new crime.[5] There are various reasons why one definition might be employed in lieu of others in a particular study, but it is critically important to recognize that different operational definitions of recidivism will produce different research findings (CSOM, 2001).

Length of Followup Period

The length of time an offender is tracked to determine if recidivism occurred also can vary from one study to the next. Recidivism rates will naturally increase as offenders are followed for longer time periods because there is more time when they are at risk to reoffend and more time for recidivism to be detected. Hence, policymakers and practitioners should always be cognizant of the length of the followup period when interpreting recidivism rate research findings. They also should recognize that analyses that fail to standardize the time at risk for everyone in a given group of offenders being studied may further undercount recidivism because some offenders will not have been at risk for the entire followup period.[6]

Populations Studied

Variation in the types of offenders studied is common in recidivism research, and studies of sex offender recidivism are no exception (Maltz, 2001). For example, some recidivism studies focus on offenders released or paroled from prison, while others may focus on offenders discharged from probation. Because offenders released from prison typically have a more serious criminal history than probationers, and criminal history is related to recidivism, recidivism rates are likely to be higher for prison releasees than for probationers (Przybylski, 1986). In addition, parolees may be subject to more behavioral constraints than probationers, resulting in higher recidivism rates due to technical violations of the conditions of release (Maltz, 2001). Additionally, some prisoners are released without parole supervision. Because differences like these can affect observed recidivism rates, policymakers and practitioners who use findings from recidivism rate research should exercise caution when comparing the recidivism rates of markedly different populations (Maltz, 2001).

Methods Used

Most recidivism studies search for new recorded criminal events and place offenders without the new events in the nonrecidivism category. Heil and colleagues (2009) conducted a recidivism study that accounted for every offender and excluded from the final calculations those who moved out of state, who died, or whose residence could not be verified. This reduced the sample size by more than 17 percent, all of whom would have been calculated as "nonrecidivists" in traditional studies. Not surprisingly, 1- and 5-year recidivism rates for this group of 1,124 prisoners were higher than those reported in many other studies that used followup periods that were similar in length. The 1- and 5-year recidivism rates found by the researchers were, respectively: 3.9 percent and 10.8 percent for a sex crime rearrest, 26.3 percent and 38.1 percent for a violent crime rearrest, and 52.6 percent and 77.7 percent for any arrest.

Recidivism Research Findings

Empirical data on the recidivism rates of sex offenders come from two broad categories of research—single studies and meta-analysis. Single studies typically track one or more cohorts of sex offenders following an arrest, discharge from probation, or release from prison to determine the proportion rearrested, reconvicted, or returned to prison within a specified period of time.7 Meta-analysis is fundamentally different. It employs statistical procedures that combine the results of many single studies into one large study with many subjects. By pooling the original studies, meta-analysis counteracts a common methodological problem in research—small sample sizes—thereby helping the analyst to draw more accurate conclusions. Meta-analysis is especially useful when synthesizing the results of studies that use different types of measures, which is a common

occurrence in recidivism research, because one of the summary statistics meta-analysis can generate in recidivism research is the average recidivism rate across studies. This can help make sense of single-study findings derived from different operational definitions of recidivism or different followup period lengths. While these two types of research—individual studies and meta-analysis—are fundamentally different, they both have produced useful information on the recidivism rates of sex offenders, and findings from both types of research are presented below.[8]

Recidivism Rates: All Sex Offenders

Perhaps the largest single study of sex offender recidivism conducted to date was carried out by Langan, Schmitt, and Durose (2003). The study, which was published by the U.S. Department of Justice, Bureau of Justice Statistics, examined the recidivism patterns of 9,691 male sex offenders released from prisons in 15 states in 1994. These offenders accounted for about two-thirds of all male sex offenders released from state prisons in the United States that year. Using a 3-year postrelease followup period, rearrest and reconviction rates for sexual and other crimes were reported for the entire sample of sex offenders as well as for different categories of sex offenders.

The researchers found a sexual recidivism rate of 5.3 percent for the entire sample of sex offenders based on an arrest during the 3-year followup period. The violent and overall arrest recidivism rates for the entire sample of sex offenders were much higher; 17.1 percent of sex offenders were rearrested for a violent crime and 43 percent were rearrested for a crime of any kind during the followup period. Of the 9,691 sex offenders released from prison in 1994, 3.5 percent were reconvicted for a sex crime and about one-quarter (24 percent) were reconvicted for an offense of any kind during the followup period. Nearly 4 out of every 10 (38.6 percent) sex offenders in the study were returned to prison within 3 years of their release due to the commission of a new crime or a technical violation of their release conditions.

As part of their study, Langan, Schmitt, and Durose (2003) conducted a comparative analysis of recidivism among sex offenders and non-sex offenders. Findings were based on the 3-year postrelease offending of 9,691 sex offenders and 262,420 non-sex offenders released from prison in 1994. The analysis revealed that once released, the sex offenders had a lower **overall** rearrest rate than non-sex offenders (43 percent compared to 68 percent), but their **sex crime** rearrest rate was four times higher than the rate for non-sex offenders (5.3 percent compared to 1.3 percent). Similar patterns are consistently found in other studies that compare sex offender and non-sex offender recidivism (see, e.g., Sample & Bray, 2003; Hanson, Scott, & Steffy, 1995).

Another important study, because of its large sample size, was conducted by Sample and Bray (2003). The researchers examined the arrest recidivism of 146,918 offenders who were originally arrested in Illinois in 1990. Arrestees categorized as sex offenders (based on their most serious charge in 1990 being a sex offense) had 1-year, 3-year, and 5-year rearrest rates for a new sexual offense of 2.2 percent, 4.8 percent, and 6.5 percent, respectively.[9] The 3-year sexual recidivism rate of 4.8 percent for these sex offender arrestees was similar to the 3-year rate (5.3 percent) that Langan, Schmitt, and Durose (2003) reported for sex offenders released from prison in 1994.

Sex offenders in the Sample and Bray study had 1-year, 3-year, and 5-year rearrest rates for any new offense of 21.3 percent, 37.4 percent, and 45.1 percent, respectively. These overall recidivism rates were lower than those found for all other categories of offenders in the analysis, except homicide and property damage offenders. But like Langan, Schmitt, and Durose (2003), Sample and Bray found that sex offenders had a higher sexual recidivism rate than all other categories of offenders. Sample and Bray (2003, p. 72) concluded:

> Sex offenders in Illinois do not appear to commit future offenses, in general, at a higher rate than do other offenders. However they may have higher levels of recidivism for their crimes than other types of offenders exhibit for their particular offenses.

Another important study because of its large sample size **and** extended followup period was conducted by Harris and Hanson (2004). The research employed a combined sample of 4,724 sex offenders drawn from 10 prior studies; 7 of the studies involved sex offenders in Canada, 2 involved sex offenders in the United States, and 1 involved sex offenders in the United Kingdom. All of the 4,724 sex offenders in the Harris and Hanson analysis were released from correctional institutions, except for 202 Canadian sex offenders who were placed on probation and 287 American sex offenders who received community-based sentences in Washington State.

Harris and Hanson generated recidivism estimates based on new charges or convictions for sexual offenses using 5-, 10-, and 15-year followup periods for several categories of sex offenders. The 5-year sexual recidivism estimate for all sex offenders in the analysis was 14 percent. The 10-year and 15-year sexual recidivism rate estimates for all sex offenders were 20 percent and 24 percent, respectively. Using the same data set, Hanson, Morton, and Harris (2003) reported that the 20-year sexual recidivism rate for the sample was 27 percent.

One of the most important findings that emerged from the Harris and Hanson (2004) analysis was that the 15-year sexual recidivism rate for offenders who already had a prior conviction for a sexual offense was nearly twice that for first-time sex offenders (37 percent compared to 19 percent). Another important finding was that the rate of reoffending decreased the longer offenders had been offense-free. While 14 percent of the offenders in the analysis were sexual recidivists after 5 years of followup, only 7 percent of the offenders who were offense-free at that time sexually recidivated during the next 5 followup years. For offenders who were offense-free after 15 years, the observed sexual recidivism rate was only 4 percent over an additional 5 years of followup.

Hanson and colleagues (2009) conducted a meta-analysis of 23 recidivism outcome studies to determine whether the risk, need, and responsivity principles associated with effective interventions for general offenders also apply to sex offender treatment.[10] (For more on intervention principles, see chapter 7, "Effectiveness of Treatment for Adult Sex Offenders," in the Adult section.) This meta-analysis produced an average sexual recidivism rate of 10.9 percent for treated offenders and 19.2 percent for untreated comparison offenders, based on an average followup period of 4.7 years.[11] The average overall recidivism rate (for any crime) was 31.8 percent for treated sex offenders and 48.3 percent for untreated comparison subjects.

An earlier meta-analysis of 43 sex offender treatment effectiveness studies found somewhat similar results (Hanson et al., 2002).[12] The average sexual recidivism rate based on an average followup period of 46 months was 12.3 percent for treated sex offenders and 16.8 percent for untreated sex offenders. The average overall recidivism rate was 27.9 percent for treated sex offenders and 39.2 percent for untreated sex offenders.

One of the largest meta-analyses of studies of the effectiveness of sex offender treatment was conducted by Lösel and Schmucker (2005). The analysis included 69 independent studies and a combined total of 22,181 subjects.[13] The researchers found an average sexual recidivism rate of 11.1 percent for treated sex offenders and 17.5 percent for untreated sex offenders based on an average followup period of slightly more than 5 years.[14] The average recidivism rate for any crime was 22.4 percent for treated sex offenders and 32.5 percent for untreated sex offenders.

Each of the meta-analyses highlighted above was undertaken to assess the effectiveness of sex offender treatment. (For a discussion of "Effectiveness of Treatment for Adult Sex Offenders," see chapter 7 in the Adult section.) All three studies found positive treatment effects, but what is most relevant is the consistent finding across studies that sex offenders are far more likely to recidivate with a nonsexual rather than a sexual crime. Several single studies that have been undertaken to evaluate treatment effectiveness, and several meta-analyses that have been undertaken for other reasons, have produced similar findings.

For example, McGrath and colleagues (2007) compared a group of 104 adult male sex offenders who received treatment, supervision, and periodic polygraph exams with a matched group of 104 sex

offenders who received the same type of treatment and supervision services but no polygraph exams. Based on a 5-year followup period, 5.8 percent of the offenders in the group that received polygraph testing and 6.7 percent of the offenders in the group that did not receive polygraph testing were charged with a new sex offense. The general recidivism rates for the polygraph and nonpolygraph groups (39.4 percent and 34.6 percent, respectively) were more than 5 times higher than each group's sexual recidivism rate.

In a study employing an even larger sample (403 treated and 321 untreated sex offenders) and an average followup period of 12 years, Hanson, Broom, and Stephenson (2004) reported sexual recidivism rates of 21.1 percent for the treated offenders and 21.8 percent for the untreated offenders. The general and violent recidivism rates for both groups were more than double their sexual recidivism rates. Treated sex offenders had a violent crime recidivism rate of 42.9 percent and an overall recidivism rate of 56.6 percent. Untreated sex offenders in the study had a violent crime recidivism rate of 44.5 percent and an overall recidivism rate of 60.4 percent.

Oliver, Wong, and Nicholaichuk (2008) conducted a treatment outcome study that examined the sexual recidivism rates of 472 treated and 282 untreated sex offenders. Sexual reconviction rates were examined across various followup periods. For the treated sex offenders, the researchers found sexual reconviction rates of 11.1 percent after 3 years of followup, 16.9 percent after 5 years of followup, and 21.8 percent after 10 years of followup. Sexual reconviction rates for the untreated sex offenders were 17.7 percent after 3 years, 24.5 percent after 5 years, and 32.3 percent after 10 years of followup.

Findings from the study conducted by Oliver, Wong, and Nicholaichuk (2008), like those from the Harris and Hanson (2004) analysis, demonstrate how the **recidivism rates of sex offenders increase as followup periods become longer.** In the study conducted by Harris and Hanson (2004), sexual recidivism rates increased from 14 percent after 5 years of followup to 24 percent after 15 years of followup. In the study conducted by Oliver, Wong, and Nicholaichuk (2008), sexual recidivism rates for treated offenders increased from 11.1 percent after 3 years of followup to 21.8 percent after 10 years of followup. In a somewhat older study, Hanson, Scott, and Steffy (1995) found that first-time recidivism for a sexual/violent crime occurred between 10 and 31 years into followup for 10 percent of a sample of 191 child molesters released from a Canadian prison.[15] While higher recidivism rates should be expected with longer followup periods because there is more time for reoffending to occur and to be detected, these findings illustrate how important followup periods of longer than 3 or 5 years are for understanding the absolute risk of reoffending in sex offender populations.

Findings from two other large-scale studies of sex offender recidivism are reported below. Both studies are meta-analyses that were undertaken specifically to identify factors related to the recidivism of sex offenders, and their findings regarding recidivism rates are quite consistent.

Hanson and Bussière's (1998) meta-analysis involved 61 studies and a combined sample of 28,972 sex offenders. The researchers found an average sexual recidivism rate of 13.4 percent based on an average followup period of 4 to 5 years, and an average overall recidivism rate of 36.3 percent.[16] More recently, Hanson and Morton-Bourgon (2004) conducted a meta-analysis of 95 studies involving a combined sample of 31,216 sex offenders. The average sexual recidivism rate found was 13.7 percent and the average overall recidivism rate was 36.9 percent, based on an average followup period of 5 to 6 years.[17]

Recidivism Rates: Female and Male Sex Offenders

Recent research has begun to shed light on the differential rates of recidivism displayed by female and male sex offenders. **While the vast majority of known sex offenders are male, estimates suggest that females commit between 4 and 5 percent of all sexual offenses** (Sandler & Freeman, 2009; Cortoni & Hanson, 2005).[18]

Cortoni and Hanson (2005) conducted a study involving 6 sources of recidivism data and a combined sample of 380 female sex offenders.

Based on an average followup period of 5 years, the researchers found an average sexual recidivism rate for female sex offenders of 1 percent. The observed violent recidivism rate was 6.3 percent and the overall recidivism rate was 20.2 percent.[19] The researchers compared these recidivism rates for female sex offenders to 5-year sexual, violent, and overall recidivism estimates for male sex offenders derived from other studies.[20] The comparison revealed statistically significant differences between the recidivism rates for male and female sex offenders for each type of recidivism measure.[21] Table 1 presents a summary of the differential male and female recidivism rates reported in the analysis.

More recently, Sandler and Freeman (2009) examined the recidivism patterns of female sex offenders using a sample of 1,466 females convicted of a sexual offense in New York State. They found sexual recidivism rates (based on rearrest) of 0.8 percent, 1.3 percent, and 1.8 percent, based on followup periods of 1, 3, and 5 years, respectively. The 5-year rearrest rate found for a violent felony offense was 5.2 percent and the 5-year rearrest rate found for any offense was 26.6 percent.[22] Sandler and Freeman compared the recidivism rates found for female sex offenders after 5 years of followup with 5-year recidivism rates for male sex offenders drawn from other studies. The comparison indicated that female sex offenders had far lower rates of sexual recidivism (1.8 percent compared to 10–15 percent), violent recidivism (5.2 percent compared to 25 percent), and overall recidivism (26.6 percent compared to 36 percent) than male sex offenders.[23]

"Research indicates that female sex offenders reoffend at significantly lower rates than male sex offenders."

Further evidence that female sex offenders reoffend at significantly lower rates than male sex offenders comes from a recent meta-analysis of 10 studies conducted by Cortoni, Hanson, and Coache (2010).[24] The study included a combined sample of 2,490 female sex offenders. The researchers found an average sexual recidivism rate of about 3 percent for female sex offenders based on an average followup period of 6.5 years.[25] These findings led Cortoni, Hanson, and Coache (2010, p. 387) to conclude that "female sex offenders have extremely low rates of sexual recidivism" and that "distinct policies and procedures for assessing and managing the risk of male and female sex offenders" are needed.

Recidivism Rates: Different Types of Sex Offenders

While researchers have identified a variety of sex offender typologies (see chapter 3, "Sex Offender Typologies," in the Adult section), sex offenders are often classified by their crime type or victim age preference in recidivism research. Individuals involved in rape behavior and those involved in child molesting behavior are the two principal categories of sex offenders that emerge from this approach, and studies that examine the recidivism of specific types of sex offenders frequently report recidivism rates for one or both of these categories. Incest offenders are sometimes distinguished from other child molesters in recidivism research. A limited

TABLE 1. RECIDIVISM RATES FOR MALE AND FEMALE SEX OFFENDERS

	Percentage of Offenders Who Recidivate (5-Year Followup)		
	Sexual Recidivism	Violent Recidivism	Any Recidivism
Male sex offenders	13–14	25	36–37
Female Sex Offenders	1	6.3	20.2

Note: The recidivism rate differences between male and female sex offenders were statistically significant for each type of recidivism ($p < .001$).

Source: Cortoni & Hanson (2005).

body of research has also examined the recidivism rates of "hands off"—or noncontact—sex offenders, such as exhibitionists. When reviewing recidivism rates for different types of sex offenders, however, it is important to keep in mind that research has documented a significant amount of crossover offending among sex offenders. Estimates suggest that 32–64 percent of rapists have molested children and that many child molesters have assaulted adults (English and colleagues, 2000; Heil, Ahlmeyer, & Simons, 2003); Wilcox and colleagues, 2005).

While the knowledge base regarding recidivism rates is less extensive for specific types of sex offenders than it is for sex offenders overall, several important studies on the recidivism rates of rapists and child molesters have been published in recent years. Key findings from these studies—and from studies on recidivism among exhibitionists—are presented below.

Rapists

Researchers studying the recidivism of sex offenders are increasingly reporting recidivism rates specifically for rapists. Two studies previously discussed in this report—Langan, Schmitt, and Durose (2003) and Harris and Hanson (2004)—examined the recidivism of rapists using a relatively large sample size. The Harris and Hanson analysis included a sample of 1,038 rapists. Recidivism estimates were reported for three distinct followup periods: 5 years, 10 years, and 15 years. Sexual recidivism rates for rapists, based on new charges or convictions, were 14 percent at 5 years, 21 percent at 10 years, and 24 percent at 15 years.[26]

The Langan, Schmitt, and Durose (2003) study of male sex offenders released from state prisons in 1994 is arguably one of the largest individual recidivism studies of rapists undertaken to date. The study included a sample of 3,115 rapists.[27] The researchers found that 5 percent of the 3,115 rapists released from state prison in 1994 were arrested for a new sex offense during the 3-year followup period. Of these 3,115 rapists, 78 (2.5 percent) were charged specifically with another rape. The violent crime and overall recidivism rates found for rapists were 18.7 percent and 46 percent, respectively. Like sex offenders overall, rapists had a lower overall recidivism rate than non-sex offenders in the study (46 percent compared to 68 percent), but a higher sexual recidivism rate (5 percent compared to 1.3 percent). One of the important findings that emerged from the study was that about half of the rapists with more than one prior arrest were rearrested within 3 years of their release, a rearrest rate nearly double (49.6 percent compared to 28.3 percent) that of rapists with just one prior arrest.

Another important study because of its lengthy followup period—25 years—was conducted by Prentky and colleagues (1997). Generalizing some of the study's findings to offenders engaged in rape behavior today is problematic because the study period began in 1959 and ended in 1985, and sex offender treatment and management practices were far different then than they are today. In addition, the study sample consisted of individuals who were sexually dangerous and civilly committed, so the sample is not representative of all rapists or all sex offenders. Still, the 25-year followup period employed in the research is arguably one of the longest used to examine the recidivism of rapists,[28] and certain findings concerning the variability of recidivism rates over time may have significance for the measurement and interpretation of recidivism rates today.[29]

The study conducted by Prentky and colleagues (1997) examined both short-term and long-term sexual and general recidivism within a population of 136 rapists who had been committed to the Massachusetts Treatment Center for Sexually Dangerous Persons. The researchers found sexual recidivism rates (based on a new charge) of 9 percent after 1 year of followup, 19 percent after 5 years of followup, and 31 percent after 15 years of followup.[30] Based on the 25-year followup period, the researchers found a sexual recidivism rate of 39 percent. The overall recidivism rate for any charge by the end of the 25-year followup period was 74 percent. Prentky and colleagues (1997, p. 656) acknowledged that generalizing the recidivism rates found in the study to other samples of sex offenders was problematic due to the "marked heterogeneity of sex offenders," but they also suggested that the "crucial point to be gleaned from this study is the potential variability of the rates" and not the specific rates themselves. Thus, it is worth noting

that despite the study's inherent limitations, some rapists remain at risk to reoffend long after their discharge and that conventional followup periods of 3 years or 5 years would have missed roughly half of the first-time recidivists identified after 25 years of followup (Prentky et al., 1997).

The long-term propensity for convicted rapists to sexually reoffend also has been examined by Doren (1998). His analysis, which aimed at estimating the true base rate for sexual recidivism among rapists, led him to conclude that the 39-percent long-term sexual recidivism rate for rapists found by Prentky and colleagues (1997) was consistent with findings from other research. Doren (1998, p. 107) further suggested that "rapist sexual recidivism should be considered to have a conservative approximation of its true base rate at about 39 percent."

The accuracy of Doren's (1998) estimate regarding the long-term propensity of rapists to reoffend, and the contention that any nontrivial proportion of sex offenders may show first-time recidivism 20 years or more following release from incarceration or discharge from probation, both remain subject to debate. Harris and Hanson (2004, p. 11), for example, in discussing their findings concerning the long-term sexual recidivism rates of rapists and child molesters, stated that "the decreasing rate of offending with age suggests that the rates observed after 15 to 20 years are likely to approximate the rates that would be observed if offenders were followed for the rest of their lives." While a review of the literature on the relationship between age and sexual recidivism is beyond the scope of this chapter, it is worthwhile noting that findings from several recent studies support the conclusion that age is inversely related to sexual recidivism (Prentky & Lee, 2007; Thornton, 2006); that is, as the age of the offender increases, the likelihood of sexual recidivism tends to diminish (Prentky & Lee, 2007).[31] Doren (2010), however, has suggested that drawing meaningful conclusions from the available data about an **age threshold for low risk** is difficult. While the type of offender may matter, the data are too few and too conditional to arrive at a valid conclusion (Doren, 2010).

Child Molesters

A relatively large body of research exists on the recidivism rates of child molesters. While unreported crime affects all recidivism research, it is particularly problematic in recidivism studies of child-molesting offenders as several studies have demonstrated that the likelihood that a sexual assault will be reported to law enforcement decreases with the victim's age (Kilpatrick, Saunders, & Smith, 2003; Smith et al., 2000; Sorenson & Snow, 1991).

The study of sex offenders released from state prisons in 1994 by Langan, Schmitt, and Durose (2003) included a large sample (4,295) of child molesters. The researchers reported that 5.1 percent of the 4,295 child molesters released from prison in 1994 were rearrested for a new sex crime within 3 years of their release, 14.1 percent were rearrested for a violent crime, and 39.4 percent were rearrested for a crime of any kind. Similar to the pattern for rapists in the study, child molesters with more than one prior arrest had an overall recidivism rate nearly double (44.3 percent compared to 23.3 percent) that of child molesters with only one prior arrest.

As might be expected, child molesters were more likely than any other type of offender—sexual or nonsexual—to be arrested for **a sex a crime against a child** following release from prison. During the 3-year postrelease followup period, 3.3 percent of the child molesters, 2.2 percent of all sex offenders, and less than one-half of 1 percent of the non-sex offenders were arrested for child molestation.32 Released child molesters with more than one prior arrest for child molesting were three times more likely to be rearrested for child molesting than released child molesters with no more than one prior arrest (7.3 percent compared to 2.4 percent).

Two other studies mentioned in the prior discussion about the recidivism of rapists also make important contributions to the knowledge base about the recidivism patterns of child molesters. Findings from Harris and Hanson's (2004) analysis are particularly compelling because they document differential rates of recidivism for different types of child molesters based on followup periods of 5, 10, and 15 years. For all child molesters in the analysis, the researchers

found 5-year, 10-year, and 15-year sexual recidivism rates based on new charges or convictions of 13 percent, 18 percent, and 23 percent, respectively. Table 2 presents the study's recidivism estimates (based on new charges or convictions) for 5-year, 10-year, and 15-year followup periods for molesters of boys, molesters of girls, and incest offenders.

Table 2 shows that molesters of boys had the highest rates of sexual recidivism. Different patterns of reoffending within child molester populations have been found in other studies as well, with molesters of boys having higher recidivism rates than other types of child molesters (see, e.g., Seto, 2008). It is important to keep in mind that the recidivism rates observed for child molesters, and for incest offenders particularly, are impacted by underreporting even more so than recidivism rates for other types of sex offenders, as research has shown that child victims who knew their perpetrator were the least likely to report their victimization (Smith et al., 2000).

In a study that examined the recidivism of 191 child molesters and 137 non-sex offenders 15 to 30 years after their release from a Canadian prison, Hanson, Scott, and Steffy (1995) found that child molesters had lower rates of overall recidivism (based on reconviction) than non-sex offenders (61.0 percent compared to 83.2 percent), but much higher rates of sexual recidivism (35.0 percent compared to 1.5 percent). Not all child molesters in the study, however, recidivated at the same rate. The highest rate of recidivism among child molesters in the study (77 percent) was found for child molesters with previous sexual offenses, those who were never married, and those who selected extrafamilial boy victims. In contrast, the long-term recidivism rate for child molesters categorized as low risk was less than 20 percent.

One study that did not find different rates of recidivism for child molesters based on victim gender was Prentky and colleagues' (1997) analysis of child molesters who were civilly committed in Massachusetts. The researchers cautioned, however, that this specific departure in their findings from other research may have been an artifact of the study sample's extensive prior criminal history for sexual offenses. The sample consisted of 115 child molesters who were discharged from civil commitment in Massachusetts between 1960 and 1984. Again, generalizing certain findings from the analysis to other samples of sex offenders could be problematic because the offenders in the study were very high risk and the study period ended more than 25 years ago. Nonetheless, the research is still important because of its lengthy followup period. Based on the 25-year followup period, Prentky and his colleagues (1997) found a sexual recidivism rate of 52 percent (defined as those charged with a subsequent sexual offense) for the 115 child molesters in the study. The overall new crime recidivism rate found after 25 years of followup was 75 percent.[33]

While the difference between the sexual recidivism rates for child molesters found by Prentky and colleagues (1997) using a 25-year followup period (52 percent) and Harris and Hanson (2004) using a

TABLE 2. SEXUAL RECIDIVISM RATES OF CHILD MOLESTERS

	Recidivism Rate, by Followup Period (%)		
	5 years	10 years	15 years
Male sex offenders	23.0 (*N*=315)	27.8 (*N*=105)	35.4 (*N*=95)
Female Sex Offenders	9.2 (*N*=766)	13.1 (*N*=218)	16.3 (*N*=208)
Committed incest	6.4 (*N*=416)	9.4 (*N*=73)	13.2 (*N*=69)

Recidivism estimates are based on new convictions and charges.

Source: Harris & Hanson (2004).

15-year followup period (23 percent) is striking, the nature and substantive significance of the difference can be interpreted in fundamentally different ways. One interpretation is that first-time recidivism may occur for some child molesters 20 or more years after criminal justice intervention, and that recidivism estimates derived from shorter followup periods are likely to underestimate the lifetime risk of child molester reoffending (Doren, 1998). Analyzing data from Prentky and colleagues (1997) and other studies, Doren (1998, p. 105) concluded that the lifetime prevalence of sexual recidivism for extrafamilial child molesters "should be thought of as having a conservative approximation of about 52 percent." An alternative interpretation is that the difference between Prentky and colleagues' 25-year estimate and Harris and Hanson's 15-year estimate is primarily an artifact of sampling—Harris and Hanson's findings are based on a larger, more diverse sample of child molesters, including some serving community sentences—and that the lifetime prevalence of sexual recidivism for child molesters overall is lower than the 52 percent suggested by Doren and based, at least in part, on the findings of Prentky and colleagues. **While the rate at which child molesters are likely to sexually recidivate over the life course may be subject to further debate, current empirical evidence suggests that molesters of boys have higher short- and long-term recidivism rates than other types of sex offenders.** It is important to keep in mind, however, that both gender-crossover and age-crossover offending are not uncommon, and that far more research on the recidivism patterns of crossover offenders is needed (Wilcox et al., 2005; Heil, Ahlmeyer, & Simons, 2003; English et al., 2000).[34] Additionally, recidivism is highly variable even within subtypes of sex offenders, and the propensity of child molesters and other sex offenders to reoffend can best be understood in the context of both historical—or static—and dynamic risk factors empirically associated with recidivism.

Exhibitionists

A limited body of research exists on the recidivism rates of exhibitionists. Marshall, Eccles, and Barbaree (1991) reported recidivism data from two studies that examined the effectiveness of specific treatment approaches for exhibitionists. Both studies were based on samples that were small in size.35 The first study examined recidivism for 23 exhibitionists who participated in study treatment and 21 exhibitionists who served as comparison offenders.[36] The followup period was just under 9 years for both groups. The researchers found that 9 of the 23 (39.1 percent) treated exhibitionists and 12 of the 21 (57.1 percent) comparison exhibitionists recidivated during the followup period. The second study examined recidivism for 17 males charged with exhibitionism and treated between 1984 and 1987. Based on a followup period of almost 4 years, the researchers found that 4 of the 17 (23.6 percent) exhibitionists recidivated.

Sugarman and colleagues (1994) examined recidivism for exhibitionists with a larger sample (210 exhibitionists) and a followup period of 17 years. The researchers reported a 32-percent recidivism rate based on a conviction for a contact sexual offense during the followup period, and a 75-percent recidivism rate based on a conviction for any type of crime other than exposing. More recently, Rabinowitz-Greenberg and colleagues (2002) examined the recidivism of 221 exhibitionists assessed at the Royal Ottawa Hospital Sexual Behaviors Clinic between 1983 and 1996. Based on an average followup period of 6.8 years, the researchers found a sexual recidivism rate of 11.7 percent (based on a new charge or conviction), a violent crime recidivism rate of 16.8 percent, and an overall recidivism rate of 32.7 percent. Building upon the analysis, Firestone and colleagues (2006) examined recidivism for 208 of the exhibitionists in the analysis conducted by Rabinowitz-Greenberg and colleagues, extending the followup period to an average of 13.2 years. The researchers found that 23.6 percent of the offenders in the study sample were charged with or convicted of a sex crime (based on the 13.2-year average followup period), 31.3 percent were charged with or convicted of a violent crime, and 38.9 percent were charged with or convicted of any criminal offense. Sexual recidivists who were charged with or convicted of a hands-on sex crime during the 13.2-year average followup period were found to have a more extensive prior criminal history for violent crime and any type of crime than the exhibitionists who sexually recidivated with a hands-off offense.

Summary

Drawing firm conclusions about the extent of sex offender recidivism can be difficult due to a number of factors. First, although there is universal agreement that the observed recidivism rates of sex offenders are underestimates of actual reoffending, the magnitude of the gap between observed and actual reoffending remains subject to debate. As a result, conclusions about the extent of sex offender recidivism and the propensity of sex offenders to reoffend over the life course inherently involve some uncertainty. Second, measurement variation across studies often produces disparate findings that can be difficult to interpret. Comparing and corroborating findings can be difficult for the same reason. Third, short followup periods and small sample sizes limit the generalization of certain findings. Drawing firm conclusions about the propensity of specific subgroups of sex offenders to reoffend over the life course is particularly difficult, as sample sizes often fall to unrepresentative levels as followup periods grow longer.[37] Both individually and collectively, these factors present considerable challenges for anyone wanting to synthesize research findings for the purpose of drawing valid, widely accepted conclusions. Still, recent research has produced several trustworthy findings concerning the recidivism rates of child molesters, rapists, and sex offenders overall.

- **Official records underestimate recidivism.** Studies of sexual assault victims and studies of sex offenders in treatment demonstrate that actual offending rates are poorly reflected by official records. Simons, Heil, and English (2004) found that only 5 percent of rapes and child sexual assaults self-reported during prison treatment were identified in official records; Tjaden and Thonnes (2006) found that only 17 percent of victim reports resulted in the perpetrator's conviction. While the magnitude of the difference between observed and actual reoffending needs to be better understood, there is universal agreement in the scientific community that the observed recidivism rates of sex offenders are underestimates of actual reoffending.

- **The observed sexual recidivism rates of sex offenders range from about 5 percent after 3 years to about 24 percent after 15 years.** Relatively low rates of recidivism—particularly sexual recidivism—are reported in studies using followup periods shorter than 5 years. Langan, Schmitt, and Durose (2003), for example, found a sexual recidivism rate of 5.3 percent using a 3-year followup period for a large sample of sex offenders released from prison in 1994. Sample and Bray (2003) reported a sexual recidivism rate of 4.8 percent for a large sample of sex offenders in Illinois based on a 3-year followup period. Studies employing longer followup periods consistently report higher rates of recidivism. Harris and Hanson (2004), for example, reported sexual recidivism rates of 20 percent and 24 percent for a sample of sex offenders based on a 10-year and 15-year followup period, respectively. While observed recidivism rates will naturally increase as the length of the followup period increases, it is important to recognize that recidivism rates derived from followup periods of 5 years or less may mislabel a considerable proportion of repeat offenders as nonrecidivists, resulting in a significant underestimation of the absolute risk to public safety that sex offenders pose.

- **Sex offenders—regardless of type—have higher rates of general recidivism than sexual recidivism.** Although this basic reoffending pattern would naturally be expected to occur, the magnitude of the difference found in research is somewhat striking. It suggests that sex offenders are far more likely to reoffend for a nonsexual crime than a sexual crime and, as Hanson and Morton-Bourgon (2004, p. 4) have aptly stated, "policies aimed at public protection should also be concerned with the likelihood of any form of serious recidivism, not just sexual recidivism." It is important to keep in mind, however, that nonsexual offenses are more likely than sexual offenses to be reported to law enforcement, and that some crimes legally labeled as nonsexual in the criminal histories of sex offenders may indeed be sexual in their underlying behavior.

- **Sex offenders have lower rates of general recidivism but higher rates of sexual recidivism than non-sex offenders.** Research comparing the recidivism rates of sex offenders with non-sex offenders consistently finds that sex offenders have lower overall recidivism rates than non-sex offenders. Child molesters, rapists, and sex offenders overall, however, are far more likely than non-sex offenders to recidivate sexually. Langan, Schmitt, and Durose (2003), for example, found sexual recidivism rates that are four times higher for sex offenders compared to non-sex offenders in their study of about two-thirds of all sex offenders released from state prisons in 1994.

- **Female sex offenders have lower rates of sexual and general recidivism than male sex offenders.** Five- to six-year rates of sexual recidivism for female sex offenders may be as low as 1 to 3 percent. The empirical evidence regarding the differential recidivism rates of female and male sex offenders suggests that intervention and management practices need to differentiate between female and male sex offenders, and that procedures for assessing risk developed for male sex offenders are unlikely to be accurate when applied to female sex offenders (Cortoni, Hanson, & Coache, 2010). In addition, until stronger empirical evidence is assembled concerning the factors associated with female sex offender recidivism, assessment and intervention practices for female sex offenders should be driven by scientific evidence on female offenders overall rather than by knowledge about male sex offenders (Cortoni & Hanson, 2005; Public Safety Canada, 2006).

- **Different types of sex offenders have markedly different rates of recidivism.** Research that examines the recidivism of rapists and child molesters indicates that the highest observed recidivism rates are found among child molesters who offend against boys. Harris and Hanson's (2004) analysis, for example, found a 5-year sexual recidivism rate of 23 percent and a 15-year sexual recidivism rate of 35 percent for molesters of boys. Comparatively lower recidivism rates are found for rapists, child molesters who victimize girls, and incest offenders. In the Harris and Hanson (2004) analysis, rapists were found to have a 5-year sexual recidivism rate of 14 percent and a 15-year sexual recidivism rate of 24 percent. Child molesters who victimize girls were found to have a 5-year sexual recidivism rate of 9 percent and a 15-year sexual recidivism rate of 16 percent. While differential rates of recidivism between opposite-sex and same-sex child molesters have not always been found in research, the weight of the evidence suggests that contact offenders who target boys are more likely to sexually reoffend than those who target girls (Seto, 2008).[38] Incest offenders appear to have lower sexual recidivism rates than rapists or other child molesters. In the Harris and Hanson (2004) analysis, incest offenders were found to have a 5-year sexual recidivism rate of 6 percent and a 15-year sexual recidivism rate of 13 percent. It is important to keep in mind, however, that the recidivism rates observed for child molesters, and for incest offenders particularly, are artificially depressed by underreporting even more so than recidivism rates for other types of sex offenders, as research indicates that child victims who know their perpetrator are the least likely to report their victimization. In addition, both gender-crossover and age-crossover offending are not uncommon, and far more research on the recidivism patterns of crossover offenders is needed.

"Different types of sex offenders have a different propensity to reoffend."

Still, the empirical evidence clearly demonstrates that different types of sex offenders have a different propensity to reoffend. This suggests that different recidivism-reduction policies and practices are needed for different types of sex offenders. Policies and practices that take into account the differential reoffending risks posed by different types of sex offenders are likely to be more effective and cost-beneficial than those that treat sex offenders as a largely homogenous group.

While a sound foundation of knowledge on the extent of sex offender recidivism has been produced in recent years, significant knowledge gaps and unresolved controversies remain. Variations across studies in the operational definition of recidivism,

the length of the followup period employed, and other measurement factors continue to make it difficult to make cross-study comparisons of observed recidivism rates. Interpreting disparate findings and their implications for policy and practice also remains a challenge.

"Research documenting the recidivism patterns of crossover offenders and other specific sex offender subtypes is needed."

While the operational definitions and followup periods employed in sex offender recidivism research will largely be dictated by the available data, studies that produce more readily comparable findings are greatly needed, as are those that employ followup periods longer than 5 years. Analyses that standardize the time at risk for all offenders in a given study using survival analysis also are needed. Future research should also attempt to build a stronger evidence base on the differential recidivism patterns of different types of sex offenders. While important information on the recidivism of rapists and child molesters has been produced, far more evidence regarding the recidivism patterns of crossover offenders and other specific sex offender subtypes is needed.

"We must develop a way to bridge the gap between the perspective that "few sex offenders reoffend" and the evidence that few victims report their victimization."

Finally, far more **policy-relevant** research is needed on the absolute and relative risks that different types of sex offenders pose. The extant literature on sex offender recidivism has thus far been unable to decisively resolve the readily apparent controversy that exists in the field about the proper interpretation of recidivism data and its meaning for public policy. On one hand, some researchers interpret the observed recidivism rates of sex offenders as low, and hence argue for revisions to the current sex offender policy framework. Other researchers are more reticent to interpret recidivism data in the same way, pointing out that the true reoffense rates of sex offenders remain largely unknown due to underreporting and other factors. There is little question that policies and practices aimed at the reduction of sex offender recidivism would be far more effective and cost-beneficial if they better aligned with the empirical evidence, but bridging the gap is plagued by measurement problems and conflicting interpretations of the existing scientific evidence. Individual and community safety would no doubt be served by a redoubling of efforts to break down victim reporting barriers, improve research, and build more meaningful collaborations between researchers, policymakers, practitioners, and the public.

Notes

1. Also see the definition for recidivism in Public Safety Canada's Glossary of Key Terms in Crime Prevention.

2. This includes offenders returning to the community upon release from incarceration as well as offenders who are serving or who have been discharged from community-based sentences.

3. Some researchers interpret the observed recidivism rates of sex offenders as relatively low or conclude that most sex offenders do not recidivate. Others are more reticent to interpret recidivism data in the same way, arguing that the true reoffense rates of sex offenders are high or unknown or that observed recidivism rates can be misleading because the propensity of sex offenders to reoffend is poorly reflected in officially recorded recidivism, particularly when short followup periods are involved.

4. See Pipe and colleagues (2007) for more information about childhood disclosure of sexual abuse.

5. Some studies that examine the recidivism of offenders on parole or probation include in their definition of recidivism imprisonment that results from a technical violation of the conditions of release or supervision.

6. For example, some offenders found to be nonrecidivists may have moved out of state before the end of the followup period, or some may have spent a portion of the followup period in jail. Had these offenders actually been at risk in the community for the entire followup period, recidivism may have been detected, resulting in a higher observed recidivism rate for the entire group of offenders being studied.

7. Some single studies do not simply calculate the proportion rearrested, reconvicted, or returned to prison; rather, they employ a technique called survival analysis, which standardizes the at-risk time for everyone in the analysis. See endnote 29.

8. Meta-analysis has been criticized by some researchers, primarily for mixing very different studies together or for including studies of questionable quality in the analysis. Advances in methods regarding heterogeneity and methodological variability can successfully address these criticisms. See, for example, Petrosino and Lavenberg (2007); Wilson and Lipsey (2001); and Lipsey (2002). Meta-analyses that are based on prudent exclusionary criteria, incorporate statistical tests of homogeneity, and explore how methodological and contextual variations impact treatment effects are uniquely equipped to provide policymakers and practitioners with highly trustworthy and credible evidence.

9. Sample and Bray (2003) did not report the number of 1990 arrestees who were categorized as sex offenders.

10. Twenty-two of the studies examined sexual recidivism (3,121 treated sex offenders and 3,625 comparison offenders) and 13 studies examined general recidivism (1,979 treated sex offenders and 2,822 comparison offenders).

11. Recidivism was defined as reconviction in 10 studies and rearrest in 12 studies. In one study, the criterion for recidivism was not specified. Average followup periods ranged from 1 to 21 years, with a median of 4.7 years.

12. The 43 studies examined 5,078 treated offenders and 4,376 untreated offenders. Thirty-eight studies reported sexual recidivism (4,321 treated sex offenders and 3,591 comparison offenders) and 30 studies reported general recidivism (3,356 treated sex offenders and 2,475 comparison offenders). Recidivism was defined as reconviction in 8 studies and rearrest in 11 studies. In 20 studies, broad definitions of recidivism were used, including parole violations, readmissions to institutions, or community reports. Average followup periods ranged from 1 to 16 years, with a median of 46 months.

13. The 22,181 study subjects included 9,512 treated sexual offenders and 12,669 untreated sexual offenders.

14. These recidivism rates are based on the n-weighted average for the treatment and comparison groups. The unweighted average recidivism rates were 12 percent for the treatment group and 24 percent for the comparison group. The average followup period for treated sex offenders was 63.54 months (5.3 years) and the average followup period for untreated offenders was 62.41 months (5.2 years).

15. A handful of other studies have employed followup periods of 20 or more years. Prentky and colleagues (1997), for example, examined the recidivism rates of rapists and child molesters at various followup points; the longest was 25 years after the offenders' release from confinement. The observed sexual recidivism rate after 5 years of followup was 19 percent for both rapists and child molesters. By comparison, the observed sexual recidivism rates after 25 years of followup were 39 percent for rapists and 52 percent for child molesters. These analyses are discussed in greater detail in the "Recidivism Rates: Different Types of Sex Offenders" section in this chapter.

16. The sexual recidivism analysis was based on a combined sample of 23,393 offenders; the general recidivism analysis was based on a combined sample of 19,374 offenders.

17. The sexual recidivism analysis was based on a combined sample of 20,440 offenders; the general recidivism analysis was based on a combined sample of 13,196 offenders.

18. Reliable estimates on the prevalence of female sexual offending are difficult to obtain, as a number of factors can affect the recognition of female perpetrated sex offenses (CSOM, 2007). According to the Federal Bureau of Investigation's Uniform Crime Reports (UCR), only about 1 percent of the offenders arrested for rape in 2009 were female. (For more on UCR, see the "Uniform Crime Report" section of chapter 1, "Incidence and Prevalence of Sexual Offending," in the Adult section.) A recent Safer Society survey of sex offender treatment programs in the United States and Canada found that females accounted for about 5 percent of the clients treated in U.S. programs in 2008 (McGrath et al., 2010).

19. The definition of recidivism varied widely, ranging from arrests to convictions and reports provided by probation officers.

20. Recidivism rates for males sex offenders were derived from Hanson and Bussière (1998) and Hanson and Morton-Bourgon (2004).

21. $p < .001$.

22. Five-year recidivism rates were based on 1,041 female offenders.

23. The sexual, violent, and overall recidivism rates for male sex offenders were drawn from Hanson and Bussiere (1998) and Hanson and Morton-Bourgon (2004).

24. Recidivism was defined as an arrest, charge, conviction, or incarceration for a new offense.

25. As a comparison, the researchers reported a sexual recidivism rate of 13.7 percent for male sex offenders based on an average followup period of 5.5 years. The average sexual recidivism rate reported for male sex offenders was derived from a previous meta-analysis (Hanson & Morton-Bourgon, 2004) of 84 studies involving 20,440 sex offenders, the majority of whom were males. Hanson and Morton-Bourgon (2004) reported that 1 of the 84 studies in the meta-analysis focused on female sex offenders. Based on the N-size reported in that study of female offenders, fewer than 100 of the 20,440 sex offenders in the Hanson and Morton-Bourgon (2004) meta-analysis were female.

26. The 5-year recidivism rate estimate is based on 514 offenders, the 10-year estimate is based on 261 offenders, and the 15-year estimate is based on 157 offenders.

27. The study conducted by Langan, Schmitt, and Durose (2003) separated "violent sex crimes" into two categories: "rape" and "other sexual assault." The term "rapist" was used to refer to a released sex offender whose imprisonment offense was defined by state law as forcible intercourse with a female or male. The "rape" category excluded statutory rape or any other nonforcible sexual act with a minor or with someone unable to give legal or factual consent. Sex offenders whose imprisonment offense was a violent sex crime that could not be positively identified as "rape" were placed in the "sexual assault" category. The 3-year recidivism rates reported for the 6,576 sex offenders categorized as sexual assaulters follow: 5.5 percent were rearrested for a new sex crime, 16.4 percent were rearrested for a violent crime, and 41.5 percent were rearrested for a crime of any kind.

28. Maletzky and Steinhauser (2002) conducted a study of 7,275 sexual offenders, including 448 rapists, who entered a treatment program between 1973 and 1997. Although the followup period for some offenders was as long as 25 years, the failure rates reported in the study were based on self-admission of covert and/or overt deviant behaviors or the presence of deviant sexual arousal (which is not a crime), in addition to reoffending.

29. Prentky and his colleagues also employed a statistical technique called survival analysis, which takes into account the amount of time each offender has been on the street and is thus able to reoffend. Recidivism is reported as the failure rate, which is the proportion of individuals who recidivated (or failed) based on a standardized time at risk for all study subjects. Determining the simple proportion of individuals who reoffended during the followup period—the most common method of calculating a recidivism rate—can underestimate the rate of recidivism because some of the nonrecidivists may not have been at risk in the community for the entire followup period. Had they been, recidivism may have been detected, resulting in a higher observed recidivism rate for the entire group of

offenders being studied. By standardizing the at-risk time for all study subjects, survival analysis yields a more accurate estimate of recidivism.

30. These recidivism rates are the failure rates generated by survival analysis and reported in the study.

31. Prentky and Lee's 2007 analysis of the relationship between age at release and age at recidivism used the same sample of 136 civilly committed rapists used in their 1997 research.

32. Of the approximately 141 children allegedly molested by these child molesters during the postrelease followup, 79 percent were age 13 or younger.

33. The sexual and overall recidivism rates reported here are failure rates reported by Prentky and colleagues (1997) based on survival analysis.

34. With respect to gender crossover, research suggests that the majority of offenders who assault males have also assaulted females (63–92 percent), but not the reverse (23–37 percent) (Abel & Osborn, 1992; English et al., 2000; Heil, Ahlmeyer, & Simons, 2003). (For more information on "Sex Offender Typologies," see chapter 3 in the Adult section).

35. Outcome data for both studies were obtained from official records and police reports, and recidivism was defined as a new charge or conviction or an incident where exposing behavior was reported to law enforcement and the offender was identified in the police report, even if the alleged incident did not lead to a criminal charge.

36. All of the treated and comparison offenders were charged with exhibitionism and psychologically assessed between 1976 and 1984. The 23 treated offenders participated in the treatment program being studied. The 21 comparison offenders were referred to counseling in their local community.

37. Variation in sex offender management practices over time or across jurisdictions may also limit the transferability of findings. Some researchers, for example, have expressed concern about generalizing recidivism findings derived from lengthy followup periods to present-day sex offenders because sex offender management strategies have changed and improved over time (see, e.g., Wilson, 2011). See, for example, Maletzky and Steinhauser (2002) for a discussion of treatment improvement over time and see, for example, Lösel and Schmucker (2005) for an alternative finding. Also, some researchers have questioned the comparability of findings from studies of domestic and foreign sex offenders on the grounds that U.S. offenders are often subject to polygraph testing, whereas foreign offenders are not.

38. Studies that have not found a difference in recidivism between opposite-sex and same-sex child molesters include Barbaree and Marshall (1988) and Prentky and colleagues (1997).

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Chapter 6: Sex Offender Risk Assessment

by Kevin Baldwin, Ph.D.

Introduction

Although the desire to predict the risk of future violence posed by individuals is likely centuries old, risk assessment efforts until recently have been relatively unsuccessful in terms of their predictive accuracy. Notwithstanding pseudoscientific methods such as phrenology (which claimed to gauge behavior propensities based on measurements of the skull), risk assessment for many decades has primarily involved individual mental health professionals applying their accumulated experience and clinical acumen to produce a clinical judgment of the degree of risk posed by a particular individual. Scientists have repeatedly questioned the validity of such unstructured clinical judgment as the basis for risk assessments (Grove, 2005; Grove & Meehl, 1996; Meehl, 1954), but it took the publication of John Monahan's *Predicting Violent Behavior: An Assessment of Clinical Techniques* in 1981 to usher in a truly scientific approach to violence risk assessment. In the three decades since the publication of Monahan's book, the relative accuracy of violence risk assessments has increased substantially.

The ability to accurately assess the likelihood of future violent acts—and future criminal behavior more generally—is important to clinicians, policymakers, and the public alike. In this context, risk assessment typically involves arriving at an estimate of the likelihood that an offender will recidivate (that is, revert to illegal behavior) after the individual experiences legal consequences or intervention for a prior criminal act. (For more information on "Adult Sex Offender Recidivism," see chapter 5 in the Adult section.)

Risk assessment serves many purposes throughout the offender adjudication process. It is often undertaken for dispositional purposes to help determine, for example, an appropriate sentence or custody level or the conditions of community supervision. In these situations decisions are often predicated, at least in part, on the assessed likelihood of recidivism, with resources being allocated accordingly to promote community safety (Kingston et al., 2008).

Research has suggested that offenders convicted of sexual offenses have received more attention from policymakers than any other category of offenders over the past 20 years (Ackerman et al., 2011; Levenson, 2009), and that there is consequently a need for methods and tools that can be used to accurately assess the risk to public safety that sexual offenders pose. Indeed, estimates of risk for sex offenders are used in various community corrections, institutional corrections, and civil commitment decision-making contexts. Thus, the scientific and theoretical underpinnings of risk assessment are a

critical component of the successful management of adult sexual offenders (Tabachnick & Klein, 2011). (For more on "Sex Offender Management Strategies," see chapter 8 in the Adult section.)

"The purposes of risk assessment span the spectrum of the adjudication process."

In many respects, the effectiveness of sex offender management policies relies on the ability of criminal justice professionals to accurately differentiate sexual offenders according to their risk for recidivism (Hanson & Morton-Bourgon, 2005). Arguing from a policy standpoint, Tabachnick and Klein (2011) have stated that the results of actuarial risk assessments in particular should inform decision-making at all levels regarding the supervision of adult sexual offenders in order to prevent recidivism.

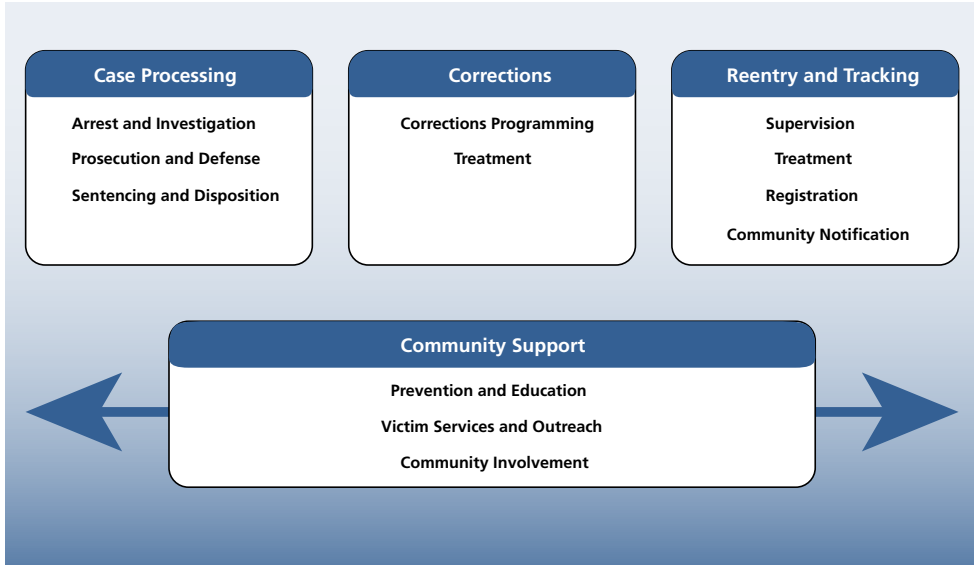
While much progress has been made regarding the ability of professionals in the field to accurately estimate the likelihood of future sexual reoffense, no one is presently able to estimate either the timing or the severity of such future criminal conduct (J. Levenson, personal communication, May 23, 2011). Therefore, it is critically important to establish a clear understanding of exactly what risk is being assessed and to frame expectations accordingly. Current methods at present allow, in most cases, only for an estimate of the likelihood of both future sexual and nonsexual offending over a specific timeframe. The accuracy of these estimates depends in part on the degree to which the individual offender being assessed matches a known group of sex offenders and the degree to which the factors included in the risk assessment accurately reflect the known universe of relevant risk factors.

Review of Research

Sex offender risk assessments are most often employed in applied forensic settings for purposes of decision-making (Doren, 2002). The typical venues for sex offender risk assessment include—

- Sentencing and criminal adjudications, during which the results of the assessment are used to ascertain appropriate levels and periods of confinement and/or community supervision.
- Determinations of treatment needs, settings, and modalities.
- Sex Offender Registration and Notification (SORN) proceedings, during which the results of the assessment are used to classify ("level") offenders based on their assessed risk.

FIGURE 1. SEX OFFENDER MANAGEMENT PRACTICES ACROSS THE CRIMINAL JUSTICE SPECTRUM



- Civil commitment proceedings, during which the results of the assessment are used to argue for and against indefinite confinement based on the assessed risk for sexual recidivism.

"There are three generations of risk assessment methods: Unstructured professional opinion, actuarial methods using static predictors, and methods that include both static and dynamic factors."

Methods of assessing sex offender risk can generally be categorized as follows (Hanson, 1998):

- **Unguided (or unstructured) clinical judgment:** The evaluator[1] reviews case material and applies personal experience to arrive at a risk estimate, without relying on a specific list of risk factors or underlying theory to prioritize or weight any of the information used.

- **Guided (or structured) clinical judgment:** The evaluator begins with a finite list of factors thought to be related to risk, drawn from personal experience and/or theory rather than from relevant empirical evidence.

- **Research-guided clinical judgment:** The evaluator begins with a finite list of factors identified in the professional literature as being related to risk. While these factors are given priority in the risk assessment, they are combined with other factors and considerations using the clinician's judgment.

- **Pure actuarial approach:** The evaluator employs an existing instrument composed of a finite, weighted set of factors (generally static, or relatively unchanging and historical in nature) identified in the literature as being associated with risk. The instrument is used to identify the presence or absence of each risk factor, and an estimate of risk is arrived at through a standard, prescribed means of combining the factors. This approach is the only risk assessment method that can be scored using a computerized algorithm or by minimally trained nonclinicians.

- **Adjusted actuarial approach:** The evaluator begins with the administration of an existing actuarial instrument and then employs a finite list of considerations that can be used to raise or lower the assessed level of risk.

Comparisons of the above-described approaches to risk assessment have a long and at times contentious history (Grove, 2005; Grove & Meehl, 1996; Grove et al., 2000; Meehl, 1954). While the superiority of structured approaches to unstructured approaches appears to have been settled (Grove, 2005; Hanson & Morton-Bourgon, 2009; A. Phenix, personal communication, May 10, 2011), each of the structured approaches has its merits as well as its supporters and detractors (Doren, 2002; A. Phenix, personal communication, May 10, 2011). Nonetheless, recent research (Hanson & Morton-Bourgon, 2009) suggests that pure actuarial assessments should be favored over other approaches (Hanson, 2009).

Criminologist James Bonta (1996) has identified three generations of risk assessment methods: unstructured professional opinion (corresponding to Hanson's (1998) unstructured clinical judgment), actuarial methods using static predictors (corresponding to Hanson's actuarial approach), and methods that include both static and dynamic factors (referred to by Bonta as criminogenic needs). By including dynamic risk factors in the assessment process, third-generation risk assessments can be used to both guide and evaluate the impact of intervention efforts. The current thinking in the field confirms the promise of third-generation risk assessment methods, as research tells us more about the relationship between specific dynamic factors and risk for recidivism (Hanson, 2011; Mann, Hanson, & Thornton, 2010; A. Phenix, personal communication, May 10, 2011).

For accurate risk assessment to occur, the factors associated with the type of risk being assessed must be known. Knowledge about the risk factors associated with recidivism typically is generated through research in which the recidivism rate for offenders with a particular characteristic is compared to the recidivism rate for offenders without that characteristic, or for offenders possessing other characteristics (Hanson, 2000). To

date, no single characteristic (that is, "risk factor") has been found in isolation to be a robust predictor of recidivism. As a result, the assessment of risk by necessity involves the combination of a number of risk factors in a meaningful manner.

Karl Hanson and his colleagues (Hanson & Bussière, 1998; Hanson & Morton-Bourgon, 2005) have published the results of a series of meta-analyses[2] that together have shed considerable light on the known universe of static risk factors associated with sexual recidivism. The strongest predictors of sexual recidivism are factors related to sexual criminality, such as a demonstrated sexual interest in children, a history of prior sexual offenses, the age of onset of sexual offending behavior, and having committed a variety of sexual offenses. Factors relating to a lifestyle of instability/criminality were also found to be associated with sexual offense recidivism (Hanson & Bussière, 1998; Hanson & Morton-Bourgon, 2005). Criminal lifestyle characteristics (e.g., substance abuse, history of rule violation) are also the factors most strongly related to violent and any recidivism among sex offenders, mentally disordered offenders, and offenders in general (Hanson & Morton-Bourgon, 2009). Over the past three decades, numerous studies have examined the factors that are related to sexual offense recidivism, and not a single study has found the specific type of crime an offender is convicted of to be predictive of the likelihood of recidivism (Freeman & Sandler, 2010).

Sex offender risk assessment, while similar in many ways to the assessment of other latent constructs (psychological concepts) within psychology and mental health, differs in at least one significant aspect. The construct being assessed—the commission of a new sexual offense—is unobservable and is likely never to be observed by the assessor. Sex offender risk assessment entails a process of estimating the likelihood of a future event based entirely on secondary, indicator variables (Hanson, 2009). While actuarial risk assessment tools must meet standard criteria for psychological measures (e.g., reliability and validity), the utility of these instruments depends considerably on the selection of relevant risk factors and the methods used to combine these factors to arrive at a meaningful overall assessment of risk (Hanson, 2009). It is important to keep in mind that for purposes of risk assessment, the utility of a risk factor depends on its empirical relationship to the outcome being predicted (Helmus et al., 2012). The consideration of base rates is also critical (Thornton, Hanson, & Helmus, 2011). The base rate is equal to the proportion of a group that shares a specific characteristic. For purposes of sex offender risk assessment, the relevant base rate is the proportion of convicted sex offenders who commit a subsequent sexual offense, either over a specified timeframe or over the course of their lifetime. **The base rate is arrived at through reference to large meta-analyses of sex offender recidivism, such as Hanson and Bussière (1998) and Hanson and Morton-Bourgon (2005). These studies found the 5-year recidivism rate to be approximately 13 percent. It is important to remember, however, that this figure is an underestimate, given that not all recidivist behavior is detected.**

The accurate assessment of risk involves gaining an understanding of all available, relevant factors associated with the known criterion or outcome behavior. While research findings are quite consistent regarding the historical, relatively unchangeable factors referred to as "static" risk factors (e.g., age at first offense, number of previous convictions), there is less agreement at present regarding more fluid, changeable risk factors referred to as "dynamic" risk factors (e.g., employment status, cooperation with supervision). The utility of a rather fixed set of static variables associated with sex offender risk has been established in numerous studies (Hanson & Bussière, 1998; Hanson & Morton Bourgon, 2005), and empirically identified static risk factors are a primary component of several valid and reliable instruments used in the field today (e.g., Static 99R, Static-2002R, MnSOST-R).

A number of instruments incorporating dynamic factors have appeared in recent years, such as the Stable-2007/Acute-2007 (Hanson et al., 2007) and the Forensic version of the Structured Risk Assessment (Thornton & Knight, 2009). Neither of these instruments, however, has the research backing of the more established instruments of static risk, such as the Static-99R and Static 2002R. A recent meta-analysis (Mann, Hanson, & Thornton, 2010) provides the most complete understanding to

date of the relationship between a host of dynamic factors and sex offender recidivism.

The use of third-generation risk assessment instruments that incorporate both static and dynamic risk factors is becoming more prevalent (Hanson & Morton-Bourgon, 2009; A. Phenix, personal communication, May 10, 2011). These instruments have the potential added benefit of providing targets for intervention. An example of a third-generation instrument is the Level of Service/Case Management Inventory (Andrews, Bonta, & Wormith, 2004), which provides a general assessment of risks and needs for criminal-justice-involved persons. The Violence Risk Scale: Sexual Offender Version (VRS:SO) is a recently developed instrument specifically designed to assess risks and needs among sex offenders. This measure contains 7 static factors and 17 dynamic factors; the dynamic, treatment-change factors are based on the Transtheoretical Model of Change (Beggs & Grace, 2010). (For more on treatment, see chapter 7, "The Effectiveness of Treatment for Adult Sex Offenders," in the Adult section.)

"The use of third-generation risk assessment instruments that incorporate both static and dynamic risk factors is becoming more prevalent. These instruments have the potential added benefit of providing targets for treatment."

A variety of sex offender risk assessment tools possess acceptable, empirically supported psychometric properties (Doren, 2002, 2006; Hanson, 2009; A. Phenix, personal communication, May 10, 2011). While a complete review and analysis of these instruments is beyond the scope of this chapter, a meta-analysis conducted by Hanson and Morton-Bourgon (2009) provides important insights concerning the relative accuracy of different approaches. Their analysis consisted of 536 findings drawn from 118 distinct samples with a total sample of 45,398 sex offenders in 16 different countries. The followup periods ranged from 6 months to 23 years; the average followup period was 5 years and 10 months (standard deviation = 46.6 months). The following types of risk assessment approaches were included in the analysis: empirical actuarial, mechanical (using factors chosen primarily on the basis of theory or literature reviews), adjusted actuarial, structured professional judgment, and unstructured professional judgment.

Hanson and Morton-Bourgon (2009) concluded that empirically derived actuarial approaches were more accurate than unstructured professional judgment in assessing risk of all outcomes (sexual, violent, and any recidivism). The accuracy of structured professional judgment methods fell in between these two methods. For the prediction of sexual recidivism, actuarial instruments designed for assessing the risk of sexual recidivism had the greatest predictive accuracy, followed by mechanical approaches designed for assessing the risk of sexual recidivism and actuarial instruments designed for assessing the risk of general recidivism. Unstructured professional judgment and actuarial instruments for assessing violent recidivism risk were less accurate in assessing the likelihood of sexual recidivism. The predictive accuracy of structured professional judgment fell in between that of actuarial instruments and unstructured professional judgment approaches. In addition, structured professional judgment exhibited a large degree of variability in the few studies that examined this method (Hanson & Morton-Bourgon, 2009).

Hanson and Morton-Bourgon (2009) also found that for assessing the likelihood of sexual recidivism, the best-supported instruments were the—

- Static-99 (Hanson & Thornton, 2000).
- Static-2002 (Hanson, Helmus, & Thornton, 2010).
- MnSOST-R (Epperson et al., 2000).
- Risk Matrix-2000 Sex (Kingston et al., 2008).
- SVR-20, specifically using the mechanical approach of adding up the item scores (Boer et al., 1997).

For assessing the likelihood of violent (including sexual) recidivism, the best-supported instruments were the—

- Violence Risk Appraisal Guide (VRAG) (Webster et al., 1994).
- Sex Offender Risk Appraisal Guide (SORAG) (Quinsey et al., 2006).
- Risk Matrix-2000 Combined (Thornton, 2007).
- Statistic Index of Recidivism (SIR) (Nafekh & Motiuk, 2002).
- Level of Service Inventory-Revised (LSI-R) and its variants (Andrews, Bonta, & Wormith, 2004, 2006).

Some risk assessment experts have suggested that the accuracy of purely actuarial approaches can be increased if certain dynamic risk factors (e.g., active substance abuse, demonstrated pro-offending attitudes) are included in the assessment instrument or otherwise considered as part of the assessment process. Discussions of the relative merits of this approach can be found in Wollert and colleagues, 2010; Hanson and Morton-Bourgon, 2009; Doren, 2002; and McGrath, Cumming, and Lasher, 2012. One dynamic risk factor that has received considerable attention in this context is the offender's age at the time of assessment. The inverse relationship between age and criminal offending—as age increases, offending decreases—is one of the more robust findings within criminology. This relationship has been found to hold across time and geographic locations, for different types of crimes and offenders, and in both community and incarcerated offender populations (Hirschi & Gottfredson, 1983). Age as an adjusting factor in risk assessment has received considerable attention not only because of the strength and consistency of its relationship to offending, but also because some actuarial instruments (e.g., Static-99 and Static-2002) have been found to underestimate the likelihood of recidivism for younger offenders and to overestimate it for older offenders (Helmus et al., 2012; Wollert et al., 2010). As a result of these findings, the Static-99 and Static-2002 have been revised to better account for the impact of the offender's age at the time of assessment, resulting in the Static-99R and Static-2002R. (Both of these revised instruments do not need to be adjusted for age.) Using age-adjusted risk tables is especially important when assessing older offenders.

Another set of factors often considered as potential adjustments to actuarial measures are those referred to as "criminogenic needs" (Bonta, 1996) or psychologically meaningful risk factors (Mann, Hanson, & Thornton, 2010). These are dynamic (that is, changeable) risk factors that can serve as targets for intervention efforts. For a risk factor to be considered psychologically meaningful, there must be a plausible rationale that the factor is a cause of sexual offending and there must be strong empirical evidence that the factor predicts sexual recidivism. This latter requirement is best demonstrated through research associating variation between groups in the predictor (proposed predicting factor) with variation between groups in the rate of failure (Hanson, 2009).

While it stands to reason that clinicians would want to consider dynamic factors when assessing risk, doing so via an adjustment of actuarial instruments may not be the most effective way. Although few studies have examined the effects of making actuarial risk assessment clinical adjustments, those that have done so found that overrides—a consideration of factors outside the actuarial scheme (i.e., the evaluator judges whether the predicted recidivism rate is a fair evaluation of the offender's risk)—decrease predictive accuracy (Hanson, 2009; Hanson & Morton-Bourgon, 2009). These studies (Gore, 2007; Hanson, 2007; Vrana, Sroga, & Guzzo, 2008) have all been prospective in nature, and they involved actuarial instruments currently used with sex offenders.

It is important to note that empirical research undertaken to date has yet to identify a single "best" assessment instrument. With this and the limitations of using only one risk assessment instrument (particularly in especially high-stakes situations such as civil commitment evaluations) in mind, clinicians have considered the potential benefits of using more than one instrument during the assessment process (Doren, 2002; Hanson, 2009, 2011). In fact, in a study of evaluators who conduct civil commitment evaluations, Jackson and Hess

(2007) reported that 79.5 percent of the evaluators use more than one actuarial instrument in their sex offender civil commitment evaluations.

> *"Empirical research has yet to identify a single "best" risk assessment instrument."*

Two primary rationales support the notion that using more than one instrument provides potential benefits. First, classical test theory suggests that increasing the number of items in an assessment increases reliability and coverage. Second, if there are multiple driving forces behind sexual offending behavior, and individual risk assessment instruments tap these underlying dimensions or pathways to sexual offense recidivism differentially, then the use of multiple instruments would have a distinct advantage over the use of a single instrument alone. As Doren (2002, p. 138) points out, "The evidence for multiple underlying dimensions potentially driving sexual offending represents the main relative weakness to using only the 'best' single risk assessment instrument in a sex offender civil commitment evaluation."

Indeed, the empirical evidence suggests that multiple dimensions or pathways underlie sexual offending, with a number of scholars describing a convergence between two of these dimensions: sexual criminality and general criminality. Doren (2002) describes the high sexual criminality/low general criminality pathway as typical of the generally law-abiding pedophile, and the low sexual criminality/high general criminality pathway as typical of an antisocial individual for whom sexual violence is simply one of many manifestations of a criminal behavioral pattern. Evidence for these two pathways also has been found in meta-analytic studies of the factors associated with sex offender recidivism (Hanson & Bussière, 1998; Hanson & Morton-Bourgon, 2005). Hence, an evaluation of both dimensions/pathways as part of the risk assessment process seems beneficial and advisable, whether it is done using a single instrument that assesses both dimensions or multiple instruments that tap each dimension separately. (For more about pathways, see chapter 3, "Sex Offender Typologies," in the Adult section.)

These two underlying dimensions of sexual offending were discussed in a recent study of the incremental validity of a number of actuarial instruments (Babchishin, Hanson, & Helmus, 2011). As part of that study, the Rapid Risk Assessment for Sex Offense Recidivism (RRASOR) instrument was found to tap sexual criminality, while the Static-99 was found to assess risk along the general criminality pathway. Further, Babchishin, Hanson, and Helmus (2011) found that the RRASOR (which taps the sexual criminality dimension) and the Static-99R and Static-2002R (both of which tap the general criminality dimension) all added incremental validity to one another, in spite of substantial intercorrelations and substantial item overlap across the three instruments.

There are other compelling reasons to use more than one instrument during the risk assessment process, even when the instruments tap the same dimension or the same theoretical domain. Including a larger number of items that assess the same construct and having similar predictive accuracy increases reliability and adds to the overall predictive accuracy of the procedure. When using scales that assess the same domain of risk factors, averaging the scores is recommended. If the scales do not assess the same factors, evaluators will need to apply a scoring model that identifies the latent constructs assessed by the scales and that is based on empirical evidence concerning the manner in which the separate constructs should be weighted and combined. If such an empirically supported model is not possible, it is recommended that evaluators use the single instrument in which they have the most confidence (Babchishin, Hanson, & Helmus, 2011).

Another issue of critical importance in sex offender risk assessment is the communication of risk assessment findings (Babchishin & Hanson, 2009; Doren, 2002; Hanson, 2009). Currently, nominal descriptors of risk (low, moderate, and high) are used most commonly (Babchishin & Hanson, 2009). While qualitative descriptions in general and these particular nominal descriptors are usually preferred over numerical formats for communicating risk, the use of qualitative labels alone has certain limitations. Perhaps the most significant limitation is that clinicians (as well as decision-makers) can have very different interpretations of what these

nominal categories represent. The context in which risk assessment findings are communicated can also influence interpretation.

One way to mitigate the problems associated with the exclusive use of nominal categories is to also provide numerical indicators of risk, such as a recidivism rate probability, a percentile rank, or a risk ratio. There are various numerical formats commonly used to convey absolute risk, such as frequencies (e.g., the likelihood of recidivism is 1 out of 10) and percentages (e.g., the likelihood of recidivism is 10 percent), both of which are usually accompanied by a specific timeframe (e.g., within the next 5 years). Relative risk estimates, such as percentile ranks (e.g., the individual's risk for reoffense is equal to or greater than 90 percent of offenders) and risk ratios (the individual is four times more likely to sexually recidivate compared to the average offender), are useful as well.

While numerical estimates provide more information and are potentially less ambiguous than qualitative descriptors alone, they too have limitations. For example, even though the assessed risk is the same, risk frequencies reported with larger denominators (e.g., 10 out of 10,000 compared to 1 out of 1,000) tend to result in higher perceived risk. Interpreting numerical risk estimates properly can also be a challenge when base rates for the behavior in question are unknown or are not taken into consideration. Simply put, people tend to overestimate the likelihood of low-probability events and underestimate the likelihood of high-probability events. For instance, people are more likely to fear flying than driving, even though the likelihood of dying in a car crash is many times that of dying in a plane crash.

Evaluators can also make mistakes when communicating the results of risk assessments. Doren (2002) has identified three common errors in communicating results when using a single instrument: incorrectly describing the risk percentage associated with a particular score, neglecting to address sampling error or failing to provide confidence interval estimates, and ignoring or incorrectly stating the qualifiers as to what has been assessed.

Consumers of risk assessment information typically desire more than a simple nominal or numeric indicator of risk. Frequently, decision-makers want the risk assessment process to provide them with information on the likelihood of recidivism, the potential consequences associated with recidivism, and what might be done to mitigate the assessed risk (Hanson, 2009). Doren's (2002) recommendations for communicating the results of sex offender risk assessment, especially in cases involving civil commitment, include the following:

- Nominal risk categories should be accompanied by numerical risk estimates. When used in tandem, nominal and numerical means of conveying risk are more accurate and informative than either one is in isolation.

- Nominal categories should be explicitly defined so as to limit the degree to which readers define for themselves the meaning of the specific nominal descriptors. Two examples would be stating that "low risk" means that the risk of sexual recidivism is similar to what would be expected from a group of non-sex offenders, and "high risk" means that an offender is more likely than not to sexually recidivate over the course of his lifetime.

Significant growth has occurred in recent years in both the development of sex-offender-specific risk assessment instruments and their use in the field. While significant advances have been made regarding the reliability and predictive validity of instruments, a number of limitations remain. As noted above, there is currently no single "best" risk assessment for all offenders in all situations. In fact, there are certain populations for whom there is no validated risk assessment instrument (e.g., child pornography offenders and female offenders). (For more on child pornography offenders, see chapter 4, "Internet-Facilitated Sexual Offending," in the Adult section.) In addition, while development and testing of third-generation instruments continues, some experts are skeptical that a single actuarial scale containing all relevant risk factors could ever be developed (Hanson, 2000). Therefore, contemporary risk assessment involves a bit of paradox: even though research on risk assessment has largely eliminated subjective judgment from within the risk

assessment process itself, clinical judgment on the part of the evaluator is still needed to make valid, research-informed decisions about the appropriate risk assessment instrument(s) to apply in any particular setting. To that end, Hanson (2009) has provided the following set of qualities to guide the future of sex offender risk assessment:

- Assess risk factors whose nature, origins, and effects can be understood.
- Enable reliable and valid assessment of clinically useful causal factors.
- Provide precise estimates of recidivism risk.
- Allow all relevant factors to be considered.
- Inform the development of treatment targets and risk management strategies.
- Allow the assessment of both long- and short-term changes in risk.
- Incorporate protective factors as well as risk factors.
- Facilitate the engagement of the patient/offender in the assessment process.
- Use risk assessment methods that are easy to implement in a broad range of settings.

Summary

Significant advancements in the science and practice of sex offender risk assessment have occurred over the past two decades. A number of reliable, valid approaches for assessing sex offender risk are now available. Rigorous scientific research has demonstrated that respectable levels of predictive accuracy have been obtained with purely actuarial risk assessment approaches, approaches using structured professional judgment, and the mechanical combination of items from structured risk schemes. While research evidence to date has not indicated which of these approaches are best suited to specific testing circumstances and contexts (Hanson, 2009), recent meta-analyses (Hanson & Morton-Bourgon, 2009) suggest that purely actuarial assessment approaches should be favored over other approaches for the assessment of risk for sexual reoffense (Hanson, 2009). Ultimately, however, decisions about the best approach or instrument to use should be made in the context of the assessment setting, the characteristics of the individual being assessed, and the specific purpose of the risk assessment.

"Training and monitoring of evaluators is needed to ensure that risk assessment procedures and instruments are used appropriately and with integrity."

Many of the purely actuarial tools in wide use today can be completed quickly and easily by a variety of trained personnel (Klima & Lieb, 2008). The advent of automated actuarial tools conceptually allows even clerical workers to compute risk scores using these instruments. It is nonetheless important to provide ongoing training and monitoring of evaluators to ensure that risk assessment procedures and instruments are always used appropriately and with integrity. **The need for training and technical assistance in the context of risk assessment was identified by the 2012 SOMAPI forum participants.**

One of the primary challenges for the field in the future will be to identify more comprehensively the risk factors (both static and dynamic) that are related to sexual offending. Identifying these factors and incorporating them into the risk assessment process will help clinicians and decision-makers better match risk levels to treatment and management efforts, thereby fulfilling the promise of third-generation risk assessment instruments (Bonta, 1996). **The need for tailored rather than uniform interventions, and the need to match sex offender treatment and management efforts to the risk levels and criminogenic needs of sex offenders, were acknowledged by the experts—both researchers and practitioners—who participated in the SOMAPI forum.**

Given the lack of a single best risk assessment instrument, evaluators will continue to have to

rely on their professional judgment to select and employ the best risk assessment approach for the circumstances and setting. Incorporating dynamic risk factors at this point in time requires a structured approach and subsequent clinical adjustment, as there are no universally agreed-upon weights for the relevant dynamic risk factors (A. Phenix, personal communication, May 10, 2011). Additional research concerning the use of dynamic risk factors is clearly needed, along with research on how best to use knowledge about the offender's strengths and assets (protective factors) as the factors that lead to desistence from crime (Griffin et al., 2008; K. Hanson, personal communication, April 8 and June 7, 2011; Maruna & LeBel, 2003).

Research on the best ways to revise assigned risk based on post-index behavior or qualities also is needed. In effect, this entails identifying treatment targets and assessing the impact of treatment on risk and other factors, such as institutional misconduct or the amount of time that has elapsed without a new conviction (K. Hanson, personal communication, April 8 and June 7, 2011). The ability to detect meaningful changes in risk, especially for high-risk offenders, is particularly important (Hanson, 2011; Olver et al., 2007). The VRS:SO is a promising development in this area (Beggs & Grace, 2010; Thornton, Hanson, & Helmus, 2011). Other instruments to consider for gauging changes in risk over time include the STABLE-2007 and the SRA—Forensic Version (Thornton & Knight, 2009). As noted previously, the Static-99 and Static-2002 have recently been revised to incorporate the impact of aging on risk, resulting in the inclusion of new age weights and the publication of the Static-99R and Static-2002R (Helmus et al., 2012).

"Based on current knowledge, using science-based, actuarial methods to assess sex offender risk is advisable."

There also is a need to devise more effective and intuitive means of communicating risk assessment findings. Communication of risk should be tailored to the purpose and setting of the assessment, and both qualitative descriptors and numerical estimates that consumers of risk assessment information can use to guide sex offender management decision-making should be provided. Furnishing decision-makers with both an accurate, contextual understanding of risk, and also with recommendations for mitigating and managing risk, is likely to be most beneficial.

In conclusion, based on current knowledge, using science-based, actuarial methods to assess sex offender risk is highly advisable (Doren, 2002; Hanson & Morton-Bourgon, 2009; Tabachnik & Klein, 2011). As Hanson and Morton-Bourgon (2009, p. 10) aptly state, "Given its genesis in data, the empirical actuarial approach will ultimately provide the best estimates of absolute risk." In fact, such instruments should not be ignored in assessing the risk for sex offender reoffense unless there is clear and justifiable reason to do so, such as in cases for which no applicable risk instrument exists (Hanson & Morton-Bourgon, 2009).

For assessing the likelihood of sexual recidivism, the best-supported instruments are the Static-99, Static-2002, MnSOST-R, Risk Matrix-2000 Sex, and adding the item scores from the SVR-20 (Hanson & Morton-Bourgon, 2009). For assessing the likelihood of violent (including sexual) recidivism, the best supported instruments are the VRAG, the SORAG, the Risk Matrix-2000 Combined, the SIR, and the LSI-R and its variants (Hanson & Morton-Bourgon, 2009).

Notes

1 The terms "evaluator" and "evaluation" used throughout this chapter refer to the individual performing the risk assessment and the overall risk assessment process, respectively.

2 A meta-analysis combines the results of many evaluations into one large study with many subjects.

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Chapter 7: Effectiveness of Treatment for Adult Sex Offenders

by Roger Przybylski

Introduction

Sex offenders have received considerable attention in recent years from both policymakers and the public. This is due at least in part to the profound impact that sex crimes have on victims and the larger community. Perpetrators of sex crimes have come to be viewed by policymakers, practitioners, and arguably the public as a unique group of offenders in need of special management practices. Indeed, therapeutic interventions aimed at reducing the likelihood of reoffending have become a staple of contemporary sex offender management practice. (For more on "Sex Offender Management Strategies," see chapter 8in the Adult section.)

According to a recent Safer Society (McGrath et al., 2010) survey, 1,307 sex-offender-specific treatment programs were operating in the United States in 2008.[1]That year, treatment programs for sex offenders were operating in all 50 states and the District of Columbia, and more than 80 percent of the programs were community based. Sex offender treatment programs in the United States in 2008 provided therapeutic services to more than 53,811 individuals who committed sex crimes.

While there is strong scientific evidence that therapeutic interventions work for criminal offenders overall, the effectiveness of treatment for sex offenders remains subject to debate. Inconsistent research findings and the fact that those studies that have found a positive treatment effect have not been randomized controlled trials are two primary factors contributing to the uncertainty about treatment effectiveness.

The mechanisms that lead to sexually abusive behavior vary by offender. Treatment needs vary by offender as well, and treatment effectiveness is likely to vary depending on various individual and contextual factors. Like therapeutic interventions for other criminal offenders, sex offender treatment at its broadest level is a tool for promoting offender accountability, reducing recidivism, and enhancing public safety. Within that context, policymakers should recognize that even modest reductions in recidivism achieved through treatment can translate into fewer victims, reductions in individual and community harm, and a positive return on taxpayer investment (Drake, Aos, & Miller, 2009; Donato, Shanahan, & Higgins, 1999).

Issues To Consider

While there is growing interest in crime control strategies that are based on scientific evidence,

determining what works is not an easy task. It is not uncommon for studies of the same phenomena to produce ambiguous or even conflicting results, and there are many examples of empirical evidence **misleading** crime control policy and practice because shortcomings in the quality of the research were overlooked and inaccurate conclusions about an intervention's effectiveness were made (see, e.g., Sherman, 2003; McCord, 2003; Boruch, 2007). The importance of basing conclusions about what works on highly trustworthy and credible evidence cannot be overstated, and both the quality and consistency of the research evidence always have to be considered.

Because the quality of research studies may vary and it can be difficult for policymakers and practitioners to understand how one study might differ from another, brief descriptions of the types of studies discussed in this review are provided below. The defining characteristics of experiments (or randomized controlled trials), quasi-experiments, and various forms of synthesis research—specifically, narrative reviews, systematic reviews, and meta-analyses—are briefly described here.

Single Studies

In the fields of criminology and criminal justice, there is general agreement that certain types of single studies—namely, well designed and executed experiments or randomized controlled trials (RCTs)—provide the most trustworthy evidence about an intervention's effectiveness (see, e.g., Sherman et al., 1997; MacKenzie, 2006; Farrington & Welsh, 2007). Modeled on laboratory experiments, RCTs have several key features, most notably the use of random assignment. In random assignment, the researcher randomly decides which study subjects receive the intervention under examination (treatment) and which study subjects do not (control). In RCTs, subjects in the treatment group and subjects in the control group are compared on outcomes of interest, such as recidivism. A comparatively (and statistically significant) lower rate of recidivism for the subjects in the treatment group would indicate that the treatment being tested worked. The random assignment of subjects creates the optimal study conditions for making causal inferences about the effectiveness of an intervention. In other words, the researcher can reasonably conclude that an observed program result—such as a lower recidivism rate for treated subjects—is due to treatment and not some other factor.

While RCTs are an important method for determining the effectiveness of an intervention, they can be difficult to implement in real-life settings. RCTs are expensive and require a level of organizational (and at times, community) cooperation that can be difficult to obtain. In addition, there may be resistance to the use of random assignment on the grounds that withholding potentially beneficial treatment from some study subjects for the sake of research is unethical. In practice, various constraints can preclude an evaluator from using an RCT, and few of these studies have been employed in the assessment of sex offender treatment.

When an RCT cannot be used, researchers examining the effectiveness of an intervention typically employ the next best approach, a quasi-experiment. Many quasi-experiments are similar to RCTs; however, they do not employ random assignment. These studies typically involve a comparison of outcomes—such as recidivism—observed for treatment participants and a comparison group of subjects who did not receive treatment. In this approach, researchers try to ensure that the treatment and comparison subjects are similar in all ways but one: participation in the treatment program. This is often accomplished by matching the treatment and comparison offenders on demographics, criminal history, risk level, and other factors that are related to the outcome of interest. Sometimes statistical techniques are employed retrospectively to create equivalence between the treated and comparison subjects. When treatment and comparison subjects are closely matched, the study can be capable of producing highly trustworthy findings. But in practice, equivalence between the groups can be hard to achieve, which may result in difficulties in reducing bias and inferring causality. As a result, quasi-experiments are typically less adept at reducing bias and inferring causality than RCTs (Boruch, 2007; Cook, 2006).[2] In fact, findings from single studies of treatment effectiveness that did not employ treatment and comparison groups that

were closely matched have been typically viewed as untrustworthy (see, e.g., Beech et al., 2007a, 2007b).

Synthesis Research: Narrative Reviews, Systematic Reviews, and Meta-Analysis

There also is agreement in the scientific community that single studies are rarely definitive (see, e.g., Lipsey, 2002; Petrosino & Lavenberg, 2007; Beech et al., 2007a). Individual studies with seminal findings exist; however, single studies—even an RCT—should be replicated before definitive conclusions about a program's effectiveness are made, and the effectiveness of an intervention can always best be understood by examining findings from many different studies (Lipsey, 2002; Petticrew, 2007; Petrosino & Lavenberg, 2007). Researchers typically accomplish this by conducting a narrative or systematic review of a large body of research concerning an intervention's effectiveness.

A narrative review is a qualitative synthesis of findings from many different individual studies.[3] Conclusions are made by the reviewer using professional judgment. Narrative reviews have been criticized for their subjectivity and lack of transparency, but they provide a rudimentary mechanism for assessing the general quality and consistency of the research evidence to arrive at a conclusion about whether an intervention works. Narrative reviews were the most common form of synthesis research in the past. Today, researchers primarily rely on a more objective and quantitative process called a systematic review. Unlike a narrative review, a systematic review adheres to a pre-established protocol to locate, appraise, and synthesize information from all relevant scientific studies on a particular topic (Petrosino & Lavenberg, 2007).[4] Methodological quality considerations are a standard feature of most systematic reviews today, and studies that fail to reach a specified standard of scientific rigor are typically excluded from the analysis.[5] Many systematic reviews rely exclusively on well-designed and executed RCTs and quasi-experiments to draw conclusions about an intervention's effectiveness. This helps enhance the trustworthiness of the review findings. A well-designed and executed systematic review produces a comprehensive summary of the scientific evidence on a particular topic, such as whether or not an intervention is effective in reducing recidivism.

Systematic reviews are increasingly incorporating a statistical procedure called meta-analysis to synthesize findings from multiple studies. Meta-analysis enhances the quantitative nature of the review and helps to reduce bias and the potential for erroneous conclusions. In practice, meta-analysis combines the results of many evaluations into one large study with many subjects. This is important, because single studies based on a small number of subjects can produce misleading findings about a program's effectiveness (Lipsey, 2002). By pooling the subjects from the original studies, meta-analysis counteracts a common methodological problem in evaluation research—small sample size—thereby helping the analyst draw more accurate and generalizable conclusions.[6] In addition, meta-analysis focuses on the magnitude of effects found across studies rather than their statistical significance. Determining effect sizes is important because, as Lipsey (2002, p. 201) points out, an outcome evaluation of an individual program "can easily fail to attain statistical significance for what are, nonetheless, meaningful program effects." Hence, effect size statistics provide the researcher with a more representative estimate of the intervention's effectiveness than estimates derived from any single study or from multistudy synthesis techniques that simply calculate the proportion of observed effects that are statistically significant.

Meta-analysis has been criticized by some researchers, primarily for combining different research approaches in the same analysis or for including studies of different quality—sometimes even studies of very poor quality—to arrive at a single estimate of treatment effectiveness (Petrosino & Lavenberg, 2007). However, advances in methods regarding heterogeneity and methodological variability can be used to address these concerns (see, e.g., Petrosino & Lavenberg, 2007; Lipsey, 2002; Wilson & Lipsey, 2001). Meta-analyses that are based on prudent exclusionary criteria, that incorporate sophisticated statistical tests to discover potential bias,[7] and that explore how methodological and contextual variations impact treatment effects are uniquely equipped to provide policymakers and

practitioners with highly trustworthy evidence about what works (Petrosino & Lavenberg, 2007; Lipsey, 2002; Wilson & Lipsey, 2001). Still, it is important to recognize that conclusions derived from a review or meta-analysis of poor quality studies are no more trustworthy than conclusions derived from an individual study that lacks scientific rigor (Rice & Harris, 2003). When systematic reviews and meta-analyses are done well, however, they provide the most trustworthy and credible evidence about an intervention's effectiveness.

Summary of Research Findings

Findings From Single Studies

One of the few studies to use an RCT design to evaluate the effectiveness of treatment for adult sex offenders was conducted by Marques and colleagues (2005). Widely known as the California Sex Offender Treatment and Evaluation Project (SOTEP), the study examined the effects of a cognitive behavioral/relapse prevention program on the recidivism of sex offenders who were serving prison sentences for child molestation or rape. The research is widely referenced in the literature because of its use of random assignment.

Marques and her colleagues (2005) compared the recidivism rates of 204 sex offenders treated in an intensive treatment program with the recidivism rates of sex offenders in two untreated control groups.[8] One control group consisted of 225 incarcerated sex offenders who volunteered for treatment but who were randomly selected not to receive it. The other control group consisted of 220 incarcerated sex offenders who did not want treatment. The outcome measures of interest were sexual and nonsexual violent recidivism. No significant differences were found among the three groups in their rates of sexual or violent recidivism. Based on a mean followup period of approximately 8 years, the observed sexual recidivism rates were 21.6 percent for the sex offenders who completed a year or more of treatment, 20 percent for the sex offenders who volunteered for treatment but who did not receive it, and 19.1 percent for the sex offenders who refused treatment.[9] This null finding—that is, the finding that treatment did not lead to a significant reduction in recidivism—persisted for both rapists and child molesters, and for high-risk as well as low-risk offenders. (For a discussion of adult "Sex Offender Risk Assessment," see chapter 6 in the Adult section.) Marques and her colleagues (2005, p. 99) concluded the following: "In the context of growing optimism about the benefits of sex offender treatment, this study's message is, 'Not so fast, we are still far from understanding how and when treatment works.'"

In discussing their findings, the researchers explored possible explanations for the study's overall results. Marques and her colleagues (2005) suggested that, despite the use of random assignment, the treatment and control groups likely differed in some important ways. For example, the treated subjects tended to be higher risk, and may have been less motivated or more sexually deviant than control group subjects. In addition, the screening procedures used in the research likely eliminated some of the highest risk offenders from the study. As a result, the intervention may have been too intensive for the offenders in the treatment group. Finally, the treatment program itself did not reflect "state-of the-art" treatment in several ways (Marques et al., p. 100). For example, the program did not fully adhere to the risk-need-responsivity (RNR) principles of effective intervention because it did not focus on high-risk offenders and treatment targets included only some dynamic risk factors. (See the discussion of RNR in the section "Findings From Synthesis Research.") Given the limitations of the study, Marques and colleagues (2005) called for "additional controlled investigations to address the many questions that remain about when and how treatment works for sexual offenders" (pp. 99–100). The researchers emphasized the importance of including appropriate comparison groups in future treatment outcome studies, and they urged researchers who assess the effects of treatment "to control for prior risk by using an appropriate actuarial measure for both treatment and comparison groups" (p. 103).

It is worth noting that some of the subgroup analyses performed in the SOTEP study **did** find a treatment effect. Specifically, high-risk offenders

who participated in treatment and demonstrated they "got it"—meaning that they derived benefit from the program, or basically met specified treatment goals—recidivated at a significantly lower rate than offenders who "did not get it."[10] Only 10 percent of the high-risk treated offenders who "got it" recidivated, compared to 50 percent of the high-risk subjects who "did not get it." While this finding was based on a small sample—only 38 high-risk study subjects were part of the analysis—a similar finding was observed for treated child molesters who "got it" based on a larger sample of 126 subjects. Individuals with child victims who "got it" recidivated at a significantly lower rate than similar offenders who "did not get it"—9.3 percent compared to 31.3 percent.[11]

Another study that did not find overall evidence of a positive treatment effect was conducted by Hanson, Broom, and Stephenson (2004). Recidivism rates for 403 sex offenders released from prison into mandated community-based treatment and a comparison group of 321 untreated sex offenders released from prison in earlier years were examined. Based on an average followup period of 12 years, no significant differences were found between the treated and untreated sex offenders in terms of their sexual, violent, or overall recidivism rates.

Somewhat different results were found in an evaluation of the effectiveness of the national sex offender treatment program operating in prisons in England and Wales in the early 1990s (Friendship, Mann, & Beech, 2003).[12] The researchers compared 2-year reconviction rates for a sample of 647 prisoners who voluntarily participated in and completed prison-based treatment between 1992 and 1994 and a retrospectively selected sample of 1,910 sex offenders who had been incarcerated but had not participated in treatment. The comparison group members were matched to the treatment sample on year of discharge and risk level. While no significant differences in the 2-year sexual reconviction rates were found between the treatment and comparison groups, there was a significant difference between the treatment and comparison group reconviction rates for sexual and violent crimes combined. Treated offenders had a combined sexual and violent 2-year reconviction rate of 4.6 percent, compared to a rate of 8.1 percent for the untreated comparison offenders (Friendship, Mann, & Beech, 2003).

Significant differences were also found for the medium-low-risk and medium-high-risk offender groups.[13] For low-risk and high-risk offenders, treated offenders had a slightly lower rate of recidivism than the untreated offenders, but the differences were not statistically significant. Overall, the treatment effects found in the analysis persisted when factors linked to recidivism (such as risk level and prior criminal history) were statistically controlled. Based on their findings, the researchers cautiously concluded that the treatment program had an impact on reconvictions for sexual and violent offenses combined.

"Offenders who respond to treatment do better than those who do not respond well."

Friendship, Mann, and Beech (2003) point out that treatment should not be expected to have the same effect on all sexual offenders, as success can depend on various factors, including the treatment climate, program delivery, and how the participant responds to treatment. With this in mind, researchers are increasingly examining whether a positive treatment effect is found for a particular subgroup of treated offenders, even if positive treatment effects are not observed for program participants overall. The SOTEP study discussed above is an important example (Marques et al., 2005). The study is frequently cited as evidence that treatment for sex offenders is not effective, yet some of the treatment subgroups—such as high-risk offenders who "got it"—demonstrated significantly lower rates of recidivism than their comparison group counterparts. Beech and colleagues (2001) reported a somewhat similar finding in their study that examined sexual reconviction rates for 53 sex offenders 6 years after participating in community-based treatment. Offenders who were responsive to treatment (based on a positive change in pro-offending attitudes) were less likely to sexually recidivate than offenders who were not.

Oliver, Wong, and Nicholaichuk (2008) conducted a treatment outcome study that examined the

effects of a high-intensity sex offender treatment program in a Canadian prison. The program employed a cognitive-behavioral approach and it subscribed to the RNR principles of effective correctional intervention. The 2008 study was an extension of an earlier evaluation that found that sex offender treatment worked for both first-time and repeat sex offenders. In this study, 14.5 percent of treated offenders were convicted of new sexual offenses compared to 33.2 percent of the untreated comparison group offenders, based on an average followup period of 6 years (Nicholaichuk et al., 2000).14 A higher proportion of treated offenders (48 percent) compared with untreated offenders (28.3 percent) also remained out of prison during the followup period. Treatment, however, did not appear to affect the rate at which new nonsexual crimes were committed.

The 2008 study was more rigorous than the original study. It was based on a larger sample size (472 treated and 265 untreated sex offenders) and a longer followup period. It also incorporated survival analysis, statistical controls of several factors that have been empirically linked to sexual recidivism (such as time at risk, age at release, and sexual offending history), and an intent-to-treat design.[15] Sexual reconviction rates were examined across followup periods of various lengths of time. Significant differences between the recidivism rates of treated and untreated offenders were found at each followup period (see table 1).

Positive treatment effects persisted after controlling for age and sexual offending history. In addition, survival analysis indicated that positive treatment effects persisted over time. Oliver, Wong, and Nicholaichuk (2008, p. 533) stated:

> In conclusion, the present study provides empirical support to indicate that a high-intensity treatment program for moderate- to high-risk sex offenders that follows the 'what works' principles can yield reductions in sexual recidivism in both the shorter- and longer-term, even after potentially confounding variables were controlled for. In short, treatment appeared to 'work' for this group of sex offenders.

A recent study of prison-based sex offender treatment in Minnesota also found positive results. Researchers examined treatment effectiveness using a sample of 2,040 sex offenders released from prisons in Minnesota between 1990 and 2003 (Duwe & Goldman, 2009). This study used propensity score matching (PSM) to create the study's comparison group. PSM is a sophisticated statistical technique for achieving greater equivalence between the treatment and comparison offenders. The researchers examined recidivism outcomes for 1,020 sex offenders who received treatment while incarcerated and 1,020 matched comparison sex offender inmates who had not received treatment. The average followup period was 9.3 years. After controlling for other factors, study results showed that participating in treatment significantly reduced the likelihood and pace of recidivism (see table 2).

Other studies examining the effectiveness of prison-based treatment for sexual offenders also have found positive results. McGrath and colleagues

TABLE 1. SEXUAL RECONVICTION RATES

	Sexual Reconviction Rate, by Followup Period (%)		
	3 Years	5 Years	10 Years
Treated offenders	11.1	16.9	21.8
Untreated offenders	17.7	24.5	32.3

Note: Differences between treated and untreated offenders are statistically significant: 3 years (p=.012), 5 years (p=.023), 10 years (p=.030).

Source: Oliver, Wong, & Nicholaichuk (2008).

TABLE 2. REARREST RECIDIVISM RATES

	Rearrest Recidivism Rate, by Offense Type (%)		
	Sex Offense	Violent Offense	General Offense
Treated offenders	13.4	29	55.4
Untreated offenders	19.5	34.1	58.1

Note: Significant at $p < .01$.

Source: Duwe & Goldman (2009).

(2003), for example, examined the recidivism rates of 195 adult male sex offenders who were referred to a prison-based cognitive-behavioral treatment program. Fifty-six offenders completed treatment, 49 entered but did not complete treatment, and 90 refused treatment services. The study subjects were similar in terms of their pretreatment risk for sexual recidivism. The researchers found a sexual recidivism rate of 5.4 percent for the sex offenders who completed treatment, based on an average followup period of approximately 6 years. Far higher sexual recidivism rates were found for the offenders who did not complete treatment and for those who refused treatment—30.6 percent and 30.0 percent, respectively.

A 2003 study of a prison-based sex offender treatment program in Colorado also found positive results (Lowden et al., 2003). The program employed a cognitive-behavioral approach within a therapeutic community (TC) environment. Results showed that participation in treatment was significantly related to success on parole. Sex offenders who completed treatment and participated in aftercare had revocation rates three times lower than untreated sex offenders.[16] The length of time that an offender participated in treatment was related to positive outcomes after release. Each additional month spent in the TC increased the likelihood of success upon release by 1 percent (12 percent per year). Seventy-nine percent of inmates who participated in TC treatment and who were released on parole were arrest-free after 3 years, compared to 58 percent of former sex offender inmates released on parole who did not participate in treatment.[17]

Zgoba and Simon (2005) examined the effectiveness of prison-based treatment in New Jersey. Although results did not show a positive treatment impact on sexual recidivism, treatment was found to reduce nonsexual recidivism. The study sample included 495 treated offenders from the state's only sex-offender-specific prison. Sexual and nonsexual recidivism rates for the treated sex offenders were compared with those for a sample of 223 sex offenders from the general prison population who did not receive treatment. All study subjects were released from prison during a 3-year period (1994–1997). Based on this followup period, about 9 percent of the treated sex offenders were reconvicted of a sexual offense, compared to 8.2 percent of the nontreated sex offenders released from the general prison population. However, only 12.3 percent of the treated sex offenders had a nonsexual reconviction, compared to 26.8 percent of the nontreated sex offenders.

Several studies concerning sex offender treatment have been conducted by the Washington State Institute for Public Policy (WSIPP). In one study, Barnoski (2006a) examined the effectiveness of Washington's Specialized Sex Offender Sentencing Alternative (SSOSA). Under SSOSA, certain felony sex offenders are granted, in lieu of imprisonment, a special sentence that involves some jail time, community supervision, and outpatient treatment (Barnoski, 2006a). The evaluation found that the sexual and violent crime recidivism rates for offenders granted a SSOSA were consistently lower than the rates for other types of sex offenders. Barnoski (2006b) also examined the effectiveness of a prison-based sex offender treatment program in Washington that uses a combination of

treatment techniques, including group therapy, psychoeducational classes, behavioral treatment, and family involvement. The study found that the program did **not** reduce the recidivism rates of program participants.

Finally, Kriegman (2006) reanalyzed data from two studies that examined the recidivism rates of sex offenders.18 After a 5-year followup, the "more dangerous" (treated) offenders in the analysis had a significantly lower rate of recidivism than the "less dangerous" (untreated) offenders.[19] In fact, the observed recidivism rate for the untreated offenders was twice as high as the rate for the offenders who received treatment—38 percent compared to 19 percent.[20]

In summary, several single examinations designed to evaluate the effectiveness of treatment for adult sex offenders have been conducted in recent years. While only one of these studies employed an experimental design, the scientific rigor of recent research has improved relative to studies conducted years ago. Recent research more frequently employed matched comparison groups, statistical controls of factors that are linked to treatment effects, lengthier followup periods, and propensity score matching. **Findings from single studies of sex offender treatment conducted within the past 10 years remain somewhat inconsistent, but the weight of the evidence from more rigorous studies suggests that treatment—particularly cognitive behavioral approaches—can have a positive effect.**

Findings From Synthesis Research

One of the most influential early reviews of sex offender treatment outcome research was conducted by Furby, Weinrott, and Blackshaw (1989). Based on a review of 42 individual studies, the researchers concluded that, due to methodological shortcomings and inconsistent findings, very little is known about the effectiveness of sex offender treatment. More recently, the U.S. General Accounting Office (1996), now called the U.S. Government Accountability Office, published a review of sex offender treatment research based on 22 other reviews covering 550 studies. In this 1996 report, the office reported to Congress that definitive conclusions about the effectiveness of sex offender treatment could not be made. While both of these early reviews produced inconclusive results at best, systematic reviews conducted more recently have produced more positive, albeit qualified findings.

One exception to the pattern of recent positive review findings comes from a systematic review focused on psychological interventions for sex offenders conducted by Kenworthy and colleagues (2004). Nine studies, all RCTs, were included in the analysis, and the researchers concluded that due to limited data the effects of treatment are unclear.

An earlier meta-analysis of 43 studies of psychological treatment for sex offenders conducted by Hanson and colleagues (2002) produced somewhat different results.[21] The study was based on a total of 5,078 treated offenders and 4,376 untreated offenders. Average followup periods ranged from 1 to 16 years, with a median of 46 months. Hanson and his colleagues found that treatment produced a small but statistically significant reduction in both sexual and overall recidivism.[22] The researchers also reported that newer treatment programs were found to have a positive treatment effect, while older treatment programs were associated with a small but not statistically significant increase in sexual recidivism. In discussing their findings, Hanson and colleagues (2002, p. 186) stated, "we believe that the balance of available evidence suggests that current treatments reduce recidivism, but that firm conclusions await more and better research."

The meta-analysis conducted by Hanson and colleagues (2002) was criticized by Rice and Harris (2003) for its reliance on poor-quality studies. Rice and Harris described the methodological shortcomings of many of the studies in the meta-analysis and argued that the positive, albeit tentative, conclusions drawn by Hanson and colleagues were not justified. More broadly, Rice and Harris (2003) concluded, "… the effectiveness of psychological treatment for sex offenders remains to be demonstrated" (p. 428) and "… it is abundantly clear that any conclusions about the effectiveness of psychological therapy await many more random assignment studies" (p. 437).

While the Rice and Harris critique of the meta-analysis is a constructive and valuable treatise on threats to validity and the hazards of weak inference, it is important to recognize that the quality of a study and the credibility of its findings can be viewed differently by different researchers. As Beech and colleagues (2007a, pp. 1–2) pointed out in their discussion of methodological quality considerations in sex offender treatment research:

> The problem facing the field of sex offender research is that the best studies identified by Rice and Harris (2003), by Kenworthy et al. (2004), and by Hanson et al. (2002) were all different. It was not that one group of researchers was more lenient or more restrictive than another concerning study quality; the problem is that most of the studies rated as credible by one group were considered inherently biased by the other groups.

In fact, Craig, Browne, and Stringer (2003) reported that 18 of the 19 treatment studies published between 1995 and 2003 demonstrated positive treatment effects, and a third of those used sound methodological techniques. While there are well-constructed guidelines and tools available that promote objectivity and reliability in the assessment of methodological rigor, differences of opinion about the quality and scientific value of certain methods or individual studies are not uncommon.

Lösel and Schmucker's (2005) study of sex offender treatment effectiveness employed one of criminology's most commonly used tools for evaluating the quality of a study: the Maryland Scientific Methods Scale (SMS). SMS is used to assess the methodological quality of a study along a number of dimensions, including:

- The study's ability to control outside factors and eliminate major rival explanations for an intervention's effects.
- The study's ability to detect program effects.
- Other considerations, such as attrition and the use of appropriate statistical tests (Sherman et al., 1998).

Using SMS, Lösel and Schmucker (2005) excluded any studies that did not employ a control/comparison group. Altogether, 69 independent studies and 22,181 subjects were included in the analysis, making it one of the largest meta-analyses of studies of the effectiveness of sex offender treatment ever undertaken. In 40 percent of the comparisons, equivalence between the group of study subjects who received treatment and the group of comparison subjects who did not receive treatment was either demonstrated or it could be assumed. Nearly one-half of the comparisons in the analysis addressed cognitive-behavioral programs. About one-half were based on programs operating in an institutional setting. Significant differences between the recidivism rates of treated and untreated offenders were found (see table 3).

TABLE 3. RECIDIVISM RATES, PER META-ANALYSIS

	Recidivism Rate, by Offense Type (%)		
	Sex Offense*	Violent Offense	Any Offense
Treated offenders	11.1	6.6	22.4
Untreated offenders	17.5	11.8	32.5

Note: Significant at $p < .01$.

*Recidivism rates based on n-weighted averages. Unweighted average recidivism rates: 12% for treated and 24% for untreated. Average followup period: slightly more than 5 years.

Source: Lösel & Schmucker (2005).

Lösel and Schmucker (2005) also found that physical treatments had larger treatment effects. Among psychological treatments, however, cognitive-behavioral treatments and behavior therapy had significant treatment effects. **Treatment effects also were greater for sex offenders who completed treatment, as dropping out of treatment doubled the odds of recidivating.**

"Effective programs do not just influence sexually motivated problem behavior; they also have a broader impact on criminality (Lösel & Schmucker, 2005)."

Even though the study protocol excluded studies that either did not employ a control/comparison group or those that only compared treatment completers and treatment dropouts, only six of the studies in the meta-analysis employed a randomized design.[23] In addition, equivalence between the treatment and comparison groups could not be assumed in about 60 percent of the studies in the analysis. This led Lösel and Schmucker (2005, p. 135) to suggest that one should draw "very cautious" conclusions from the study. In discussing their findings, Lösel and Schmucker (2005, p. 135) stated:

> The most important message is an overall positive and significant effect of sex offender treatment ... Sex offender treatment also has an effect on general recidivism ... Obviously, effective programs do not just influence sexually motivated problem behavior but also have a broader impact on criminality.

Another important meta-analysis was conducted by MacKenzie (2006). Her analysis of 28 evaluations extended the earlier work by Gallagher and colleagues (1999), examining the effectiveness of sex offender treatment. The original meta-analysis by Gallagher and colleagues found evidence that cognitive-behavioral approaches with relapse prevention components are effective at reducing recidivism. Sex offenders treated with cognitive-behavioral/relapse prevention techniques recidivated at a rate that was 8 percentage points below that of comparison sex offenders.

MacKenzie's (2006) meta-analysis is important not only because the review protocol excluded studies that did not employ a no-treatment comparison group, but also because it included an analysis of treatment effects based only on highly rigorous evaluations.[24] MacKenzie found that treated sex offenders had a significantly lower rate of recidivism than untreated sex offenders. The average recidivism rate was 12 percent for the treated offenders in the analysis, compared to 22 percent for the untreated comparison offenders.[25] Because large differences in effect sizes were found across studies, MacKenzie examined how various substantive and methodological characteristics of the studies affected treatment outcomes. In one analysis, the effects of various treatment types were examined using only studies of high methodological quality. **Based only on these high-quality studies, MacKenzie found that cognitive-behavioral/relapse prevention treatment, behavioral treatment, and hormonal medication significantly reduced sexual recidivism.**[26] For sex offenders receiving cognitive-behavioral/relapse prevention treatment, the average recidivism rate was 9 percent, compared to an average recidivism rate of 21 percent for untreated comparison sex offenders. No significant differences were found based on whether treatment was delivered by a criminal justice agency or other organization or whether treatment was delivered in an institution or in the community. MacKenzie concluded that sex offender treatment programs using cognitive-behavioral/relapse prevention approaches are effective at reducing recidivism.[27]

As previously mentioned, several studies concerning the effectiveness of sex offender treatment have been conducted by WSIPP, which is widely recognized for its work regarding meta-analysis and cost-benefit analysis. As part of a larger study on evidence-based public policy options to reduce crime and criminal justice system costs, **Drake, Aos, and Miller (2009) conducted a meta-analysis of six rigorous studies of adult sex offender treatment with aftercare and found that these programs reduced recidivism, on average, by 9.6 percent. In addition, these programs produced a net return on investment of more than $4,000 per program participant, or more than $1.30 in benefits per participant for every $1 spent.**

Another important meta-analysis was recently conducted by Hanson and colleagues (2009). The study's primary aim was to determine whether the RNR principles associated with effective interventions for general offenders also applied to sex offender treatment. The RNR principles have emerged from more than 30 years of research on interventions for criminal offenders. This research has produced a body of evidence that clearly demonstrates that rehabilitation works (Gendreau & Ross, 1987; Lipsey & Cullen, 2007; Joliffe & Farrington, 2007). It also has demonstrated that effective interventions share a common set of features. These common characteristics form what criminologists Don Andrews, Paul Gendreau, and their colleagues have called the "principles of effective intervention" (Andrews, 1995; Gendreau, 1996; Gendreau, Goggin, & Smith, 1999; Andrews & Dowden, 2005). Three of these are commonly known as the RNR principles:

1. Higher risk offenders are more likely to benefit from treatment than lower risk offenders. This is the **risk principle**. In practice, more intensive levels of treatment should be reserved for higher risk offenders. In fact, using high levels of treatment with low-risk offenders is not only inefficient, it can actually increase recidivism (Lovins, Lowenkamp, & Latessa, 2009; Wilson, 2007).

2. To effectively reduce recidivism, programs should target the criminogenic needs of higher risk offenders. This is the **need principle.** Criminogenic needs are dynamic risk factors that are related to subsequent offending, such as substance abuse or an antisocial lifestyle. Dynamic risk factors can be changed through programming, whereas static risk factors, such as criminal history and age at first arrest, cannot.

3. Successful programs are responsive to the motivation, cognitive ability, and other characteristics of the offender. This is the **responsivity principle.** In essence, therapeutic interventions must be tailored to the learning style and capabilities of the offender.

Research has demonstrated that programs incorporating the RNR principles are far more effective at reducing recidivism than those that do not (Andrews & Bonta, 2006). Given the strong scientific evidence supporting the efficacy of treatment for offenders overall, and the role that RNR plays in effective treatment, there is a growing interest in applying the RNR principles to treatment for sex offenders.

Although Hanson and colleagues (2009) sought to test the relevance of the RNR principles for sex offender treatment, a secondary aim was to assess treatment effectiveness using only studies that met a minimum level of scientific rigor. Using the Guidelines of the Collaborative Outcome Data Committee, which were explicitly developed to assess the quality of research on sex offender treatment outcomes, the researchers excluded from the analysis more than 100 potentially relevant studies because they did not meet minimum levels of study quality. However, of the 23 studies that were finally included in the analysis, only 5 (22 percent) were rated as good in terms of methodological quality; 18 were rated as weak. Based on an average followup period of 4.7 years, Hanson and colleagues found average sexual recidivism rates of 10.9 percent for treated offenders and 19.2 percent for the untreated comparison offenders.[28] The average overall recidivism rate was 31.8 percent for treated sex offenders and 48.3 percent for untreated comparison subjects. The researchers also found that adhering to the RNR principles increased treatment effectiveness. While treatment that adhered to one or two of the principles was more effective than treatment that did not adhere to any of the principles, treatment that adhered to all three principles was most effective.

A study by Lovins, Lowenkamp, and Latessa (2009) examined the direct effects of the **risk principle** on sex offenders. The researchers sought to determine whether intensive treatment was more effective for higher risk sex offenders and whether less-intensive treatment had greater effects for lower risk sex offenders. The study sample included 348 sex offenders paroled from a state correctional institution. Of this sample, 110 were released to a halfway house for residential sex offender treatment and 238 were released directly to the community. While offenders released directly to the community may have received outpatient treatment,

sex offenders released to a halfway house were subjected to a more intensive level of treatment. The researchers examined general recidivism but not sexual recidivism in the study. Study subjects were categorized based on their assessed risk levels.

"Findings from systematic reviews and meta-analyses conducted in recent years suggest that certain treatment approaches can and do work."

Results showed that intensive treatment was effective in reducing recidivism for all risk categories of offenders, except low-risk offenders. In fact, high-risk offenders who completed intensive residential treatment were more than two times less likely to recidivate than high-risk sex offenders who did not receive intensive treatment. Conversely, low-risk sex offenders who received intensive treatment were 21 percent **more** likely to recidivate than low-risk sex offenders who were released directly to the community. These findings lend further support to the importance of the principles of effective intervention in sex offender treatment programming.

Finally, three other reviews completed in recent years deserve brief mention, as they also have reported positive treatment effects. Luong and Wormith (2006) conducted a meta-analysis of 30 studies and found that sex offenders who received treatment recidivated at a significantly lower rate than sex offenders who did not receive treatment. The researchers reported that for every 100 untreated sex offenders who sexually recidivate, 82 treated sex offenders will do so. Again, cognitive-behavioral approaches were associated with significant reductions in both sexual and general recidivism.[29] Prentky, Schwartz, and Burns-Smith (2006, p. 5) conducted a narrative review of treatment effectiveness studies and concluded that "the most reasonable estimate at this point is that treatment can reduce sexual recidivism over a five year period by 5–8%." Finally, Przybylski (2008, p. 53) reviewed recent systematic reviews of sex offender treatment effectiveness, many incorporating meta-analysis, as part of a larger review of what works to reduce recidivism. He concluded that "the most recent scientific evidence suggests that certain types of sex offender treatment can reduce recidivism."

While researchers agree that the evidence concerning the effectiveness of treatment for sex offenders is far from definitive, findings from systematic reviews and meta-analyses conducted in recent years suggest that certain sex offender treatment approaches can and do work. Specifically, cognitive-behavioral/relapse prevention approaches appear to be effective in reducing recidivism, whether delivered in an institutional or community-based setting. The empirical evidence also demonstrates, however, that differential treatment impacts are likely to occur for different offenders. Adhering to the RNR principles of effective intervention appears to be important. **Matching treatment to the risk levels and criminogenic needs of sex offenders may help maximize treatment effectiveness and the return on investment of treatment resources.**

Based on findings from a recent Safer Society survey (McGrath et al., 2010), sex offender treatment programs operating in the United States in 2008 most frequently identified cognitive-behavioral therapy as one of the top three theoretical models that best described their treatment approach (McGrath et al., 2010). Relapse prevention therapy was the second most frequently identified model, but the number of programs endorsing relapse prevention has fallen since 2002. McGrath and colleagues (2010, p. vii) speculated that the decrease in the use of the relapse prevention model likely reflects the "considerable criticism leveled by practitioners and researchers against relapse prevention in recent years," specifically the criticisms that relapse prevention describes only one pathway to offending and that it overemphasizes risk avoidance as opposed to individual strengths and goals.

"Adhering to the RNR principles is important. High- and moderate-risk offenders benefit most from treatment."

McGrath and his colleagues (2010) also reported that about one-third of the treatment programs in the United States responding to the Safer Society survey identified the Good Lives Model (GLM) and about one-quarter identified the self-regulation model (SRM) as one of the top three theoretical models that best described their treatment approach. These two models—GLM and SRM—are designed, at least in part, to address some of the perceived shortcomings of the relapse prevention model. (For more on SRM, see chapter 3, "Sex Offender Typologies," in the Adult section.)

"The GLM/SRM approach to treatment has become more prevalent. Research examining the effectiveness of this approach with sexual offenders is needed."

GLM is grounded in the belief that sex offenders, like most individuals, seek to achieve psychological well-being and that offenders desist from criminal behavior when prosocial behavior provides a more fulfilling life. Rather than focusing solely on risk avoidance and management, GLM attempts to equip sex offenders with the skills, attitudes, and resources needed to lead a prosocial, fulfilling life, thereby reducing the likelihood of reoffending. SRM postulates that sex offenders follow different pathways to offending behavior and that treatment will be most effective if it takes those pathways into account. Four different offense pathways are identified in SRM, and they address both an individual's offending behavior goals and the manner in which the individual tries to reach them (Yates & Kingston, 2006). SRM was recently integrated with GLM to create a more comprehensive treatment approach for managing risk and helping sex offenders develop prosocial lifestyles.

While there is both statistical and anecdotal evidence suggesting that the use of the GLM/SRM treatment approach has become more prevalent, little is known about the efficacy of these treatment models (either alone or in tandem) for reducing the recidivism of sex offenders. To date, studies have focused on validating GLM and SRM for sex offenders or discovering within-treatment change (Yates & Kingston, 2006; Yates et al., 2009; Kingston, Yates, & Firestone, 2012). While there is growing interest in the GLM/SRM approach, and research is beginning to lay the requisite empirical foundation of support, research has not yet examined whether the approach is effective at reducing recidivism among sex offenders.

Summary

Given the impact sex crimes have on victims and the larger community, and the growing number of sex offenders under correctional supervision, the need for knowledge about criminal justice interventions that are effective at reducing the recidivism of sex offenders may be greater today than ever before.

While there is strong scientific evidence that therapeutic interventions work for criminal offenders in general, the effectiveness of treatment for sex offenders has been the subject of considerable debate. Inconsistent research findings and measurement shortcomings have contributed to the uncertainty about treatment effectiveness, but both the pattern of findings and quality of the evidence have changed in recent years.

"Cognitive-behavioral/relapse prevention approaches appear to be effective."

This review examined the evidence on treatment effectiveness from both individual studies and synthesis research conducted during the past 10 years. While there is agreement among researchers that the knowledge base is far from complete, the evidence suggests that certain therapeutic interventions for sex offenders can and do work. Specifically, cognitive-behavioral/relapse prevention approaches have been identified as being effective at reducing both sexual and nonsexual recidivism.

Because so few studies of treatment effectiveness have employed an experimental design—and RCTs have not produced clear evidence of a treatment effect—some researchers will likely disagree that a positive conclusion about treatment effectiveness

is warranted. While there is an undeniable need for more high-quality research on treatment effectiveness, especially well-designed and well-executed RCTs, there are several reasons why it is reasonable to conclude, albeit cautiously, that some treatment approaches can produce at least moderate reductions in recidivism for some sex offenders.

TREATMENT EFFICACY

There are several reasons why it is reasonable to conclude, albeit cautiously, that some treatment approaches can produce at least moderate reductions in recidivism for some sex offenders:

- A relatively consistent pattern of positive findings has emerged from recent research.
- Systematic reviews and meta-analyses that employ more advanced and scientifically rigorous methods consistently indicate that treatment works.
- Recent studies have found positive treatment effects for various subgroups of treatment participants, even when positive treatment effects were not discovered for the entire treatment sample.

First, a relatively consistent pattern of **positive** findings has emerged from recent research, and studies of treatment effectiveness conducted in recent years have generally improved in quality. More and more findings are based on studies employing matched comparison groups or statistical controls to achieve treatment and comparison group equivalence.

Second, systematic reviews and meta-analyses that employ more advanced and scientifically rigorous methods consistently indicate that treatment works. For example, using only high-quality studies, MacKenzie (2006) found that cognitive-behavioral/relapse prevention treatment, behavioral treatment, and hormonal medication significantly reduced sexual recidivism. For sex offenders receiving cognitive-behavioral/relapse prevention treatment, MacKenzie found an average recidivism rate of 9 percent, compared to an average recidivism rate of 21 percent for untreated sex offenders. No significant differences were found based on whether treatment was delivered by a criminal justice agency or other organization or whether treatment was delivered in an institution or in the community. Drake, Aos, and Miller's (2009) meta-analysis of six highly rigorous studies of adult sex offender treatment with aftercare found that these programs reduced recidivism, on average, by 9.6 percent. In addition, these programs produced a net return on investment of more than $4,000 per program participant.

Third, recent studies have found positive treatment effects for various subgroups of treatment participants, even when positive treatment effects were not discovered for the entire treatment sample. For example, findings from the SOTEP study, which are often cited as evidence that treatment has not been shown to work because of the study's use of random assignment, indicated that treatment produced significant reductions in recidivism for subgroups of treatment participants who "got it" (Marques et al., 2005). Findings like these suggest not only that treatment works for certain offenders, but also that positive treatment effects can be masked in aggregate findings for the overall treatment sample.

"Treatment is apt to be most effective when it is tailored to the risks, needs, and offense dynamics of individual offenders."

Taken together, the overall pattern of positive findings from single studies and synthesis research, the positive findings that have emerged specifically from meta-analyses that are based on prudent exclusionary criteria and that employ advanced statistical tests, and subgroup analysis research findings that clearly align with empirically supported principles about effective interventions, all lend support to the conclusion that treatment for sex offenders can be effective. Treatment, however, does not affect all sex offenders in the same way. The empirical evidence clearly demonstrates that treatment may have a differential impact, depending on the characteristics of the treatment participant and other contextual factors. Sex offenders clearly vary in terms of their recidivism risk levels, criminogenic needs, and pathways to

offending. Hence, rather than following a one-size-fits-all approach, treatment is apt to be most effective when it is tailored to the risks, needs, and offense dynamics of individual sex offenders. **The differential impact of treatment, and the need for tailored rather than uniform treatment approaches, was acknowledged by the national experts—both researchers and practitioners—at the SOMAPI forum.**

There is mounting evidence that the RNR principles are important for sex offender treatment. Lovins, Lowekamp, and Latessa (2009) found that high-risk sex offenders who completed intensive residential treatment were more than two times less likely to recidivate than high-risk sex offenders who did not receive intensive treatment. Conversely, low-risk sex offenders who received intensive treatment were 21 percent **more** likely to recidivate than low-risk sex offenders who did not receive intensive treatment. Hanson and colleagues (2009) found that treatment that adhered to the RNR principles of effective intervention showed the largest reductions in recidivism. In discussing the implications of their research findings for treatment providers, Hanson and colleagues (2009, p. 25) stated, "we believe that the research evidence supporting the RNR principles is sufficient so that they should be a primary consideration in the design and implementation of intervention programs for sex offenders."

While the knowledge base regarding treatment effectiveness has greatly improved, significant knowledge gaps and unresolved controversies remain. **The need for more high-quality studies on treatment effectiveness has long been a theme in the literature, and both RCTs and highly rigorous quasi-experiments that employ equivalent treatment and comparison groups were identified as future research needs by the experts who participated in the SOMAPI forum.**

While sound RCTs that examine treatment effectiveness are greatly needed, policymakers and practitioners, as well as researchers, must recognize that the use of an RCT design does not automatically make a study's findings trustworthy, nor does the need for trustworthy evidence obviate the need for high-quality quasi-experiments. Given the constraints typically found when working with offender populations, it is unlikely that findings from RCTs conducted in different treatment settings and with different populations of sex offenders will become available in the immediate future. Hence, findings from quasi-experiments that examine treatment effects using **equivalent** treatment and comparison groups remain important, as they can make significant contributions to the evidence base regarding treatment effectiveness. Propensity score matching and other advanced techniques for controlling bias and achieving equivalence between treatment and comparison subjects can help enhance the credibility of evidence produced by studies that do not employ random assignment.

"There is an acute need for more high-quality studies on treatment effectiveness. Both RCTs and highly rigorous quasi-experiments that employ equivalent treatment and comparison groups are needed."

Systematic reviews and meta-analyses that are based on prudent exclusionary criteria and that employ the most rigorous analytical methods available are also needed. Future research should also attempt to build a stronger evidence base on the differential impact of treatment on different types of sex offenders. **Empirical evidence that specifies what works for certain types of offenders, and in which situations, is important for both policy and practice, and it too was identified as a key research priority by the SOMAPI forum participants.** Subgroup analyses are particularly important because the positive effects of treatment for a particular subgroup of offenders can be masked in a finding that treatment failed to have a positive impact for the overall treatment sample. Researchers must be diligent, however, not to selectively emphasize treatment benefits for a subgroup of study subjects while ignoring findings for the larger treatment sample (Sherman, 2003). New treatment models, such as GLM/SRM, also need to be rigorously evaluated to assess their effectiveness at reducing recidivism.

Finally, most of the concerns about weak study designs are raised to avoid the pitfalls of erroneously concluding that treatment is effective when it is

not. Concluding that treatment is **ineffective** when it actually is effective seems equally problematic. Given the modest reductions in recidivism that have been found in prior treatment effectiveness studies, researchers should be cognizant of the need to design evaluations of treatment programs with sufficient statistical power to detect small treatment effects.

> *"Specifying what types of treatment work for certain types of offenders, and in which situations, is a key research priority."*

Given the quality and consistency of the empirical evidence, it is reasonable to conclude, albeit cautiously, that certain types of treatment can produce reductions in recidivism for certain sex offenders. While a number of researchers are likely to view the empirical evidence in a similar way, some may view a positive conclusion about treatment effectiveness as unwarranted, given the current evidence base. Because treatment has become an integral part of sex offender management in jurisdictions throughout the country, it seems that one of the crucial questions to ask is whether the empirical evidence assembled to date warrants continued support for treatment—provided treatment is well-designed and delivered—or whether it would be safer to desist from treating sex offenders until far more definitive evidence becomes available. Given the evidence assembled to date, pursuing the latter seems unwarranted. While various important questions and methodological concerns need to be addressed in the future, the quality and consistency of the evidence indicates that treatment can lead to at least modest reductions in recidivism, which in turn can translate into fewer victims, less individual and community harm, and a positive return on taxpayer investment.

Notes

1. Of the 1,307 U.S. programs, 608 provided treatment services to adult sexual offenders.

2. RCTs are considered superior for discovering treatment effects and inferring causality because of their capacity to create valid counterfactuals and reduce bias.

3. For an example of a narrative review, see Furby, Weinrott, and Blackshaw (1989).

4. For an example of a systematic review, see Lösel and Schmucker (2005) or MacKenzie (2006).

5. Methodological quality considerations typically include an assessment of the following: the study's ability to control outside factors and eliminate major rival explanations for an intervention's effects; the study's ability to detect program effects; and other considerations, such as attrition and the use of appropriate statistical tests. Based on the assessment, studies of substandard quality are typically excluded from the analysis. In addition, studies that are included in the analysis may be weighted based on their relative scientific rigor.

6. Meta-analysis also generates a summary statistic called the average effect size, which helps the analyst determine not only if the intervention is effective, but also how effective it is. There are several methods used to calculate an effect size, as described in Lipsey and Wilson (2001). The mean difference effect size is common when outcomes are continuously measured; the odds-ratio effect size is common when outcomes are measured dichotomously.

7. Such as statistical tests of homogeneity.

8. A total of 259 study subjects were assigned to the treatment group, but 55 offenders withdrew prior to starting treatment.

9. Of the 204 sex offenders who entered treatment, 190 completed 1 year or more of treatment and 14 dropped out of the program before completing at least 1 year of treatment. The observed sexual recidivism rate for treatment dropouts was 35.7 percent, based on a mean followup period of 8.4 years.

10. $p = .026$.

11. $p = .006$.

12. The researchers noted that the evaluation was undertaken before a system of accreditation was in place to ensure treatment program quality.

13. $p < 0.01$ and $p < 0.05$, respectively.

14. $p < .001$.

15. Survival analysis is a technique for standardizing the time at risk for all study participants, thereby producing a more accurate estimate of recidivism. It can be used to examine the pace at which recidivism occurs over specified intervals of time. In the treatment group, intent-to-treat analysis includes data about study participants who dropped out of, or were dropped from, the study before completing treatment.

16. $p < .001$.

17. $p < .01$.

18. One study involved 251 sex offenders civilly committed in Massachusetts between 1959 and 1985 (Prentky et al., 1997); the other study involved 31 sex offenders recommended for civil commitment by clinicians but deemed "not sexually dangerous" by courts and released without treatment (Cohen, Groth, & Siegel, 1978).

19. The "more dangerous" sex offenders were deemed to be "sexually dangerous" by two "qualified examiners" (clinicians) and were subsequently civilly committed by the courts to the Massachusetts Treatment Center for Sexually Dangerous Persons. The "less dangerous" sex offenders were found to be "not sexually dangerous" by the courts and were released without treatment after serving whatever criminal sanctions the court imposed (Kriegman, 2006).

20. $p < .007$.

21. Thirty-eight studies reported sexual recidivism (4,321 treated sex offenders and 3,591 comparison offenders) and 30 studies reported general recidivism (3,356 treated sex offenders and 2,475 comparison offenders).

22. Sexual recidivism ($p < .001$); overall recidivism ($p < .001$).

23. Seven of the comparisons in the analysis were based on a randomized design, but one of those was compromised and was not rated by the researchers as a randomized study.

24. Fifteen studies in the overall analysis focused on cognitive-behavioral programs; seven of these studies were rated 3 or higher on SMS, indicating a high level of scientific rigor. Four studies focused on behavioral programs; three of these studies rated 3 or higher on SMS.

25. Cohen's $d = 0.48$.

26. Cognitive behavioral/relapse prevention treatment: mean odds-ratio = 2.04; behavioral treatment: mean odds-ratio = 2.92; hormonal treatment: mean odds-ratio = 4.01.

27. MacKenzie (2006) also found that programs using chemical castration/psychotherapy were effective in reducing recidivism but cautioned that the finding was based on a single study conducted in Germany. She also noted that no further discussion followed because surgical castration is not used in the United States.

28. Average followup periods ranged from 1 to 21 years, with a median of 4.7 years.

29. Sexual recidivism ($p < .01$); general recidivism ($p < .01$).

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Chapter 8: Sex Offender Management Strategies

by Christopher Lobanov-Rostovsky

Introduction

Prevention and intervention strategies for sexual offending behavior, including sex offender management, have become increasingly prominent and important in the United States.[1] The concept of sex offender management has been conceptualized under the construct of a Comprehensive Approach to Sex Offender Management (CASOM) by the Center for Sex Offender Management (CSOM). The CASOM model (CSOM, 2007) includes the following—

- Fundamental principles:
  - Victim-centered approach.
  - Specialized knowledge and training for professionals.
  - Public education.
  - Monitoring and evaluation of the strategies.
  - Multidisciplinary collaboration
- Critical components:
  - Investigation, prosecution, and disposition.
  - Assessment.
  - Treatment. (For more on treatment, see chapter 7, "The Effectiveness of Treatment for Adult Sex Offenders," in the Adult section.)
  - Supervision.
  - Reentry.
  - Registration and community notification.

FINDINGS

- Some empirical support exists for intensive supervision with a rehabilitative treatment approach. However, these studies had short followup periods, small sample sizes, different recidivism measures, and problems with scientific rigor.
- Some support exists for Circles of Support and Accountability.
- Polygraphs and global positioning systems should only be used with other controls.
- Findings are mixed on registration and notification:
  - Some studies have found benefits in reducing sex crime rates, reducing recidivism, or expediting arrests for new sex crimes, but other studies have not found statistically significant changes in the measured effects. Studies in this area may fail to control for other influential factors and may lack sufficient scientific rigor.
  - The public is generally supportive of registration and notification requirements as protective of public safety. Many sex offenders report negative social and personal impacts but may also report that the requirements deter offending or motivate them to be successful.
  - No study to date has examined the multifaceted elements of registration laws generally, or the Sex Offender Registration and Notification Act specifically. SORNA incorporates registration requirements and procedures, and information sharing and enforcement mechanisms, going beyond those prevalent in registration and notification systems examined in past studies.

According to the Bureau of Justice Statistics, at yearend 2008 more than 165,000 offenders convicted of rape or sexual assault were in state prisons (Guerino, Harrison, & Sabol, 2011). The vast majority of these offenders will be released to communities at some point in the future. Additionally, more than 737,000 registered sex offenders currently reside in communities across the United States (National Center for Missing & Exploited Children, 2012). While it is difficult

to track national trends over time, there is little question that the number of sex offenders under correctional supervision in the community has increased substantially over the past 20 years. In fact, sex offender management laws have become so prominent in the United States that the issue was recently identified as the fifth most important area of concern for state legislators (CSOM, 2008). Such laws typically address issues such as incapacitation, retribution/punishment, deterrence, and rehabilitation (CSOM, 2008). During the 2007–08 legislative biennium alone, 1,500 bills related to sexual offenders were introduced in 44 states (6 states had no legislative session during this timeframe), with 275 of these bills passing into law (Council of State Governments [CSG], 2010).

Despite the intuitive value of using science to guide decision-making, laws and policies designed to combat sexual offending are often introduced or enacted in the absence of empirical support. **This dynamic was recently acknowledged and identified as a concern by the national experts—both researchers and practitioners—who participated in the February 2012 SOMAPI forum.** The reasons why this occurs are varied and complex, and they will not be explored in this chapter.[2] However, there is little question that both public safety and the efficient use of public resources would be enhanced if sex offender management strategies were based on evidence of effectiveness rather than other factors. This chapter on sex offender management strategies was developed with this in mind.

This chapter does not discuss the theoretical and sociological explanations for a given policy or place the research within this context. It also does not present an exhaustive review of the research; it focuses on recent studies deemed to be important for understanding the effectiveness of a given strategy. Finally, its primary focus is on the management of adult sexual offenders. Although some research on juveniles who commit sexual offenses is included, the effectiveness of sex offender management strategies with a juvenile population is addressed in the Juvenile section of this publication.

Summary of Research Findings

Specialized Supervision

The development and refinement of specialized legal supervision for sexual offenders has largely occurred over the past 25 years. Specialized supervision frequently involves specially trained probation and parole officers who manage a caseload of sexual offenders using sex-offender-specific supervision strategies that include special conditions of supervision, multidisciplinary collaboration with a treatment provider, and, if appropriate and permissible, the use of global positioning systems (GPS) and polygraph. Based on responses to a 2008 survey of state officials, most states use some form of specialized supervision to manage risk and provide services to sexual offenders in the community; in addition, many states use sex-offender-specific probation or parole caseloads (Daly, 2008). (For a discussion of adult "Sex Offender Risk Assessment," see chapter 6 in the Adult section.) In terms of strategies used by specialized supervision officers, a survey of probation and parole supervisors (*N* = 732) conducted in 1994 found that 85 percent referred offenders to sex-offender-specific counseling and that 30 percent of probation officers and 32 percent of parole officers had specialized caseloads; however, less than 10 percent required polygraph testing (English, Pullen, & Jones, 1996). The importance of multidisciplinary collaboration with supervision officers was also supported in a survey of treatment providers from 45 states and the District of Columbia (N = 190), where 90 percent said their rapport with probation officers was excellent or good, 24.2 percent said probation officers attended weekly group sessions, and 87.4 percent said communication with probation officers was essential (McGrath, Cumming, & Holt, 2002).

This section reviews research on the effectiveness of specialized supervision practices. It is important to note that these are not sex-offender-specific studies. Research relating to the effectiveness of Circles of Support and Accountability (COSA), civil commitment, polygraph, and electronic monitoring (including GPS) immediately follows. These studies

focus primarily on sex-offender-specific supervision strategies.

Research

Several large-scale studies have assessed the effectiveness of intensive supervision used with criminal offenders. It is not known whether findings from these studies are generalizable to sex offender populations, but the findings provide important insights concerning the effectiveness of intensive supervision overall. In one large-scale systematic review of 291 studies conducted over a 40-year period on various intensive supervision programs used with criminal offenders, the Washington State Institute for Public Policy (WSIPP) found no research support for the effectiveness of community-based Intensive Supervised Probation (ISP) with a primary surveillance orientation in reducing criminal recidivism (*n* = 24 studies). (For information on "Adult Sex Offender Recidivism," see chapter 5 in the Adult section.) However, WSIPP did find research support for the effectiveness of treatment-oriented ISP, which produced an average reduction in criminal recidivism of 21.9 percent (*n* = 10 studies). Based on these results, WSIPP concluded that rehabilitation via treatment—not intensive supervision—leads to a reduction in criminal recidivism (Aos, Miller, & Drake, 2006). It should be noted that this study was a followup to an earlier study by the same state agency, in which the authors concluded that surveillance-oriented ISP had a small effect, which was not statistically significant, on reducing criminal offender recidivism (n = 19 studies) (Aos et al., 2001).

A second study on the effectiveness of ISP for general criminal offenders was a randomized clinical trial[3] conducted between 1986 and 1991 across 14 sites in 9 states. In a 1-year followup, the offenders subject to ISP were rearrested at a rate of 37 percent, while the offenders not subject to ISP were rearrested at a rate of 33 percent. Further, those subject to ISP were recommitted to prison at a rate of 27 percent, while the non-ISP recommitment rate was 19 percent. In discussing the study results, the researchers concluded, "Despite the experience of hundreds of intensive supervision programs in this country and many studies, albeit few experimental, we still know very little about the effectiveness of these programs to reduce prison overcrowding, and…, to reduce crime in detectable ways" (Petersilia & Turner, 1993, p. 121).

"There is limited research to support intensive supervision with a rehabilitative treatment approach."

Questions about the effectiveness of intensive supervision in the absence of treatment have led to the development of intensive supervision programs with a treatment orientation. A specific example is the containment approach, which includes collaboration on specialized supervision of sexual offenders provided by trained supervision personnel, sex-offense-specific treatment, and polygraph assessment. Unlike many other sex management strategies that have been implemented over the years, English, Pullen, and Jones (1996) developed the containment approach based on their study of best practices in place across the country.

Research on the effectiveness of the containment approach has been completed in a handful of jurisdictions across the country. One study was conducted in Jackson County, OR, where the community corrections office integrated treatment, supervision, and polygraph assessment in a multidisciplinary collaboration model. The research compared the recidivism rates for sexual offenders who were subject to the containment approach between 1985 and 1995 (*N* = 601) with those of sexual offenders from (1) a different county (Linn County) who were not subject to the containment approach between 1985 and 1992 (*n* = 89), and (2) a group of non-sex offenders supervised in Jackson County between 1985 and 1995 (*n* = 231) in a matched sample. The study used a 3- to 5-year followup period, and recidivism in this study was defined as a new felony conviction. The study found a recidivism rate of 8.8 percent for offenders in the containment group based on a followup period of at least 1 year, while the rates for the comparison groups were 15 percent and 26.7 percent, respectively. This was a statistically significant difference in recidivism for the containment group compared to both comparison groups.[4] The researchers also noted that sexual offenders

subject to the containment approach had a higher recidivism rate than the comparison groups for the first year, possibly due to the increased supervision scrutiny provided by this approach (Aytes et al., 2001).

A second study of the containment approach used with sex offenders in Colorado found that sexual offenders subject to specialized parole supervision following release from prison (*n* = 1,003), which included requirements for sex-offense-specific treatment and polygraph assessment, had a statistically significant lower recidivism rate (16.1 percent) than sex offenders not subject to parole supervision (29.3 percent; *n* = 2,040).[5] Recidivism in this study was measured as a new arrest, court filing, or return to prison (Lowden et al., 2003).

Finally, a third study undertaken in Virginia compared sexual offenders subject to containment on probation and parole (*n* = 583) to all sexual offenders on probation and parole between 2000 and 2002 (*N* = 1,753) using a 3- to 5-year followup period. The results indicated that the containment sexual offenders returned to prison for any crime at a rate of 11.3 percent, and specifically for a sex crime at a rate of 0.5 percent. The comparison group had a similar return-to-prison rate of 9.9 percent for any crime and a rate of 0.6 percent for a new sex crime, a difference that was not statistically significant. The researchers hypothesized that the higher return-to-prison rate for the containment sexual offenders was due to increased surveillance and detection provided by the model. It is also important to note that the comparison group in this study (all sexual offenders released from prison between 2000 and 2002) included the sex offenders subject to containment (Boone et al., 2006).

Two additional research studies on specialized sex offender supervision are worth noting. One study compared sex offenders (*n* = 195) under specialized supervision and in sex-offense-specific treatment to a matched group of sex offenders who did not have community supervision using a 6-year followup period. The results indicated that sexual offenders under community supervision had a sexual recidivism rate of 14 percent based on either a new sexual offense charge or a substantiated sexual offense by child protective services. In comparison, those who were not under supervision had a recidivism rate of 35 percent, leading to the conclusion that specialized supervision resulted in a statistically significant reduction in sexual recidivism[6] (McGrath et al., 2003).

However, in a contradictory study completed in Illinois, no significant difference in sexual recidivism was found between sex offenders subject and not subject to specialized supervision. In this study in Lake County, IL, recidivism was defined as a new sex crime arrest over a 3- to 5-year followup period (Stalans, Seng, & Yarnold, 2002). The results indicated that sexual offenders subject to specialized supervision (*n* = 104) had a sexual rearrest rate of 28.8 percent, while sexual offenders not subject to this strategy (*n* = 104) had a sexual rearrest rate of 25 percent (Stalans, Seng, & Yarnold, 2002).

Limitations

The research on the effectiveness of specialized sex offender supervision in conjunction with treatment (e.g., the containment approach) has a number of limitations. These include a small number of studies, short followup periods, small sample sizes, the use of different recidivism measures (making cross-study comparisons challenging), little information about the specific elements of the programs that are found to be successful, and problems with the scientific rigor of some of the studies (including one study where the intervention group was part of the comparison group). Finally, general issues related to underreporting of sex crimes leads to the problem typically seen in sex offender management research; that is, a low base rate for sexual recidivism, which limits the ability to achieve significant differences between the intervention and comparison groups.

"Research limitations include short followup periods, small sample sizes, different recidivism measures, and problems with scientific rigor."

On the other hand, the research on the effectiveness and limitations of generalized intensive supervision for all criminal offenders, particularly when combined with a treatment component, is much

more extensive based on a number of large-scale research studies.

In terms of future research directions, it is recommended that research using rigorous scientific methods be encouraged and supported. Comparison studies with large sample sizes and longer followup periods should be conducted on the effectiveness of specialized supervision in conjunction with treatment for sexual offenders. Finally, it would be beneficial for future research to identify not only the effect of the intervention, but also the program components that appear to be most beneficial and the mechanisms by which successful outcomes are achieved.

Summary

There is empirical support for the use of intensive supervision with criminal offenders in conjunction with a rehabilitative treatment approach, and some preliminary support for specialized sexual offender supervision models (such as the containment approach) that are delivered in conjunction with treatment. However, there is no research support for the use of intensive or specialized supervision either in isolation or without treatment for either population. Given the above, **the SOMAPI forum participants recommended that jurisdictions should use specialized supervision with a rehabilitation orientation as one component of an overall sex offender management strategy.**

Circles of Support and Accountability

The COSA model is a supervision strategy involving the use of community volunteers to provide support to an individual sex offender. COSA assists offenders in garnering community resources while holding them accountable to their self-monitoring plan, typically following completion of legal supervision. This program was first developed in Canada but has since also been implemented in the United Kingdom, Europe, and the United States. Currently, there are COSA programs in California, Minnesota, and Vermont, with additional projects being developed in Colorado, Washington, and North Carolina, among others.

Research

The COSA model has been the subject of several different studies, including a survey of sexual offender participants and public member volunteers, two comparison studies, and one descriptive outcome study. The surveys showed that 90 percent of sex offenders from Canada who were surveyed (n = 24, with a 65-percent response rate) described participation in COSA as helpful in refraining from reoffense, while 68 percent of public members (n = 77, with an 80-percent response rate) said offenders' participation in COSA made them feel safer (Wilson, Picheca, & Prinzo, 2005).

In the Canadian outcome studies, one evaluation compared the recidivism rates of 60 COSA high-risk sex offenders and 60 non-COSA high-risk sex offenders using a 4.5 year followup period. The study found a 5-percent sexual recidivism rate (defined as a new sex crime charge or conviction) for the COSA group and a 16.7-percent recidivism rate for the non-COSA group. The researchers concluded that COSA participation resulted in a statistically significant reduction in sexual recidivism7 (Wilson, Picheca, & Prinzo, 2005).

"COSA was identified in the Inventory of Promising or Effective Programs in Sex Offender Management as a research-supported program model."

In a second Canadian study, the recidivism rates for 44 high-risk sex offenders participating in COSA were compared to those for a matched comparison group of 44 high-risk sex offenders who did not participate in COSA using a 35-month followup period. The study found that the COSA group sexually recidivated at a 2.3-percent rate while the non-COSA group recidivated at a 13.7-percent rate, a statistically significant difference8 (Wilson, Cortoni, & McWhinnie, 2009).

Finally, a descriptive study of the COSA program in the United Kingdom examined recidivism outcomes for the program, but the study did not employ a comparison group of any kind. The United Kingdom

COSA model is slightly different than the model that has been implemented in Canada, in that sexual offenders in the program are still under legal supervision. The research documented the recidivism rates of 60 sexual offenders who participated in COSA using an average 3-year followup period. The study found that only one COSA participant sexually recidivated (1.7 percent), and five were reincarcerated (8.3 percent) during the followup period (Bates et al., 2011).

Limitations

Regarding survey research, limitations include small response rates and sample sizes, leading to possible self-selection bias. Regarding the outcome studies, while the results regarding COSA effectiveness thus far have been positive, only two studies have employed a comparison group and both of those studies had relatively small sample sizes. In addition, the relatively short followup periods are a challenge for these studies. Finally, these studies were done in Canada and the United Kingdom, where polygraph is not used routinely to corroborate disclosure and accountability. As a result, generalization to the United States is still in question. Therefore, future research should include larger samples sizes, sex offenders from multiple jurisdictions (including the United States), and longer followup periods.

Summary

COSA studies thus far have demonstrated positive results. While further use of the model is encouraged, implementation should occur in conjunction with rigorous evaluation. Far more high-quality research is needed before the efficacy and effectiveness of COSA with sexual offenders can be firmly established. The strength of the model is that it uses community resources for sex offender management and can be used in the absence of court supervision.

Polygraph

The use of polygraph assessment with sexual offenders is a somewhat more controversial management strategy than the others described thus far. (It is important to note that the containment approach—described above—includes polygraph testing as part of a comprehensive supervision and treatment strategy. This approach is premised on the assumption that the information disclosed via polygraph enhances the ability to create an individualized treatment and supervision plan.) Three different types of polygraphs are used with sexual offenders: a specific-incident exam that focuses on the sexual offense conviction or other specific offenses or behaviors, a sexual-history exam that explores the offender's history of sexual offending behavior, and a maintenance exam that reviews the offender's compliance with supervision and treatment conditions.

While the extent of polygraph use in the management of sexual offenders is difficult to document, there is some evidence that polygraph use has increased since the mid-1990s. In terms of sex offenders supervised within the federal probation and pretrial service system, one study found that in fiscal years 2004–05 (N = 2,199), 44 percent of those in treatment were subject to polygraph testing (Baerga-Buffler & Johnson, 2006). Similarly, in a survey of state officials (prison, community treatment, reentry, and community supervision), less than 50 percent of the respondents reported polygraph use in prison-based treatment (Daly, 2008). This percentage, however, was significantly higher than the percentage reported by English, Pullen, and Jones (1996) based on their 1994 national survey of supervision officers (N = 732), in which less than 10 percent required polygraph testing. According to CSG (2008), the following states were using polygraph testing in the management of sexual offenders: Colorado, Nevada, New Jersey, New York, and Texas. Evidence that polygraph use has increased since the mid-1990s also comes from a survey of U.S. treatment providers (N = 1307 programs), which found that respondents reporting the use of polygraph increased from 30 percent in 1996 to 79 percent in 2009 (McGrath et al., 2010).

Research

Research on polygraph use can be broken down into the following content areas: impact on disclosure, impact on sexual offender recidivism, impact on supervision professionals, impact on sexual offenders, and test validity.

Impact on Disclosure

Results of multiple research studies across various jurisdictions indicate that using polygraphs with sexual offenders leads to additional disclosures. Reported increases in offender disclosure based on polygraph include the number of victims, offenses, and offense categories (Ahlmeyer et al., 2000; English et al., 2000; Heil, Ahlmeyer, & Simons, 2003; Hindman & Peters, 2001); high-risk behaviors (Buschman et al., 2010; Grubin et al., 2004); and age of onset, duration of offending, and frequency (English et al., 2003). One example of such a study is from the Netherlands, where child pornography sexual offenders who received polygraph testing (N = 25) yielded disclosures of high-risk behavior during treatment in the areas of masturbation to fantasies of sexual contact with children (*n* = 15) (including masturbation while looking at children in public (*n* = 9)) and masturbation while manipulating children into posing nude during webcam contact (*n* = 4). In addition, disclosures included cruising in public places for children (*n* = 14), taking children's pictures (*n* = 5), and having scripted scenarios to be used to sexually victimize a child if there were an opportunity to do so (*n* = 5) (Buschman et al., 2010). It should be noted that no comparison group was used in this study; hence, attributing the disclosures directly to the use of the polygraph is problematic. Increases in the number of victims disclosed via polygraph ranged from an initial self-report of 1 victim to 11–13.6 victims, depending on the study, following polygraph testing (Ahlmeyer et al., 2000; Heil, Ahlmeyer, & Simons, 2003; Hindman & Peters, 2001). The rate of polygraph-aided disclosure was higher than the rate for offender self-reports (Hindman & Peters, 2001), and was more pronounced for inmates than parolees (Ahlmeyer et al., 2000; Heil, Ahlmeyer, & Simons, 2003). Finally, results of polygraph disclosure research indicated a large number of sanctions and changes in the case plan for offenders (English et al., 2000; Tubman-Carbone, 2009).

Limitations: Impact on Disclosure

Polygraph disclosure research undertaken to date has been based on relatively small sample sizes. There also was no corroboration of the disclosures made, allowing for the possibility of false admissions and an overstating of the number of victims. However, many polygraph disclosure studies also note that, given the deceptive polygraph results, there is also a possibility that the true incidence of offending behavior is underreported. This makes the interpretation of disclosure research findings difficult. Perhaps most importantly, most of the disclosure studies lacked comparison groups so it is not possible to know with certainty that the polygraph was responsible for the new disclosures. Further, many of these studies are limited to one state or jurisdiction, with only one study encompassing four states, raising questions about the generalizability of findings to other jurisdictions. Finally, the fact that the polygraph was voluntary in one study suggests the possibility that the results may have been different had all offenders completed the assessment. Future research on polygraph disclosures is clearly needed and it should include matched comparison groups and larger samples. Disclosure studies spanning multiple jurisdictions are also needed.

Impact on Sexual Offender Recidivism

As noted in the "Specialized Supervision" section above, the research results for sexual offenders subject to polygraph testing as part of the containment approach typically demonstrated lower levels of recidivism than sexual offenders not subject to this intervention (Aytes et al., 2001; Lowden et al., 2003). However, in a study conducted by McGrath and colleagues (2007), no significant differences in sexual recidivism between polygraphed and nonpolygraphed sex offenders were found. In that study, the recidivism rates of 104 sex offenders subject to polygraph testing were compared with those of a group of 104 matched sex offenders not subject to polygraph testing. The recidivism rate based on sexual recidivism charges was 5.8 percent for the polygraph group and 6.7 percent for the nonpolygraph group, a difference that is not statistically significant. However, there was a significant difference between the two groups in violent recidivism (operationalized as a new violent crime charge). The violent recidivism rate for those offenders subject to polygraph was 2.9 percent, compared to 11.5 percent for the nonpolygraph group.9 It should also be noted that a large percentage of high-risk behaviors were disclosed

during the polygraph examinations (McGrath et al., 2007).

Limitations: Impact on Sexual Offender Recidivism

The limitations cited for the specialized supervision research, and in particular the containment approach, hold for the polygraph research as well. Indeed, the only study that specifically looked at recidivism related to sexual offenders subject to polygraph, compared to those who were not, showed no significant difference in the rate of sexual recidivism. However, this study acknowledged that several issues may have confounded the study results, including the small sample size, potential selection bias (in that probation officers decided who would take the polygraph), and the infrequency of polygraph testing. Hence, the study conducted by McGrath and colleagues (2007) should be replicated using a larger sample size, matched comparison groups, and program features that reduce the probability of selection bias and maintain the integrity of the polygraph treatment. Studies examining the impact of polygraph testing on recidivism in different jurisdictions are also needed.

Impact on Supervision Professionals

In a 1998 telephone survey of probation and parole supervisors (N = 679), approximately three-fourths believed that polygraph use enhanced disclosure of offender behavior and two-thirds believed it led to better supervision of offenders (Cooley-Towell, Pasini-Hill, & Patrick, 2000). Surveys of service providers have found similar positive results. For example, in one survey, 96 percent of the respondents reported that the polygraph was helpful (McGrath et al., 2007). In another survey, 100 percent of the providers (n = 11) and 90 percent of the parole officers (n = 105) who responded reported that the polygraph was helpful. In the same survey, 80 percent of the providers who responded reported that having one group member take a polygraph test positively impacted other group members (Tubman-Carbone, 2009).

Impact on Sexual Offenders

Research on the perceived impact of the polygraph by sex offenders themselves is extremely limited. One study that examined this was conducted by Kokish, Levenson, and Blasingame (2005). The study surveyed 95 sexual offenders and found that 72 percent of those surveyed rated the polygraph as helpful, while 11 percent said the polygraph was harmful (Kokish, Levenson, & Blasingame, 2005).

Limitations: Impact on Sexual Offenders

Most of the limitations commonly found with survey data apply to the above studies. (For more on general limitations of sex offender research, see the "Limitations of the Data" section of chapter 1, "Incidence and Prevalence of Sexual Offending," in the Adult section.) In addition, the answers provided by sex offenders under supervision may be subject to distortion because offenders may try to give a socially desirable response or portray themselves in a sympathetic light.

Test Validity

One of the significant critiques of the polygraph is that it does not produce valid results. While this chapter only addresses the issue of test validity very briefly, readers are directed to the National Research Council report titled *The Polygraph and Lie Detection* (2003) for additional information. Its key research findings regarding test validity follow:

- A large-scale review of 57 studies on the use of specific-incident polygraph testing with sexual offenders found that such testing demonstrated the ability to discriminate between truth and deception at a rate well above chance.

- Screening tests (sexual history and maintenance) performed with the polygraph showed less of an ability to discriminate between truth and deception.

Research Summary

Research suggests that polygraph testing increases offender disclosure across multiple offending or behavior categories, including historical and current offending and high-risk behavior. The empirical evidence also suggests that polygraph testing can help reduce sexual recidivism when used

in conjunction with specialized supervision and treatment within the containment approach.

Limitations Summary

One of the key limitations in the polygraph research studies reviewed in this chapter is the inability of the research to distinguish the impact of the polygraph from other strategies (treatment and specialized supervision). Small sample sizes are also a problem and jurisdiction-specific approaches may limit the generalizability of research findings. Future research should employ more rigorous methods to better isolate the impact of polygraph testing on both disclosure and recidivism.

> *"Polygraphs should be used as one component of an overall sex offender management strategy."*

Polygraph Summary

Until more definitive research regarding the validity and impact of polygraph testing is available, the polygraph will continue to be a controversial technique used inconsistently in sex offender management schemes. If polygraph testing is used in the management of sex offenders, it should be implemented as one component of an overall sex offender management strategy. Polygraph disclosure information may be useful for assessment of risk factors and identification of treatment needs, but in some jurisdictions such information may not be used for prosecution or supervision revocation. Given the questions that remain about test validity, it is not recommended that polygraph results be relied on exclusively for sex offender management decision-making.

Electronic Monitoring, Including Global Positioning Systems

Another recent trend in sex offender management and supervision has been the use of GPS to monitor sex offenders. GPS is an updated, more technologically advanced form of the electronic monitoring techniques used with criminal offenders in the past. These earlier versions of electronic monitoring were much more passive in nature, and they typically involved the use of a radio transmitter device (worn by offenders) that alerted a home-based receiver and a remote monitoring station whenever the offender was out of range. Offenders could never be tracked or otherwise located once they left their homes. In a significant technological advance, GPS provides real-time tracking of and location data for the offender, and it also is capable of notifying authorities if an offender enters a prohibited area, such as an offender exclusion zone or victim residence. Monitoring by GPS can be either active (viewing an offender's movement between locations in real time) or passive (data are saved and reviewed later, and notification is only done electronically based on restriction parameters violated). In the United States:

- Six states use lifetime electronic monitoring (Nieto & Jung, 2006).
- Forty-seven states have some form of electronic monitoring legislation, 19 of which require the use of an electronic monitoring tool. The remaining 28 states permit but do not require electronic monitoring (Button, DeMichele, & Payne, 2009).
- Thirty-one states introduced electronic monitoring legislation in 2007, with 14 of 109 bills passing (CSG, 2010).

Research

In a systematic review of 12 studies examining the effectiveness of non-GPS electronic monitoring used with criminal offenders overall (not necessarily sex offenders), WSIPP found no significant reduction in criminal recidivism for offenders subject to electronic monitoring techniques (Aos, Miller, & Drake, 2006). However, a second large study that examined the effectiveness of passive monitoring devices and GPS used with criminal offenders subject to home confinement in Florida between 1998 and 2002 did find promising results (N = 75,661). Study findings indicated that criminal offenders placed on both passive electronic monitoring devices and GPS had significantly lower levels of revocation for a new criminal offense or for absconding than did offenders subject to home confinement without such monitoring[10] (Padgett, Bales, & Blomberg, 2006).

In a study of non-GPS passive electronic monitoring specific to sexual offenders in three of four Canadian provinces that use such a technique, Bonta, Wallace-Capretta, and Rooney (2000) compared the recidivism rates of a group of inmates and probationers who were not subject to electronic monitoring with those of a group of offenders who were subject to it. Based on a 1-year followup period, those on electronic monitoring sexually recidivated (defined as a sex crime reconviction) at a rate of 26.7 percent, compared to 33.3 percent for the probationers who were not monitored and 37.9 percent for the inmates who were not monitored. However, the researchers noted that although there was a statistically significant difference in recidivism between the electronic monitoring and nonelectronic-monitoring groups,[11] when the results were controlled for risk there was no difference between them. Hence, they concluded that the observed recidivism reductions were due to offender risk dynamics, not program components (Bonta, Wallace-Capretta, & Rooney, 2000).

In a study comparing states that have implemented electronic monitoring laws for sexual offenders with those that have not, Button, DeMichele, and Payne (2009) found that the states with such laws were no more likely to have rates of violent crime and rape that were higher than the U.S. average than were states without such laws.

State agencies in California, Florida, New Jersey, and Tennessee, among others, have studied the use of GPS with sexual offenders. Among sexual offenders on GPS in New Jersey (*N* = 225), there were 19 nonsexual criminal recidivists or technical violators and 1 sexual recidivist in a 1-year followup (New Jersey State Parole Board, 2007). It should be noted there was no comparison group for this study. In a Florida study of 705 offenders on electronic monitoring using predominantly active GPS (70 percent of whom were lower risk offenders and 30 percent of whom were habitual or sexual offenders), offenders on electronic monitoring had a felony recidivism rate of 2.6 percent, while offenders who were not subject to electronic monitoring recidivated at a rate of 6.6 percent in a 1-year followup. It is not known whether this difference was statistically significant (Office of Program Policy Analysis & Governmental Accountability, 2005).

Conversely, a Tennessee study that compared the outcomes of 493 sex offenders on GPS with those of 370 offenders in the same counties prior to the use of GPS found no significant difference between the two groups in the number of technical violations or new charges that occurred or in the number of days before a first technical violation (Tennessee Board of Probation and Parole, 2007).

A California study compared outcomes for 94 GPS offenders and a group of 91 high-risk offenders who were not on GPS. No significant differences in technical violations (which included offenders who committed a new crime) were found between the two groups (39.6 percent vs. 37.2 percent); however, the GPS group was less likely to abscond. This study also included a process evaluation of GPS that showed equipment problems, signal drift, blocked signals, and high caseloads impacting effectiveness (Turner et al., 2007). Finally, in a second California study of high-risk sex offenders (*N* = 516) (half of whom were on GPS while the other half was a matched non-GPS comparison group), no significant differences in sex crime rearrest (2.7 percent for the GPS compared to 5 percent for the non-GPS group) or reconviction (1.9 percent compared to 4.3 percent) were found based on a 1-year followup period. However, the GPS group had significantly lower levels of sex-related parole violations (5 percent compared to 12.4 percent),[12] general rearrests (14.4 percent compared to 26.4 percent),[13] and return to custody (58.1 percent compared to 58.9 percent)[14] (Gies et al., 2012).

Limitations

In terms of the limits of the GPS-specific studies, the sample sizes were relatively small (ranging from 94–262), with at least one study referencing primarily a lower risk, nonsexual offender group. The followup periods employed in many studies were not of sufficient length. The inability of several studies to detect a positive GPS effect may be related to problems using the technology or staffing limitations within the monitoring program.

"GPS should not be used in isolation and should be a part of an overall sex offender management strategy."

The efficacy of electronic monitoring techniques such as GPS cannot be established at this time. Additional studies with sufficient sample sizes and followup periods, and matched comparison groups, are needed to test the impact of GPS. Technological and staffing problems within monitoring programs also need to be addressed so that impact evaluations can focus on GPS programs that are implemented and delivered with integrity. Finally, while research on non-GPS electronic monitoring provides important insights about the value of monitoring strategies, the technological differences between passive alert systems (non-GPS and passive GPS[15]) and an active monitoring system (active GPS) are significant and must be accounted for when assessing the effectiveness of any specific monitoring technique or electronic monitoring strategy as a whole in any research summary.

Summary

While GPS may eventually be found to be effective as one strategy in an overall management approach for sexual offenders, empirical evidence does not at this time establish that the strategy is effective when used in isolation. Policymakers and the public should not view GPS as a viable alternative to empirically supported supervision models that incorporate treatment.

Sexual Offender Civil Commitment

At present, 20 states, the District of Columbia, and the federal government have enacted legislation allowing for the establishment of sexual offender civil commitment (SOCC) procedures.[16] SOCC is predicated on the belief that some offenders will be at continued high risk (in some cases termed "more likely than not") to commit a new sexual offense if they are not preventively detained and offered treatment designed to lower their risk for recidivism. To be subject to civil commitment, most SOCC statutes require the state to demonstrate that a potential candidate for this measure has (1) a history of engaging in criminal sexual behavior and (2) a "mental abnormality" that, without treatment, would preclude him or her from being able to manage his or her criminal sexual propensities in the community. These "criteria" form the principal basis for SOCC, and persons committed as sexually violent persons/predators (SVPs) are held until such time as a court finds they no longer meet the criteria.

Research

More than 40,000 sexual offenders in Florida have been screened for possible referral to the courts for SOCC proceedings since the law came into effect in early 1999. However, approximately 9 percent of those screened offenders were referred for psychological/psychiatric evaluation and only about 3.5 percent have been referred to court for civil trial. Even fewer of those referred for commitment were actually found to be SVPs—in fact, less than half of those referred for trial (1.5 percent of the total considered) were designated as SVPs. This makes those persons found to be SVPs an "elite" group, at least as far as Florida is concerned (although other SOCC programs report similar numbers, i.e., less than 2 percent) (Wilson et al., 2013).

At present, very few civil commitment programs have released sufficient numbers of offenders to allow researchers to study the impact of civil commitment in a meaningful way. Across the 16 SOCC programs reporting data to the annual survey of the Sexual Offender Civil Commitment Programs Network (Jackson, Travia, & Schneider, 2010), the average number of releases per program was less than 10. Further, most releases from civil commitment have occurred recently, meaning that followup times would be quite short. As such, very little data currently exist regarding rates of reoffending in SVPs following release to the community.

One study that provides some insight into the impact of civil commitment on postrelease offending examined the reoffense rates of 135 "almost SVPs" (persons who were referred for SOCC, but petitions were not filed with the court) in Washington State (Milloy, 2007). With a uniform followup period of 6 years, 23 percent were convicted of new felony sexual offenses—a rate considerably higher than that found in "routine" samples of sexual offenders. Another study of note compared high-risk/need sexual offenders in a Canadian jurisdiction to SVPs in Florida (Wilson et al., 2013). In that study, the Canadian and American offenders were virtually identical on pertinent risk assessment and clinical

factors, and their relative rates of sexual reoffending were also remarkably similar (6.1 percent in 5.48 years compared to 3.2 percent in 2.54 years), although the Florida SVP sample size was small (n = 31) and the followup period for the Florida SVPs was relatively short.

Limitations

There has not been adequate empirical study to determine the effectiveness of SOCC as a sex offender management strategy at this time, at least in terms of the impact of SOCC on postrelease offending. The limited number of sexual offenders released from SOCC, the short followup periods researchers would inherently have to use, and the lack of adequate comparison groups all contribute to a paucity of research on SOCC effectiveness. Far more offenders will have to be released from SOCC, and these offenders will have to spend far more postrelease time in the community, before the impact of SOCC on postrelease offending can be studied in a meaningful way.

Summary

SOCC strategies are being used by 40 percent of states (20 states). While these programs seek to contain and treat the most dangerous sex offenders, they have significant costs; a 2005 survey found that annual per-resident costs ranged from $12,680 to $109,000, and that more than $224 million was spent annually to operate SOCC facilities nationwide (Lieb & Gookin, 2005).

Sex Offender Registration and Notification

Registration was first used in the 1930s with repeat criminal offenders as well as sex offenders. California became the first state to implement sex offender registration in 1947, while Washington became the first state to implement community notification on sex offenders in 1990. The goals of Sex Offender Registration and Notification (SORN) programs have been summarized as deterring offenders from reoffending, giving law enforcement an investigative tool, and increasing public protection (CSOM, 1999).

The federal government first implemented a national registration law with the Wetterling Act in 1994. A national notification law was enacted with the Megan's Law amendment to the Wetterling Act in 1996. Subsequently, all 50 states have implemented SORN systems. The federal government repeatedly refined and expanded the scope of SORN via a series of amendments to the Wetterling Act,[17] and then ultimately set forth a new SORN scheme with the passage of Title I of the Adam Walsh Child Protection and Safety Act of 2006 (AWA)—the Sex Offender Registration and Notification Act (SORNA)—which repealed the Wetterling Act. SORNA's requirements and how they differ from the Wetterling Act have been documented in other sources.[18] The changes include enhanced registration requirements and procedures, increased availability of sex offender registration information to the public, strengthened information sharing and enforcement mechanisms, and greater federal assistance in operating and upgrading sex offender registration programs, sharing and disseminating sex offender information, and enforcing registration requirements.

Research

SORN requirements arguably have been implemented in the absence of empirical evidence regarding their effectiveness. It has been suggested that SORN may be a specific deterrent for sex offenders; that it would facilitate sex offender awareness, monitoring, and apprehension; and that it would in the end help prevent sex offenses—particularly repeat sex offenses—from occurring. While these hypotheses were not empirically tested prior to the implementation of SORN requirements, a significant body of research using various methods has since examined the impact of SORN, particularly in relation to recidivism.

Interrupted Time Series Analysis Studies

One research method employed to assess the effectiveness of SORN for adult sexual offenders is interrupted time series analysis, which essentially examines an outcome of interest using many observations before and after the implementation of a specific intervention. Several interrupted time series analyses assessing SORN have been

completed in recent years. In one analysis of state SORN laws, Prescott and Rockoff (2011) found that SORN may have contributed to a decrease in sex crimes. More specifically, the study found that sex offender registration led to a decrease in the rate of victimization of nonstrangers and a reduction in recidivism for identified sex offenders. However, community notification did not appear to reduce recidivism for identified sex offenders (Prescott & Rockoff, 2011).

A similar analysis focused on the impact of SORN on rape in 10 states. Using Uniform Crime Report (UCR) data on rapes reported to the police as the outcome measure, the study found that statistically significant reductions in reported rape occurred following the implementation of SORN in 3 of the 10 states (Hawaii[19], Idaho[20], and Ohio[21]). In six states (Arkansas, Connecticut, Nebraska, Nevada, Oklahoma, and West Virginia), no significant change was observed following SORN implementation, and one state (California) actually had a statistically significant **increase** in sex crimes following SORN implementation.22 Based on the varied findings, the authors concluded there was no systematic influence of SORN on the rate of reported rape (Walker et al., 2006). (For more on UCR data, see the "Uniform Crime Report" section of chapter 1, "Incidence and Prevalence of Sexual Offending," in the Adult section.)

Presently, 41 states have some kind of registration for juveniles adjudicated delinquent of sex offenses; 30 states either permit or require public website posting for those juveniles, and the vast majority require registration and public notification for juveniles transferred for trial and convicted as an adult.[23] In reviewing UCR sex crime arrest data from 47 states for 1994 through 2009, Holmes (2009) did not find a statistically significant decrease in the rate of sex crime arrest in either juvenile registration states or juvenile notification states (post-SORN).

Several studies have examined the impact of SORN in individual states. For example, in South Carolina, adult sex crimes were compared to nonsexual assault and robbery crimes pre- and post-SORN implementation (*N* = 194,575, of which 19,060 were sex crime arrests). Data were examined for 1990 through 2005. SORN implementation occurred in 1995. The study found that the sex crime rate declined by 11 percent[24] from pre- to post-SORN while the rates of assault and robbery did not, suggesting the possibility that SORN was a deterrent to sex crimes (Letourneau, Levenson, Bandyopadhyay, Armstrong, & Sinha, 2010). In another study from New Jersey, a downward trend in the sex assault rate was observed both pre- and post-Megan's Law (SORN), but the rate of decline increased after Megan's Law was implemented (Veysey, Zgoba, & Dalessandro, 2008).

A number of state studies did not find evidence that SORN implementation positively impacted the rate of sexual offending or recidivism. Interestingly, one of these studies focused on South Carolina, where another study **did** find evidence of a positive SORN impact (Letourneau, Levenson, Bandyopadhyay, Armstrong, and Sinha, 2010).

In the South Carolina study that **did not** find evidence of a positive SORN effect, recidivism was examined in the context of registration status for 6,064 male offenders convicted of at least one sex crime in that state between 1990 and 2004. The study found that registration status did not predict recidivism (Letourneau, Levenson, Bandyopadhyay, Sinha, & Armstrong, 2010). Another state study taking place in New York analyzed sex crime, assault, robbery, burglary, and larceny arrests from 1986 through 2006. Study results indicated that the implementation of the state's sex offender registry did not decrease the rearrest rate for convicted sex offenders, deter nonregistered offenders from offending, or decrease the overall rate of sex crimes. It was also noted that 94.1 percent of child molestation arrests were for first-time sex offenders (Sandler, Freeman, & Socia, 2008). Finally, an analysis that focused on South Carolina juveniles who committed sexual offenses between 1990 and 2004 (N = 1275) found that 7.5 percent were charged with a new sex offense and 2.5 percent were adjudicated for a new sex offense during a 9-year followup period (Letourneau, Bandyopadhyay, Sinha, & Armstrong, 2010). More importantly, the researchers found that registration was not associated with recidivism; however, nonsexual, nonassault recidivism (defined as a new charge) significantly decreased for those on the registry25 (Letourneau, Bandyopadhyay, Sinha, & Armstrong, 2010).

Limitations: Interrupted Time Series Analysis Studies

One of the primary limitations of the studies cited above is that time series analysis and before/after methods in general are not as capable of isolating intervention effects as a randomized controlled trial. While an interrupted time series analysis based on a sufficient number of observations can produce highly trustworthy findings, outside factors such as changes in supervision, treatment, and other sex offender management practices pre- and post-SORN may also be influencing study results. Further, the authors in the New Jersey study cautioned that wide variety across county sex crime rates was noted, and the analysis did not uniformly and consistently demonstrate downward trends, suggesting that the statewide pattern identified might represent a spurious effect and be an aggregation artifact (Veysey, Zgoba, & Dalessandro, 2008). Finally, other variables such as sex crime underreporting (which could be aggravated by SORN due to the unwillingness of intrafamilial victims to report because of fears about SORN) and the limitations of official sex crime statistics may be confounding these results.

Studies Employing a Comparison Group

A number of studies have examined the impact of SORN by comparing the outcomes of sex offenders subject to SORN with those not subject to this strategy. These studies have generally produced mixed results.

One study finding a positive effect examined the recidivism of 8,359 sexual offenders in Washington State. Some of those offenders were subject to SORN, while others were not because SORN requirements were not yet in place. The study found that the sex offenders subject to SORN sexually recidivated (defined as a new Washington state conviction for a felony sex crime) at a 2-percent rate, while the pre-SORN group recidivated at a 7-percent rate[26] (WSIPP, 2005). Another study finding a positive impact took place in Minnesota. Researchers compared Level III sexual offenders subject to community notification between 1997 and 2002 (*n* =155) with precommunity notification sexual offenders retrospectively scored as Level III offenders (*n* = 125), and Level I and II sexual offenders not subject to community notification (*n* = 155).[27] Based on a 3-year followup period, the community notification group had a statistically significantly lower sexual recidivism rate based on reconviction (3.2 percent), compared to the prenotification group and nonnotification group (32.8 percent and 9.6 percent, respectively)[28] (Duwe & Donnay, 2008).

On the other hand, several state-level studies have not found evidence of a positive SORN effect. For example, in an Iowa study, a group of sex offenders subject to registry requirement (*n* = 233) who were also under legal supervision were compared to a matched group of preregistry sex offenders not under supervision (*n* = 201). In a 4.3-year followup, the registry group sexually recidivated (defined as a new sex crime conviction) at a rate of 3 percent, compared to the nonregistry group's 3.5-percent recidivism rate. This difference was not statistically significant. However, when the recidivism rates of parolees and probationers were compared, the researchers found that registration requirements may have had more of an impact on parolees (Adkins, Huff, & Stageberg, 2000).

In New Jersey, researchers compared the recidivism rates of offenders subject to SORN with those of offenders who were not subject to this strategy (n = 550). Based on a 6.5-year followup period, offenders subject to SORN recidivated at a rate of 7 percent, compared to 11 percent for offenders who were not subject to SORN; however, these differences were not found to be statistically significant (Zgoba & Bachar, 2009; Zgoba et al., 2008).

"Research on SORN as it relates to offender recidivism has produced mixed results."

In Wisconsin, the recidivism rates of sex offenders subject to registration and extensive notification between 1997 and 1999 (*n* = 47) were compared with those of sex offenders who had limited notification requirements (*n* = 166). No statistically significant differences in sex crime rearrest rates over a 4-year followup period were found, as 19 percent of the extensive notification group sexually recidivated, compared to 12 percent for the limited notification group (Zevitz, 2006). Similar findings

were reported in a Washington State study. Again, the recidivism rates of sex offenders subject to SORN (*n* = 139) were compared with those of sex offenders not subject to SORN. Based on a 54-month followup, sex offenders subject to SORN were found to have a sex crime rearrest rate of 19 percent while the rate for the non-SORN group was 22 percent, a difference that is not statistically significant. However, the researchers noted that the offenders subject to SORN were arrested more quickly than offenders in the comparison group (Schram & Milloy, 1995). Finally, in a study of New York sex offenders pre- and post-community notification (N = 10,592), researchers found no significant differences in sexual (7 percent) or general (46.6 percent) rearrest rates based on an 8.2-year followup period. However, the community notification offenders were rearrested twice as quickly for a new sex crime as the noncommunity notification offenders[29] (Freeman, 2012).

Limitations: Studies Employing a Comparison Group

The primary limitation of the studies described above is the inability to control for all outside factors and to isolate the effects of SORN requirements on recidivism.

Survey Data

Surveys of stakeholders can provide descriptive data about the impact of SORN on different populations, including the public, sexual offenders, and supervision officers.

Impact on the Public

One multistate study (*n* = 115 from 15 states) of community members found general familiarity with and support for SORN, along with a belief that it prevents offending (Schiavone & Jeglic, 2009). State-level surveys of community members regarding SORN in Florida, Nebraska, Washington, and Wisconsin found that the public—

- Was aware of and supported SORN (Anderson & Sample, 2008; Lieb & Nunlist, 2008).
- Thought it was fair (Brannon et al., 2007).
- Believed that it provides safety for their family (Anderson & Sample, 2008; Lieb & Nunlist, 2008; Zevitz & Farkas, 2000a).
- Thought it makes sex offenders follow the law (Phillips, 1998, as cited in CSOM, 2001; Lieb & Nunlist, 2008; Brannon et al., 2007).
- Saw the benefits of SORN and learning about sex offenders through SORN (Phillips, 1998, as cited in CSOM, 2001; Lieb & Nunlist, 2008).
- Took preventive measures (38 percent)[30] based on SORN information (Anderson & Sample, 2008).
- Reported suspicious behavior of offenders (3 percent)[31] (Lieb & Nunlist, 2008).
- Accessed the registry (31 percent),[32] but those who did were more likely to be female, to be affluent, and to have children (Sample, Evans, & Anderson, 2011).

"Survey responses indicate that SORN has both negative and positive impacts on offenders and that the public is generally supportive of SORN as promoting public safety."

Impact on Offenders

In a review of eight individual surveys on SORN's impact on sexual offenders subject to it,[33] Lasher and McGrath (2012) found that—

- Eight percent of sex offenders reported physical assault or injury.
- Fourteen percent reported property damage.
- Twenty percent reported being threatened or harassed.
- Thirty percent reported job loss.
- Nineteen percent reported loss of housing.
- Sixteen percent reported a family member or roommate being harassed or assaulted.
- Forty to sixty percent reported negative psychological consequences.

"Survey responses indicate that SORN has both negative and positive impacts on offenders and that the public is generally supportive of SORN as promoting public safety."

However, more than one-third of adult sex offenders reported communities being safer and approximately three-fourths felt it was a deterrent to offending (Lasher & McGrath, 2012).

A number of studies involving surveys of sexual offenders in states across the country indicate that SORN requirements have a range of negative impacts on sexual offenders. These include negative impacts on sex offenders' jobs, housing, friends, and family (Ackerman, 2009; Levenson, D'Amora, & Hern, 2007; Tewksbury, 2004; Vandiver, Dial, & Worley, 2008), which results in stress, isolation, loss of hope, and shame/embarrassment (Levenson & Cotter, 2005a), and the greater likelihood of living in disadvantaged neighborhoods where services are less available (Hughes & Kadleck, 2008). Studies have also found that 10–13 percent of sex offenders report experiencing violence (Brannon et al., 2007; Levenson, D'Amora, & Hern, 2007) and harassment (Vandiver, Dial, & Worley, 2008; CSOM, 2001). While many sexual offenders report the belief that SORN would not deter reoffending and was unfair punishment (Ackerman, 2009; Brannon et al., 2007; Levenson, D'Amora, & Hern, 2007; Tewksbury & Lees, 2007; Tewksbury, 2004), many also report that SORN requirements motivate them to be successful (Levenson, D'Amora, & Hern, 2007; Levenson & Cotter, 2005a).

Impact on Supervision Officers

In a survey of probation and parole officers (n = 77), respondents reported they generally believed community notification served an appropriate goal but had a high cost for corrections in terms of personnel, time, and money. They also believed it made sex offender housing difficult to locate (Zevitz & Farkas, 2000b).

Limitations: Survey Data

The limitations of survey data have previously been identified and are applicable here.

Impact of Failure To Register

Several studies have examined whether sex offenders who fail to comply with registration requirements are more likely to recidivate than offenders who do comply. For example, in a Washington State study, WSIPP (2006) found higher recidivism for noncomplying sex offenders compared to their registration-compliant counterparts. Noncomplying sex offenders had a felony sex crime conviction recidivism rate of 4.3 percent, while complying sex offenders had a rate of 2.8 percent. It is unknown whether this difference was statistically significant (WSIPP, 2006). Studies in Minnesota, South Carolina, and New Jersey, however, failed to find any significant differences in recidivism between registration-compliant and noncompliant sex offenders. In Minnesota, Duwe and Donnay (2010) compared the recidivism rates of 170 sex offenders who had a failure-to-register charge between 2000 and 2004 with those of 170 nonfailure-to-register sex offenders and found that the noncompliant sex offenders were no more likely to sexually recidivate (defined as a new sex crime arrest or conviction) (Duwe & Donnay, 2010). Similarly, a study focused on sex offenders in South Carolina (N = 2,970) found that those who failed to register were no more likely to sexually recidivate (11 percent) than those not so charged (9 percent) (Levenson et al., 2009). Finally, in a study of New Jersey sex offenders (N = 1,125), 644 of whom failed to register and 481 who did register, researchers again found no significant difference between the two groups in terms of their sexual rearrest rates (18 percent for the failure-to-register group compared to 11 percent for the registering group) (Zgoba & Levenson, 2012).

Limitations: Impact of Failure To Register

Relatively few studies have examined whether noncompliant offenders are more likely to reoffend than compliant offenders, and the studies again suffer from the low base rate for sexual recidivism and limited generalizability.

Accuracy Research

A number of studies have examined the accuracy of sex offender registries. For example, Hughes and Kadleck (2008) reviewed the accuracy of sex offender registries in Nebraska and Oklahoma and found that approximately 90 percent of the Nebraska records were accurate (n = 975), while 56.5 percent of the Oklahoma records were accurate (n = 5,163). In a random sample of New York registry records (n = 200), 37 percent of the records were found to be inaccurate, including 27 percent that did not match driver's license information and 2.5 percent that had wrong addresses (Office of the New York State Comptroller, 2006). Finally, in a Vermont study of sex offender registry records (n = 57), 75 percent of the records were found to have critical or significant errors (Vermont State Auditor, 2010).

Limitations: Accuracy Research

Audits of sex offender registry records provide important insights about the accuracy and reliability of sex offender registries. The major limitations of these studies are that they often are based on small sample sizes and their generalizability to other jurisdictions remains unknown.

Summary

In summary, research on the effectiveness of SORN remains relatively limited and findings from the studies are somewhat inconclusive. Findings from time series studies are mixed. Some studies find lower rates of sex crimes following SORN implementation, while others do not. Studies based on a comparison of outcomes for sex offenders subject and not subject to SORN also produced mixed findings. An arguable lack of sufficient scientific rigor may further cloud the import of studies in this area. Therefore, the results of SORN research undertaken to date continue to leave open questions about the effects of registration and community notification requirements. Finally, few if any studies to date have examined the multifaceted elements of registration laws generally or Title I of AWA (SORNA) specifically, which incorporates requirements and procedures, and information sharing and enforcement mechanisms, going beyond those prevalent in SORN programs examined in past studies.

> *"Research findings on the effectiveness of SORN are mixed, and more high-quality studies with sufficient scientific rigor are needed."*

Sex offenders in survey responses claim a range of negative impacts from SORN; however, many see it as a deterrent to committing future crimes. Further research is clearly needed to corroborate these survey findings. Surveys of community members indicate that the public is familiar with SORN laws, and also that they are generally supportive of SORN.

Finally, registry accuracy studies have found significant problems with registry records in some states. **The need for accurate registry information was recently highlighted by the sex offender management experts who participated in the 2012 SOMAPI forum.** Clearly, additional research is needed to help better answer questions about SORN effectiveness and about which aspects of the policy may be beneficial and cost-effective and, conversely, which may not.

Given the limitations of existing research regarding SORN, the SOMAPI forum participants recommended that future changes to SORN be studied prior to enactment, particularly in the context of existing knowledge about sexual offender risk and recidivism. Pilot testing prior to full-scale implementation provides one mechanism for examining potential impacts, both positive and negative.

Residence Restrictions

Sex offender residence restrictions that limit where convicted sex offenders may legally live have become more popular across the country. These restrictions typically prevent sex offenders from living within 1,000 to 2,500 feet of schools, daycare centers, and other places where children congregate. The first states to adopt residence restrictions were Delaware and Florida in 1995. Currently, 30 states and many more municipalities have residence restriction laws, some in accordance

with Jessica's Law (Meloy, Miller, & Curtis, 2008). As with many other sex offender management strategies implemented across the United States, there was no research evidence to support the effectiveness of residence restrictions prior to the enactment of this policy. However, empirical evidence questioning the effectiveness of residence restrictions is becoming available.

Outcome Data

Several studies have looked at sexual offender recidivists to determine whether living in proximity to places where children congregate was a risk factor and whether residence restrictions would have deterred reoffense. In one study commissioned by the Colorado legislature for the purpose of studying the potential impact of residence restrictions prior to implementation (a recommended practice), no significant difference in recidivism (defined as any new criminal conviction) patterns was found based on whether or not an offender lived in proximity to schools and daycare centers (Colorado Department of Public Safety, 2004). In a study of sex offenders subject to residence restrictions in Florida (n = 165), researchers found no significant difference in the distance recidivists (defined as a new sex crime rearrest) and nonrecidivists lived in proximity to schools and daycare centers (Zandbergen, Levenson, & Hart, 2010).

In Jacksonville, FL, researchers investigated the effects of a 2,500-foot residence restriction ordinance on sexual recidivism (which was defined as a new sex crime arrest) and sex crime arrest rates. No significant differences in recidivism were found pre- and post-policy implementation. Similarly, there was no significant difference in sex crime arrest rates pre- and post-policy implementation. The authors concluded that the residence restriction ordinance did not reduce recidivism or deter sex crimes (Nobles, Levenson, & Youstin, 2012).

In a study of county and local residence restrictions in New York (N = 8,928 cases; 144 months of data from each of 62 New York counties), researchers found no significant impact on sexual recidivism against child or adult victims or on arrests for sex crimes against child victims. However, there was a 10-percent decrease in the rate of arrests for sex crimes against adult victims.[34] As a result, the researchers concluded that residence restrictions do not appear to deter sexual recidivism or sex crime arrests where the victim was a child, but they may deter sex crimes involving adult victims (Socia, 2012).

The Iowa Department of Criminal and Juvenile Justice Planning studied the effect of Iowa's 2,000-foot residence restriction law, which was implemented in August 2005. The number of charges for sexual assaults involving minor victims was examined for both the 12-month period preceding the law's implementation and the 24-month period after the law went into effect. The study found no significant downward trend in the number of charges following passage of the law. In fact, sex crime arrests increased steadily over each of the 3 years (913, 928, and 1,095) of the study (Blood, Watson, & Stageberg, 2008).

One of the more comprehensive studies of residence restrictions occurred in Minnesota. The researchers examined the characteristics of recidivism events for 224 sex offenders who committed a new sex crime and were reincarcerated between 1990 and 2002. The researchers found that 79 percent of these offenders knew the victim prior to the reoffense. Moreover, 85 percent of the reoffenses studied occurred in a residential location and 39 percent occurred outside the home, with 9 percent taking place within 1 mile of the offender's house. Of these 9 percent, three offenders contacted a victim at a restricted location; two of the offenders were not in proximity to where they lived and the third contacted an adult victim. The researchers concluded that none of the reoffenses would have been deterred by residence restrictions (Duwe, Donnay, & Tewksbury, 2008). It is interesting to note that in Minnesota, the Department of Corrections raised concerns about the unintended negative consequences of residence restrictions, including the potential for sex offenders to congregate in rural areas without ties to the community, thereby resulting in social isolation; a lack of work, education, and treatment; and being farther away from supervision (Minnesota Department of Corrections, 2003).

Finally, in a convenience sample study of sex offenders randomly selected after being released from prison between 1996 and 2006 (n = 293 child molesters and 112 rapists), researchers found that 76.5 percent of the offenders met their victim in a private location and only 6.8 percent met a victim in proximity to a residence restriction setting. Additionally, 82.2 percent of offenses occurred in a private setting and 9.1 percent of victims were strangers to the offender, with 18.8 percent of rapists and 14.7 percent of child molesters meeting the victim in a public location. Based on this analysis, the researchers suggested that social rather than geographic proximity influenced offending (Columbino, Mercado, & Jeglic, 2009).

Limitations: Outcome Data

Limitations of residence restriction outcome studies are similar to those previously identified for other research, including small sample sizes, short followup periods, low sexual recidivism rates, and the inability of most studies to isolate the impact of residence restrictions from other influences.

Survey Data

Impact on the Public

A number of researchers have studied the impact of residence restrictions on where sex offenders reside in the community. In a Chicago, IL, study (n = approximately 4,000), researchers found that sex offenders were more likely to live in disadvantaged neighborhoods (30 percent of sex offenders lived in these areas, which is nearly 5.5 times greater than the number living in affluent areas). In a study of those sex offenders violating the residence restriction law (n = 1,008), 29 percent lived in a disadvantaged neighborhood and 2 percent lived in an affluent neighborhood. Finally, it was noted that 70 percent of the disadvantaged area was off limits to sex offenders, compared to 32 percent of affluent areas. The research suggests that residence restrictions lead to a disproportionate number of sex offenders living in disadvantaged neighborhoods (Hughes & Burchfield, 2008). Similar results concerning the disproportionate impact of residence restrictions have been found in other studies. A Minnesota Department of Corrections study found that more offenders would be relegated to rural areas as a result of residence restrictions (Minnesota Department of Corrections, 2003). In a New Jersey study of three different areas (rural Phillipsburg and Alpha, urban Newark, and suburban Bergen County), researchers found that half of the rural area, 93 percent of Newark, and 66 percent of Bergen County would be restricted (Mandelstam & Mulford, 2008).

Impact on Offenders

Research from multiple states indicates that many sexual offenders have had to move or would have to move due to the implementation of residence restriction laws (Barnes et al., 2009; Chajewski & Mercado, 2008; Levenson & Cotter, 2005b; Tewksbury & Zgoba, 2010) despite having limited housing options, particularly in urban areas (Barnes et al., 2009; Chajewski & Mercado, 2008; Levenson, 2008). This combination led to a report of increased homelessness (Levenson, 2008), loss of family support, and financial hardship (Levenson & Cotter, 2005b).

Limitations: Survey Data

Limitations of survey data have previously been highlighted.

Summary

In summary, there is no empirical support for the effectiveness of residence restrictions. In fact, a number of negative unintended consequences have been empirically identified, including loss of housing, loss of support systems, and financial hardship that may aggravate rather than mitigate offender risk. In addition, residence restrictions lead to the displacement and clustering of sex offenders into other areas, particularly rural areas. Given the above, **expansion of this policy was not recommended by the group of sex offender management professionals attending the SOMAPI forum.**

Summary

This chapter has focused on the effectiveness of a number of prominent sex offender management strategies, including specialized supervision, COSA, polygraph, GPS, civil commitment, SORN, and residence restrictions. Specialized supervision, in conjunction with rehabilitation, appears to be effective in reducing recidivism for sexual offenders. However, the use of specialized supervision in the absence of rehabilitation is not supported by research. The few studies of COSA that have been undertaken thus far have produced encouraging findings, but far more research employing larger samples of offenders and more rigorous designs capable of isolating COSA effects are needed. **Nevertheless, given COSA's ability to facilitate collaboration with members of the community, the SOMAPI forum experts recommend COSA as a sex offender management strategy.** Research related to the use of polygraph assessment is somewhat less definitive. Therefore, the polygraph, if used, should only be used in conjunction with a comprehensive supervision and treatment approach.

In terms of SORN, research to date has exhibited mixed results on sex offender crime rates and recidivism. Studies have not adequately controlled for outside factors that might serve as an alternative explanation for the observed study outcomes. Future, more rigorous research on the effects of SORN is needed. Despite these limitations, there is broad public and policymaker support for SORN, and a perceived public safety benefit among these groups.

Finally, the evidence is fairly clear that residence restrictions are not effective. In fact, the research suggests that residence restrictions may actually increase offender risk by undermining offender stability and the ability of the offender to obtain housing, work, and family support. There is nothing to suggest this policy should be used at this time.

Sex offender management policies are often implemented on a one-size-fits-all basis for all sexual offenders. The merits of using targeted rather than one-size-fits-all strategies were recently acknowledged by participants in the 2012 SOMAPI forum. **The SOMAPI forum experts recommend implementation of all of the above-noted policies that show a positive impact, with the caveat that the use of any strategy should always be commensurate with offender risk and need.**

Future Directions

The SOMAPI forum experts recommend that sex offender management policymakers strive to use empirically supported strategies. Granted, there are times when new strategies are identified in the absence of research and need to be tested for effectiveness, as innovation in criminal justice practice, including sex offender management, is important. Therefore, it is recommended that future implemented policies should be evidence-generating.

RESULTS FROM THE SOMAPI INVENTORY OF PROMISING PRACTICES

- **Q: Are you moving toward using a particular program in your work?**
  - Self-regulation model (Good Lives).
  - Risk, needs, responsivity model.
  - Use of the stable and acute assessments—to determine risk of sexual reoffense and develop strategies to address.
  - Changing emphasis from exclusive RP [relapse prevention] to more strengths—based treatment and targeting of dynamic risk factors.
- **Q: What practices or programs have you tried that didn't work?**
  - We tried offering funds for transitional housing ... landlords were reluctant to participate.
  - Excessive focus on a detailed sexual history and accountability for all past sexual behavior has not worked.
  - Over-emphasis on relapse prevention with low-risk sex offenders or offenders with only one sexual offense has not worked.

Sex offender management continues to be a priority for the public, policymakers, and professionals. Using research to identify what does and does not work can help ensure that the best possible strategies for protecting the public and reducing victimization are in place. Only through objective, systematic study can we definitively know what is and what is not effective. As Patty Wetterling, in whose son's memory the first SORN system was developed at the federal level, has observed, "People want a silver bullet that will protect children, but there is no silver bullet. There is no simple cure to the very complex problem of sexual violence" (Human Rights Watch, 2007).

Notes

1. While sex offender management has also taken on increasing importance in other countries, the focus of this chapter is on sex offender management strategies in the United States.

2. For an indepth review, see Levenson and D'Amora (2007).

3. A study consisting of random assignment to either the intervention group or a comparison group, and comparing the outcomes for the two groups.

4. $p < .41$ for the Linn County sexual offenders and $p < .01$ for the Jackson County nonsexual offenders.

5. $p < .01$.

6. $p < .001$.

7. $p < .05$.

8. Ibid.

9. Ibid.

10. $p < .001$.

11. $p < .05$.

12. $p < .001$.

13. Ibid.

14. $p < .05$.

15. Passive GPS does not allow movement to be viewed in real time (active GPS) and must be downloaded from the device to a computer.

16. Dr. Robin Wilson provided assistance with the development of this section.

17. The Lychner Act in 1996, the Jacob Wetterling Improvements Act in 1998, the Campus Sex Crimes Prevention Act in 2000, and the PROTECT Act in 2003.

18. See, for example, U.S. Department of Justice, The National Guidelines for Sex Offender Registration and Notification, 73 Fed. Reg. 38029, 38044-45, 38047, 38058-61, 38069-70 (July 2, 2008); U.S. Department of Justice, Supplemental Guidelines for Sex Offender Registration and Notification, 76 Fed. Reg. 1630, 1636-38 (Jan. 11, 2011); Harris and Lobanov-Rostovsky, 2010.

19. $p < .1$.

20. $p < .05$.

21. Ibid.

22. Ibid.

23. For further details about each state's treatment of juveniles adjudicated delinquent of sex offenses and their corresponding registration responsibilities and notification requirements, see ALA. CODE § 15-20A-28 (2014), ARIZ. REV. STAT. ANN. § 13-3821(D) (2014), ARK. CODE ANN. § 9-27-356 (2014), CAL. PENAL CODE § 290.008(a) (2014), COLO. REV. STAT. § 16-22-102(3) (2013), DEL. CODE ANN. tit. 11, §§ 4121(a)(4)(b) & 4123 (2014), FLA. STAT. § 943.0435(a)(1)(d) (2014), IDAHO CODE ANN. § 18-8403 (2014), 730 Ill. COMP. STAT. 150/3-5 (2014), IND. CODE ANN. § 11-8-8-4.5(b) (2014), IOWA CODE § 692A.103 (2013), KAN. STAT. ANN. § 22-4902(b)(2) (2013), LA. REV. STAT. ANN. § 15:542 (2013), MD. CODE ANN., CRIM. PROC. § 11-704.1 (2014), MASS. GEN. LAWS. ANN. CH. 6, § 178K (2014), MICH. COMP. LAWS. SERV. § 28.722 (2014), MINN. STAT. § 243.166 (2014), MISS. CODE ANN. § 45-33-25 (2013), MO. REV. STAT. §§ 211.425 & 589.400 (2014), MONT. CODE ANN. § 46-23-502 (2013), NEB. REV. STAT. ANN. §

29-4003 (2013) (only juveniles relocating from out of state with preexisting registration requirements are required to register, https://sor.nebraska.gov/FAQ), NEV. REV. STAT. ANN. § 179D.095 (2014), N.H. REV. STAT. ANN. 651-B:1(XI), N.J. REV. STAT. § 2C:7-2 (2014), N.M. STAT. ANN. § 29-11A-5.1 (2013), N.C. GEN. STAT. § 14-208.26 (2014), N.D. CENT. CODE § 12.1-32-15 (2013), OHIO REV. CODE ANN. § 2950.01 (2014), OKLA. STAT. tit. 10A, § 2-8-102 (2013), OR. REV. STAT. §§ 181.823 & 181.609 (2013), 42 PA. CONS. STAT. § 9799.12 (2014), R.I. GEN. LAWS § 11-37.1-2(c)(4) (2014), S.C. CODE ANN. § 23-3-430(C) (2013), S.D. CODIFIED LAWS § 22-24B-2 (2014), TENN. CODE ANN. § 40-39-202(28) (2014), TEX. CODE CRIM. PROC. ANN. art 62.001 & 62.351 (2014), UTAH CODE ANN. § 77-41-102(9)(f) (2014), VA. CODE ANN. § 9.1-902(G) (2014), WASH. REV. CODE ANN. § 9A.44.128 (2013), WIS. STAT. § 301.45(1g)(a) (2014), WYO. STAT. ANN. § 7-19-301 (2014).

24. $p < .0001$.

25. $p < .05$.

26. Differences among study periods are statistically significant beyond the .05 probability level.

27. Level III sex offenders (high public risk) are those who score greater than 7 on the MnSOST-R, a state-based risk assessment instrument, and are subject to broad public notification. On the other hand, Level I (low public risk) and Level II (moderate public risk) sex offenders score less than 4 and between 4 and 7, respectively, and are not subject to broad public notification.

28. $p < .01$ for the prenotification group and $p < .05$ for the nonnotification group.

29. $p < .05$.

30. The percentage of public members who responded to this item was less than for previous items.

31. Ibid.

32. Ibid.

33. Lasher and McGrath (2012, p. 1) reported in the abstract, "Eight quantitative studies that examined the social and psychological impact of community notification on adult sex offenders (N = 1,583) were reviewed. The pattern of results across studies showed considerable similarities despite marked variability in the populations examined, survey methods used, and response rates obtained."

34. $p < .01$.

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SECTION 2: JUVENILE

Chapter 1: Unique Considerations Regarding Juveniles Who Commit Sexual Offenses

by Roger Przybylski and Christopher Lobanov-Rostovsky

Introduction

While most perpetrators of sex crimes are adults, a significant number of sex crimes are committed by offenders who are younger than age 18. Estimates of the prevalence of juvenile sexual offending vary depending on the data source and method of measurement. Finkelhor, Ormrod, and Chaffin (2009), for example, estimated that juveniles account for about one out of every four (25.8 percent) sexual offenders known to law enforcement and more than one out of every three (35.6 percent) sexual offenders who victimize a minor and are known to law enforcement. Statistics from the Federal Bureau of Investigation's Uniform Crime Reporting program indicate that about 15 percent of the nation's 21,407 rape arrestees in 2009 were younger than age 18 (FBI, 2009). Victim reports, however, suggest that juvenile perpetrators may be responsible for as many as 4 out of every 10 sexual assaults (Swenson & Letourneau, 2011).

Although laws and policies designed for adult sexual offenders are increasingly being applied to juveniles who sexually offend, juvenile offenders have historically been viewed as a distinct population from adult offenders. The juvenile justice system has been largely independent from the adult criminal justice system since the first juvenile court in the United States was created in 1899, and the procedures and methods used with juvenile offenders tend to emphasize accountability and rehabilitation rather than retribution and punishment (Przybylski, 2008; Illinois Criminal Justice Information Authority, 1997).

Juvenile justice systems throughout the United States were established under and have largely been guided by the doctrine of parens patrie. This means that the state acts as the guardian or responsible authority for a minor to protect the youth from harmful conduct or environments (Przybylski, 2008; Illinois Criminal Justice Information Authority, 1997). This approach is based on a formal recognition that juveniles are developmentally different from adults and are impressionable enough to be diverted from persistent criminal behavior. Hence, the procedures of the juvenile court are intentionally nonadversarial, and the terminology used with juvenile offenders is intentionally noncriminal (Illinois Criminal Justice Information Authority, 1989). The juvenile court's philosophy and goals are to hold youthful offenders accountable for their behavior while ensuring that they receive necessary guidance and appropriate therapeutic services. Although many states have enacted laws in recent years that encourage greater accountability and punishment for juvenile offenders, most juvenile courts and other segments of the juvenile justice system continue to view treatment and guidance for young offenders as central to their mission. (See

FINDINGS

- Based on the scientific evidence, it is clear that juveniles and adults differ in their cognitive capabilities, capacity for self-management and regulation, susceptibility to social and peer pressure, and in other areas related to judgment, criminal intent, and the capacity to regulate behavior.
- Risky behavior is more prevalent during adolescence than it is during either preadolescence or adulthood.
- The ability to plan ahead, be aware of time, and anticipate future consequences significantly increases with age.

chapter 5, "Effectiveness of Treatment for Juveniles Who Sexually Offend," in the Juvenile section.)

While juvenile offenders have long been viewed as fundamentally different from adult offenders, t**he developmental differences between juveniles and adults that have been identified through recent advances in neuroscience and developmental criminology are extensive and profound.** Based on the scientific evidence, it is clear that juveniles and adults differ in their cognitive capabilities, capacity for self-management and regulation, susceptibility to social and peer pressure, and other factors related to judgment, criminal intent, and the capacity to regulate behavior (Tolan, Walker, & Reppucci, 2012). Juveniles also differ from adults in their propensity to engage in persistent criminal behavior, in that they are less likely to continue to engage in such behavior (Tolan, Walker, & Reppucci, 2012).

While improvements in cognitive functioning and reasoning undoubtedly occur during late childhood and adolescence, "mature judgment is the product not only of cognitive capacity ... but also of emotional capabilities" (Tolan, Walker, & Reppucci, 2012, p. 126). Brain research demonstrates that psychosocial development occurs much more slowly than cognitive development and that juveniles thus have less capacity than adults to manage emotions and control behavior, despite their growing ability to process information (Scott & Steinberg, 2008; Tolan, Walker, & Reppucci, 2012).

Research also demonstrates that "adolescence is a time of heightened risk-taking and recklessness" and that puberty is associated with both higher levels of sensation-seeking behavior and heightened intensity of feeling in risk-taking situations (Steinberg et al., 2008, p. 1776). Steinberg and colleagues (2008), for example, found that risky behavior is more prevalent during adolescence than it is during either preadolescence or adulthood. Similarly, in a study employing random assignment procedures, Gardner and Steinberg (2005, pp. 625 and 634) found that "adolescents are more inclined toward risky behavior and risky decision making than are adults" and that "the presence of peers makes adolescents and youth, but not adults, more likely to take risks and more likely to make risky decisions." Again, these findings regarding adolescent behavior are not surprising, as neurobiological research demonstrates that dopamine—a neurotransmitter that plays a key role in the reward circuitry of the brain—is at its highest levels during early adolescence and that higher levels of dopamine are associated with increased reward-seeking behavior (Steinberg, 2012; Steinberg et al., 2008). As Steinberg and colleagues (2008) have stated:

> Heightened vulnerability to risk-taking in middle adolescence may be due to the combination of relatively higher inclinations to seek excitement and relatively immature capacities for self-control that are typical of this period of development ... adolescent risk taking is hypothesized to be stimulated by a rapid and dramatic increase in dopaminergic activity within the socio-emotional system around the time of puberty, which is presumed to lead to increases in reward seeking ... The temporal gap between the arousal of the socio-emotional system, which is an early adolescent development, and the full maturation of the cognitive control system, which occurs later, creates a period of heightened vulnerability to risk taking during middle adolescence.

Juveniles also have less capacity than adults to consider the future consequences of their actions, as recent brain research demonstrates that regions of the brain associated with foresight and planning continue to develop well beyond adolescence (Casey et al., 2005; Steinberg et al., 2009). Steinberg and colleagues (2009) examined age differences in future orientation in a large sample of individuals (N=935) ages 10 to 30 and found that planning ahead, time perspective, and anticipation of future consequences all significantly increased with age. Steinberg and his colleagues found not only that adolescents tended to emphasize short-term consequences when making decisions, but also that **decreases** in planning took place between ages 10 to 15. Similarly, in a study examining the ability to recognize long-term consequences of actions in a legal context, Grisso and colleagues (2003) found that younger adolescents were significantly less likely than older adolescents to recognize the

consequences of their decisions. Overall, these findings are consistent with those produced in other studies and they can be explained by the evidence on brain development derived from neuroscience (see, e.g., Casey, Jones, & Hare, 2008; Cauffman & Steinberg, 2000; and Nurmi, 1991) as the "weaker orientation to the future" and "lesser sensitivity to the longer term consequences" of actions found among adolescents that appear to be primarily "related to arousal of the socio-emotional network" of the brain (Steinberg et al., 2009, p. 40).

Taken together, research findings from neuroscience and developmental criminology increasingly support the notion long held in the juvenile justice system that juveniles are fundamentally different from adults. **The scientific evidence clearly indicates that there are significant differences between adults and juveniles in their capacity to plan ahead, regulate emotions, control behavior, and weigh the costs and benefits of decisions** (Scott & Steinberg, 2008; Tolan, Walker, & Reppucci, 2012). Moreover, these cognitive and behavioral differences can be explained and understood in the context of the brain's physiology and neurofunctioning.

The evidence regarding adolescent development from neuroscience and developmental criminology has important implications for policy and practice aimed at juvenile offenders of all types, including those who commit sexual offenses. As Tolan and his colleagues (2012, p. 129) have aptly stated: "In sum, research on the neurophysiology of the brain and the neurofunctional developmental changes in the brain suggest a qualitatively different basis for much of the behavior that falls under sexual offense if the behavior is that of an adolescent rather than an adult."

Unfortunately, many of the intervention and management strategies for juveniles who commit sexual offenses that have emerged in recent years have not been based on a formal recognition that juveniles are developmentally different from adults. Prior to the 1980s, juvenile sexual offending in the United States tended to be minimized and dealt with outside of the justice system. Following a series of retrospective studies conducted in the 1980s, in which many adult sexual offenders reported engaging in sexual offending behaviors as juveniles, many policymakers and practitioners began to view juveniles who commit sexual offenses as future adult sexual offenders. As a result, a greater focus was placed on detecting and responding to sexual offenses committed by juveniles, and treatment and intervention strategies using targets and approaches previously reserved exclusively for adult sexual offenders began to proliferate (Lobanov-Rostovsky, 2010).

By the early 2000s, many treatment and supervision strategies for juveniles who commit sexual offenses began to account for the developmental differences between juveniles and adults and to move away from adult-oriented models. However, many new legislative and policy initiatives that equated juveniles with adult sex offenders also began to emerge, culminating in the passage of the Adam Walsh Child Protection and Safety Act of 2006 (Lobanov-Rostovsky, 2010). The use of sex offender management strategies such as civil commitment, residence restrictions, registration, and notification became more common in jurisdictions across the country, and they tended to be applied to juveniles much as they were to adults. (See chapter 8, "Sex Offender Management Strategies," in the Adult section and chapter 6, "Registration and Notification of Juveniles Who Commit Sexual Offenses," in the Juvenile section for more information about these strategies.)

Of course, the Adam Walsh Act included the Sex Offender Registration and Notification Act (SORNA), which for the first time required states to register certain juveniles who commit sexual offenses.[1] Jurisdictions failing to comply with SORNA requirements risk losing 10 percent of the federal Edward J. Byrne Justice Assistance Grant funds available to them pursuant to the Omnibus Crime Control and Safe Streets Act of 1968.

Despite the concerns raised by some stakeholders—about statutes or policies that treat juveniles in a manner similar to adults—many policymakers, legislators, and members of the public continue to equate the characteristics and risks of juveniles who commit sexual offenses with those of adult sexual offenders (for a more thorough review of this topic, see Lobanov-Rostovsky, 2010).

Organization of Section 2: Juveniles Who Commit Sexual Offenses

Given the fundamental differences that have been observed between juveniles who commit sexual offenses and adult sexual offenders, it is critically important to distinguish between these two populations when describing their characteristics or discussing research on issues such as etiology, risk, or intervention effectiveness. Hence, section 2 of this report focuses specifically on research pertaining to juveniles who sexually offend. It examines what is scientifically known in the following topic areas:

- Etiology and typologies.
- Assessment of risk for sexual reoffense.
- Treatment effectiveness.
- Registration and notification.
- Recidivism.

Issues To Consider

In each topic area, research focused specifically on juveniles who sexually offend is reviewed and key, up-to-date findings that policymakers and practitioners can use to better understand and manage juveniles who commit sexual offenses are presented. Research concerning adults who sexually offend is addressed in section 1 of this report.

When reading the chapters that follow, it is important to keep certain ideas in mind. First, relatively few studies in any of the topic areas addressed in this review cover female juveniles who commit sexual offenses or preadolescent children who engage in sexually abusive or sexually troubled behavior. Hence, the findings presented in this review are most directly relevant to male adolescents who commit sexual offenses. While there is evidence suggesting that important differences exist between males and females who sexually offend, as well as between adolescents who sexually offend and preadolescents with sexual behavior problems, the extant literature is not sufficient in either its scope or level of detail to allow substantive findings to be presented about preadolescent or female juvenile populations. Again, relatively few studies have focused on either population, and research dealing with juveniles who sexually offend has not consistently or sufficiently described the age or gender characteristics of study participants. As a result, adolescent/child or male/female breakdowns simply cannot be presented for many of the studies discussed in this section.

Second, the empirical evidence clearly demonstrates that juveniles are fundamentally different from adults in their cognitive capabilities and capacity to regulate emotions, control behavior, and weigh the long-term consequences of actions. The evidence suggests that juveniles differ from adults in their propensity to engage in persistent criminal behavior; simply put, sexual offending prior to age 18 is not necessarily indicative of an ongoing and future risk for sexual offending. Research also has demonstrated that labeling—legal or otherwise—can have unintended harmful consequences, particularly for youth. Therefore, this population is referred to as "juveniles who commit sexual offenses," rather than juvenile sex offenders, in each chapter, and only juvenile-specific research should be considered as relevant for this population.

Notes

1. SORNA applies to youth ages 14 and older who are adjudicated delinquent for an offense equivalent to aggravated sexual abuse. These youth are subject to Tier III classification under SORNA, which requires lifetime registration and quarterly verification with law enforcement; however, they are eligible for removal after 25 years with a "clean record." Furthermore, youth included under SORNA may be excluded from public sex offender website posting, per each jurisdiction's discretion.

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Chapter 2: Etiology and Typologies of Juveniles Who Have Committed Sexual Offenses

by Tom Leversee

Introduction

This chapter addresses two topics: the etiology of sexual offending by juveniles and typologies for juveniles who have committed sexual offenses.

The etiological research reviewed in this chapter addresses the causes or origins of juvenile sexual offending and the pathways related to the development, onset, and maintenance of sexually abusive behavior in this population. Knowledge about the etiology of sexual offending is important because it provides both conceptual frameworks and specific guidance that can be used to develop more effective prevention efforts across a broad continuum, from primary to tertiary.[1]

The typological research reviewed in this chapter addresses classification schemes based on types or categories of offenders or victims and offense characteristics. Empirically based typologies provide important information for clinical intervention by identifying key constructs for assessment, possible etiological factors specific to each subtype or typology of juveniles, and unique risks and needs for each subtype that should be targeted in treatment (Faniff & Kolko, 2012). (For more information on assessment, see chapter 4, "Assessment of Risk for Sexual Reoffense in Juveniles Who Commit Sexual Offenses," in the Juvenile section.) Aebi and colleagues (2012, p. 268) add that a validated typology "shows a specific profile of an offender, victim, and offense characteristics that reflect [sic] underlying psychological processes" of the youth that are relevant to etiology, maintenance, treatment, and recidivism. (For more information on the "Effectiveness of Treatment for Juveniles Who Sexually Offend," see chapter 5, and for more information on "Recidivism of Juveniles Who Commit Sexual Offenses," see chapter 3, both in the Juvenile section.) The information gained from typology research provides the foundation for designing and implementing more effective and efficient treatment programming and supervision protocols that reflect individualized risks and needs.

FINDINGS

- **Etiology**
  - The sexual offending of some adolescents represents a reenactment of their own sexual victimization.
  - For some adolescents, sexual aggression is a learned behavior modeled after what they observe at home.
  - Adolescents who commit sexual offenses have much less extensive criminal histories, fewer antisocial peers, and fewer substance abuse problems compared with nonsexual offenders.
- **Typology**
  - Meaningful differentiation can be made between youth who sexually offend against younger children and those who target peers and adults.
  - Various researchers have suggested that there are different subgroups of juveniles who commit sex offenses and that there are characteristics associated with the subgroups.
  - Individualized treatment is needed, rather than a "one size fits all" approach.

Summary of Research Findings

Etiology

The research on etiological factors for sexual offending includes studies that focus on single factors and studies that focus on multiple factors. There appears to be a consensus in the field that etiological factors typically both co-vary and interact with each other in the development and onset of sexual offending and nonsexual delinquency.

Sexual Victimization

Veniziano, Veniziano, and LeGrand (2000) gathered information from a sample of 68 juveniles who had committed sexual offenses and were court ordered to a residential treatment facility. All of the juveniles had experienced sexual victimization. Information was gathered in regard to their prior sexual victimization and the characteristics and behaviors of their perpetrators. These data were compared to the behaviors of the adolescent offenders in the sample and the characteristics of their victims. **The results of the study supported the hypothesis that the juveniles who had been sexually victimized were more likely to select sexual behaviors that were reflective of their own sexual victimization in regard to age and gender of the victim and the types of sexual behaviors perpetrated against the victims.** However, the relationship between prior victimization and subsequent offending was not as strong with respect to whether victims were inside or outside the family. The researchers concluded that findings from the study offered support for the notion that the sexual offending of some adolescents represents a reenactment of their own sexual victimization, or a reactive conditioned and/or learned behavior pattern.

"Etiological factors typically both co-vary and interact with each other in the development and onset of sexual offending and nonsexual delinquency."

Grabell and Knight (2009) studied 193 juveniles who had committed sexual offenses, sampled from different inpatient treatment facilities. The study sought to examine child sexual abuse patterns and sensitive periods in the lives of juveniles who had committed sexual offenses. The results suggest a relationship between childhood sexual abuse and sexual fantasy in sexually abusive adolescents that is moderated by the age at which the abuse occurred. More specifically, it was found that ages 3 to 7 may be a sensitive period when sexual abuse can do the most damage and place a youth at higher risk for engaging in sexually abusive behavior later in life. The researchers compared their findings related to discrete periods of sexual abuse with those from an earlier study conducted by Burton, Miller, and Shill (2002) and concluded that continuous sexual abuse was more likely related to severe perpetration than were discrete periods. Grabell and Knight concluded that both age and the length of the sexual abuse contribute to attitudes and behaviors in juveniles who commit sexual offenses.

Relationship Between Sexual Victimization and Personality Variables

Hunter and Figueredo (2000) focused on delineating the relationship between sexual victimization and personality variables in the prediction of patterns of sexual offending against children. Data were collected on 235 adolescents, representing subsamples of sexually victimized and nonvictimized, perpetrating and nonperpetrating, and emotionally maladjusted and nonmaladjusted youth. **A younger age at time of sexual victimization, a greater number of incidents, a longer period of waiting to report the abuse, and a lower level of perceived family support after revelation of the abuse were found to be predictive of subsequent sexual perpetration.** See "Typologies " in this chapter.

Burton (2008) conducted an exploratory study of the contribution of personality traits and childhood sexual victimization to the development of sexually abusive behavior, thereby testing a social learning/victim-to-victimizer hypothesis for the development of sexually abusive behavior. The study compared 74 incarcerated sexual abusers and 53 nonsexual abusers. Similar to the findings of many previous

studies, Burton found that adolescent sexual abusers tend to have higher rates of sexual victimization than nonsexually abusive youth. In addition, sexually abusive youth who had been sexually victimized themselves were likely to repeat what was done to them in regard to the relationship with and gender of their victim(s), modus operandi, and sexual behaviors. These results suggest that sexually abusive youth may have learned to be sexually abusive from their own sexual perpetrator(s). The personality traits that contributed significantly to the social learning model were "submissive" and "forceful." Burton suggested that those who scored higher on the submissive trait may believe that close relationships with others are required to feel comfortable and socially confident, and that those who scored higher on the forceful personality trait may derive pleasure from inflicting pain on their victims and may attain this pleasure via forceful acts.

Multiple Types of Child Maltreatment

Awad and Saunders (1991) compared 49 male adolescents who sexually offended against females their age or older to 45 adolescents who engaged in sexually abusive behavior toward younger children. **The results showed that the majority of the adolescents who sexually offended against females their age or older came from a disturbed family background.** The rate of sexual victimization for the adolescents who sexually offended against children was much higher. The researchers concluded that, for some of these adolescents, sexual aggression was a learned behavior, modeled after what they observed at home. See "Typologies" in this chapter.

Kobayashi and colleagues (1995) tested a theoretical model of the etiology of deviant sexual aggression by adolescents that included several family factors: perceived parental deviance, child physical and sexual abuse history, and a child's bonding to his parents. Study subjects consisted of 117 juvenile males who committed sexual offenses and who had been referred to a treatment clinic. Results indicated that paternal physical abuse and sexual abuse by males increased sexual aggression among adolescents and that mother-child bonding had the opposite effect. The results can be explained from a social learning and a parent-child attachment or social control perspective. In addition, the researchers suggested an alternative perspective from evolutionary psychology to explain the findings. Kobayashi and colleagues noted that the behavior developed by juveniles who sexually offend may be the result of social modeling and highlighted the ethological literature related to sexual imprinting in animals to support this perspective.

Cavanaugh, Pimenthal, and Prentky (2008) studied a sample of 667 boys and 155 girls involved with social services, the vast majority of whom had engaged in hands-on sexualized behaviors. Almost all of the youth came from "highly dysfunctional" families and had experienced a high degree of physical, psychological, and sexual abuse as well as neglect. The researchers found that 66.7 percent of the study subjects had attention-deficit/hyperactivity disorder (ADHD), 55.6 percent had posttraumatic stress disorder (PTSD), and 49.9 percent had a mood disorder. Approximately one-quarter used drugs and about one-fifth consumed alcohol. These findings highlight the importance of assessing and treating co-occurring issues, which can often be influential in sexual offending behaviors.

Seto and Lalumiere (2010) tested special and general explanations of male adolescent sexual offending by conducting a meta-analysis of 59 independent studies comparing male adolescents who committed sexual offenses with male adolescents who committed nonsexual offenses (n=13,393) on theoretically derived variables reflecting general delinquency risk factors (antisocial tendencies), childhood abuse, exposure to violence, family problems, interpersonal problems, sexuality, psychopathology, and cognitive abilities. T**he results did not support the notion that adolescent sexual offending can be parsimoniously explained as a simple manifestation of general antisocial tendencies.** Adolescents who committed sexual offenses had much less extensive criminal histories, fewer antisocial peers, and fewer substance abuse problems compared with nonsexual offenders. Special explanations for adolescent sexual offending suggested a role for sexual abuse history, exposure to sexual violence, other abuse or neglect, social isolation, early exposure to sex or pornography, atypical sexual interests, anxiety, and low self-esteem. Explanations focusing on attitudes and

beliefs about women or sexual offending, family communication problems or poor parent-child attachment, exposure to nonsexual violence, social incompetence, conventional sexual experience, and low intelligence were not supported. Ranked by effect size, the largest group difference was obtained for atypical sexual interests, followed by sexual abuse history for adolescents who had committed sexual offenses and, in turn, criminal history, antisocial associations, and substance abuse for nonsexual offenders.

Leibowitz, Burton, and Howard (2012) collected data from 478 youth, comparing sexually victimized and nonsexually victimized adolescent sexual abusers with a group of nonsexually victimized delinquent youth. The researchers found that the sexually victimized sexual abusers had the highest mean scores on trauma and personality measures, followed by nonsexually victimized sexual offenders and general delinquent youth. The sexually victimized sexual abusers reported experiencing significantly greater levels of all five types of abuse (emotional abuse, emotional neglect, physical abuse, physical neglect, and sexual victimization) than the other two groups. General delinquent youth had fewer behavioral and developmental problems than victimized and nonvictimized juveniles who commit sexual offenses. This difference between general delinquency youth and juveniles who commit sexual offenses has not been found in other studies (as summarized by Seto and Lalumière's 2010 meta-analysis).

Relationship Between Multiple Types of Child Maltreatment and Personality Variables

Johnson and Knight (2000) studied 122 juveniles who committed sexual offenses and were in inpatient treatment centers. The researchers explored developmental pathways possibly conducive to adolescent sexually abusive behavior, measuring the extent to which the sample experienced childhood trauma, engaged in adolescent delinquency, and exhibited particular personality dispositions and cognitive biases. The results suggest that sexual compulsivity and hypermasculinity, through misogynistic fantasy behavior, significantly discriminate verbally and physically coercive juveniles who commit sexual offenses from those who do not report using force in their offenses. Sexual victimization directly and indirectly (via sexual compulsivity) affected sexual coercion. **The study's results also suggest that alcohol abuse may play a more salient role in the expression of juvenile sexual coercion than previously hypothesized.** Physical abuse had an indirect effect on sexual coercion and was found to be predictive of delinquent behaviors such as peer aggression and adolescent alcohol abuse.

Knight and Sims-Knight (2004) studied 218 juveniles who were adjudicated for sexual offenses and resided in inpatient specialized treatment facilities. As part of the study, the researchers presented a three-path model intended to serve as a framework for understanding sexually abusive behavior toward women. Knight and Sims-Knight emphasized that an alternative model should be developed for sexually abusive behavior toward children. The three latent traits that identified the paths are sexual drive/preoccupation, antisocial behavior/impulsivity, and callous/unemotional trait. The paths predicted sexual coercion against women among juveniles who have committed sexual offenses. The researchers found that early traumatic physical and sexual abuse play an important etiological role, increasing the likelihood of sexually abusive behavior either directly by themselves or indirectly through the three intervening paths. The authors assert that these traits play a critical role across the life span, are critical in assessing risk of recidivism, and should be targets of treatment. See "Typologies" in this chapter.

In contrast to the above study that presented a model for sexually abusive behavior toward women, Daversa and Knight (2007) focused on an etiological model for sexual offending behavior toward younger victims. Data were gathered on 329 juveniles from different inpatient treatment facilities in four states. All of the juveniles had committed a sexual offense. The results provided evidence that various developmental and early childhood maltreatment experiences and specific, mediating personality traits contribute significantly to predicting adolescent sexual offending against younger victims. Four significant paths emerged in the model (Daversa & Knight, 2007):

1. From emotional and physical abuse, through psychopathy and sexual fantasy, to child fantasy and child victimization.

2. From emotional and physical abuse; through sexual inadequacy, sexual fantasy, and child fantasy; to child victimization.

3. From emotional and physical abuse, through sexual inadequacy, to child fantasy and child victimization.

4. From sexual abuse directly to child victimization.

The direct path from a history of sexual abuse to the sexual victimization of children is consistent with the finding that a disproportionate number of sexually abusive adolescents also report being victimized sexually. The researchers suggest that a subset of these sexually victimized offenders may select victim(s) specific to a particular age group that is consistent with the age at which they were victimized, indirectly supporting the victim-to-victimizer theory of adolescent sexual offending. The authors assert that this study provides data for the preliminary design of a dimensional model of adolescent sexual abusive behavior against younger children. See "Typologies" in this chapter.

Zakireh, Ronis, and Knight (2008) examined the individual beliefs and attitudes, and victimization histories, of 100 male youth ages 13–19. The youth were divided equally into four demographically similar groups: (1) sexual offenders in residential placement, (2) sexual offenders in outpatient treatment, (3) nonsexual offenders in residential placement, and (4) nonsexual offenders in outpatient treatment. The sexually offending youth included those who had exclusively offended against peer age and adult victims, those who had exclusively offended against children younger than age 12, and those who offended against mixed-age victims. The authors found that three categories of risk factors—greater hypersexuality or sexual deviance, more violent behavior or fantasies, and an increased history of victimization—are consistent with path models that predict sexually abusive behavior toward peers and adults. The authors asserted that their findings were consistent with hypotheses about the significant role that the domains of callousness, unemotionality, and antisocial behavior play in sexual abusive behavior against peers and the limited etiological role they play in sexually abusive behavior toward children. The study's findings are consistent with past evidence regarding the role that sexual victimization plays in subsequent sexual offending behavior. See "Typologies" in this chapter.

Pornography

Burton, Leibowitz, and Howard (2010) compared pornography exposure between male adolescents who sexually abuse and male nonsexual offending delinquent youth. Although previous literature indicates that pornography use for adult males at risk for aggression may result in sexually aggressive behavior, very little research has been reported on exposure to pornography on the part of juveniles who commit sexual abuse. The juveniles who had engaged in sexually abusive behavior reported more exposure to pornography when they were both younger and older than age 10 than nonsexual abusers. However, their exposure was not correlated to the age at which their sexually abusive behavior started, to the reported number of victims, or to sexual offense severity. The exposure subscale before age 10 was not related to the number of children the group sexually abused, and the forceful exposure subscale was not correlated with either arousal to rape or degree of force used by the youth. Finally, exposure was significantly correlated with all of the nonsexual crime scores in the study. The researchers characterized this study as exploratory in nature and stated that no clear conclusions can be drawn regarding prohibitions or control of pornography for adolescents who sexually abuse and who are in treatment or on parole or probation.

Summary on Etiology

Knight and Sims-Knight (2004, p. 49) provide an excellent synthesis on the importance of etiology regarding the treatment, supervision, and policy response to juvenile sexual offending:

> Identifying the developmental antecedents of sexual aggression not only informs treatment planning (i.e., tertiary

intervention), but also will ultimately be the basis for identifying at-risk groups for primary and secondary interventions. Having a validated model of the etiology of sexual aggression is the cornerstone of any public health approach to sexual aggression and a necessary prerequisite for implementation of a primary prevention perspective.

The research cited above describes both single- and multiple-factor etiological theories. There is strong evidence that sexual victimization plays a disproportionate role in the development of sexually abusive behavior in adolescents. A number of studies have described a direct path from sexual victimization to sexually abusive behavior, and others have described an indirect path that is mediated by personality variables. Overall, the empirical evidence supports the notion that sexual abuse should not be examined in isolation as it clearly co-varies with other developmental risk factors. Much of the research has described multiple-factor theories in which early childhood maltreatment (traumatic physical and sexual abuse, neglect, and chaotic family environments) increases the likelihood of sexually abusive behavior, either directly or indirectly, in relationship with personality variables. See table 1 for a summary of the etiological research.

TABLE 1. SUMMARY OF ETIOLOGY RESEARCH

Study	Focus	Findings
Sexual Victimization		
Veniziano, Veneziano, & LeGrand (2000)	Sexual victimization and subsequent sexual offending	Sexual offending of some adolescents represents a reenactment of their own sexual victimization or a reactive conditioned and/or learned behavior pattern.
Grabell & Knight (2009)	Child sexual abuse patterns and sensitive periods in juveniles who had committed sexual offenses	Ages 3–7 may be a sensitive period during which sexual abuse can do the most damage and place a youth at higher risk for engaging in sexually abusive behavior later in life.
Sexual Victimization and Personality		
Hunter & Figueredo (2000)	Delineating the relationship between sexual victimization and personality variables in the prediction of patterns of sexual offending against children	Factors predictive of subsequent sexual offending in sexually victimized offenders follow: a younger age at time of sexual victimization, a greater number of incidents, a longer period of waiting to report the abuse, and a lower level of perceived family support after revelation of the abuse.
Burton (2008)	Contribution of personality and childhood sexual victimization to a social learning victim-to-victimizer hypothesis for the development of sexually abusive behavior	Sexually abusive youth who had been sexually victimized were likely to repeat what was done to them in regard to the relationship with and gender of their victim(s), modus operandi, and sexual behaviors. Suggests that sexually abusive youth may have learned to be sexually abusive from their own sexual perpetrator(s).
Multiple Types of Child Maltreatment		
Awad & Saunders (1991)	Compared male adolescents who sexually offended females their age or older to juvenile delinquents and adolescents who engaged in sexually abusive behavior toward younger children	A majority of the adolescents who sexually offended against females their age or older came from a disturbed family background. The rate of sexual victimization for the adolescents who sexually offended against children was much higher and suggested that in some of these adolescents their sexual aggression was a learned behavior, modeled after what they observed at home.
Kobayashi et al. (1995)	Tested a theoretical model of the etiology of deviant sexual aggression by adolescents that included several family factors: perceived parental deviance, child physical and sexual abuse history, and a child's bonding to his parents	Physical abuse by the father and sexual abuse by males increased sexual aggression by adolescents. Also, a child's bonding to his mother was found to decrease his sexual aggression. The results can be explained from a social learning and a parent-child attachment or social control perspective. Alternative perspectives of evolutionary psychology are also considered.

Study	Focus	Findings
Cavanaugh, Pimenthal, & Prentky (2008)	Co-occurring issues that can often be influential in sexual offending behaviors	Almost all of the youth came from "highly dysfunctional" families and had experienced a high degree of physical, psychological, and sexual abuse and neglect. A total of 66.7% had ADHD, 55.6% had PTSD, and 49.9% had a mood disorder. Approximately a quarter used drugs and about one-fifth consumed alcohol.
Seto & Lalumiere (2010)	Tested special and general explanations of male adolescent sexual offending	Results did not support the notion that adolescent sexual offending can be parsimoniously explained as a simple manifestation of general antisocial tendencies.
Leibowitz, Burton, & Howard (2012)	Compared sexually victimized and nonsexually victimized adolescent sexual abusers with a group of nonsexually victimized delinquent youth on trauma and personality measures	Sexually victimized sexual abusers reported experiencing significantly greater levels of all five types of abuse than the other two groups (emotional abuse, emotional neglect, physical abuse, physical neglect, and sexual victimization. General delinquent youth had fewer behavioral and developmental problems than victimized and nonvictimized juveniles who commit sexual offenses.
Multiple Types of Child Maltreatment and Personality		
Johnson & Knight (2000)	Explored developmental pathways possibly conducive to adolescent sexually abusive behavior, measuring the extent to which the sample experienced childhood trauma, engaged in adolescent delinquency, and exhibited particular personality dispositions and cognitive biases	Results suggest that sexual compulsivity and hypermasculinity significantly discriminate verbally and physically coercive sexually abusive juveniles from those who do not report using force. Sexual victimization directly and indirectly (via sexual compulsivity) affected sexual coercion. Alcohol abuse may play a more salient role. Physical abuse had an indirect effect on sexual coercion and was found to be predictive of delinquent behaviors.
Knight & Sims-Knight (2004)	Three-path model intended as a model for sexually abusive behavior toward women	Early traumatic physical and sexual abuse play an important etiological role, increasing the likelihood of sexually abusive behavior either indirectly through the three intervening paths or directly.
Daversa & Knight (2007)	Etiological model for sexual offending behavior toward younger victims	Various developmental and early childhood maltreatment experiences and specific, mediating personality traits contribute significantly to predicting adolescent sexual offending against younger victims. A subset of sexually victimized sexual abusers may select victim(s) specific to a particular age group that is consistent with the age at which they were victimized, indirectly supporting the victim-to-victimizer theory of adolescent sexual offending.
Zakireh, Ronis, & Knight (2008)	Individual beliefs and attitudes, and victimization histories of four groups of sexual and nonsexual offenders	Three categories of risk factors—greater hypersexuality or sexual deviance, more violent behavior or fantasies, and an increased history of victimization—are consistent with path models that predict sexually abusive behavior toward peers and adults. Findings were consistent with past evidence regarding the role that sexual victimization plays in subsequent sexual offending behavior.
Pornography		
Leibowitz, Burton, & Howard (2010)	Compared pornography exposure between male adolescents who sexually abuse and male nonsexual offending delinquent youth	The juveniles who had engaged in sexually abusive behavior reported more exposure to pornography when they were both younger and older than age 10 than nonsexual abusers. Exposure was significantly correlated with all of the nonsexual crime scores in the study.

"Research supports a multifactorial explanatory theory regarding etiological pathways."

Grabell and Knight (2009) suggest that in addition to having risk factors, it is likely that juveniles who have committed sexual offenses lack protective factors—such as emotional support and social competence—to buffer against risk in early experience. Future research should consider the complex relationships between these risk and protective factors in the development of sexually abusive behavior.

Typologies

Typology research undertaken to date has primarily differentiated subtypes of juveniles who have committed sexual offenses based on victim age, delinquent history, and personality characteristics. This section focuses on research as it relates to these dimensions.

Subtypes Based on Victim Age

Awad and Saunders (1991) found that the majority of adolescents who sexually offended against females their age or older were recidivists, had a history of antisocial behavior predating and coinciding with their sexual offenses, and came from a disturbed family background. Adolescents who sexually assaulted peer or older females were less likely to be socially isolated than those who offended against children and more likely to socialize with older peers than a comparison group of delinquents. Alcohol and drugs were not found to play a prominent role in the adolescents who sexually victimized peer or older females. Sexually deviant impulses and antisocial traits were found to be motivating factors for the majority of these youth.

Hunter and Figueredo (2000) found that juveniles who offended against children were more likely to be pessimistic and less likely to be self-sufficient than nonoffending youth. These findings appear to be consistent with a conceptualization of juveniles who sexually offend against children as youth who are lacking in social competencies and who are competitively disadvantaged relative to their peers. The researchers proposed that the sexual acting out of these juveniles may be more reflective of compensatory behavior than psychopathy and more reflective of arrested sexual development than paraphilic interest.

Hunter, Hazelwood, and Slesinger (2000) conducted a study comparing 62 adolescents who offended against children to 64 adolescents who offended against peers and adults. The findings suggest that a meaningful differentiation can be made between those youth who sexually offend against younger children (5 or more years younger) and those who target peers and adults. According to the study, adolescents who targeted peers and adults were more likely to have—

- Selected a female victim who was either a stranger or acquaintance.
- Committed their offense in a public area, and acted in a group with others.
- Committed the sex crime in association with other criminal activity and have been more aggressive and violent in commission of the offense.
- Used a weapon.

Hunter, Hazelwood, and Slesinger (2000) suggested that the differences in victim age (peer/adult vs. younger children) represent unique populations of sexually aggressive youth. In general, peer/adult adolescents who commit sexual offenses display behaviors that suggest they have greater antisocial tendencies and are more prone to violence in the commission of their sexual offenses than adolescents who molest children.

In a followup study, Hunter and colleagues (2003) contrasted adolescent males who sexually offended against prepubescent children with those who targeted pubescent and postpubescent females. Table 2 identifies the differences found between the two groups.

TABLE 2. DIFFERENTIATION BETWEEN CATEGORIES OF ADOLESCENT MALES WHO SEXUALLY OFFEND

Those Who Target Prepubescent Children	Sexual Recidivism
◆ Greater deficits in psychosocial functioning ◆ Use less aggression in their sexual offending ◆ More likely to offend against relatives ◆ More likely to meet criteria for clinical intervention for depression and anxiety	◆ Employ more force in the commission of their sexual offense ◆ More likely to use a weapon and to be under the influence of alcohol or drugs at the time of the offense ◆ Less likely to be related to their victim ◆ Less likely to commit the offense in the victim's home or in their own residence ◆ More likely to have a prior arrest history for a nonsexual crime ◆ Demonstrate less anxiety and depression, and less pronounced social self-esteem deficits

Source: Hunter et al. (2003).

Deficits in psychosocial functioning were found to mediate the influence of childhood exposure to violence against females on adolescent perpetration of sexual and nonsexual offenses. Childhood physical abuse by a father or stepfather and exposure to violence against females were found to be associated with higher levels of comorbid anxiety and depression. Noncoercive childhood sexual victimization by a male nonrelative was found to be associated with sexual offending against a male child.

Knight and Sims-Knight's (2004) three-path model for sexual coercion against women found that juvenile rapists evidenced more antisocial behavior and a higher use of alcohol. Additionally, juvenile rapists were more likely to come from more disturbed families and to have experienced more caregiver instability. The researchers found that these juveniles had committed more violent offenses than offenders who victimized younger children and that they evidenced a higher frequency of borderline intellectual functioning.

Daversa and Knight's (2007, pp. 1326–1327) dimensional model of adolescent sexually abusive behavior against younger children indicates that "different models of developmental antecedents and core traits are involved in adolescent sexually abusive behavior against peer-aged girls or women and younger children and that identifiable paths to offending are evident in each model." The researchers proposed that their results suggest the possibility that a typology based on victim age and developmental trajectory is possible. Further, their findings challenged those from prior research that suggested all adolescents who offend against children are submissive, dependent, socially isolated, and less aggressive in their sexual offending. Daversa and Knight suggested the possibility that a subgroup of adolescent child molesters may be impulsive and aggressive in their offense planning, entertain sadistic fantasies, and demonstrate a high degree of sexual arousal toward young children.

Hunter (2009) reported on a study of a national sample of 256 adolescent males who committed sexual offenses and were receiving treatment in an institutional or community-based setting. Initial results suggest the presence of five subgroups and associated characteristics:

- Life Course Persistent—Antisocial
  - Has the highest arrest rate for nonsexual crimes and the highest reported rate of childhood exposure to violence.
  - Evidences lengthy childhood histories of exposure to violence and early developmental onset of pornography viewing and drug/alcohol use.

- Adolescent Onset—Experimental
  - Is more inclined to sexually offend against peer and adult females.
  - Appears less psychosocially and psychosexually disturbed than other subgroups, and reports less childhood exposure to violence and less preadolescent pornography/substance use.
  - Appears to have the lowest average number of victims of the five subgroups.
- Socially Impaired—Anxious and Depressed
  - Predominantly sexually offends against children.
- Pedophilic Interests—Antisocial
- Pedophilic Interests—Non-Antisocial
  - Evidences lengthy childhood histories of exposure to violence and early developmental onset of pornography viewing and drug/alcohol use.

Zakireh, Ronis, and Knight (2008) found that greater hypersexuality or sexual deviance, more violent behavior or fantasies, and an increased history of victimization are consistent with path models that predict sexually abusive behavior toward peers and adults. Additionally, they found that the domains of callousness, unemotionality, and antisocial behavior play a significant role in sexually abusive behavior against peers and a limited etiological role in sexually abusive behavior toward children.

Kemper and Kistner (2010) gathered archival data on 296 male adolescents who were committed to a residential high-risk facility for serious and/or chronic offenders between the ages of 12 and 19. The study examined the strength of the relationship between victim-age-based subgroup membership and personal, criminal history, and offense history variables. Consistent with previous research, juveniles who offended against children tended to victimize male and female relatives while peer offenders tended to victimize female acquaintances. Child and mixed-victim-age offenders were more likely to have been victims of sexual abuse. Peer offenders had a more extensive nonsexual delinquent history. Few associations were found between subgroup membership and measures of physical abuse, social skills, or impulsivity. Kemper and Kistner (2010) argued that victim age is more likely a proxy for pertinent factors associated with sexual offending and that these include the physical and emotional development of the victim. They proposed that when information related to the victim is used in classification, the combination method of using both victim age and offender-victim age discrepancy is preferable.

Miner and colleagues (2010) explored the relationship between sexual abuse perpetration and insecure attachment and adolescent social development. The researchers compared three samples of 13- to 18-year-old adolescent males: adolescents who committed sexual offenses against child victims, adolescents who committed sexual offenses against peer/adult victims, and nonsexual delinquent youth. The results indicated that attachment style had an indirect effect on sexual abuse perpetration. Attachment anxiety affected involvement with peers and interpersonal adequacy. Feelings of interpersonal inadequacy, combined with oversexualization, and positive attitudes toward others distinguished adolescents who committed sexual offenses against child victims from nonsexual delinquents and from adolescents who committed sexual offenses against peer/adult victims. Attachment anxiety with a lack of misanthropic attitudes toward others appears to lead to isolation from peers and feelings of interpersonal inadequacy. The researchers proposed that individuals with this constellation of factors may turn to children to meet their exaggerated intimacy and sexual needs. **The data suggest that youth who assault peers or adults are not substantially different from other delinquent youth on most of the measures.**

Faniff and Kolko (2012) studied a sample of 176 males adjudicated for a sexual offense who were considered low risk and court ordered to participate in outpatient treatment. Participants were classified into one of the following three groups based on the age of their victims: child victims (at least 4 years younger than the offender), peer/adult victims, or both types of victims (referred to as "mixed"). Regardless of victim type, the researchers found

more similarities than differences across the groups in regard to maltreatment experiences, antisocial tendencies, mental health functioning, family functioning, and recidivism risk. In contrast to much of the research discussed above, Faniff and Kolko concluded that it is not clear that the selection of a particular type of victim is indicative of unique risks and needs, and suggested that subtyping based on criminal history or personality measures may prove more meaningful. They acknowledged, however, that there is a pattern across studies suggesting greater anxiety and internalizing problems in juveniles with child victims. Similarly, juveniles with peer/adult victims had higher general rearrest rates, consistent with the hypothesis that juveniles who select peer/adult victims are more generally antisocial than those who select child victims. The current study was not able to draw any firm conclusions about mixed offenders given how few were present in the sample.

Subtypes Based on Delinquent History

Butler and Seto (2002) sought to distinguish between adolescents who sexually offend based on nonsexual offense history. Based on their criminal records, 114 male adolescent offenders were divided into three groups: adolescents who commit sexual offenses, versatile offenders, and nonaggressive offenders. The adolescents who committed sexual offenses were further classified as "sex only" if they had only been charged with sex offenses or as "sex plus" if they had ever been charged with a nonsexual offense. Youth were compared on measures of childhood conduct problems, current behavioral adjustment, antisocial attitudes and beliefs, and risk for future delinquency. The researchers found that sex-only adolescents who committed sexual offenses had significantly fewer childhood conduct problems, better current adjustment, more prosocial attitudes, and a lower risk for future delinquency than did the adolescents who committed nonsexual offenses. Sex-plus adolescents resembled criminally versatile offenders. Butler and Seto concluded that differences between sex-only and sex-plus adolescents who committed sexual offenses reflect a valid typological distinction and that this discrimination has implications for differential intervention. **Sex-plus adolescents are at higher risk for general reoffending than are sex-only adolescents and are more likely to benefit from treatment targeting general delinquency factors.** They may also be more likely to require multisystemic interventions that simultaneously address individual, family, and social influences on antisocial behavior.

Zakireh, Ronis, and Knight (2008) found that juveniles who have committed sexual offenses may share a number of common difficulties with general delinquents because many of these youth have similar patterns of criminal offending. Thus, sexual offending may be part of a broader pattern of serious antisocial behavior for a proportion of the population of sexual offending juveniles.

Subtypes Based on Victim Age and Delinquent History

Aebi and colleagues (2012) sampled 223 male children and adolescents between ages 10 and 18 who had been convicted of sexual assaults against children, sexual assaults against adolescents and adults, coercive sexual behavior, exhibitionism, and sexual harassment in Zurich, Switzerland. The research tested the validity of typing sexually abusive juveniles based on victim age, co-offender status, and crime history. The best evidence was found for the victim-age-based subtype that differentiated juveniles who offended against children from those who had offended against adolescents and adults. Consistent with findings from previous research, Aebi and his colleagues found that **offenders against children were younger at the time of offense, less likely to be of foreign nationality, more likely to have male victims, and showed less aggression in their offenses.** The researchers also found that sexual offense severity was higher among child offenders and included more intrusive behaviors relative to adolescents who had offended against adolescents and adults. The consideration of a distinct underlying psychological mechanism differentiating offenders based on victim age may be important for intervention planning.

Although there was some support for regarding juveniles who offend against children as a separate type, Aebi and colleagues (2012) concluded that the limited validity and lack of independence found for the three types strongly suggest that

a comprehensive typology is not feasible. The researchers suggested that a dimensional approach based on the following factors is more adequate for describing juveniles who have committed sexual offenses:

- Single offender with severe molestation of a related child.
- Persistent general delinquent with migrant background.
- Older offender with alcohol use and familial constraints.
- Multiple and aggressive offender with social adversities.
- Offender with unselected and multiple victims.

Aebi and colleagues (2012, p. 283) concluded that these findings suggest "distinct dimensions of criminality implying different pathways that lead to sexual offending in youth" and proposed that the identification of criminality dimensions in terms of relevant patterns of sexual offending characteristics may be more useful in guiding treatment intervention.

Subtypes Based on Victim Age and Personality Characteristic

Carpenter, Peed, and Eastman (1995) compared the personality characteristics of adolescents who committed sexual offenses by examining the extent (if any) to which personality differences exist between adolescents who offend against their peers and adolescents who offend against younger children. The sample consisted of 36 adolescents who committed sexual offenses (16 peer offenders and 20 child offenders) and who were committed to Virginia's Department of Youth and Family Services. The researchers found that adolescents who molested children are more schizoid, avoidant, and dependent than adolescents who offended against peers. The adolescents who offended against children frequently demonstrated a pattern of withdrawing from social encounters with peers and, as such, they commonly experienced loneliness and isolation. In discussing these findings, Carpenter and his colleagues (1995, p. 196) stated that these results "may help explain why adolescent sexual offenders against children gravitate to their victims." Results also suggest that adolescents who offend against peers have an inflated self-image and are arrogant and interpersonally exploitative. Evidence suggests that the design and effectiveness of treatment programs may be enhanced if the personality differences between the type of victim (child or peer) can be taken into account.

Worling (2001) examined the California Psychological Inventory Scores from 112 males ages 12–19 who committed sexual offenses. A cluster analysis of the factor-derived scores revealed four personality-based subtypes and associated characteristics:

- **Antisocial/impulsive youth** are likely to have a propensity for rule violations. Their sexual offending, at least initially, is more a result of this factor than deviant sexual arousal. Descriptors of this subgroup may include anxious, unhappy, and rebellious.
- **Unusual/isolated youth** are emotionally disturbed and insecure. They are characterized by a peculiar presentation and social isolation. Their awkward personality features may inhibit their ability to develop and maintain healthy and intimate relationships with consenting peers.
- **Overcontrolled/reserved youth** endorse prosocial attitudes, are cautious to interact with others, and tend to keep their feelings to themselves.
- **Confident/aggressive youth** are confident, self-centered, outgoing, aggressive, and sociable.

Significant differences were observed between the groups regarding history of physical abuse, parental marital status, residence of the juveniles, and whether or not they received criminal charges for their index sexual assaults. Membership in the subgroups was unrelated to victim age, victim gender, and the juvenile's history of sexual victimization. The juveniles in the two most pathological groups, antisocial/impulsive and unusual/isolated, were most likely to be charged with a subsequent violent (sexual or nonsexual)

or nonviolent offense. Worling reported that 39 percent of his sample was sexually victimized, with no between-group differences being found. Twice as many juveniles in the antisocial/impulsive group had a history of physical victimization compared to the other groups in the study. Worling asserted that these results provided evidence for heterogeneity in the presence and nature of psychopathology, personality characteristics, and social functioning in adolescents who commit sexual offenses and of different etiological pathways and treatment needs.

Richardson and colleagues (2004) described a personality-based taxonomy based on an out-patient sample of 112 sexually abusive adolescents. Five subgroups were derived from cluster analytic procedures applied to personality pattern scales scores from the Millon Adolescent Clinical Inventory (MACI): normal, antisocial, submissive, dysthymic/inhibited, and dysthymic/negativistic. The groups were also found to be differentiated on MACI's psychopathology scales, with mood disorders indicated in three of the five subgroups. The results of the study provide evidence of the heterogeneity of adolescents who sexually abuse in both personality characteristics and psychopathology. A comparison of the groups differentiated on the basis of victim characteristics did not indicate a relationship between personality and sexual offense. The broad clinical distinction between internalizing and externalizing disorders was found to be valid in this sample. The researchers suggested that it may be better clinical practice to facilitate treatment planning that is based on subgroup membership, as evidenced by personality type and clinical presentation.

Summary

The dearth of research on juveniles who have committed sexual offenses in the 1980s resulted in a "trickle-down" approach, in which an adult sexual offender model was used that supported a narrow and specialized one-size-fits-all treatment and supervision approach. **The national experts who participated in the SOMAPI forum identified the importance of individualizing treatment for juveniles who commit sexual offenses.** In addition, research has increasingly demonstrated the heterogeneity of the population of juveniles who have committed sexual offenses in regard to factors including etiological pathways, offending patterns, delinquent history, personality characteristics and clinical presentation, and risk for sexual and nonsexual recidivism. The integration of findings from etiological and typology studies is suggestive of differential risk and of treatment and supervision needs.

The importance of using individualized treatment and supervision strategies was also acknowledged by the experts at the SOMAPI forum. Related to typologies, Knight and Prentky (1993, p. 77) provide a balanced assessment of the use of clinical labels:

> Clinical labels have some negative consequences. If however, we refrain from applying labels because of fears about the possible negative consequences of the misapplication of such labels, we would also forfeit our chances of discerning causes, of designing intervention programs that address the more specific needs of subgroups, of identifying vulnerable individuals who might profit from primary prevention programs, and of improving our dispositional decisions about specific subgroups of offenders…. Thus, categorization yields multiple advantages, and must be pursued. We must also remain cognizant of the limits of our taxonomic models and continually challenge our constructs and scrutinize the empirical validity of the measures and types we generate.

Typology research dealing with juveniles who commit sexual offenses has focused primarily on the subtyping of juvenile offenders based on victim age, delinquent history, and personality characteristics. Although the research has produced mixed and certainly not definitive findings, it has yielded substantial insights in regard to identifying differential etiological paths, typological characteristics, and associated treatment targets. Aebi and colleagues (2012) argue that, given the large number of potential influences and interactions of sexual offending characteristics,

sexual offending juveniles may be better described by the use of dimensional measures rather than assigning them to specific types. The research to date has provided very useful information regarding dimensions that include trauma and chaotic family environments, attachment, psychosocial adjustment, delinquent history and orientation, co-occurring mental health problems, sexual drive and preoccupation, and atypical sexual interests.

The evolving knowledge on etiological pathways and typologies is increasingly informing intervention practices, particularly the ability of sex offender management professionals to design intervention programs that address the specific needs of subgroups of juveniles who commit sexual offenses. Empirical evidence concerning the prevalence of child maltreatment in early development offers support for continuing treatment aimed at victimization and trauma resolution with sexually abusive youth. Developmental models, which have included early childhood experiences and family functioning, should be broadened to include larger social variables such as exposure to sexually violent media and characteristics of social ecologies.

While research has documented the heterogeneity and differential treatment and supervision needs that exist within the juvenile offender population, policy responses tend to be designed with only the highest risk offenders in mind. Rather than using a one-size-fits-all approach, legislative initiatives should encourage risk assessment and the application of aggressive strategies and the most intensive interventions only for those offenders who require the greatest level of supervision, treatment, and personal restriction. In this way, both community safety and the successful rehabilitation of youth who offend can be ensured.

Notes

1. Primary prevention approaches occur before sexual violence to stop initial victimization; tertiary prevention approaches occur after sexual victimization to address the consequences to the victim as well as the management of known sex offenders to minimize the possibility of reoffense (Association for the Treatment of Sexual Abusers, 2013).

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Chapter 3: Recidivism of Juveniles Who Commit Sexual Offenses

by Christopher Lobanov-Rostovsky

Introduction

Juveniles who commit sexual offenses have come under increasing scrutiny from the public and policymakers over the past 25 years. Previously, this population was not seen as a significant public safety threat and was instead viewed with a "boys will be boys" attitude. However, in a series of studies conducted in the late 1970s and early 1980s that featured retrospective sexual history interviews with adult sexual offenders, many adults reported they began their sexual offending during adolescence. These findings led practitioners and policymakers to focus more attention on juveniles who commit sexual offenses as a way to prevent adult sexual offending.

In the absence of an empirically based foundation of knowledge on juveniles who commit sexual offenses, interventions for juveniles who commit sex crimes were constructed using existing theories and practices designed for adults. Whether or not juveniles who commit sexual offenses might differ from adult sexual offenders was rarely considered. Also, little consideration was given to any differences that might exist between juveniles who commit sexual offenses and those who commit nonsexual offenses. Since the 1980s, a significant body of knowledge specific to juveniles who commit sexual offenses has been developed, particularly in relation to the characteristics of these youth and their propensity to reoffend. To accomplish this, researchers employed methodologies very different from those that retrospectively examined the offending history of adult sex offenders. These methodologies enabled researchers to better understand the experiences, characteristics, and behaviors of juveniles who commit sexual offenses, including rates and patterns of recidivism.

FINDINGS

- There does not appear to be a significant difference in the rate of either sexual or general recidivism between juveniles who commit sexual offenses against peer or adult victims and those who commit sexual offenses against child victims.
- The observed sexual recidivism rates of juveniles who commit sexual offenses range from about 7 percent to 13 percent after 59 months, depending on the study.
- Recidivism rates for juveniles who commit sexual offenses are generally lower than those observed for adult sexual offenders.
- A relatively small percentage of juveniles who commit a sexual offense will sexually reoffend as adults.
  - Juveniles who commit sexual offenses have higher rates of general recidivism than sexual recidivism.

The purpose of this chapter is to provide a review of recidivism research on juveniles who commit sexual offenses. Research findings concerning both sexual and general recidivism are presented. Findings concerning general recidivism are important because many juveniles who commit sexual offenses also engage or will engage in nonsexual criminal offending. In fact, research has demonstrated that juveniles who commit sexual offenses are more likely to recidivate in a nonsexual rather than a sexual manner. Sexual recidivism and general recidivism are both risks to public safety.

Prior to reviewing the recidivism research, a definition of recidivism is needed. Recidivism has been conceptually defined as the return to criminal behavior by an individual previously convicted of or adjudicated for a criminal offense (Maltz, 2001). It is indicative of a criminal offender's recurrent failure to follow the law despite having been subject to

some type of response from the criminal or juvenile justice system. Recidivism is not merely repeat offending, but rather refers to the recurrence of illegal behavior after a criminal offender receives negative legal consequences, including legal supervision, rehabilitative treatment, or some form of residential or institutional placement. (For more information on the "Effectiveness of Treatment for Juveniles Who Sexually Offend," see chapter 5 in the Juvenile section.) Given the profound impact that sexual recidivism has on victims and the community, it is important to know the patterns and rates of recidivism attributed to juveniles who commit sexual offenses. However, sexual recidivism has proven difficult to quantify for both juveniles and adults for a number of reasons; the main reason is the extent to which sexual crimes are underreported to authorities. As a result, sexual recidivism rates do not necessarily capture the true extent of sexual reoffense, and all analyses of recidivism research must be mindful of this limitation. In addition, recidivism has been defined and operationalized by researchers in various ways (e.g., self-report, rearrest/new charge, readjudication for juveniles under age 18 or reconviction for those who have now become adults, and recommitment for juveniles or reincarceration for adults). This hampers cross-study comparisons and often results in variations in observed recidivism rates that are primarily artifacts of different study methodologies. Despite these limitations, recidivism research on juveniles who commit sexual offenses provides an empirical basis for understanding both the absolute and relative risk of reoffense posed by this population. Trustworthy data on the recidivism rates of juveniles who commit sexual offenses, and how they compare to rates found for both adult sex offenders and other juvenile offenders, can help policymakers and practitioners at the federal, state, and local levels develop interventions that are not only effective, but also appropriate and proportionate.

This chapter does not present an exhaustive review of the recidivism research related to juveniles who commit sexual offenses, but instead focuses on studies deemed to be important for a general understanding of recidivism rates and patterns. This review also does not address the risk factors related to recidivism, the manner in which recidivism risk might be mitigated through treatment or supervision practices, or research findings on adult sexual offender recidivism. Research on the effectiveness of treatment for juveniles who commit sexual offenses is reviewed in chapter 5 of the Juvenile section. Findings from research on the recidivism of adult sexual offenders may be found in chapter 5 in the Adult section (upon which the organization of this chapter is based). Finally, it should be noted that for ease in reading, data presented in this chapter have been rounded to the nearest whole number.

Issues To Consider

The following measurement issues, which can impact the recidivism rates observed in studies, should be considered when reviewing the findings presented in this chapter:

- **Recidivism rates are not true reoffense rates.** As noted above, recidivism rates are typically based on official criminal or juvenile justice records pertaining to an arrest, criminal adjudication or conviction, or commitment or incarceration. These records do not include any of the substantial number of sexual offenses that do not come to the attention of criminal or juvenile justice authorities. For example, Bachman (1998) found that only about one in four rapes or sexual assaults were reported to police, and Tjaden and Thoennes (2006) found that only 19 percent of women and 13 percent of men who were raped since their 18th birthday reported the rape to the police. Child victims report at an even lower rate. Even when a sex crime is reported to police, relatively few are cleared by arrest and even fewer result in a conviction/adjudication or incarceration. In a prospective study of adolescents, for example, Grotpeter and Elliot (2002) found that the rate of arrest for those who reported committing a sexual offense was between 3 and 10 percent, depending on the severity of the sex crime (Grotpeter & Elliott, 2002). Therefore, observed recidivism rates for juveniles who commit sexual offenses likely underrepresent the true incidence of reoffense for this population, particularly for sexual crimes.

- **Recidivism rates are often calculated differently from one study to the next.** Different recidivism measures such as rearrest, readjudication as a juvenile or reconviction as an adult, and recommitment (for juveniles) or reincarceration (for adults) can produce different recidivism rates, as can variations in the length of the followup period used in a particular study. This makes cross-study comparisons of recidivism rates difficult. Studies using rearrest as a recidivism measure will typically produce higher observed recidivism rates than studies using readjudication or recommitment because only a subset of all arrests ultimately end in adjudication or commitment. Similarly, studies employing longer followup periods will tend to produce higher observed recidivism rates because the offenders being studied will have more time to reoffend and more time to be identified as a recidivist by authorities.

Differences in juvenile research populations may also lead to different recidivism results. Juveniles who have been released from a residential or correctional facility may be fundamentally different from those placed under community supervision in terms of overall risk for recidivism. Similarly, much of the juvenile recidivism literature involves youth of vastly different ages. There are significant differences between an 11-year-old and a 17-year-old, and the age of the juveniles in a study sample should be considered when interpreting individual study results or when making cross-study comparisons.

- **Recidivism rates for juvenile females who commit sexual offenses are relatively unknown.** Most studies of juveniles who commit sexual offenses employ samples or populations that are exclusively or predominantly male. Even those studies that do include females do not necessarily identify the unique recidivism rate for this population. Therefore, knowledge about recidivism for juvenile females remains obscure at this time, and the findings presented in this review should only be considered relevant for juvenile males.

Both underreporting and measurement variation need to be considered when interpreting findings presented in this review of recidivism research. Recognizing that the observed recidivism rates for juveniles who commit sexual offenses are not true reoffense rates will help ensure that risk to public safety is not underestimated. Understanding how differences across research studies may impact recidivism findings can also assist policymakers and practitioners in avoiding interpretation errors and in identifying the most appropriate intervention strategies.

Summary of Research Findings

Empirical data on the recidivism rates of juveniles who commit sexual offenses come from two broad categories of research—single studies and meta-analyses. Single studies typically examine the recidivism rates of a group of juveniles at the end of one or more specified followup periods using one or more recidivism measures. Meta-analyses, on the other hand, examine the results of many different individual studies to arrive at an overall conclusion about a particular issue, such as the likelihood of recidivism. They employ statistical procedures that effectively combine the results of many single studies into one large study that includes all of the single studies and subjects. This approach helps the analyst overcome problems in single studies created by small sample sizes and the use of different recidivism measures or followup periods. Findings from both single studies and meta-analyses are presented below.

Pre-1980s Single Studies

As noted above, little was known about juveniles who commit sexual offenses prior to the mid-1980s, as little attention and arguably even less research were focused on this population. However, a handful of studies undertaken many years ago suggested that the recidivism rates of juveniles who commit sexual offenses were extremely low. One such study from the 1940s reviewed the recidivism rates of juveniles who commit sexual offenses without (n= 108) and with (n= 146) concurrent histories of nonsexual offenses. Those without a history of nonsexual offenses have been referred to as "exclusive offenders" or "specialists," and those

with a history of nonsexual offenses have been referred to as "mixed offenders" or "generalists." The study found rates of recidivism, as defined as a sexual rearrest, of 2 percent for the exclusive juveniles and 10 percent for the mixed juveniles (Doshay, 1943, as cited in Schram, Milloy, & Rowe, 1991).

A second pre-1980s study focused on juveniles ages 7-16 seen by the Toronto Juvenile Court between 1939 and 1948 (*n*= 116). Juvenile males who committed sexual offenses were returned to court for a new general criminal charge at a 41-percent rate (3 percent for sexual recidivism), as compared to a 55-percent rate of return to court for juveniles who committed nonsexual offenses (Atcheson & Williams, 1954).

Historical Studies of Adult Sexual Offenders: Sexual History Interviews

As noted above, very few studies focused on juveniles who commit sexual offenses were undertaken prior to the 1980s, and very little attention arguably was paid to this population by juvenile justice policymakers and practitioners. That all began to change, however, when a series of retrospective studies based on sexual history interviews with adult sex offenders was conducted in the late 1970s and early 1980s. In these studies, adult sex offenders self-reported a significant, previously unidentified history of sexual offending, which included sexual offending as a juvenile. For example, 24 to 75 percent of the adult sex offenders reported committing sexual offenses that were unidentified by authorities and 24 to 36 percent reported sexual offending that began when the respondent was a juvenile. In one of the studies (Longo & Groth, 1983), adult sexual offenders reported a juvenile history of indecent exposure and voyeurism, suggesting that juveniles who commit less severe sex crimes can progress to committing more serious adult sex offenses. Despite their limitations, these studies played a significant role in shifting policy and practice. Juveniles who commit sexual offenses began to be viewed as budding adult sex offenders, and efforts to intervene with this population began to be based on the assumption that they were fundamentally similar to adults who were engaged in sex offending behavior (see, for example, Groth, 1977; Groth, Longo, & McFadin, 1982; Longo & Groth, 1983; Marshall, Barbaree, & Eccles, 1991).

Practitioners and policymakers arguably misinterpreted findings from retrospective studies of adult sexual offenders by assuming that most juveniles who commit sexual offenses will continue to commit sexual offenses as adults if left unchecked. What was missing at that time was a forward-looking perspective that began with juveniles who commit sexual offenses and that examined the proportion of juveniles who commit sexual offenses who go on to recidivate later in life (examining their rates and patterns of recidivism later in life). However, the information presented above is exclusively focused on those who did report this progression from juvenile to adult sexual offenders and did not study those juveniles who did not engage in adult sexual offending. Further, no prospective recidivism data are offered on the adult sexual offenders in these studies, so much appeared to be unknown about the impact of juvenile sexual offending at that time. This outcome is an example of how studies can be misinterpreted and lead to inaccurate policies. As a result of these data, however, the assumption that juveniles who commit sexual offenses are the same as adult sexual offenders would become the subject of debate and study over the next two decades.

Prospective National Youth Sample That Included Juveniles Who Commit Sexual Offenses

The National Youth Survey is an ongoing longitudinal study that began in 1976. The study has followed over time a nationally representative sample of 1,725 youth who were ages 11-17 in 1976, surveying them about their behaviors, attitudes, and beliefs regarding various topics, including violence and offending. Members of the original study sample are now adults, and both they and their family members have been surveyed in recent waves of the study; hence, the study is now called the National Youth Survey Family Study.

In the 1992 survey wave (the latest for which relevant sexual offending data were collected), 6 percent of the sample reported having committed

a sexual assault(*n*= 90),which was defined as youth who reported one sexual assault during the initial first three waves of data collection, and 2 percent of the sample reported having committed a serious sexual assault(*n*= 41), which was defined as youth who reported two or more sexual assaults during the same timeframe. In addition, 70 percent of those acknowledging a sexual offense reported the onset to have been prior to age 18. It should be noted that only 3 percent of the sexual assaulters, as defined above, reported being arrested for the crime, while 10 percent of the serious sexual assaulters, as defined above, reported being arrested. In terms of recidivism, 58 percent of those youth committing a sexual assault reported committing a subsequent sexual assault. Of the serious sexual assaulters, 78 percent reported committing another serious sexual assault. The rate of general reoffense was reported at 99 percent for those youth who committed a sexual offense. Finally, in terms of adult sexual assaults, 10 percent of those who committed a sexual assault as a juvenile also committed an adult sexual offense, while 17 percent of those who committed a serious sexual assault as a juvenile also committed an adult sexual offense (Grotpeter & Elliott, 2002).

While this research provides valuable insights about both the extent of sexual offending within the juvenile population and the recidivism of juveniles who commit sexual offenses, it is important to keep the following in mind when interpreting the study's findings:

- The data produced in the study are based on self-reports.
- The juveniles who reported sexual reoffenses were generally not subject to juvenile justice system intervention; therefore, the impact of such a mediating factor on sexual recidivism is unknown.

Large-Scale Systematic Reviews, Including Meta-Analyses

As mentioned above, meta-analysis is a statistical technique that allows the analyst to synthesize the results of many individual studies. One feature of meta-analysis that is helpful for studying recidivism is its ability to generate an average recidivism rate based on a large number of offenders pooled from many different studies. Findings from three relevant meta-analyses of recidivism studies are presented below.

The first meta-analysis synthesized findings from 79 studies involving 10,988 study subjects overall. The studies were undertaken between 1943 and 1996. The overall sample consisted of 1,025 juveniles who had committed a sexual offense. The average sexual recidivism rate for juveniles who had committed sexual offenses was 5 percent for those studies with 1 year of followup, 22 percent for those studies with 3 years of followup, and 7 percent for those studies with 5 or more years of followup (Alexander, 1999).

A second meta-analysis involved 9 studies and 2,986 subjects, all of whom were juveniles who had committed a sexual offense. The vast majority of study subjects (2,604) were male. Based on an average followup period of 59 months, the study found a sexual recidivism rate of 13 percent, a nonsexual violent recidivism rate of 25 percent, and a nonsexual and nonviolent recidivism rate of 29 percent for study subjects (Reitzel & Carbonell, 2006).

The third meta-analysis reviewed involved 63 studies and a combined sample of 11,219 juveniles who committed sexual offenses. Recidivism was measured over a mean followup period of 59 months. The study found a weighted mean sexual recidivism rate of 7 percent and a weighted mean general recidivism rate of 43 percent for study subjects (Caldwell, 2010).

Single Studies

A number of single studies have examined the recidivism rates of juveniles who have committed a sexual offense. These studies have focused on offender populations from various intervention settings. In some studies, for example, the subjects have been released from a correctional institution or residential placement; in others, the subjects have been on community supervision. Since these variations in settings may reflect differential levels of risk for recidivism among study subjects, this review reports findings from studies focused on

juveniles released from an institutional placement separately from those derived from studies focused on juveniles released from a community-based setting.

Rather than presenting findings and study characteristics in narrative form, tables are used to summarize key features of each study's sample and to present sexual and general recidivism rate findings.[1] Many, but not all, of the studies identified the gender of sample members (the tables note gender if identified in the study). Keep in mind that many of the studies summarized in these tables do not provide detailed information about the type of intervention used, the risk level of the sample, the ages of sample members, and other contextual factors that are needed to make cross-study comparisons and to properly interpret recidivism results. These contextual factors can help explain variations in reported recidivism rates often found across different studies. Hence, caution is urged when making cross-study comparisons or when drawing inferences from the data.

Correctional or Residential Intervention Settings

Table 1 presents key characteristics and findings from eight studies that examined the recidivism rates of juveniles who committed sexual offenses and who were released from correctional and residential settings. Some researchers have questioned whether juveniles placed in residential or correctional intervention and treatment settings are a higher risk population than juveniles in community-based settings. However, risk was not typically quantified in most of the single studies reviewed. Therefore, it cannot necessarily be assumed that the studies in table 1 focused exclusively on high-risk subjects.

Overall, the reported rates of recidivism for juveniles released from a correctional or residential setting varied considerably across studies. Sexual recidivism rates ranged from a low of 0 percent after 1 year of followup to a high of 41 percent after 5 years of followup, while general recidivism rates ranged from 23 percent (based on reincarceration) after 3 years of followup to 77 percent after 5 years of followup. It is unclear whether the juveniles in these studies were also provided treatment, but most correctional and residential programs provide treatment.

Community-Based Intervention Settings

Table 2 presents key characteristics and findings from 13 studies that examined the recidivism rates of juveniles who committed sexual offenses and who were in community-based settings. Again, risk was not typically quantified in most of the single studies reviewed; therefore, it cannot automatically be assumed that the following studies involve subjects who are exclusively low risk.

Again, the reported rates of recidivism vary across studies. Sexual recidivism rates for the juveniles released from a community-based setting ranged from a low of 1 percent (based on reconviction) after 18 months of followup to a high of 25 percent after 7 years of followup, while general recidivism rates ranged from a low of 7 percent (based on reconviction) after 1 year of followup to a high of 79 percent after 7 years of followup. These reported rates of recidivism do not vary greatly from the rates of recidivism found for those juveniles released from correctional and residential settings. Interestingly, a similar pattern is discernible in the recidivism rates found for juveniles from different intervention settings by Alexander (1999) in her meta-analysis. In that study, a sexual recidivism rate of 6 percent was found for juveniles from community-based supervision settings (e.g., probation), a rate of 7 percent was found for juveniles from prison, and a rate of 9 percent was found for juveniles from hospital settings (Alexander, 1999).

> *"Research has not found a significant difference in sexual recidivism between juveniles who commit sexual offenses against peer or adult victims and those who commit sexual offenses against child victims."*

Although it is difficult to base firm conclusions on these data, the relative similarity in observed recidivism rates found across different intervention settings indirectly suggests that (1) the risk levels

TABLE 1. RECIDIVISM RATES FOR JUVENILES WHO COMMITTED SEXUAL OFFENSES AND WERE RELEASED FROM CORRECTIONAL OR RESIDENTIAL SETTINGS

Sample Size	Year of Release or Offense	Followup Period	Sexual Recidivism (%)	General Recidivism (%)	Study Authors
197 males	1984	5 years	12 (rearrest)	51 (rearrest)	Schram, Milloy, & Rowe, 1991[a]
21 males	1990–2003	As of December 2005	38 (reconviction)	71 (reconviction)	Milloy, 2006[b]
256 juveniles	1992–1998	5 years	5 (rearrest)	53 (rearrest)	Waite et al., 2005[c]
86 males	1993–1995	4 years	8 (rearrest)	47 (rearrest)	Miner, 2002
319 (305 males and 14 females)	1995–2002	5 years	9 (reconviction)	60 (reconviction)	Barnoski, 2008[d]
22 juveniles	2001	5 years	41 (rearrest)	77 (rearrest)	Rodriguez-Labarca & O'Connell, 2007[e]
104 (103 males and 1 female)	2004	3 years	2 (reincarceration for any new offense or technical violation)	23 (reincarceration for any new offense or technical violation)	Garner, 2007
110 juveniles	2001	1 year	0 (rearrest)	38 (rearrest)	Maryland Department of Juvenile Services, 2007[f]

[a] The researchers noted that the greater risk was during the first year post-treatment when sample members were still juveniles. It was also noted that juveniles in institutional settings were more likely to recidivate than those in the community.

[b] This study focused on youth who were discharged from their sentence and referred for civil commitment evaluation based on risk and dangerousness, but who were ultimately not so committed.

[c] Juveniles in this study were specifically identified as high risk.

[d] Forty-one of these juveniles were classified as higher risk (level III), while 278 were classified as lower risk (levels I and II) via registration status assessment. The sexual recidivism rate for the higher risk juveniles was 12 percent while the sexual recidivism rate for the lower risk juveniles was 9 percent.

[e] Juveniles in this study were determined to be high risk.

[f] Between 4 and 5 percent of the juveniles were recommitted to the juvenile justice system, but none were incarcerated in the adult criminal justice system.

of youth from different settings may not be appreciably different, and therefore (2) appropriate intervention placement based on assessed risk may not have been occurring at the time these studies were undertaken. Given the importance of reserving more intensive interventions and services for high-risk offenders, these hypotheses and their relevance for contemporary sex offender management practice arguably should be tested in a more direct and rigorous manner.

Juveniles Who Commit Sexual Offenses, by Victim Type

Some recidivism studies that have focused on juveniles who have committed a sexual offense have differentiated offenders who victimize younger children (child molestation) from those who victimize peers or adults (rape). Table 3 presents key characteristics and findings from seven studies that examined the recidivism rates of juveniles who committed rape and/or child molestation.

TABLE 2. RECIDIVISM RATES FOR JUVENILES WHO COMMITTED SEXUAL OFFENSES AND WERE RELEASED FROM COMMUNITY-BASED SETTINGS

Sample Size	Followup Period	Sexual Recidivism (%)	General Recidivism (%)	Study Authors
220 males	55 months	15 (rearrest)	51 (rearrest)	Gretton et al., 2001[a]
155 males	Unknown	3 (reconviction)	19 (reconviction)	Lab, Shields, & Schondel, 1993
75 juveniles	1 year	4 (reconviction)	7 (reconviction)	Prentky et al., 2000
170 (167 males and 3 females)	5 years[b]	14 (readjudication)	54 (readjudication)	Rasmussen, 1999
122 males	18 years	4 (rearrest)	N/A	Seabloom et al., 2003
112 males	29 months	14 (rearrest)	35 (rearrest)	Smith & Monastersky, 1986
300 males	3–6 years after age 18	4 (rearrest)	53 (rearrest)	Vandiver, 2006
366 juveniles	18–35 months	4 (rearrest)	31–51 (rearrest)	Wiebush, 1996[c]
266 juveniles	18 months	1 (reconviction)	17 (reconviction)	Barnoski, 1997
303 males	7 years	25 (rearrest)	79 (rearrest)	Nisbet, Wilson, & Smallbone, 2005)[d]
46 (44 males and 2 females)	5 years	20 (reconviction)	65 (reconviction)	Langstrom & Grann, 2000[e]
359 males	10 years	12 (reconviction)	53 (reconviction)	Rojas & Gretton, 2007[f]
148 (139 males and 9 females)	16 years	16 (rearrest)	N/A	Worling, Littlejohn, & Bookalam, 2010[g]

[a] Juveniles with higher levels of psychopathy had significantly higher levels of sexual recidivism than juveniles with lower levels of psychopathy ($p < .05$).

[b] This study followed juveniles who committed sexual offenses until they reached age 19.

[c] The author looked at several different samples and did not report a general recidivism rate across all samples.

[d] The authors noted that once the sample reached adulthood, the sexual recidivism rate was 9 percent and the general recidivism rate was 61 percent.

[e] This study consisted of juveniles ages 15–20 in Sweden who received a court-ordered evaluation. Thus, the sample included both community-based and residential or correctional populations.

[f] The authors compared Canadian aboriginal ($n = 102$) to nonaboriginal (257) juveniles who committed sexual offenses and found that aboriginal youth had a significantly higher ($p < .01$) sexual recidivism rate (21 percent) than nonaboriginal youth (9 percent).

[g] The authors noted that the adult sexual recidivism rate was 11 percent. In addition, the study found a nonsexual, violent recidivism rate of 32 percent; a nonviolent, nonsexual recidivism rate of 43 percent; and a recidivism rate of 49 percent for any crime (overall general recidivism was not specifically noted).

Although it is difficult to draw firm conclusions from the data, there does not appear to be a significant difference in the rate of either sexual or general recidivism between juveniles who commit sexual offenses against peer or adult victims and those who commit sexual offenses against child victims, based on the results of these studies. It is interesting to note, however, that Alexander's (1999) meta-analysis of earlier studies produced somewhat similar findings. Alexander found an average sexual recidivism rate of 6 percent for those juveniles who commit rape and an average sexual recidivism rate of 2 percent for those who molested a child—a difference that was not statistically significant.

Juveniles Who Commit Sexual and Nonsexual Offenses

Studies have also compared the recidivism rates of juveniles who have committed sexual offenses exclusively (specialists) with those of juveniles who have either committed both sexual and nonsexual/general offenses (generalists), or those who have only committed nonsexual, general offenses. Table 4

TABLE 3. RECIDIVISM RATES FOR JUVENILES WHO COMMITTED RAPE AND/OR CHILD MOLESTATION OFFENSES

Sample Size	Followup Period	Sexual Recidivism (%)		General Recidivism (%)		Study Authors
		Child Molestation	Rape	Child Molestation	Rape	
223 males	4.3 years	5.6 (new charge)	1.5 (new charge)	32.6 (new charge)	45.5 (new charge)	Aebi et al., 2012*
176 males	1 & 2 years	0 (rearrest)	3.33 (rearrest)	7.94 (rearrest)	30 (rearrest)	Faniff & Kolko, 2012*
100 males	2–5 years	8 (reconviction)	10 (reconviction)	38 (reconviction)	54 (reconviction)	Hagan & Cho, 1996*
50 males	10 years	N/A	16 (reconviction)	N/A	90 (reconviction)	Hagan & Gust-Brey, 1999
150 males	8 years	20 (reconviction)	16 (reconviction)	N/A	N/A	Hagan et al., 2001
296 males	5 years	8 (rearrest)	1 (rearrest)	41 (rearrest)	46 (rearrest)	Kemper & Kistner, 2007
156 males	134 months	4	10	32	28	Parks & Bard, 2006

* The differences were not statistically significant.

TABLE 4. RECIDIVISM RATES FOR JUVENILES WHO COMMITTED SEXUAL OFFENSES EXCLUSIVELY (SPECIALISTS) AND THOSE WHO COMMITTED SEXUAL AND NONSEXUAL OFFENSES (GENERALISTS)

Sample Size	Followup Period	Sexual Recidivism (%)		General Recidivism (%)		Study Authors
		Specialists	Generalists	Specialists	Generalists	
156 males	57–68 months	10 (reconviction)	14 (reconviction)	24 (reconviction)	46 (reconviction)	Chu & Thomas, 2010

Note: The difference in the sexual recidivism rate between specialists and generalists is not statistically significant, but the difference in the general recidivism rate (any recidivism) between the two groups is statistically significant ($p < .01$).

presents the key characteristics and findings of Chu and Thomas' (2010) study that reported comparative recidivism data for specialists and generalists. This is one of the few recent studies reporting this type of data found in the literature. Table 5 presents key characteristics and findings from seven studies that reported comparative recidivism data for juveniles who committed sexual offenses and juveniles who committed nonsexual, general offenses.

In the Chu and Thomas (2010) study comparing specialists and generalists, no significant difference in sexual recidivism was found between the two groups. However, generalists did have a significantly higher rate of general recidivism than specialists. In fact, their rates of both violent and nonviolent recidivism were also significantly higher than the rate for specialists.

On the other hand, comparisons involving juveniles who commit sexual offenses with those who commit nonsexual, general offenses produced mixed results. Some studies found that juveniles who commit sexual offenses had significantly higher rates of sexual and general recidivism than their general-offending juvenile counterparts, while others did not. Given the inconsistent findings, it is difficult to draw conclusions about the propensity of one group to recidivate relative to the other.

TABLE 5. RECIDIVISM RATES FOR JUVENILES WHO COMMITTED SEXUAL OFFENSES AND THOSE WHO COMMITTED NONSEXUAL, GENERAL OFFENSES

Sample Size	Followup Period	Sexual Recidivism (%)		General Recidivism (%)		Study Authors
		Sexual Offenses	General Offenses	Sexual Offenses	General Offenses	
150 males	8 years	18 (reconviction)	10 (reconviction)	N/A	N/A	Hagan et al., 2001[a]
110 juveniles	33 months	2	0	32	16	Brannon & Troyer, 1991
2,029 males	5 years	7 (charge)	6 (charge)	74 (charge)	80 (charge)	Caldwell, 2007[b]
1,645 juveniles	4 years	2 (charge)	3 (charge)	N/A	N/A	Letourneau, Chapman, & Schoenwald, 2008[c]
256 males	3 years	0 (reconviction)	1 (reconviction)	44 (reconviction)	58 (reconviction)	Milloy, 1994[d]
306 males	6 years	10 (rearrest)	3 (rearrest)	32 (rearrest)	44 (rearrest)	Sipe, Jensen, & Everett, 1998[e]
3,129 males	4–14 years after adulthood	9 (rearrest)	6 (rearrest)	N/A	N/A	Zimring, Piquero, & Jennings, 2007[f]

[a] The difference was statistically significant ($p > .05$).

[b] The difference in sexual recidivism was not statistically significant, but the difference in general recidivism was statistically significant ($p > .01$).

[c] The difference was not statistically significant.

[d] The differences were not statistically significant.

[e] The difference for sexual recidivism was statistically significant ($p > .04$), but the general recidivism rate was not significant.

[f] The difference was not statistically significant. The researchers concluded that the number of juvenile police contacts was far more predictive of future adult sex offenses.

[g] The authors noted that the adult sexual recidivism rate was 11 percent. In addition, the study found a nonsexual, violent recidivism rate of 32 percent; a nonviolent, nonsexual recidivism rate of 43 percent; and a recidivism rate of 49 percent for any crime (overall general recidivism was not specifically noted).

Summary

Drawing sound conclusions about the recidivism rates of juveniles who commit sexual offenses can be difficult due to a number of factors. Since many sex offenses are never reported to law enforcement or cleared by arrest, the observed recidivism rates of juveniles remain underestimates of actual reoffending. Measurement variation across studies, small sample sizes, short followup periods, and missing information about the characteristics of the sample studied and the interventions study subjects were exposed to make it difficult to draw definitive conclusions from the available data. Still, findings from recent research provide important insights regarding the sexual and general recidivism rates of juveniles who commit sexual offenses. Key conclusions that can be drawn from the empirical evidence are outlined below:

- **The observed sexual recidivism rates of juveniles who commit sexual offenses range from about 7 to 13 percent after 59 months, depending on the study.** Although the sexual recidivism rates reported in single studies tend to vary significantly because different methods and followup periods are employed across studies, findings from meta-analyses suggest that juveniles who commit sexual offenses have a sexual recidivism rate ranging from 7 to 13 percent after 59 months, depending on the recidivism measure employed. In addition,

there is empirical evidence indicating that the percentage of juveniles who commit sexual offenses who go on to sexually offend as adults is similarly low. Hence, policies and practices designed to address juvenile sexual offending should recognize that the potential for desistance prior to adulthood is substantial.

"Observed sexual recidivism rates range from about 7 to 13 percent. These rates are generally lower than the rates observed for adult sex offenders."

- **Recidivism rates for juveniles who commit sexual offenses are generally lower than those observed for adult sexual offenders.** For example, in a 2004 meta-analysis, Harris and Hanson found average sexual recidivism rates for adult offenders of 14 percent after a 5-year followup period, 20 percent after a 10-year followup period, and 24 percent after a 15-year followup period (Harris & Hanson, 2004). Hence, recidivism data suggest that there may be fundamental differences between juveniles who commit sexual offenses and adult sexual offenders, particularly in their propensity to sexually reoffend. **Given the above, the national experts at the SOMAPI forum recommended that policymakers and practitioners not equate the two groups.**

- **A relatively small percentage of juveniles who commit a sexual offense will sexually reoffend as adults.** The message for policymakers is that juveniles who commit sexual offenses are not the same as adult sexual offenders, and that all juveniles who commit a sexual offense do not go on to sexually offend later in life.

- **Juveniles who commit sexual offenses have higher rates of general recidivism than sexual recidivism.** Although this basic recidivism pattern would naturally be expected to occur, the magnitude of the difference found in research is somewhat striking. It suggests that juveniles who commit sexual offenses may have more in common with other juveniles who commit delinquent acts than with adult sexual offenders, and interventions need to account for the risk of general recidivism. However, policymakers and practitioners should also keep in mind that nonsexual offenses are more likely than sexual offenses to be reported to law enforcement, and that some crimes legally labeled as nonsexual in the criminal histories of sex offenders may indeed be sexual in their underlying behavior.

Although recent research provides important insights about the recidivism rates of juveniles who sexually offend, significant knowledge gaps and unresolved controversies remain. Variations across studies in the age and risk levels of sample members, the intervention setting, the operational definition of recidivism, the length of the followup period employed, and other measurement factors continue to make cross-study comparisons of observed recidivism rates difficult. Interpreting disparate findings and their implications for policy and practice also remains a challenge.

"Juveniles who commit sexual offenses have higher rates of general recidivism than sexual recidivism."

While the operational definitions and followup periods employed in recidivism research for juveniles who commit sexual offenses will largely be dictated by the available data, the SOMAPI forum participants identified the need for recidivism studies that produce more readily comparable findings. Studies employing followup periods that are long enough to capture sexual and nonsexual recidivism during adulthood are also needed. Future research should also attempt to build a stronger evidence base on the differential recidivism patterns of different types of juveniles who commit sexual and/or nonsexual offenses. Finally, recidivism research on juvenile females who commit sexual offenses is greatly needed.

SOMAPI forum participants also identified the need for more policy-relevant research on the absolute and relative risks that different types of juveniles who commit sexual offenses pose. The literature to date on recidivism for this population has thus far been unable to decisively identify the specific risk posed by juveniles and its meaning for public safety policy. There is little question that policies and practices aimed at the reduction of recidivism would

be far more effective and cost-beneficial if they better aligned with the empirical evidence; however, bridging the gap is plagued by both measurement problems associated with true rates of reoffending and the tendency on the part of policymakers and members of the public to equate juveniles with adult sexual offenders even though the current research does not support this conclusion.

Given the above, **the SOMAPI forum participants offered the following recommendations:**

- **Juveniles who commit sexual offenses should not be labeled as sexual offenders for life.** The recidivism research suggests that most juveniles do not continue on to commit future juvenile or adult sexual offenses. Therefore, labeling juveniles as sex offenders legally or otherwise—particularly for life—is likely to result in harm for many juveniles without a commensurate public safety benefit. The empirical evidence suggests that sexual offending prior to age 18 is not necessarily indicative of an ongoing and future risk for sexual offending. Moreover, the unintended but nevertheless harmful effects of inappropriate labeling have repeatedly been identified in other research. Therefore, this population should be referred to and treated as juveniles who commit sexual offenses, rather than juvenile sex offenders.

- **All policies designed to reduce sexual recidivism for juveniles who commit sexual offenses should be evaluated in terms of both their effectiveness and their potential iatrogenic effects on juveniles, their families, and the community.** Evaluations using scientifically rigorous research designs that examine the intended and unintended effects of policies and interventions aimed at juveniles who sexually offend should be undertaken and adequately funded.

- **Intervention policies should be individualized based on the unique risk and needs of each juvenile who commits a sexual offense. One-size-fits-all policies should be avoided.** Juveniles who sexually offend are a heterogeneous population, and intervention strategies aimed at this population should be similarly diverse. Some juveniles who commit sexual offenses certainly warrant management and treatment using methods similar to adult sexual offenders, but others may not be responsive to such methods.

- **Intervention efforts should be concerned with preventing both sexual recidivism and general recidivism.** Juveniles who sexually offend are more likely to recidivate with a nonsexual rather than a sexual offense. Hence, treatment and supervision efforts should be concerned with both types of reoffending.

- **Sex offender management policies commonly used with adult sex offenders should not automatically be used with juveniles who commit sexual offenses. Empirical evidence concerning both the effectiveness and potential unintended consequences of policies (such as registration and notification, residence restrictions, polygraph, and GPS monitoring) should be carefully considered before they are applied to juvenile populations.** (For more information on the "Registration and Notification of Juveniles Who Commit Sexual Offenses," see chapter 6 in the Juvenile section.) The effectiveness of these policies with adult sex offenders remains questionable, and there is even less empirical evidence suggesting that they work with juveniles. Jurisdictions should carefully consider the empirical evidence and weigh the costs and benefits for all stakeholders before any of the above management strategies are expanded or applied with juveniles. Research has begun to show that fundamental differences exist between juveniles who commit sexual offenses and adult sexual offenders, and that juveniles who sexually offend may have more in common with juveniles who commit nonsexual offenses. This information should be used by policymakers and practitioners to develop rehabilitation and management strategies that are effective, appropriate, and fair.

Notes

1. In this chapter's tables, general recidivism reflects all identified nonsexual recidivism in the study. However, general recidivism rates may or may not include all nonsexual crimes, as some studies only counted certain types of nonsexual crimes when

calculating the general recidivism rate. In addition, some juveniles may be counted twice as general recidivists, as they may have new criminal offenses in multiple categories (e.g., violent, nonsexual; nonviolent, nonsexual; any crime). The recidivism columns of these tables generally note what the recidivism rate was based on (e.g., rearrest, reincarceration); the "reconviction" label includes (1) readjudication as a juvenile or reconviction as an adult, or (2) recommitment as a juvenile or reincarceration as an adult in conjunction with readjudication or reconviction.

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Chapter 4: Assessment of Risk for Sexual Reoffense in Juveniles Who Commit Sexual Offenses

by Phil Rich, Ph.D.

Introduction

The assessment of sexual recidivism risk for juveniles who commit sexual offenses serves several purposes. The overall purpose is to estimate the risk of future sexual offending so that the most effective steps to reduce, contain, or eliminate that risk can be taken. Hence, risk assessment essentially serves as an investigative tool that helps inform and guide various intervention, treatment, and legal processes. (For more information on treatment, see chapter 5, "Effectiveness of Treatment for Juveniles Who Sexually Offend," in the Juvenile section.)

A risk assessment can be administered at different points once a juvenile is identified by authorities as the perpetrator of a sexual offense. An assessment can be administered during the intake screening process to inform and guide authorities as to the appropriate course of action. In the event of a referral to the court, an assessment may be administered prior to or during adjudication (or trial, when transfer to the adult criminal court occurs) to provide the court, its officers, and other professionals with risk information that can be used in legal proceedings as well as in decision-making regarding supervision or treatment. Finally, assessments may be administered at the postadjudication level to provide the court, its officers, correctional authorities, or treatment professionals with risk information that can be used in dispositional or sentencing hearings, as well as in decision-making regarding institutional placement, community supervision, or treatment. The point in the process at which an assessment is administered, as well as the purpose of the evaluation, may have significant impact on the risk evaluation. Within the context of treatment, risk assessment is typically used to set a baseline assignment of risk and to then periodically reevaluate risk during the course of treatment. In addition, the risk assessment process can be used to determine the type and intensity of

FINDINGS

- It has been strongly asserted in both juvenile and adult risk assessment contexts that actuarial assessment has the capacity to predict risk more accurately than clinical assessment; however, this contention is not universally accepted and many have noted that both assessment models have strengths and weaknesses. Despite this ongoing debate, it is generally recognized that the exercise of unaided professional judgment by mental health practitioners is not a reliable or accurate means for assessing the potential for future dangerous behavior.
- The goals of a comprehensive risk assessment process extend beyond the assessment of risk alone.
- Much of the literature on risk factors for juvenile sexual offending is theoretical and descriptive rather than the result of statistical research. Given these problems, it is not surprising that findings regarding risk factors vary considerably and are inconsistent across different studies. Despite these problems, the empirical research indicates that it is the presence and interaction of multiple risk factors, rather than the presence of any single risk factor alone, that is most important in understanding risk.
- Although there is a developing research base, the empirical evidence concerning the validity of commonly identified risk factors for juvenile sexual offending remains weak and inconsistent.
- Although some empirical support for the predictive validity of the J-SOAP-II, ERASOR, and JSORRAT-II assessment tools can be found in the literature, the instruments do not perform in a manner that suggests or proves their ability to accurately predict juvenile sexual recidivism.
- Despite the apparent importance of protective factors, few of the instruments commonly used with juveniles incorporate protective factors, and those that do either have no empirical support or are in development and have not yet been empirically validated.

treatment needed and to help define targets for treatment and case management.

Regardless of the purpose of risk assessment or the point when it occurs, the assessment of risk involves making predictions about the likelihood of future behavior, which is an inherently difficult task. The process of risk assessment for juveniles who sexually offend is further complicated by the relatively low base rates[1] of sexual recidivism found among juveniles. Given these low base rates, the process of risk prediction can potentially result in type I errors, or false positive findings, in which risk is overestimated and low-risk juveniles are incorrectly determined to be high-risk (Craig, Browne, & Stringer, 2004; Wollert, 2006). Juvenile risk assessment is complicated even further by the ongoing development and maturation of youth. In short, juveniles vary and change over time in their physical development; cognitive, neurological, and personality development; formation of attitudes and acquisition of information; and emotional and behavioral maturity (Rich, 2009; Steinberg, 2009, 2010; Steinberg & Scott, 2003; Zimring, 2004). Accordingly, risk assessment models and tools need to account for these developmental factors in order to accurately estimate risk.

Whereas the process of juvenile risk assessment was once largely driven by adult risk assessment research and instrumentation, the field of juvenile risk assessment has largely developed in its own right over the past decade. Like adult risk assessment, juvenile risk assessment traditionally has focused on the identification and assessment of factors within the individual that increase (and possibly predict) risk for sexual recidivism. However, juvenile risk assessment can also be used to identify and assess protective factors that mitigate risk for sexual recidivism. Risk assessment for sexual recidivism—both for juveniles and adults—also has traditionally focused on **static** risk factors that reflect historical behaviors and experiences related to sexual offending. Static risk factors are those that have previously occurred and will remain unaltered over time. Contemporary risk assessment, however, also includes a focus on **dynamic** risk factors. Dynamic risk factors are those associated with current behaviors, thoughts, feelings, attitudes, situations, interactions, and relationships. So named because they are fluid and sometimes relational or situational, dynamic risk factors may thus change over time, particularly through some form of treatment. Dynamic risk factors are sometimes referred to as **criminogenic needs** because they contribute directly to criminal behavior. Although the measurement and evaluation of one or both types of risk factors (static and dynamic) is central to the risk assessment process, focusing on dynamic risk factors is particularly important when treatment is provided because criminogenic needs provide targets for rehabilitative interventions (Beggs & Grace, 2011; Olver & Wong, 2009; Pedersen, Rasmussen, & Elsass, 2010).

Given the importance of risk assessment in sex offender management and treatment, this chapter reviews the literature on the assessment of risk for sexual recidivism for juveniles who commit sexual offenses. It summarizes what is scientifically known about risk assessment for juveniles who sexually offend and presents key, up-to-date research findings on the defining features and predictive accuracy of commonly used assessment instruments.

"Evaluation should include a wide range of individual, social, interactional, and contextual factors."

When reading this chapter, it is important to keep the following in mind. First, while it is possible to describe the historical context and current state of juvenile risk assessment, there is ongoing controversy in the field about the best model to employ in risk assessment and the capacity of various models and instruments to accurately predict risk for sexual recidivism. Both of these issues will be discussed in detail below. Second, although research on female juveniles who commit sexual offenses and preadolescent children who engage in sexually abusive and sexually troubled behavior is emerging, the existing knowledge base concerning juvenile risk assessment is primarily based on studies of adolescent males who commit sexual offenses. Accordingly, although much of the information in this review may be pertinent to both males and females and to adolescents and preadolescents, the reader must bear in mind that the research cited

and discussed in this chapter is most directly relevant to male adolescents who commit sexual offenses. Finally, the terms "evaluator" and "evaluation" are used throughout the chapter; these terms refer to the individual performing the risk assessment and the overall risk assessment process, respectively.

Risk Assessment Process

Juvenile sexual offending takes place within a milieu of different developmental, social, and contextual circumstances. Juvenile risk assessment, therefore, focuses not only on adolescents who commit sexual offenses, but also on the systems within which they live, learn, and function and on which they depend for structure, guidance, and nurturance. In short, risk assessments of juveniles who sexually offend place behavior and risk factors in the context of the social environment as well as the context of child and adolescent development. In fact, unlike adult risk assessment instruments, the most widely used juvenile risk assessment instruments set what are essentially time limits (or expiration dates) for any individual's assessed risk level or score, either requiring reassessment of risk within a specified time period (such as every 6 months[2]) or noting that the risk estimate is limited to sexual recidivism prior to age 18.[3] Developmental considerations are important not only when estimating the risk of sexual recidivism, but also when identifying the very risk factors that are to be used as the foundation for the risk assessment process itself.

Models of Risk Assessment

Currently, two general models are used in juvenile risk assessment: the actuarial model and the clinical model. In both models, the assessment process attempts to identify and evaluate the likely effects of risk factors believed to be associated with sexual recidivism. In the actuarial model—also known as statistical or mechanical assessment—determination of risk is based entirely on a statistical comparison between the personal characteristics and past behavior of the juvenile and those of known recidivists. The assessment of static risk factors is a distinguishing feature of the actuarial model. Clinical risk assessment, on the other hand, is primarily based on observation and professional judgment rather than statistical analysis. The evaluator attempts to develop an understanding of the juvenile and the presence and likely effect of defined risk factors. In contemporary applications of the clinical model, a structured risk assessment instrument is used to guide clinical judgment. Hence, this approach is considered to be a structured or anchored clinical risk assessment (Rettenberger, Boer, & Eher, 2011). Unlike actuarial assessment, clinical risk assessment typically evaluates both static and dynamic risk factors, as well as protective factors that may decrease the risk for a sexual reoffense.

Actuarial and Clinical Judgments of Risk

It has been strongly asserted in both juvenile and adult risk assessment contexts that actuarial assessment has the capacity to predict risk more accurately than clinical assessment (Hanson & Thornton, 2000; Harris & Rice, 2007; Meehl, 1996; Quinsey et al., 1998; Steadman et al., 2000). In addition, some researchers have argued that the two methods of assessment—actuarial and clinical—are essentially incompatible (Grove & Lloyd, 2006; Harris & Rice, 2007). In fact, Quinsey and colleagues (2006) have argued for strict adherence to the actuarial model and the elimination of clinical judgment from the risk assessment process altogether. These positions, however, are not universally accepted and not everyone agrees with the assertion that actuarial risk assessment has greater predictive power than clinical assessment (Boer et al., 1997; Hanson & Morton-Bourgon, 2007; Hart, Michie, & Cooke, 2007; Litwack, 2001).

Sjöstedt and Grann (2002), for example, have argued that there are problems associated with strict proactuarial positions, and other researchers have suggested that actuarial instruments should be used to support, rather than replace, clinical judgment (Monahan et al., 2001). Moreover, Sjöstedt and Grann (2002) and Pedersen, Rasmussen, and Elsass (2010) reported strong predictive validity for **structured** clinical risk assessment, and Hart and colleagues (2003)—describing the model as "structured professional judgment"—have argued that structured professional guidelines help improve the consistency, transparency, and usefulness of decision-making. Further, Rettenberger, Boer, and Eher (2011) have argued that actuarial assessment

does not provide information about risk or possible risk management strategies that is highly personalized for the individual being assessed; hence, it fails to meet the practical, ethical, and legal issues and requirements relevant to any individual case.

Despite the ongoing debate, it is important to recognize that the exercise of **unaided** professional judgment by mental health practitioners is not considered a reliable or accurate means for assessing the potential for future dangerous behavior (Ægisdóttir et al., 2006; Hanson & Thornton, 2000; Monahan & Steadman, 1994; Steadman et al., 2000; Webster et al., 1997). Further, it is clear that the actuarial and clinical assessment models both have strengths and weaknesses. Campbell (2004) writes that neither actuarial nor clinical risk assessment instruments stand up to rigorous scientific scrutiny, noting that all current actuarial and clinical risk assessment instruments are insufficiently standardized, lack inter-rater reliability,[4] are absent of adequate operational manuals, and generally fail to satisfy significant scientific standards. Similarly, Grisso (2000) and Hart and colleagues (2003) have argued that such instruments have not yet achieved the level of psychometric rigor needed to meet publication standards.

Development of Risk Assessment Instruments

Bonta (1996) and others have characterized the evolution of risk assessment methods as occurring in distinct stages (Andrews, Bonta, & Wormith, 2006; Bonta & Andrews, 2007; Hannah-Moffat & Maurutto, 2003; and Schwalbe, 2008). First-generation methods primarily involved unstructured clinical judgment, whereas second-generation methods involved statistically derived and static actuarial assessments of risk. Third-generation methods, which are increasingly being used in sexual risk assessments of adult offenders, incorporate both the actuarial base of a static assessment and the dynamic factors of a clinical assessment. Fourth-generation methods integrate an even wider range of dynamic factors, incorporating factors relevant to treatment interventions, case management, and monitoring. Third- and fourth-generation methods not only recognize the utility of both static and dynamic risk factors, but also that "there is no reason to think that one type is superior to another when it comes to the predicting recidivism" (Bonta, 2002, p. 367). In fact, when dynamic measures are part of the assessment process, the predictive accuracy of risk assessment can exceed that which may be achievable with only static risk factors (Allan et al., 2007). McGrath and Thompson (2012) report that although static and dynamic risk factors both predicted sexual recidivism in juveniles who commit sexual offenses, a combination of static and dynamic factors resulted in a significant improvement in prediction.

While the characterizations and propositions highlighted above are largely drawn from the literature on risk assessment for adult sexual offenders, they are equally relevant in the context of risk assessment for juveniles who commit sexual offenses. Moreover, they are essential for understanding the groundwork upon which juvenile risk assessment is built.

Focus and Breadth of Juvenile Risk Assessment

According to Epps (1997), the goal of juvenile risk assessment is to synthesize psychosocial, statistical, factual, and environmental information in a way that allows defensible decisions to be made about matters of management, treatment, and placement. Within this context, Will (1999) describes three broad purposes for juvenile risk assessment: the assessment of risk for reoffense, the development of a clinical formulation upon which treatment can be based, and the assessment of the juvenile's motivation to accept and engage in treatment. Graham, Richardson, and Bhate (1997) describe six overarching and interactive goals for juvenile risk assessment:

1. Identifying troubled patterns of thoughts, feelings, and behavior.

2. Recognizing and understanding learned experiences and processes contributing to the development and maintenance of juvenile sexually abusive behavior.

3. Identifying situational contexts and correlates of sexually abusive behavior.

4. Evaluating the probability of sexual recidivism.

5. Assessing the juvenile's motivation to engage in treatment aimed at emotional and behavioral regulation.

6. Gathering the information required to develop interventions and treatment.

In short, the goals of a comprehensive risk assessment process extend beyond the assessment of risk alone.

Risk Factors for Juvenile Sexual Offending

An extensive literature has developed that has identified and discussed risk factors for juvenile sexual offending.[5] Although definitive conclusions regarding the risk factors that are most pertinent to the prediction of sexual recidivism have yet to made, similar risk factors appear in the most frequently used juvenile risk assessment instruments. These risk factors are commonly grouped into 1 of 10 categories (Rich, 2009):

1. Sexual beliefs, attitudes, and drive.

2. History of sexual offending behavior.

3. History of personal victimization.

4. History of general antisocial behavior.

5. Social relationships and connection.

6. Personal characteristics.

7. General psychosocial functioning.

8. Family relationships and functioning.

9. General environmental conditions.

10. Response to prior/current treatment.

Unfortunately, much of the literature on risk factors for juvenile sexual offending is theoretical and descriptive rather than the result of statistical research. It also is characterized by a number of methodological problems and other limitations (Spice et al., 2013). Spice and colleagues (2013) noted that early studies on juvenile sexual recidivism were often based on short followup periods of less than 3 years, and that early as well as more contemporary studies often employed samples that are small in size. They also noted that the risk factors examined vary widely from one study to the next. Similarly, McCann and Lussier (2008) maintained that the risk factors examined in many studies were selected by researchers based on their own clinical experience, the literature on adult sexual recidivism, and, until recently, a lack of theoretical understanding regarding sexual offending behavior among juveniles. Given these problems, it is not surprising that findings regarding risk factors vary considerably and are inconsistent across different studies (Spice et al., 2013).

Interactive Effect of Multiple Risk Factors

Despite the problems outlined above, the empirical research indicates that it is the presence and interaction of multiple risk factors, rather than the presence of any single risk factor alone, that is most important in understanding risk. Thus, all risk assessment instruments—regardless of whether they are used with adults or juveniles, or whether they are actuarial or clinical—include multiple risk factor items, and all risk assessment processes are concerned not only with the presence of different risk factors, but also with the interactive and amplifying effects of multiple risk factors. Simply put, no single risk factor, even one with relatively high predictive strength, is alone capable of predicting recidivism accurately (Hanson & Bussière, 1998; Hanson & Morton-Bourgon, 2005, 2007; Roberts, Doren, & Thornton, 2002).

Empirical Basis of Risk Factors for Juvenile Sexual Recidivism

The problem of the low base rate for juvenile sexual recidivism complicates the process of determining which individual risk factors are likely to be most important in juvenile risk assessment. In fact, many of the risk factors included in juvenile risk assessment instruments used today have face validity

(an intuitive and perhaps common sense appeal that appears to reflect aspects of risk), but very little proven predictive validity.

Worling and Långström (2003, 2006) contend that most risk factors commonly associated with juvenile sexual offending lack empirical validation. Describing 21 commonly cited risk factors, Worling and Långström (2006) argue that only 5—deviant sexual arousal, prior convicted sexual offenses, multiple victims, social isolation, and incomplete sexual offender treatment—are empirically supported through at least 2 published, independent research studies, and that only 2 other factors—problematic parent-child relationships and attitudes supportive of sexually abusive behavior—have empirical support in at least 1 study, and thus can be considered "promising" risk factors (see table 1). The remaining 14 factors they describe as either third-tier "possible" risk factors based on general clinical support or fourth-tier "unlikely" risk factors that either lack empirical support or are contradicted by empirically derived evidence.

It is important to recognize, however, that Worling and Långström's (2006) typology of empirically supported risk factors has not been replicated. Further, both supporting and contradictory evidence regarding some elements of the typology can be found in other studies. Indeed, the literature is mixed and inconsistent. (For more information on typology, see chapter 2, "Etiology and Typologies of Juveniles Who Have Committed Sexual Offenses," in the Juvenile section.)

For instance, in their meta-analysis involving 59 studies, Seto and Lalumière (2010) found deviant sexual interest as well as social isolation to be significant risk factors for juvenile sexual recidivism.[6] (For more information on recidivism, see chapter

TABLE 1. RECIDIVISM RATES FOR JUVENILES WHO COMMITTED SEXUAL OFFENSES AND WERE RELEASED FROM CORRECTIONAL OR RESIDENTIAL SETTINGS

Empirically Supported Risk Factors Empirical support in at least two published, independent research studies	Promising Risk Factors Empirical support in at least one study
• Deviant sexual arousal • Prior convicted sexual offenses • Multiple victims • Social isolation • Incomplete sexual offender treatment	• Problematic parent-child relationships • Attitudes supportive of sexually abusive behavior
Possible Risk Factors **General clinical support only**	**Unlikely Risk Factors** **Lack empirical support or contradicted by empirical evidence**
• Impulsivity • Antisocial orientation • Aggression • Negative peer group association • Sexual preoccupation • Sexual offense of a male • Sexual offense of a child • Use of violence, force, threats, or weapons in a sexual offense • Environmental support for reoffense	• History of sexual victimization • History of nonsexual offending • Sexual offenses involving penetration • Denial of sexual offending • Low victim empathy

Source: Worling & Långström (2006).

3, "Recidivism of Juveniles Who Commit Sexual Offenses," in the Juvenile section.) Social isolation was also found to be a risk factor by van der Put and colleagues (2013). Social isolation and deviant sexual interest are both described as empirically supported risk factors for juvenile sexual recidivism in Worling and Långström's (2006) typology.

However, Epperson and colleagues (2006), Mallie and colleagues (2011), and Carpentier and Proulx (2011) found empirical support for a history of sexual victimization as a risk factor for juvenile sexual recidivism, and Epperson and colleagues (2006) also found empirical evidence for a history of nonsexual offending as a risk factor. Similarly, Casey, Beadnell, and Lindhorst (2009) found both childhood sexual victimization and adolescent delinquency to be significant predictors of later sexually coercive behavior in their analysis of data from the National Longitudinal Study of Adolescent Health. However, Worling and Långström (2006) considered both prior history of sexual victimization and prior history of nonsexual offending to be unlikely risk factors for sexual recidivism, as did Seto and Lalumière (2010) and van der Put and colleagues (2013). Knight and Sims-Knight (2003, 2004) and Knight, Ronis, and Zakireh (2009) found support for each of the following as risk factors for sexual recidivism: hypersexuality/sexual deviance, impulsivity/antisocial behavior, arrogant/deceitful personality, violent behavior/fantasies, and history of victimization. Yet, only one of these factors (sexual deviance) was included among Worling and Långström's (2006) empirically supported risk factors.

In a meta-analysis conducted after Worling and Långström (2006) introduced their typology, McCann and Lussier (2008)[7] found that deviant sexual interests and having a stranger victim were predictive of sexual recidivism, as were several of the risk factors that Worling and Långström (2006) characterized as empirically unsupported or unlikely risk factors for sexual recidivism. These included a history of prior nonsexual offenses, the use of threats or weapons, having a male victim, and having a child victim. In addition, McCann and Lussier found that older age upon intake for treatment was associated with increased likelihood of reoffending. Nevertheless, they noted that even the risk factors found to be the best predictors of sexual recidivism in their study had a relatively small effect size and were based on findings derived from analyses involving small sample sizes. In an earlier meta-analysis, Heilbrun, Lee, and Cottle (2005)[8] concluded that younger age at first offense, prior noncontact sexual offenses, and having an acquaintance victim (rather than a stranger victim) were associated with sexual recidivism. However, in their study of 193 juveniles who commit sexual offenses, Spice and colleagues (2013) found that only opportunity to reoffend was significantly associated with sexual recidivism, although a number of risk and protective factors were linked to nonsexual recidivism.

Finally, Worling, Bookalam, and Litteljohn (2012) identified obsessive sexual interests and/or preoccupation, antisocial interpersonal orientation, lack of intimate peer relationships/social isolation, interpersonal aggression, and problematic parent-child relationships/parental rejection as risk factors for juvenile sexual recidivism, only two of which were identified as empirically supported or promising risk factors in Worling and Långström's (2006) earlier typology. In his continuing research, Långström (2011) has described sexual offense in a public area, sexual offense involving a stranger victim, two or more sexual offenses, and two or more victims as risk factors for juvenile sexual recidivism. However, only one of these appears in Worling and Långström's earlier typology.

As the findings presented above demonstrate, research on the risk factors for sexual recidivism has produced inconsistent and sometimes contradictory results. Indeed, as Spice and colleagues (2013) observe, it is clear that the research literature regarding risk factors for sexual recidivism among sexually abusive youth is disconnected and varied, with little to unify it. Whether the disparate findings are an artifact of the methodological variations found across studies, a reflection of real-world risk factor dynamics, or some combination of the two remains unknown at this time. Spice and colleagues (2013) and McCann and Lussier (2008) have voiced concerns about the idiosyncratic nature of individual studies as well as the lack of consistency across studies in terms of their research designs, samples, hypotheses, and statistical procedures.

However, Rich (2009) argues that risk factors for sexual recidivism may operate differently in different people, and at different points in child and adolescent development. For instance, in a recent study of 1,396 juvenile offenders, van der Put and colleagues (2011) found that the effect of both static and dynamic risk factors on recidivism varied by the age of the adolescent. Thus, risk factors may exert different influences on the propensity to reoffend depending on a number of personal and contextual factors, including the juvenile's age, development and social settings, and the myriad interaction effects different risk factors have in different circumstances and at different points in time. Casey, Beadnell, and Lindhorst (2009) similarly noted how difficult it is to clearly implicate in sexually coercive behavior any one risk factor in the absence of other potential risk factors, again highlighting the role multiple risk factors play in contributing to juvenile sexual recidivism.

Both Seto and Lalumière (2010) and van der Put and colleagues (2013) describe further subtlety in understanding and identifying risk factors for juvenile sexual recidivism. Each set of authors recognizes prior childhood sexual victimization as a risk factor for later juvenile sexually abusive behavior. However, Seto and Lalumière describe childhood sexual abuse as a risk factor for the onset of juvenile sexually abusive behavior, but not for sexual reoffense. Similarly, in their study of 625 sexually abusive youth, van der Put and colleagues found that a history of childhood sexual abuse was not a risk factor for recidivism, although they reported significant differences in the incidence of prior sexual victimization among different types or groups of sexually abusive youth, reflecting both heterogeneity within the population and the multifaceted nature of risk factors.

Risk Factors for Sexual Recidivism: Summary and Conclusions

Despite a developing research base, the empirical evidence concerning the validity of commonly identified risk factors for juvenile sexual offending remains weak and inconsistent. As a result, the knowledge regarding risk factors for juvenile sexual recidivism is speculative and provisional at this point in time, but it is evolving. The inability of research to thus far produce trustworthy and definitive evidence regarding juvenile risk factors for sexual recidivism may reflect problems with the research undertaken to date. However, it is also likely that complex interactions among different risk factors are at play at different times in the development of children and adolescents and that these dynamics are exceptionally difficult to disentangle and document empirically. Similarities found between risk factors that place juveniles at risk for sexual offending and those that place juveniles at risk for many other problem behaviors, including general delinquency, complicate matters even further. Far more research is needed to identify, understand, and construct both static and dynamic risk variables linked specifically to juvenile sexual recidivism.

Juvenile Risk Assessment Instruments

Most studies designed to assess the accuracy and validity of juvenile risk assessment instruments have focused on the overall structure and predictive accuracy of the most widely used instruments rather than on the individual risk factors within them. Since many, if not most, of the risk factors used in these instruments have not been empirically validated, it is not surprising that instrument validation studies have produced weak or inconsistent results. Nevertheless, there is some empirical support for the capacity of risk assessment instruments to identify statistically valid risk factors as well as for the predictive validity of various instruments. However, it is not currently possible to definitively assert that any such instrument is empirically validated in terms of its capacity to accurately predict juvenile sexual recidivism.

Validation Studies of the Most Commonly Used Instruments

Although there are a number of juvenile sexual risk assessment instruments in use today, the two most commonly used instruments in North America are the Juvenile Sex Offender Assessment Protocol-II (J-SOAP-II) and the Estimate of Risk of Adolescent Sexual Offense Recidivism (ERASOR), both of which are structured and empirically informed instruments

designed for clinical assessment. The only actuarial assessment instrument currently available for use with juveniles who commit sexual offenses is the Juvenile Sexual Offense Recidivism Risk Assessment Tool-II (JSORRAT-II), but it is not used as extensively as either J-SOAP-II or ERASOR. Unlike J-SOAP-II and ERASOR—both of which are structured clinical instruments—JSORRAT-II is a static assessment instrument; that is, it includes only static risk factors. It has been validated by its designers for use only in Utah (where it was initially developed) and Iowa, but it is also available for use in Georgia and California, where it is presently undergoing validation studies. In California, the instrument has been selected by the State Authorized Risk Assessment Tool for Sex Offenders Committee (www.saratso.org) as the required instrument to be used in the assessment of male juveniles who commit sexual offenses (California Penal Code, §§ 290.03-290.08).

Inter-Rater Reliability

J-SOAP-II, ERASOR, and JSORRAT-II have each been generally reported to have inter-rater reliability (Caldwell, Ziemke, & Vitacco, 2008; Knight, Ronis, & Zakireh, 2009; Martinez, Flores, & Rosenfeld, 2007; Park & Bard, 2006; Viljoen et al., 2008). For example, in a study of both ERASOR and J-SOAP-II, Rajlic and Gretton (2010) found strong inter-rater reliability for both instruments, with an intra-class correlation score of .78 for the total risk assignment of ERASOR and .94 for the J-SOAP-II total score.[9] However, Vitacco and colleagues (2009) report an absence of well-designed and executed inter-rater reliability studies in the juvenile risk assessment field overall, pointing out the need for these studies across populations of juveniles in different treatment or supervision settings as well as for research that examines the potential for allegiance bias. Although their study focused on three sexual risk assessment instruments commonly used with adults, Murrie and colleagues (2009) found that assessed risk levels varied depending on whether the assessment instrument was administered by an evaluator retained by the defense or the prosecution. This suggests that assessed risk scores used in legal proceedings may be influenced by the allegiance of the evaluator. Boccaccini and colleagues (2012) also found that subjective factors influenced assessment outcomes in their study of an actuarial instrument used with adults, even though high inter-rater reliability values were reported for the instrument.

Predictive Validity

Drawing firm conclusions about the predictive validity of juvenile risk assessment instruments is difficult for the following reasons. First, relatively few validation studies of juvenile risk assessment instruments have been undertaken to date, and research that has examined the predictive validity of juvenile instruments has produced rather inconsistent findings. Second, there is very little consistency across validation studies in terms of the recidivism definition employed, the time period studied, the selection of the sample/cohort, the study design itself, and the ways in which statistics are applied[10] and/or interpreted. In addition, some research has reviewed multiple instruments, some of which are not intended nor designed to measure risk for sexual recidivism, while other research has reviewed and evaluated only a single instrument. Sometimes, but not always, the research has also reviewed the capacity of juvenile sexual risk instruments to accurately predict nonsexual recidivism, although none of the juvenile risk assessment instruments currently available for use in the field are designed for that purpose. Notwithstanding these problems, research findings concerning the predictive validity of J-SOAP-II, ERASOR, and JSORRAT-II are sequentially presented in subsequent sections below. Studies that have examined the predictive validity of each instrument are listed in table 2.

Statistics Used in Assessing Predictive Validity: Area Under the Curve

Although the statistics used to evaluate the predictive validity of risk assessment instruments vary by study, Area Under the Curve (AUC) values (also known as Receiver Operating Characteristic, or ROC, scores) are increasingly being used for this purpose. This is done in part to overcome the possibility of false positives, which can occur with low base rates such as those for the sexual recidivism of juveniles,[11] as ROC analysis is unaffected by variations in base rate (Craig, Browne, & Stringer, 2004; Wollert, 2006). AUC values between .65 and

TABLE 2. SNAPSHOT OF PREDICTIVE VALIDITY RESEARCH

Study Authors	Instrument Studied			
	J-SOAP-II	ERASOR	JSORRAT-II	Other
Aebi et al. (2011)	X			
Caldwell & Dickinson (2009)	X			• Texas Juvenile Sex Offender Risk Assessment Instrument • Juvenile Risk Assessment Scale • Wisconsin Department of Corrections Guidelines for Release
Chu et al. (2012)	X	X		
Epperson et al. (2006)			X	
Epperson & Ralston (2009); Epperson, Ralston, & Edwards (2009)			X	
Fanniff & Letourneau (2012)	X			
Hiscox, Witt, & Haran (2007)				Juvenile Risk Assessment Scale
Martinez, Flores, & Rosenfeld (2007)	X			
Parks & Bard (2006)	X			
Prentky et al. (2010)	X			
Powers-Sawyer & Miner (2009)	X			
Rajlic & Gretton (2010)	X	X		
Ralston & Epperson (2012)			X	
Viljoen et al. (2008)	X			
Viljoen et al. (2009)		X		
Worling, Bookalam, & Litteljohn (2012)		X		
Viljoen, Mordell, & Beneteau (2012)	X	X	X	

.70 are generally considered to show weak-mild predictive accuracy, values between .71 and .80 indicate moderate predictive accuracy, and values above .80 indicate strong predictive accuracy. AUC values between .50 and .60 suggest that predictive accuracy is no better or little better than chance. AUC values between .61 and .64/.65 offer weak evidence of predictive accuracy, as these values fall below the threshold that demonstrates any meaningful level of predictive validity.

Predictive Validity of J-SOAP-II

J-SOAP-II has received the most attention with respect to its psychometric properties and its capacity for predictive validity. J-SOAP-II has also been studied in combination with, and in contrast

to, other juvenile risk assessment instruments, such as ERASOR, JSORRAT-II, and other more general (i.e., nonsexual) juvenile risk assessment instruments.

Table 3 summarizes research findings regarding the predictive validity of J-SOAP-II. AUC values reported in each study for the J-SOAP II total score and the instrument's four subscale scores are presented in the table, in most cases for both sexual and nonsexual or general recidivism predictive accuracy.

Overall, the AUC values reported in table 3 tend to follow an inconsistent pattern across individual studies. AUC values for the J-SOAP-II total score, for instance, range from .51 to .83 for sexual recidivism, indicating that some studies found strong levels of predictive validity while others found that the instrument's predictive accuracy was no better than chance. Similar variation is reported for nonsexual recidivism and for the instrument's four subscales. Variation in the predictive validity of the instrument is even found within individual studies.

The strongest support for the predictive validity of J-SOAP-II arguably comes from the study conducted by Prentky and colleagues (2010). The research examined the predictive validity of the instrument based on an analysis of sexual recidivism for 336 preadolescent and 223 adolescent males using a followup period of 7 years. Two of the researchers who conducted the study were involved in the development of J-SOAP-II. Prentky and colleagues reported total score AUC values of .80 for the preadolescent males and .83 for the adolescent males, who were among the higher risk offenders in the study sample.

However, in a more recent study involving 73 adolescent males who sexually offended, Fanniff and Letourneau (2012) found that the J-SOAP-II total score was only marginally predictive of general recidivism (AUC value of .60) and not predictive of felony recidivism, including sexual recidivism (AUC value of .58). In studying both J-SOAP-II and JSORRAT-II, Viljoen and colleagues (2008) reported that neither instrument reached a level of statistical significance in predicting sexual recidivism. J-SOAP-II demonstrated an AUC value of only .54 for sexual recidivism and an AUC value of .56 for general recidivism. Similarly, Parks and Bard (2006) and Caldwell, Ziemke, and Vitacco (2008) found no relationship between the total score of J-SOAP-II and either sexual or nonsexual recidivism. Chu and colleagues (2012) studied the use of J-SOAP-II in Singapore and also found that the total score was not predictive of sexual recidivism (AUC value of .51); however, the researchers reported that the instrument showed moderate predictive validity for general recidivism (AUC value of .79).

In their study, Rajlic and Gretton (2010) found substantial variation in the predictive accuracy of J-SOAP-II within subgroups of juveniles with histories of sexually abusive behavior who later sexually recidivated. While the researchers reported a sexual recidivism AUC value of .69 (demonstrating mild predictive accuracy) based on an analysis of all 286 study subjects, a higher degree of predictive validity was found among the 128 juveniles who had previously committed only sexual offenses, and a much lower degree of predictive validity was found among study subjects who had previously committed both sexual and nonsexual offenses. For juvenile recidivists who had previously committed only sexual offenses, Rajlic and Gretton reported an AUC value of .80, indicating moderate validity in predicting sexual recidivism. Conversely, the researchers reported an AUC of only .51 in predicting sexual recidivism in the group of 140[12] juveniles who had previously committed both sexual and nonsexual offenses, indicating only chance levels of predictive validity.

Finally, Viljoen, Mordell, and Beneteau (2012) recently conducted a meta-analysis that examined the predictive accuracy of several sexual risk assessment instruments, including J-SOAP-II. Aggregated AUC values were reported for each instrument studied.[13] For J-SOAP-II, the researchers reported aggregated AUC values of .67 for sexual recidivism and .66 for general recidivism, both of which narrowly fall into the range of mild predictive validity. It is important to note, however, that these findings arguably reflect a homogenized view of the instrument's predictive validity rather than a set of consistent or stable validation results across different studies, as aggregated AUC values mask and filter out significant variation in outcomes produced across different studies.

TABLE 3. OVERVIEW OF RESEARCH INTO THE PREDICTIVE VALIDITY OF J-SOAP-II

Study Authors	J-SOAP-II Total Score		J-SOAP-II Subscales							
			Scale 1		Scale 2		Scale 3		Scale 4	
	Type of Recidivism									
	Sex	NS/Gen	Sex	NS/Gen	Sex	NS/Gen	Sex	NS/Gen	Sex	NS/Gen
Aebi et al. (2011)	.65	.61	.51	.47	.74	.66	.50	.57	.74	.60
Caldwell & Dickinson (2009) 1-year followup	NA	NA	.23	.39	.59	.55	NA	NA	NA	NA
Caldwell & Dickinson (2009) 49-month followup	NA	NA	.47	.39	.70	.65	NA	NA	NA	NA
Caldwell, Ziemke, & Vitacco (2008) Cox regression	Not Sig	Not Sig	Not Sig	Not Sig	Not Sig	Not Sig	Sig	Not Sig	Not Sig	Not Sig
Chu et al. (2012)	.51	.79	.72	.52	.37	.71	.41	.79	.55	.69
Fanniff & Letourneau (2012)	.58	.60	NG	NG	.64	.61	NA	.61	NA	NA
Parks & Bard (2006) Cox regression	Not Sig	Not Sig	Not Sig	Not Sig	Sig	Sig	Not Sig	Not Sig	Not Sig	Not Sig
Powers-Sawyer & Miner (2009)	.75	.45	.72	.41	.64	.47	NA	NA	NA	NA
Prentky et al. (2010) Preadolescents	.80	NA	.78	NA	.56	NA	NA	NA	.76	NA

J-SOAP-II Subscales

As previously noted, J-SOAP-II consists of four subscales, each of which produces a risk score. As the data reported in table 3 indicate, research examining the predictive validity of these subscales has also produced inconsistent findings. Wide variations in predictive accuracy are found across studies even within specific subscales. For example, AUC values for sexual recidivism within subscale 1 of J-SOAP-II range from a high of .83 (strong predictive accuracy) to a low of .23 (no better than chance). Similar variation is apparent within other subscales of J-SOAP-II.

Although there is some support in the literature for the predictive validity of J-SOAP-II, the empirical evidence can best be described as inconsistent. In some studies, evidence of predictive accuracy has been found for the total score of J-SOAP-II, while in others the total score was found to be less predictive than the individual subscales of the instrument. Rajlic and Gretton (2010) also found significant differences in the predictive capacity

TABLE 3. OVERVIEW OF RESEARCH INTO THE PREDICTIVE VALIDITY OF J-SOAP-II (continued)

Study Authors	J-SOAP-II Total Score		J-SOAP-II Subscales							
			Scale 1		Scale 2		Scale 3		Scale 4	
	Type of Recidivism									
	Sex	NS/Gen	Sex	NS/Gen	Sex	NS/Gen	Sex	NS/Gen	Sex	NS/Gen
Prentky et al. (2010) Adolescents	.83	NA	.83	NA	.66	NA	NA	NA	.81	NA
Rajlic & Gretton (2010) Total sample	.69	.77	.65	.56	.61	.79	.64	.70	.68	.74
Rajlic & Gretton (2010) Juveniles who commit sexual and nonsexual offenses	.80	.62	.66	.48	.73	.72	.75	.51	.77	.62
Rajlic & Gretton (2010) Juveniles who commit sexual and nonsexual offenses	.51	.74	.59	.51	.41	.72	.51	.73	.53	.69
Viljoen et al. (2008)	.54	.56	.60	.53	.54	.64	.52	.49	.45	.54
Viljoen, Mordell, & Beneteau (2012)	.67	.66	.61	.49	.63	.66	.60	.60	.70	.65
Martinez, Flores, & Rosenfeld (2007)	.78	.76	Static Scale (1 and 2)				Dynamic Scale (3 and 4)			
			Sex		NS/Gen		Sex		NS/Gen	
			.63		.68		.86		.74	

Note: Results shown in AUC (Area Under the Curve) values unless otherwise noted. Sex=sexual recidivism; NS/Gen= nonsexual/general recidivism; NG=value not given; NA=scale not assessed; Sig=significant.

of the instrument based on the composition of the juveniles being assessed. Further, in some independent research, J-SOAP-II has been found to be effective in predicting general but not sexual recidivism. Given these disparate findings, J-SOAP-II cannot at this time be considered to be an empirically validated instrument. Far more research is needed to determine whether the disparate validation findings reflect true weaknesses in the predictive accuracy of the instrument or shortcomings within the validation research undertaken to date. However, as Faniff and Letourneau (2012, p. 403) aptly state:

> Mental health professionals conducting predisposition evaluations should proceed with great caution when interpreting J-SOAP-II scores as part of broader risk assessments. Even when J-SOAP-II is only one source informing clinical judgment, evaluators have been unable to produce valid estimates of risk.

Predictive Validity of ERASOR

ERASOR has not been as widely examined as J-SOAP-II. However, like J-SOAP-II, the available research on ERASOR offers inconsistent and weak support for the predictive validity of the instrument.

Table 4 summarizes research findings concerning the predictive validity of the instrument. AUC values reported in each study for the instrument's clinical rating score and total score are presented for both sexual and general recidivism predictive accuracy. The reader should note that the ERASOR total score is a numerical scoring system assigned by researchers rather than a scale that appears in the instrument itself; it is not likely to be used by practitioners in the field. The instrument employs only a clinical rating system based on the evaluator's judgment of risk associated with the presenting risk factors.

As with J-SOAP-II, the AUC values reported for ERASOR vary considerably across studies. For example, AUC values for the clinical rating score for sexual recidivism range from .86 (high predictive validity) to .54 (no better than chance). Total score AUC values for sexual recidivism range from .93 to .54.

The strongest support for the predictive validity of ERASOR comes from the study conducted by Worling, Bookalam, and Litteljohn (2012). The researchers reported an AUC value of .82 for the sexual recidivism clinical rating score based on a mean followup period of 1.4 years. However, the reported AUC value drops to .61 when the followup period increases to a mean of 3.7 years. Worling and his colleagues suggested that this may reflect the deterioration of accurate risk prediction in still-developing adolescents, and noted that the

TABLE 4. OVERVIEW OF RESEARCH INTO THE PREDICTIVE VALIDITY OF ERASOR

Study Authors	Total Score		Clinical Rating	
	Sexual Recidivism	General Recidivism	Sexual Recidivism	General Recidivism
Chu et al. (2012)	.74	.66	.83	.69
Rajlic & Gretton (2010) Total sample	.71	.70	.67	.71
Rajlic & Gretton (2010) Juveniles who commit sexual offenses only	.86	.66	.77	.64
Rajlic & Gretton (2010) Juveniles who commit sexual and nonsexual offenses	.54	.61	.54	.58
Viljoen et al. (2009)	.60	.53	.64	.50
Viljoen, Mordell, & Beneteau (2012)	.66	.59	.66	.59
Worling, Bookalam, & Litteljohn (2012) 7.9-year followup (mean 3.7 years)	.72	.65*	.61	.61
Worling, Bookalam, & Litteljohn (2012) 2.5-year followup (mean 1.4 years)	.93	.62*	.82	.62

Note: Results shown in AUC (Area Under the Curve) values.

* Nonsexual violent crimes only. Rates for nonviolent crimes are not reported in this chapter.

instrument is intended to measure risk in a 2-year period. In discussing their findings, Worling, Bookalam, and Litteljohn (2012, p. 14) stated:

> The fact that more contemporaneous ratings were … more predictive of subsequent sexual offending suggests that it is important for clinicians to reassess adolescents and that clinical and forensic decisions are likely to be more accurate if they are based on more recent risk assessments.

Indeed, the study conducted by Worling—one of the instrument's developers—and his colleagues shows variability in results depending on what is measured, when it is measured, and how it is measured. AUC values range from .61 to .82 for the clinical rating score, and from .72 to .93 for the total score in this study.

Although Worling, Bookalam, and Litteljohn (2012) have argued that the results of their study provide support for the predictive validity of ERASOR regarding sexual recidivism, their results varied depending on the length of the followup period and how the instrument was scored. Moreover, Worling and colleagues, like others, studied ERASOR in ways that most field evaluators may not apply the instrument, using: (1) the **total number** of risk factors assessed to be present, (2) a **total score** based on assigning numerical values to each risk factor, and (3) a **clinical rating** scale based on the final judgment of the evaluator (which is the way in which ERASOR is scored, and is designed to be scored, in its use in the field). As noted, based on the design of and instructions for ERASOR, it is the clinical rating score that is most likely to be used in the field.

While some studies other than that conducted by Worling and his colleagues (2012) have found moderate to high levels of sexual recidivism predictive accuracy associated with the ERASOR clinical rating score, others have not produced similar results. For example, Chu and colleagues (2012) reported an AUC value of .83 for the ERASOR clinical scale, indicating moderate to strong predictive validity for sexual recidivism. However, Viljoen and colleagues (2009) examined the predictive validity of ERASOR as part of a larger study of risk assessment instruments and reported an AUC value of only .64, concluding that the instrument did not yield significant predictive validity for accurately or dependably predicting juvenile sexual recidivism.[14]

In their study, Rajlic and Gretton (2010) reported that ERASOR was moderately predictive of sexual recidivism, with an overall AUC value of .71 for the total score and .67 for the clinical rating score. When used to evaluate risk for sexual recidivism among juveniles who had previously committed **only** sexual offenses, ERASOR yielded an AUC of .86 for the total score and .77 for the clinical rating score. However, when used to evaluate predictive validity for sexual recidivism for juvenile sexual offenders who had previously committed both sexual **and** nonsexual offenses, ERASOR resulted in an AUC value of only .54 for both the clinical rating and total score, failing to show predictive validity.

Finally, in their meta-analysis consolidating the results from 33 studies, Viljoen, Mordell, and Beneteau (2012) reported aggregate AUC values for ERASOR of .66 for sexual recidivism and .59 for nonsexual recidivism. Even though an aggregate score potentially inflates the AUC value, Viljoen and colleagues' results still produce only marginal evidence of predictive validity for the instrument. Based on the evidence, ERASOR may be considered a promising but not an empirically validated instrument.

Predictive Validity of JSORRAT-II

JSORRAT-II is the first actuarial risk assessment instrument available for use with juveniles who sexually offend. Although it is still undergoing validation, the introduction of JSORRAT-II has added a significant new dimension to the assessment of juveniles who commit sexual offenses. However, few studies focusing on JSORRAT-II have been undertaken to date, and their findings offer little empirical support for the predictive validity of the instrument.

Table 5 summarizes research findings from five studies that examined the predictive validity of JSORRAT-II. AUC values reported in each study for

the instrument's sexual and nonsexual recidivism predictive validity are presented in the table. Again, the research has produced mixed results. AUC values for sexual recidivism range from a high of .89 (strong predictive validity) to a low of .53 (predictive validity that is no better than chance).

The strongest support for the predictive validity of JSORRAT-II comes from a study conducted by the instrument's developers, Epperson and colleagues (2006). In their 2006 study based on an initial sample of 636 adjudicated male juveniles who committed sexual offenses, Epperson and colleagues (2006) reported an AUC value of .89 for predicting sexual recidivism prior to age 18, and an AUC value of .79 for predicting sexual recidivism any time (prior to or after age 18). Both values reflect strong predictive accuracy. However, in examining the instrument's capacity to accurately predict sexual recidivism only **after** age 18, Epperson and colleagues reported an AUC value of .64, indicating weak predictive validity. This led the researchers to speculate that different risk factors may be at play for young adult recidivists compared to juvenile recidivists. In a more recent study, Ralston and Epperson (2012) reported an AUC value of .70 for the instrument's capacity to predict sexual recidivism, indicating weak to mild predictive accuracy.

However, other studies focusing on JSORRAT-II have not found the same level of predictive validity that Epperson and colleagues found in their 2006 study or Ralston and Epperson found in their 2012 study. In the only truly independent study of the instrument, Viljoen and colleagues (2008) found no evidence of predictive validity for either sexual or nonsexual recidivism, reporting AUC values of .53 for sexual recidivism and .54 for general recidivism. In their meta-analysis of juvenile risk assessment instrument validation studies, Viljoen, Mordell, and Beneteau (2012) reported an aggregated AUC value of .64 (which included the AUC values previously reported by Epperson and colleagues) for the capacity of JSORRAT-II to predict juvenile sexual recidivism, which falls just below a marginal level of predictive validity despite the aggregated score. Despite the strong AUC values Epperson and colleagues found in their 2006 study, in two subsequent studies Epperson and Ralston (2009) and Epperson, Ralston, and Edwards (2009) reported sexual recidivism AUC values for JSORRAT-II of only .66 and.65, respectively.

In summary, relatively few studies have examined the predictive validity of JSORRAT-II. While there is some evidence supporting the instrument's capacity for accurately predicting sexual recidivism for juveniles prior to age 18, only two JSORRAT-II validation studies undertaken to date have been conducted by independent researchers, and both of these studies have failed to demonstrate that the instrument has a high degree of predictive accuracy overall. Given the limited body of research on the instrument and the considerable variation in findings, JSORRAT-II cannot yet be considered an empirically validated instrument.

TABLE 5. OVERVIEW OF JSORRAT-II RESEARCH

Study Authors	JSORRAT-II	
	Sexual Recidivism	General or Nonsexual Recidivism
Epperson et al. (2006)	.89*	NA
Epperson & Ralston (2009); Epperson, Ralston, & Edwards (2009)	.65–.66	NA
Ralston & Epperson (2012)	.70	.54
Viljoen et al. (2008)	.53	.54
Viljoen, Mordell, & Beneteau (2012)	.64	NA

Note: Results shown in AUC (Area Under the Curve) values.

* AUC value for sexual recidivism prior to age 18. The AUC value for sexual recidivism at any time is .79.

State-Specific Juvenile Risk Assessment Instruments

In addition to the three instruments discussed above, a handful of state-specific juvenile risk assessment instruments have been developed and placed into use to meet state requirements for sexual offender registration. (For more information on registration, see chapter 6, "Registration and Notification of Juveniles Who Commit Sexual Offenses," in the Juvenile section.) Structured and empirically based risk assessment instruments have been developed and tailored for use in Texas (Texas Juvenile Sex Offender Risk Assessment Instrument), New Jersey (Juvenile Risk Assessment Scale: JRAS), and Wisconsin (Wisconsin Department of Corrections Guidelines for Release). However, none of these instruments are based on actuarial validation, nor are they empirically validated (Vitacco et al., 2009). Caldwell, Ziemke, and Vitacco (2008) concluded that the risk constructs underlying the instruments were not valid, and that none of the three instruments predicts sexual recidivism.

> *"No juvenile risk assessment instrument has demonstrated consistent predictive validity."*

One study has been completed on JRAS (used in New Jersey). It was conducted by the instrument's developers, Hiscox, Witt, and Haran (2007). The study followed 231 adjudicated male adolescent sexual offenders for an average followup period of 8.5 years and found that one of the three primary factors of JRAS—the antisocial factor—was moderately predictive of nonsexual recidivism and mildly predictive of sexual recidivism. AUC values of .70 and .67 were found for nonsexual and sexual recidivism, respectively. The instrument's sexual deviance factor proved not to be predictive of either sexual or nonsexual recidivism. In terms of the number of youth assessed at a risk level that correctly matched actual recidivism, only 19 percent of youth assessed at moderate risk and 25 percent of youth assessed at high risk actually sexually recidivated; there were false positive rates of 81 percent and 75 percent for youth assessed at moderate and high risk, respectively.

Validation of the In-Development MEGA Instrument

The Multiplex Empirically Guided Inventory of Ecological Aggregates for Assessing Sexually Abusive Adolescents and Children (MEGA) is a structured clinical risk assessment instrument currently in development. The instrument is not yet available for use in the field; however, it has undergone preliminary validation studies (conducted by its developer) that have focused on the instrument's internal construction and consistency (Miccio-Fonseca, 2009, 2010). While those studies have reported evidence of strong item consistency, no other studies (particularly independent studies) have yet been published regarding other important properties of the instrument, including inter-rater reliability and predictive validity.

MEGA is being developed for use with males and females ages 5–19 and of all IQ levels; this is a remarkably wide range of potentially applicable assessment subjects for a single risk assessment instrument. While the practical benefits of having a single instrument that can be used with so many different subjects are many, targeting such a wide range of subjects with a single instrument (in terms of age, gender, and cognitive capacity) may inadvertently undermine the instrument's capacity to predict recidivism accurately. In a recent study of almost 1,400 juvenile offenders, van der Put and colleagues (2011) found that the effect of both static and dynamic risk factors on recidivism, and hence predictive validity, varied by adolescent age. The researchers suggested not only that different risk assessment instruments be used for juveniles and adults, but that different instruments be used for different age groups **within** adolescence as well.

Summary

Although some empirical support for the predictive validity of J-SOAP-II, ERASOR, and JSORRAT-II can be found in the literature, the instruments do not perform in a manner that suggests or proves their ability to accurately predict juvenile sexual recidivism (Caldwell et al., 2008; Viljoen et al., 2009; Vitacco, Viljoen, & Petrila, 2009). As

Knight, Ronis, and Zakireh (2009) have stated, the relatively few studies of juvenile risk assessment instruments undertaken to date have not produced consistent evidence that either J-SOAP-II, ERASOR, or JSORRAT-II are effective in predicting sexual recidivism.[15] Tests of the predictive accuracy of the instruments conducted by independent investigators have typically yielded mixed to poor results for both sexual and nonsexual risk, especially for the prediction of sexual recidivism. Hence, none of the instruments has a consistently demonstrated record of predictive validity and, as Viljoen, Mordell, and Beneteau (2012) note, juvenile risk assessment instruments may be insufficient to make predictions that require a high degree of precision, such as in situations when the civil commitment of juveniles who commit sexual offenses or the placement of juveniles on lifetime sexual offender registries is at stake. As Fanniff and Letourneau (2012, pp. 403–404) aptly state:

> Until existing or new instruments are better validated, evaluations in this context will remain a complex balancing act between the need to provide the courts and other stakeholders with useful information and the serious limitations in empirically based knowledge about sexual risk.

Protective Factors in Assessments of Juvenile Risk

Although risk factors are the foundation of virtually all risk assessment instruments, in recent years more attention has been given to protective factors and their role in mitigating the effects of risk factors. Protective factors have been described in the child and adolescent development literature, and their role in delinquency prevention has long been recognized. Their appearance in the forensic literature and consideration in the process of evaluating and treating risk for juvenile sexual recidivism, however, are both relatively new.

The relationship between risk and protective factors is complex. Jessor and colleagues (1995) describe risk and protection as opposite ends of the same constructs and thus highly correlated, making it difficult to fully understand the role of protection. However, Hall and colleagues (2012) view risk and protective factors as conceptually distinct (rather than opposite ends of a single dimension) and assert that it is not only possible but essential to conceptualize and define risk and protective factors independently from one another. Regardless of which position is right, it remains difficult to estimate the effects protective factors have on risk, even though the process of risk assessment arguably must take protective factors into account.

In his critique of forensic risk assessment in general, Rogers (2000) describes assessment as inherently flawed if it pays attention only to risk factors without consideration of the presence, weight, and action of protective factors. Similarly, Rutter (2003, p. 10) stated, "It seems obvious that attention must be paid to the possibility of factors that protect against antisocial behavior as well as to those that predispose to it." Although not referring to protective factors per se, in describing clinical predictions of risk Monahan (1995) noted the importance of giving balanced consideration to factors that indicate the absence of violent behavior as well as those that suggest the recurrence of violence. Finally, several researchers have described the mitigating effects protective factors can have on risk, noting that these effects have direct implications for programming to reduce violent recidivism, as both risk and protective factors should be targets of intervention and treatment efforts (Lodewijks, de Ruiter, & Doreleijers, 2010; Stouthamer-Loeber et al., 2002). Indeed, Lodewijks, de Ruiter, and Doreleijers (2010, p. 584) stated, "We can safely conclude that protective factors should be an inextricable part of all risk assessment instruments used with youth."

> *"Despite their importance in mitigating risk, protective factors are incorporated in few juvenile instruments at this time."*

Despite the apparent importance of protective factors, few of the instruments commonly used with juveniles incorporate protective factors, and those that do either have no empirical support or are in development and have not yet been empirically

validated. In fact, Worling, Bookalam, and Litteljohn (2012) noted that very little research regarding factors that lead to the cessation of sexual offending behaviors for juveniles has been undertaken to date, and that it will be important for future research to identify protective factors and determine how best to combine risk and protective factors to enhance judgments of future sexual behavior.

One of the only studies to examine the relationship of risk and protective factors to sexual and nonsexual recidivism was recently conducted by Spice and colleagues (2013) using a sample of adolescent males who committed sexual offenses. Although the study failed to find any protective factors that were statistically related to sexual recidivism or desistance, study findings did suggest there may be protective factors that are specific to sexual rather than nonsexual recidivism. Like Worling, Bookalam, and Litteljohn (2012), the researchers called for more research on both risk and protective factors and the roles they play in sexual offending, and they specifically noted the need for studies that examine whether there are protective factors that apply to sexually abusive youth specifically.

A handful of risk assessment tools developed in recent years also are worth noting due to their assimilation of protective factors. These include AIM2 (Print et al., 2007), the Juvenile Risk Assessment Tool (J-RAT) (Rich, 2011), and the previously mentioned MEGA (Miccio-Fonseca, 2010. AIM2 (Print et al., 2007), developed for use in the United Kingdom, is not defined by its developers as a risk assessment instrument per se, but rather as a process for determining the level of supervision required by adolescents who commit sexual offenses. It assesses static and dynamic variants of both risk and protection, although risk factors are described as "concerns" (rather than risks) and protective factors are described as "strengths." AIM2 has not yet received any empirical validation of either its risk or protective scales. J-RAT (Rich, 2011) is a clinical risk assessment instrument for juvenile sexual recidivism that also incorporates a protective factor scale. Like AIM2, it has not been subjected to any statistical testing and can only be considered as a theoretical scale at this time. MEGA (Miccio-Fonseca, 2010) is a juvenile risk assessment instrument that incorporates an integrated protective factor scale, but it is currently in development and has no research support.

Finally, the Protective Factors Scale (PFS) (Bremer, 2006) is not a risk assessment instrument, but it was nevertheless developed specifically for work with sexually abusive youth and its sexuality scale reviews three elements specifically related to such behavior. However, PFS has received scant attention from researchers and practitioners. It has not been subject to any form of empirical validation and is not in general use in the field.

Summary

Research concerning the factors that place juveniles at risk for sexual offending behavior and sexual recidivism is still in its infancy, as is research on the capacity of risk assessment instruments to accurately predict risk for sexual recidivism. Nevertheless, studies that have been undertaken to date provide some important insights about both issues.

First, the range of risk factors for juvenile sexual offending behavior and recidivism is relatively well defined, and the **types and classes** of factors that place youth at risk for sexually abusive behavior or sexual recidivism have been identified. However, our understanding of these factors and how they relate to sexual offending tends to be global rather than specific in nature. The role and effect of risk factors is fairly well understood, but the specific mechanisms through which risk factors develop and ultimately impact the behavior of children and adolescents are not. The effects of risk factors in different circumstances and their interactions with one another are particularly obscure. Moreover, research has not yet produced a universally agreed upon, finite, and valid set of risk factors for sexually offending behavior.

Second, the risk assessment instruments that currently are available for use with juveniles who sexually offend are far from empirically validated. In short, there is a lack of consistent, independently corroborated empirical evidence concerning both the inter-rater reliability and predictive validity of juvenile risk assessments that

are available for use at this time, making it difficult to conclude with any degree of confidence that the instruments are scientifically valid. This raises concerns about the capacity of such instruments to reliably and accurately predict the risk of juvenile sexual recidivism or to inform either juvenile court decisions or public policy debates. While some validation research has produced promising findings, the evidence concerning the predictive accuracy of various instruments is mixed and inconsistent overall. Thus, Vitacco and colleagues (2009) describe current instruments as important developmental milestones in further refining the risk assessment process and method, but far from complete. Viljoen, Mordell, and Beneteau (2012) also warn that such instruments are not yet capable of making precise and certain estimates of risk and should thus be used cautiously in legal procedures, such as the civil commitment of juveniles who commit sexual offenses or their placement onto sex offender registries.

Third, given the developmental processes that characterize both childhood and adolescence, there is a clear need for juvenile risk assessment instruments and processes to focus on estimates of short-term rather than long-term risk (Fanniff & Letourneau, 2012; Vitacco et al., 2009; Worling, Bookalam, & Litteljohn, 2012). **Participants in the SOMAPI forum expressed concern that estimates of risk more than 1 to 3 years into the future are unlikely to account sufficiently for the fluid nature of child and adolescent development.** However, the adoption of a short-term assessment model will likely mean that the manner in which juvenile risk instruments are used and researched will have to significantly change.

Finally, Rich (2011) and Spice and colleagues (2013) have argued that there is a need for future research to study not only risk factors and the accuracy of risk assessment instruments, but also the nature of risk itself. They further argue that risk assessment instruments should be used as a platform for case management and treatment rather than for making "passive predictions of limited practical use" (Boer et al., 1997, p. 4). In this vein, Viljoen, Mordell, and Beneteau (2012) write that despite the research focus on the prediction of sexual recidivism, these instruments are also intended to help manage risk and plan treatment to prevent reoffense. They note that increased attention to the utility of tools for these purposes will enable us to move beyond the **prediction** of sexual reoffense toward the **prevention** of sexual reoffense.

Regardless of the strength of the instrument, sound risk assessment requires well-trained risk evaluators who do not simply rely on risk scores when making decisions about a juvenile offender, particularly decisions with potentially lifelong consequences. As described in the psychological evaluation guidelines of the American Psychological Association (Turner et al., 2001), risk evaluators should use their professional training and knowledge of psychology, human behavior, and social interactions to draw **clinical** conclusions. Even when using an actuarial assessment tool, it remains important for the evaluator to apply clinical judgment in the risk assessment process.

Indeed, **SOMAPI national forum participants noted that there is a need for the provision of federally funded training and technical assistance to ensure the development of well-trained evaluators who understand the nature of the risk assessment process and the limitations of assessment instruments that are currently available.** Well-trained, knowledgeable evaluators are the best defense against the pitfalls associated with erroneous assumptions concerning the predictive accuracy or use of risk assessment instruments for juveniles who sexually offend. Anyone who uses the results of juvenile risk assessments also must understand the strengths and weaknesses of the risk assessment process and the limitations of risk assessment instruments in use today, particularly the lack of empirical evidence demonstrating their predictive accuracy.

Perhaps most important, risk assessment instruments must be integrated into a comprehensive assessment process that produces a thorough understanding of the juvenile who is being assessed. Risk assessment instruments certainly can play an important role in the process, but their current value arguably lies more in their ability to serve as a basis for case management and treatment rather than in their capacity to accurately predict risk. The role that risk assessment instruments can play in identifying the presence of dynamic risk factors that provide

targets for treatment is particularly important, as is the role they can play in identifying the presence of protective factors and their potentially mitigating effects on risk. Indeed, **participants in the 2012 SOMAPI forum recommended that protective factors be incorporated into juvenile risk assessment instruments, both those currently in use and those that will be developed in the future.** Future research should be concerned with expanding the knowledge base concerning both risk and protective factors, including the mechanisms through which they affect the propensity to reoffend, particularly in combination with one another.

Finally, **better risk assessment instruments for juveniles who sexually offend and better trained evaluators are both needed.** In describing the "covenant" between the developers and users of risk assessment instruments, Rich (2009) recently underscored how important well-designed instruments and trained, experienced evaluators are for effective professional practice. As Ward, Gannon, and Birgden (2007, p. 207) aptly stated in discussing the responsibility of the instrument end user:

> Practitioners have obligations to always use such measures appropriately, ensure they are trained in their administration, and most importantly, make sure that the assessment process culminates in an etiological formulation that is based around the individual's features alongside those they share with other offenders.

Notes

1. The base rate refers to the frequency with which a defined situation occurs, or its incidence rate.

2. Juvenile Sex Offender Assessment Protocol-II (J-SOAP-II).

3. Juvenile Sexual Offense Recidivism Risk Assessment Tool-II (JSORRAT-II).

4. Inter-rater reliability refers to the consistency of a measure or tool in giving the same result when the same information is collected and assessed by different evaluators.

5. Rich (2011) identified 101 different risk factors for juvenile sexually abusive behavior, and more have since been described in the literature.

6. The meta-analysis involved a combined sample of almost 3,900 adolescent male sexual offenders. In this meta-analysis, Seto and Lalumière described deviant sexual interest as "atypical" sexual interest.

7. Overall, this meta-analysis involved 18 studies and more than 3,100 juveniles.

8. The meta-analysis involved nine studies.

9. An intra-class correlation coefficient greater than 0.75 indicates a high level of inter-rater consistency.

10. However, Receiver Operating Characteristic scores and resulting Area Under the Curve values have been increasingly used in the assessment of the predictive validity of risk assessment instruments.

11. The incidence rate at which sexual recidivism occurs among sexual offenders.

12. Eighteen juveniles were excluded from the breakdown into subgroups due to unavailable data regarding prior sexual and nonsexual offenses.

13. Viljoen and colleagues studied J-SOAP-II, ERASOR, JSORRAT-II, and Static-99, an adult risk assessment instrument. Overall, the meta-analysis consolidated 33 studies involving more than 6,000 male adolescent sexual offenders.

14. The other instruments in the study were the Hare Psychopathy Checklist: Youth Version (PCL:YV) and the Youth Level of Service/Case Management Inventory (YLS/CMI), which are designed to assess and predict risk for juvenile nonsexual violence and aggression, respectively; and Static-99, an adult actuarial risk assessment instrument.

15. Also see Hempel et al. (2011). In their review of juvenile sexual risk assessment instruments, the researchers conclude that "the predictive validities of the risk assessment instruments for JSOs are still insufficient to accurately predict recidivism" (p. 16).

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Chapter 5: Effectiveness of Treatment for Juveniles Who Sexually Offend

by Roger Przybylski

Introduction

Sex offenders have received considerable attention in recent years from both policymakers and the public. This is due at least in part to the profound impact that sex crimes have on victims and the larger community. While most perpetrators of sex crimes are adults, a significant percentage of sexual offenders are under age 18.

Given the prevalence of sexual offending by juveniles, and the potential links between sexually abusive behavior during adolescence or childhood and sexual offending later in life, therapeutic interventions for juveniles have become a staple of sex offender management practice in jurisdictions across the country. Indeed, the number of treatment programs for juveniles who commit a sexual offense has increased significantly over the past 30 years. Worling and Curwen (2000), for example, reported that only one specialized treatment program for adolescent sexual offenders was operating in the United States in 1975. By 1995, the number of programs serving juveniles had increased to more than 600. In 2008, more than one-half (699) of the approximately 1,300 sex-offender-specific treatment programs operating in the United States provided treatment services to juveniles. While most (494) of the juvenile programs in 2008 provided treatment services to adolescents, about 30 percent (205) provided services to children 11 years old and younger. Overall, adolescents accounted for about 23 percent and children 11 years old and younger accounted for about 3 percent of all clients (adult and juvenile) treated in sex-offender-specific treatment programs in the United States in 2008 (McGrath et al., 2010).

Treatment approaches for juveniles who commit sexual offenses also have changed since the 1970s.

FINDINGS

- Single studies have consistently found at least modest treatment effects for both sexual and nonsexual recidivism.
- Meta-analysis studies have also consistently found that sex offender treatment works, particularly multisystemic and cognitive-behavioral treatment approaches.
- Cost-benefit analysis also demonstrates that sex offender treatment programs for youth can provide a positive return on taxpayer investment.

For many years, treatment for juveniles was largely based on models used with adult sexual offenders. However, as knowledge about the developmental, motivational, and behavioral differences between juvenile and adult sexual offenders has increased, therapeutic interventions for juveniles have become more responsive to the diversity of sexually abusive behaviors and the specific offending-related factors found among adolescents and children.

> *"Juveniles who commit sexual offenses are diverse in terms of their offending behaviors and future public safety risk."*

Juveniles who commit sexual offenses are clearly quite diverse in terms of their offending behaviors and future risk to public safety. In fact, they appear to have far more in common with other juvenile delinquents than they do with adult sexual offenders. This is a common theme in the literature, and the diversity found in the offending behavior and risk levels of juveniles who commit sexual offenses, as well as **the dissimilarity that exists between juveniles who commit sexual offenses and**

their adult counterparts, were both acknowledged by the experts at the SOMAPI forum. Juveniles are generally more impulsive and less aware of the consequences of their behavior than adults. And while a few sexually abusive behaviors in youth are compulsive and reflective of a recurrent pattern of social deviance, others may be more isolated and **not** indicative of a long-term behavior pattern. Therapeutic interventions for juveniles are increasingly taking this diversity into account, along with family, peer, and other social correlates that are related to sexually abusive behavior in youth. Still, it appears that far more change is needed. As Letourneau and Borduin (2008, pp. 290–291) have pointed out:

> Although the research literature reviewed earlier strongly indicates that sexually offending youths are influenced by multiple ecological systems, most current treatments focus heavily on presumed psychosocial deficits in the individual youth .... Another problem with the predominant approaches to treatment is the fact that many sexually offending youths desist from future offending (even in the absence of intervention).

While there is strong scientific evidence that therapeutic interventions work for criminal offenders overall, the effectiveness of treatment for sexual offenders—whether juveniles or adults—has been subject to considerable debate. Some people argue that treatment can be at least modestly effective. Others are uncertain or outright skeptical that sex offender treatment works. While inconsistent research findings and measurement shortcomings no doubt have contributed to the ongoing controversy, a body of scientific evidence has emerged in recent years suggesting that therapeutic interventions for juveniles who commit sexual offenses can and do work.

"Many sexually offending youth desist from future offending, even in the absence of intervention."

This chapter reviews the scientific evidence on the effectiveness of treatment for juveniles who commit sexual offenses. It was developed to support informed policy and program development at the federal, state, and local levels. The chapter summarizes what is scientifically known about the impact of treatment on the recidivism of juveniles who sexually offend. (For more information on "Recidivism of Juveniles Who Commit Sexual Offenses ,"see chapter 3 in the Juvenile section.) It presents key, up-to-date research findings from single studies of treatment effectiveness as well as from research that synthesizes information from multiple treatment effectiveness studies.

Issues To Consider

While there is growing interest in crime control strategies that are based on scientific evidence, determining what works is not an easy task. It is not uncommon for studies of the same phenomena to produce ambiguous or even conflicting results, and there are many examples of empirical evidence misleading crime control policy and practice because shortcomings in the quality of the research were overlooked (see, for example, Sherman, 2003, and McCord, 2003). The importance of basing conclusions about what works on highly trustworthy and credible evidence cannot be overstated, and both the quality and consistency of the research evidence has to be considered.

Single Studies

In the field of criminology, there is general agreement that certain types of single studies—namely, well-designed and executed experiments, or randomized controlled trials (RCTs)—provide the most trustworthy evidence about an intervention's effectiveness (Sherman et al., 1998; MacKenzie, 2006; Farrington & Welsh, 2007).[1]

While RCTs are an important method for determining the effectiveness of an intervention, they can be difficult to implement in real-life settings. RCTs are expensive and require a level of organizational (and at times, community) cooperation that can be difficult to obtain.).[2] In practice, various constraints can preclude an evaluator from using an RCT, and relatively few of these studies have been used in the assessment of sex offender treatment.

When RCTs cannot be used, researchers examining the effectiveness of an intervention typically employ the next best approach, a quasi-experiment. Many quasi-experiments are similar to RCTs, but they do not employ random assignment. These studies typically involve a comparison of outcomes—such as recidivism—observed for treatment participants and a comparison group of individuals who did not participate in treatment. In this approach, researchers try to ensure that the treated and comparison subjects are similar in all ways but one: participation in the treatment program.[3] When treatment and comparison subjects are closely matched, the study can be capable of producing highly trustworthy findings.

Synthesis Research: Systematic Reviews and Meta-Analysis

There also is agreement in the scientific community that single studies are rarely definitive (Lipsey, 2002; Petrosino & Lavenberg, 2007; Beech et al., 2007). Individual studies with seminal findings certainly do exist, but single studies—even RCTs—can produce misleading results (Lipsey, 2002). Hence, single-study findings must be replicated before meaningful conclusions can be made, and the effectiveness of an intervention can best be understood by examining findings from many different studies (Petticrew, 2007). Researchers typically accomplish this through synthesis research, such as a systematic review. A systematic review adheres to a preestablished protocol to locate, appraise, and synthesize information from all relevant scientific studies on a particular topic (Petrosino & Lavenberg, 2007). Methodological quality considerations are a standard feature of most systematic reviews today, and studies that fail to reach a specified standard of scientific rigor are typically excluded from the analysis.[4]

Systematic reviews are increasingly incorporating a statistical procedure called meta-analysis. In practice, meta-analysis combines the results of many evaluations into one large study with many subjects. This is important because single studies based on a small number of subjects can produce distorted findings about a program's effectiveness (Lipsey, 2002). By pooling the subjects from the original studies, meta-analysis counteracts a common methodological problem in evaluation research—small sample size—thereby helping the analyst draw more accurate and generalizable conclusions.[5] In addition, meta-analysis focuses on the magnitude of effects found across studies rather than their statistical significance. Determining effect sizes is important because, as Lipsey (2002) points out, an outcome evaluation of an individual program "can easily fail to attain statistical significance for what are, nonetheless, meaningful program effects." Hence, effect size statistics provide the researcher with a more representative estimate of the intervention's effectiveness than estimates derived from any single study or from multistudy synthesis techniques that simply calculate the proportion of observed effects that are statistically significant. When systematic reviews and meta-analyses are done well, they provide the most trustworthy and credible evidence about an intervention's effectiveness.

Summary of Research Findings

Findings From Single Studies

Several single studies examining the effectiveness of treatment programs for juveniles who sexually offend have been undertaken in recent years, and these studies have consistently found at least modest treatment effects on both sexual and nonsexual recidivism. Worling and Curwen (2000), for example, used a quasi-experimental design to examine the effectiveness of a specialized community-based treatment program that provided therapeutic services to adolescents and children with sexual behavior problems and their families. While treatment plans were individually tailored for each offender and his or her family, cognitive-behavioral and relapse prevention strategies were used, and offenders typically were involved in concurrent group, individual, and family therapy. Recidivism rates were calculated using survival analysis for a treatment group consisting of 58 adolescents (53 males and 5 females) and a comparison group consisting of 90 adolescents (86 males and 4 females). Comparison group subjects consisted of three subgroups: juveniles who refused

treatment, juveniles who received an assessment in the program only, and juveniles who dropped out of the community-based program prior to completing 12 months of treatment.[6] To determine potential effects of group differences, the researchers also examined whether the treatment and comparison group subjects differed in any meaningful way on various factors related to recidivism (e.g., prior criminal history, offender demographics, victim characteristics); no significant differences between the treatment and comparison group subjects were found.

Based on a 10-year followup period, Worling and Curwen (2000) found that the juveniles in the treatment group had significantly better outcomes than comparison group members on several measures of recidivism (see table 1).[7] For example, the sexual recidivism rate was 5 percent for the treatment group compared to 18 percent for the combined comparison group. The recidivism rates for any offense were 35 percent for the treatment group and 54 percent for the combined comparison group. In fact, for every measure of recidivism employed in the study, the treatment group had lower recidivism rates than comparison group members who either refused treatment, received an assessment only, or dropped out of the program prior to completing 12 months of treatment.

In 2010, Worling, Litteljohn, and Bookalam reported findings from a followup analysis that extended the followup period for the original sample of study subjects to 20 years. Study subjects were, on average, 31.5 years old at the end of the 20-year followup period. The analysis demonstrated that the positive treatment effects originally observed by Worling and Curwen (2000) using a 10-year followup period had persisted over a longer period of time.

The 2010 analysis by Worling, Littlejohn, and Bookalam mirrored Worling and Curwen's (2000) original investigation in the following ways. First, recidivism was examined using charges for sexual, nonsexual violent, nonviolent, and any new offense. Second, comparison group subjects consisted of three subgroups: juveniles who refused treatment, juveniles who received an assessment in the program only, and juveniles who dropped out of the community-based program prior to completing 12 months of treatment. Third, the researchers examined whether the treatment and comparison group subjects differed in any meaningful way on various factors related to recidivism, and no significant differences were found. Treatment and comparison group subjects were not significantly different in terms of personal characteristics, offense characteristics, or any of the assessment test scores examined (Worling, Littlejohn, & Bookalam, 2010). (For more information on the "Assessment of Risk for Sexual Reoffense in Juveniles Who Commit Sexual Offenses," see chapter 4 in the Juvenile section.)

Based on the 20-year followup period, Worling and his colleagues (2010) found that adolescents who participated in specialized treatment were significantly less likely than comparison group

TABLE 1. RECIDIVISM RATES FOR TREATMENT VS. COMPARISON GROUPS

Recidivism Measure	10-Year Recidivism Rate (%)		20-Year Recidivism Rate (%)	
	Treatment Group (n=58)	Comparison Group (n=90)	Treatment Group (n=58)	Comparison Group (n=90)
Sexual charge	5*	18	9*	21
Nonsexual violent charge	19*	32	22*	39
Any charge	35**	54	38*	57

* $p < .05$.

** $p < .01$.

Sources: Worling & Curwen, 2000; Worling, Litteljohn, & Bookalam, 2010.

members to receive subsequent charges for sexual, nonsexual violent, nonviolent, or any crime (see table 1). Interestingly, the 20-year recidivism rates reflect only small increases over the 10-year recidivism rates reported by Worling and Curwen (2000). In discussing their findings, Worling and his colleagues (2010, p. 56) concluded:

> The results of this investigation suggest that specialized treatment for adolescents who offend sexually leads to significant reductions in both sexual and nonsexual reoffending—even up to 20 years following the initial assessment .... The results of this investigation also support the finding that only a minority of adolescents who offend sexually are likely to be charged for sexual crimes by their late 20s or early 30s.

Another study that found positive treatment effects was conducted by Waite and colleagues (2005). The researchers examined treatment effectiveness using a sample of juveniles who had been incarcerated for sexual offenses. The study compared the recidivism outcomes of two groups. One consisted of juveniles who participated in an intensive sex offender treatment program in a specialized, self-contained living unit of the correctional facility. The other consisted of juveniles who received less intensive treatment and remained housed within the general population of the correctional facility. Several recidivism outcomes were examined using a 10-year followup period. While the study did not employ random assignment or an equivalent "no-treatment" comparison group, it is one of the few studies to examine treatment effectiveness for incarcerated juveniles who have committed sexual offenses. The researchers found that study subjects who participated in the more intensive, self-contained treatment program had lower recidivism rates for any crime (47 percent compared to 71 percent) and for nonsexual violent crime (31 percent compared to 47 percent) than the incarcerated juveniles who received less intensive treatment and who remained housed in the facility's general population. The sexual recidivism rates for the two groups, however, were not significantly different (about 5 percent for both the treatment and comparison groups).

Finally, Seabloom and colleagues (2003) examined the effects of a community-based treatment program for juveniles who sexually offend. Treatment was based on principles of sexual health and it involved individual, group, and family therapy. Based on an average followup period of about 18 years, the researchers found that treated juveniles had a lower sexual recidivism rate than untreated juveniles. Positive treatment effects also were reported by Wolk (2005). Based on a 3-year followup period, treated juveniles had a recidivism rate of 26 percent for any offense compared to a rate of 60 percent for untreated juveniles.

Although none of the evaluations referenced above randomly assigned study subjects to treatment and control conditions, a series of studies focusing on the use of multisystemic therapy (MST) with juveniles who sexually offend have employed an experimental—or RCT—design. MST is a community-based intervention that has been used with serious and chronic juvenile offenders in jurisdictions across the country. It was developed in the late 1970s based on the premise that individual, family, and environmental factors all play a role in shaping antisocial behavior. MST works within multiple systems (i.e., individual, family, school) to address the various causes of a child's delinquency (Henggeler, 1997), and it has been adapted to the special needs of juveniles who sexually offend (Letourneau et al., 2009).

While the effectiveness of MST with juvenile offenders in general has been documented both in individual studies and systematic reviews, research on its effectiveness with juveniles who commit a sexual offense is still emerging. The first study to examine the impact of MST on the recidivism of juveniles who sexually offend was conducted more than 20 years ago by Borduin and colleagues (1990). While the study employed random assignment, the sample size was very small. Only 16 adolescents (and their families) were randomly assigned to either home-based MST services or outpatient therapy. Based on a 3-year followup period, Borduin and his colleagues reported that the adolescents who received MST treatment had significantly lower sexual and nonsexual recidivism rates than their comparison group counterparts. MST-treated adolescents in the study had a sexual rearrest rate of

12.5 percent compared to a sexual rearrest rate of 75 percent for the comparison group subjects. The rearrest rates for nonsexual crimes were 25 percent for MST-treated adolescents and 50 percent for comparison group subjects.

More recently, Borduin, Schaeffer, and Heiblum (2009) examined the efficacy of MST with juveniles who sexually offend using a somewhat larger sample of 48 adolescents.[8] Based on a followup period of 8.9 years,[9] the researchers found significantly lower recidivism rates for juveniles who received MST treatment. The sexual recidivism rate was 8 percent for MST-treated subjects compared to 46 percent for the comparison group subjects. The nonsexual recidivism rate was 29 percent for MST-treated adolescents compared to 58 percent for comparison group subjects. MST-treated juveniles also spent 80 percent fewer days in detention facilities compared to their control group counterparts.

The most recent evaluation of MST's effectiveness with juveniles who sexually offend also employed an experimental design (Letourneau et al., 2009). As part of the study, Letourneau and her colleagues randomly assigned juveniles who sexually offend to MST treatment (n=67) or treatment as usual (n=60) conditions. Based on initial analyses using 1-year and 2-year followup periods, the researchers found that MST-treated youth had significantly lower rates of self-reported sexual behavior problems and delinquency and reduced risk of out-of-home placements compared to study subjects receiving treatment as usual (Letourneau et al., 2009; Swenson & Letourneau, 2011).

In summary, several single studies designed to evaluate the effectiveness of treatment for juveniles who commit a sexual offense have been conducted in recent years. While only a handful of these studies have employed an experimental design, a matched comparison group, or statistical control of factors that are linked to treatment effects, the weight of the available evidence—although it is far from definitive—suggests that treatment for juveniles who sexually offend can be effective. Studies employing an RCT design have demonstrated the efficacy of MST in reducing the recidivism of juveniles who commit sexual offenses. It should be noted, however, that these studies have been conducted by program developers and are based on samples that are relatively small in size. Independent evaluations that employ larger sample sizes should be undertaken to further establish the effectiveness and transportability of MST with juveniles who sexually offend. Nevertheless, MST was identified as an effective program in the 2011 National Criminal Justice Association (NCJA) survey.

"Rigorous studies have found that MST is effective in reducing the recidivism of juveniles who commit sexual offenses."

Recent research on other treatment approaches has also produced positive results. While it is difficult to isolate treatment effects and identify the specific treatment approaches that are most effective, interventions that address multiple spheres of juveniles' lives and that incorporate cognitive-behavioral techniques along with group therapy and family therapy appear to be most promising. However, there is a clear need for more high-quality research that can better demonstrate the effectiveness of various treatment approaches delivered in the community as well as in secure settings. Studies that employ random assignment or equivalent treatment and comparison group conditions—achieved through matching or statistical controls—are greatly needed.

Findings From Synthesis Research

One of the most frequently cited studies of the effectiveness of juvenile treatment was conducted by Reitzel and Carbonell (2006). Their meta-analysis included 9 studies and a combined sample of 2,986 juvenile subjects, making it one of the largest studies of treatment effectiveness for juveniles who sexually offend undertaken to date. Two of the studies in the analysis employed random assignment. The treatment approaches most often were based on cognitive-behavioral and relapse-prevention techniques, although other approaches such as sexual trauma therapy and psychosocial education were also represented in the analysis.

Based on an average followup period of nearly 5 years, the researchers found an average sexual recidivism rate of 7.37 percent for treated juveniles. By comparison, the average sexual recidivism rate for comparison group members was 18.93 percent. Further, the researchers reported that every study in the analysis yielded a positive treatment effect. Overall, an average weighted effect size of 0.43 was found, indicating "that for every 43 sexual offenders receiving the primary treatment who recidivated, 100 of the sexual offenders in the comparison group (i.e., those receiving comparison treatment or no treatment) recidivated" (Reitzel & Carbonell, 2006; p. 409).

Interestingly, two of the four strongest treatment effects found in the meta-analysis were from studies of MST treatment. In addition, Reitzel and Carbonell did not find that studies of cognitive-behavioral treatment had stronger treatment effects than studies of noncognitive-behavioral approaches. However, the researchers speculated that a number of confounding factors may have influenced this finding, including difficulties associated with categorizing studies based on their treatment approach. In discussing the overall findings from their analysis, Reitzel and Carbonell (2006, p. 417) stated:

> It is encouraging that results supported previous findings ... and suggested the effectiveness of JSO treatment in the reduction of sexual recidivism, although methodological issues and reporting practices in the individual studies comprising this meta-analysis warrant caution in the interpretation of results.

Another meta-analysis that found positive treatment effects was conducted by Winokur and colleagues (2006). The analysis is important because it employed a protocol that assessed the methodological quality of potentially relevant research and excluded studies that did not reach a sufficient standard of scientific rigor. Overall, seven rigorous recidivism studies were included in the meta-analysis—one RCT and six studies that matched treatment and comparison subjects on relevant demographic and criminal history characteristics. Of the seven studies in the analysis, three examined treatment delivered in a community-based outpatient setting, three examined treatment delivered in a residential setting, and one examined treatment delivered in a correctional setting. In all seven studies, treatment involved some type of cognitive-behavioral approach. The average followup time across the seven studies was 6 years.

The researchers found that adolescents who completed sexual offender treatment had significantly lower recidivism rates than untreated adolescents. Positive treatment effects were found for sexual recidivism,[10] nonsexual violent recidivism,[11] nonsexual nonviolent recidivism,[12] and any recidivism.[13] Treated juveniles had sexual recidivism rates ranging from 0 to 5 percent across the seven studies. By comparison, sexual recidivism rates for untreated comparison group subjects ranged from 5 to 18 percent. Nonsexual recidivism rates ranged from 10 to 36 percent for treated subjects compared to 10 to 75 percent for untreated subjects. Based on their findings, Winokur and his colleagues (2010, pp. 23–24) concluded:

> According to the results, there is a small to moderate positive effect of treatment on the recidivism rates of JSO. Specifically, juveniles who complete a cognitive-behavioral treatment program are less likely to commit a sexual or nonsexual re-offense than are juveniles who do not receive treatment, receive an alternative treatment, or do not complete treatment .... The sparse results from the subgroup analyses indicate that cognitive-behavioral treatment is effective in both community and residential settings.

Other recent meta-analyses have also found positive treatment effects. Walker and colleagues (2004), for example, conducted a meta-analysis of 10 studies involving a combined sample of 644 study subjects. The researchers found that treatments for male adolescent sexual offenders, particularly cognitive-behavioral approaches, were effective. Walker and his colleagues reported a treatment effect size of 0.37, meaning that only 37 treated study subjects recidivated for every 100 untreated study subjects who recidivated. More recently, St. Amand, Bard, and Silovsky (2008) reviewed 11 studies that

examined the outcomes of treatments provided to children ages 3–12 with sexual behavior problems. The researchers found that both sexual-behavior-focused and trauma-focused interventions were effective at reducing sexual behavior problems among this population. In terms of important practice elements, St. Amand and her colleagues found that parenting management skills were particularly important in reducing sexual behavior problems in children.

Finally, Drake, Aos, and Miller (2009) conducted a meta-analysis of five rigorous studies of sex offender treatment programs for youth as part of a larger study on evidence-based public policy options to reduce crime and criminal justice system costs. The researchers found that sex offender treatment programs for juveniles reduced recidivism, on average, by 9.7 percent. In addition, the treatment programs produced a net return on investment of more than $23,000 per program participant, or about $1.70 in benefits per participant for every $1 spent.

In summary, a handful of systematic reviews employing meta-analysis have examined the effectiveness of treatment for juveniles who commit sexual offenses in recent years. While there is widespread agreement among researchers that the evidence is far from definitive, these studies have consistently found that sex offender treatment works, particularly MST and cognitive-behavioral treatment approaches. Cost-benefit analysis also demonstrates that sex offender treatment programs for youth can provide a positive return on taxpayer investment.

Summary

Given the prevalence of sexual offending by juveniles, therapeutic interventions for juveniles who sexually offend have become a staple of sex offender management practice in jurisdictions across the country. Indeed, the number of treatment programs for juveniles who commit sexual offenses has increased over the past 30 years, and the nature of treatment itself has changed as the developmental and behavioral differences between juvenile and adult sexual offenders have become better understood. Yet, despite the growth and widespread use of treatment with juveniles who sexually offend, uncertainty about the effectiveness of treatment in reducing recidivism is not uncommon. While inconsistent research findings and the fact that few high-quality studies of treatment effectiveness have been undertaken to date have contributed to the uncertainty, both the pattern of research findings and quality of the evidence have been changing in recent years.

"Therapeutic interventions for juveniles who sexually offend can and do work. While MST has been shown to be effective, single studies and meta-analyses on other treatment approaches have also produced positive results."

This review examined the recent evidence on the effectiveness of treatment for juveniles who commit sexual offenses. While there is widespread agreement among researchers that the knowledge base is far from complete, the weight of the evidence from both individual studies and synthesis research conducted during the past 10 years suggests that therapeutic interventions for juveniles who sexually offend can and do work.

Rigorous studies have demonstrated the efficacy of MST in reducing the recidivism of juveniles who commit sexual offenses. Recent research—both single studies and meta-analyses—on other treatment approaches has also produced positive results. For example, Worling, Littlejohn, and Bookalam (2010) found that the juveniles who participated in a community-based treatment program had significantly better outcomes than comparison group members on several measures of recidivism. Based on a 20-year followup period, adolescents who participated in specialized treatment were significantly less likely than comparison group subjects to receive subsequent charges for sexual (9 percent compared to 21 percent), violent nonsexual (22 percent compared to 39 percent), or any (38 percent compared to 57 percent) new offense. The researchers also found that only a minority (11.49 percent) of the

adolescent study subjects were charged with a sexual crime as an adult. Waite and colleagues (2005) found that incarcerated juveniles who received intensive treatment in a self-contained housing unit of the correctional facility had better recidivism outcomes than incarcerated juveniles who received less intensive treatment and who remained in the facility's general population. Also, meta-analyses conducted by Reitzel and Carbonell (2006), Winokur and colleagues (2006), and Drake, Aos, and Miller (2009) all found positive treatment effects. Winokur and his colleagues (2006) reported that cognitive/behavioral treatment is effective in both community and residential settings.

"The Stetson School's specialized program for treating children and youth with sexual behavior problems was identified as an effective program in the NCJA survey. The program is located in Barre, Massachusetts, and it provides individualized, trauma-sensitive treatment services for preteens as well as adolescents."

Juveniles who sexually offend are clearly quite diverse in terms of their offending behaviors and future public safety risk. In fact, they appear to have far more in common with other juvenile delinquents than they do with adult sexual offenders. Research is demonstrating that there are important developmental, motivational, and behavioral differences between juvenile and adult sexual offenders and also that juveniles who commit sexual offenses are influenced by multiple ecological systems (Letourneau & Borduin, 2008). Hence, therapeutic interventions that are designed specifically for adolescents and children with sexual behavior problems are clearly needed. Moreover, treatment approaches that are developmentally appropriate; that take motivational and behavioral diversity into account; and that focus on family, peer, and other contextual correlates of sexually abusive behavior in youth, rather than focusing on individual psychological deficits alone, are likely to be most effective. **The need for tailored rather than uniform treatment approaches was acknowledged by the experts at the SOMAPI forum.** In addition, there is an emerging body of evidence suggesting that the delivery of therapeutic services in natural environments enhances treatment effectiveness (Letourneau & Borduin, 2008) and that the enhancement of behavior management skills in parents may be far more important in the treatment of sexually abusive behaviors in children than traditional clinical approaches (St. Amand, Bard, & Silovsky, 2008).

While the knowledge base regarding the effectiveness of treatment for juveniles who sexually offend is both expanding and improving, significant knowledge gaps remain. The need for more high-quality studies on treatment effectiveness has long been a theme in the literature, and both RCTs and well-designed quasi-experiments that examine treatment effects using equivalent treatment and comparison groups are greatly needed. Sound RCTs can provide the most trustworthy evidence about treatment effectiveness, but as Cook (2006) points out, they "are only sufficient for unbiased causal knowledge when" a correct random assignment procedure is chosen and properly implemented, "there is not differential attrition from the study across the groups being compared," and "there is minimal contamination of the intervention details from one group to another." Propensity score matching and other advanced techniques for controlling bias and achieving equivalence between treatment and comparison subjects can help enhance the credibility of evidence produced through quasi-experiments. Following their study of treatment effectiveness for adults in California—one of the few treatment studies to employ a randomized design—Marques and colleagues (2005) emphasized the importance of including appropriate comparison groups in future treatment outcome studies, and they urged researchers who assess the effects of treatment "to control for prior risk by using an appropriate actuarial measure for both treatment and comparison groups." Synthesis studies that are based on prudent exclusionary criteria and that employ the most rigorous analytical methods available are also needed. Systematic reviews and meta-analyses that are based on the most rigorous studies, incorporate statistical

tests to discover potential bias, and explore how methodological and contextual variations impact treatment effects are well-equipped to provide policymakers and practitioners with highly trustworthy evidence about what works. Future research should also attempt to build a stronger evidence base on the types of treatments that work. Empirical evidence that specifies which types of treatment work or do not work, for whom, and in which situations, is important for both policy and practice. The need for high-quality studies that help identify offender- and situation-specific treatment approaches that work was acknowledged by the national experts who participated in the 2012 SOMAPI forum. Trustworthy evidence on the treatment modalities and elements that are effective with juveniles who have committed sexual offenses was also identified as a pressing need.

Notes

1. RCTs are considered superior for discovering treatment effects and inferring causality because of their capacity to create valid counterfactuals and reduce bias. Modeled on laboratory experiments, RCTs have several key features, most notably the use of random assignment. In random assignment, the researcher randomly decides which study subjects participate in treatment and which do not. The random assignment of subjects creates the optimal study conditions for comparing treated and untreated subjects and making causal inferences about the impact of the intervention.

2. In addition, there may be resistance to the use of random assignment on the grounds that withholding potentially beneficial treatment from some study subjects for the sake of research is unethical.

3. This is often accomplished by matching the treatment and comparison group members on factors that are related to the outcome of interest. Sometimes statistical techniques are employed retrospectively to create equivalence between the treated and comparison subjects.

4. Methodological quality considerations typically include an assessment of the following: the study's ability to control outside factors and eliminate major rival explanations for an intervention's effects; the study's ability to detect program effects; and other considerations, such as attrition and the use of appropriate statistical tests. Based on the assessment, studies of substandard quality are typically excluded from the analysis. In addition, studies that are included in the analysis may be weighted based on their relative scientific rigor.

5. Meta-analysis also generates a summary statistic called the average effect size, which helps the analyst determine not only if the intervention is effective, but also how effective it is. There are several methods used to calculate effect sizes, as described in Lipsey and Wilson (2001). The mean-difference effect size is common when outcomes are continuously measured; the odds-ratio effect size is common when outcomes are measured dichotomously.

6. Of the 46 juveniles who received an assessment in the program, only 30 received some form of treatment outside the program being studied.

7. The researchers also found that sexual interest in children was a predictor of sexual recidivism, and that factors commonly related to delinquency overall—such as prior criminal offending and an antisocial personality—were predictive of nonsexual recidivism.

8. The research also examined whether MST treatment improved important family, peer, and academic correlates of juvenile sexual offending.

9. Study subjects were, on average, 22.9 years old at the end of the followup period.

10. $p < .01$.

11. Ibid.

12. $p < .001$.

13. Ibid.

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Chapter 6: Registration and Notification of Juveniles Who Commit Sexual Offenses

by Christopher Lobanov-Rostovsky

Introduction

Sex offender registration and notification (SORN) has been used as a management strategy since the 1930s. California became the first state to pass a sex offender registration law in 1947, while Washington became the first state to pass community notification legislation in 1990. In 1994, the U.S. federal government first implemented a national sex offender registration law for adult sexual offenders via the Jacob Wetterling Crimes Against Children and Sexually Violent Offender Registration Act. Community notification was subsequently added through the Megan's Law amendment to the Act in 1996. Per these federal laws, all 50 states have implemented SORN systems for adult sexual offenders, with some states also applying SORN to juveniles who commit sexual offenses. Presently, 41 states have some kind of registration for juveniles adjudicated delinquent of sex offenses; 30 states either permit or require public website posting for those juveniles, and the vast majority require registration and public notification for juveniles transferred for trial and convicted as an adult.[1] The implementation of SORN for juveniles varies by state, with some states choosing to add juvenile registration based on adjudication for a specified crime, while others provide for judicial discretion related to whether a juvenile should register and for how long. Finally, in 2006, the U.S. Congress included mandatory registration for juveniles ages 14 and older who are adjudicated delinquent for certain violent sexual offenses in the national SORN standards of the Adam Walsh Child Protection and Safety Act (AWA[2]).

The expansion in the use of sex offender management strategies traditionally designed for adult sex offenders with juveniles who commit sexual offenses arguably has been made based on assumptions that there is a high rate of juvenile sexual offending, that juveniles who commit sexual offenses are similar to adult sex offenders, and that juveniles who commit sexual offenses lack heterogeneity, are difficult to intervene with, and are at high risk for recidivism (Chaffin, 2008; Letourneau & Miner, 2005). (For more information on the "Recidivism of Juveniles Who Commit Sexual Offenses," see chapter 3in the Juvenile section.)

Unfortunately, the body of research addressing SORN's effectiveness with juveniles remains extremely limited today. Definitive conclusions regarding the impact of SORN with juveniles who commit sexual offenses are difficult to make at this time, not only because so few studies have been conducted but also because the available research is generally hampered by an inability to isolate

the impact of SORN from other interventions (e.g., specialized supervision and treatment) and the overall low rate of sexual recidivism attributed to juveniles. (For more information on treatment, see chapter 5, "Effectiveness of Treatment for Juveniles Who Sexually Offend," in the Juvenile section.) Nevertheless, this chapter reviews these studies and their findings for the purpose of informing policy and practice at the federal, state, and local levels. Findings from studies comparing the recidivism rates of juveniles who commit sexual offenses with those of two groups—adult sex offenders and juveniles who commit nonsexual offenses—are also presented to shed light on any comparative differences that exist in the propensity to reoffend.

This chapter does not discuss the theoretical and sociological explanations for registration and notification or place the research within this context. Its focus is on SORN for juveniles who commit sexual offenses. (For information about SORN as it relates to adult sex offenders, see chapter 8, "Sex Offender Management Strategies," in the Adult section.)

Summary of Research Findings

As stated above, very few studies examining the impact of SORN on juveniles have been undertaken to date. Only three studies were identified in the literature that examined (either directly or indirectly) the effect of SORN on juvenile sex offense rates. One of these studies examined juvenile sex crime arrest rates prior to and following the implementation of SORN, and another examined the recidivism of juveniles who sexually offend prior to and following SORN implementation. The third study examined the recidivism of juveniles subject to different SORN levels. Findings from these studies are presented below.

Studies Examining SORN With Juveniles Who Sexually Offend

A study by Holmes (2009) examined sex crime arrest rates before and after SORN implementation based on an analysis of annual sex crime arrests recorded in the Uniform Crime Report data for 47 states. Data were analyzed for 1994 through 2009. The study did not find a statistically significant decrease in the rate of sex crime arrests in juvenile registration states and juvenile notification states post-SORN (Holmes, 2009).[3]

The study examining recidivism levels pre- and post-SORN implementation focused on juveniles who committed sexual offenses (N = 1275) in South Carolina between 1990 and 2004. SORN was implemented in South Carolina in 1995. Observed recidivism rates were based on an average followup period of 9 years. Registration implementation was not found to be associated with a significant reduction in sexual recidivism. However, nonsexual, nonassault recidivism (defined as a new charge) was significantly greater for those subject to SORN,[4] suggesting a possible surveillance effect (Letourneau et al., 2009a).

The study examining recidivism for juveniles subject to different levels of SORN focused on juveniles in Washington State who were subject to assessment for SORN level following release to parole after incarceration from 1995 to 2002 (N = 319). Sexual reconviction rates were examined over a 5-year followup period. The research found that juveniles identified either as Level I or Level II (n = 278) offenders had a 9-percent sexual reconviction rate, while those identified as Level III offenders had a 12-percent sexual reconviction rate. Level III is the highest SORN level in Washington State, requiring active community notification, while Levels I and II do not require community notification (Barnoski, 2008).

Limitations

The aforementioned studieshave limitations common to all studies that employ official statistics on sexual offending or sexual recidivism, namely, the underreporting of sexual offenses to authorities (see, for example, Bachman, 1998, and Tjaden & Thoennes, 2006) and the low base rate for recidivism.[5] In addition, only two of the studies examined outcomes pre- and post- SORN implementation; the other examined SORN effects on recidivism indirectly. Finally, none of the three studies were based on random assignment,

although it should be noted that interrupted time series analysis based on a sufficient number of observations can produce highly trustworthy findings.

Juvenile Disposition Studies

The following findings from two juvenile disposition studies shed light on some of the unintended consequences of SORN's application with juveniles who sexually offend.

In one study, disposition outcomes for South Carolina juveniles who committed sexual assault or robbery crimes between 1990 and 2004 (*N* = 18,068) were examined. The study found that juveniles who committed sexual offenses (*n* = 5,166) were subject to a significant change in prosecutor decision-making following implementation of the sex offender registry in 1995, particularly younger juveniles and those with fewer prior offenses. Letourneau and colleagues (2009b, p. 158) concluded, "For sexual offense charges, there was a 41 percent reduction in the odds of a prosecutor moving forward after registration was implemented than before."[6] Similarly, there was a statistically significant reduction in assault dispositions of 22 percent,[7] but there was not a statistically significant reduction in robbery dispositions over the same time period (Letourneau et al., 2009b).

In a study of dispositions for juveniles who committed sexual offenses in an urban region of Michigan in 2006 (*N* = 299 petitions filed), Calley (2008) found that a high percentage of serious charges were pled down to a lesser charge and, as a result, a significant number of juveniles who committed sexual offenses were no longer eligible for county-funded sex-offense-specific treatment. In essence, juvenile cases were being pled to nonregistration offenses at the expense of not being eligible for treatment (Calley, 2008).

Limitations

The limitations of these studies include generalizability given the specific geographic regions of the studies, the limited timeframe reviewed in the Michigan study, and the retrospective rather than prospective nature of the studies. Finally, there were no survey data on the actual decision-making process by prosecutors.

Comparative Recidivism Rates for Juveniles Who Commit Sexual Offenses

Given the limited research on SORN with juveniles, a brief review of findings concerning the sexual recidivism rates of juveniles who sexually offend in relation to two groups—adult sexual offenders and juveniles who commit nonsexual offenses—is presented below.

Compared With Adult Sex Offenders

The results of three meta-analyses suggest that juveniles who commit sexual offenses have a sexual recidivism rate between 7 and 13 percent based on a followup period of approximately 5 years (Alexander, 1999; Caldwell, 2010; Reitzel & Carbonell, 2006). By comparison, a relatively recent meta-analysis of studies focusing on adult sexual offenders reported average sexual recidivism rates of 14 percent after a 5-year followup period, 20 percent after a 10-year followup period, and 24 percent after a 15-year followup period (Harris & Hanson, 2004). Hence, there appears to be at least a marginal difference in the propensity to reoffend between juveniles who commit sexual offenses and adult sexual offenders.

Compared With Juveniles Who Commit Nonsexual Offenses

The premise that juveniles who commit sexual offenses are more likely to sexually recidivate than juveniles who commit other types of crimes has been studied by a number of researchers with mixed results. While some studies have found a significant difference in the propensity of the two groups to sexually reoffend, others have not. Of the comparison studies between juveniles who commit sexual offenses and those who commit nonsexual offenses, two studies suggested that the sexual recidivism rate for juveniles who committed sexual offenses was significantly different than for juveniles who commit nonsexual offenses. For example, in a study involving a sample of 150 offenders, Hagan and colleagues (2001) found sexual recidivism rates (defined as reconviction) of 18 percent for juveniles

who committed sexual offenses and 10 percent for juveniles who committed nonsexual offenses over an 8-year followup period, a statistically significant difference (Hagan et al., 2001).[8] Similarly, in a study involving 306 juveniles, Sipe, Jensen, and Everitt (1998) found sexual rearrest rates of 9.7 percent for juveniles who commit sexual offenses and 3 percent for juveniles who commit nonsexual offenses over a 6-year followup period, a difference that again is statistically significant (Sipe, Jensen, & Everitt, 1998).[9]

On the other hand, a number of studies have not found significant sexual recidivism rate differences. For example, in a study of 2,029 juveniles released from secure custody, including 249 who committed sexual offenses and 1,780 who committed nonsexual offenses, Caldwell (2007) reported sexual recidivism rates of 6.8 percent for the juveniles who committed sexual offenses and 5.7 percent for the juveniles who committed nonsexual offenses over a 5-year followup period, a difference that is not statistically significant (Caldwell, 2007). Similarly, in a study involving 91 juvenile males who committed sexual offenses and 174 juvenile males who did not commit sexual offenses but who were treated in the same program, Caldwell, Ziemke, and Vitacco (2008) found no significant difference in the felony sexual recidivism rates observed for the two groups. A felony sexual recidivism rate of 12.1 percent was found for juveniles who committed sexual offenses compared to 11.6 percent for the juveniles who did not commit sexual offense over an average 71.6-month followup period. Letourneau, Chapman, and Schoenwald (2008) also failed to find a significant difference in recidivism rates in their study involving 1,645 juveniles in treatment who either had or did not have a sexual behavior problem (as defined by the caregiver-reported scoring on the Child Behavioral Checklist Sex Problems scale developed by Achenbach, 1991). The researchers reported a 2-percent sexual recidivism rate (defined as a new charge) for those juveniles with a sexual behavior problem and a 3-percent rate for those who did not have a sexual behavior problem (Letourneau, Chapman, & Schoenwald, 2008). Finally, in a birth cohort study involving 3,129 juvenile males and 2,998 juvenile females from Racine, Wisconsin, Zimring, Piquero, and Jennings (2007) reported sexual arrest recidivism rates of 8.5 percent for juveniles who committed sexual offenses and 6.2 percent for juveniles who had any police contact, a difference that is not statistically significant. The recidivism rates were based on a 4- to 14-year followup period after age 18. The researchers concluded that the number of juvenile police contacts was more predictive of adult sexual recidivism than juvenile sexual offenses (Zimring, Piquero, & Jennings, 2007).

Summary

Very few studies examining SORN with juveniles have been undertaken to date. Only three studies were identified in the literature and none of them produced conclusive findings about the application of SORN to juveniles who commit sexual offenses. Findings from studies comparing the sexual recidivism rates of juveniles who sexually offend, adult sexual offenders, and juveniles who commit nonsexual offenses are somewhat mixed. There appears to be at least a marginal difference in the propensity to reoffend between juveniles who commit sexual offenses and adult sexual offenders. However, definitive conclusions about sexual recidivism similarities or differences between juveniles who commit sexual and nonsexual offenses are difficult to make. Two studies found a significantly higher rate of sexual recidivism for the juveniles who commit sexual offenses, while several other studies did not find a significant difference in the sexual recidivism rates for the two groups.

Given these research findings, the merit and appropriateness of using SORN with juveniles who sexually offend remain open to question. **While far more research is needed, participants in the SOMAPI forum recommended against any further expansion of SORN with juveniles in the absence of more extensive empirical evidence supporting the utility of this strategy.**

The SOMAPI forum participants identified the need for research using scientifically rigorous methods to assess the impact of SORN on juveniles who commit sexual offenses. There is a clear need for research that is capable of isolating the impact of SORN from other sex offender management strategies (e.g.,

supervision and treatment) that are also in place and that employs large enough sample sizes to overcome the low base rate for sexual recidivism. Research that examines outcome measures other than sexual recidivism (e.g., supervision compliance; iatrogenic effects on the juvenile, family, and community) also is needed. Research also needs to identify whether juveniles are similar to adult sexual offenders prior to using such policies with this population. The goal of intervention with juveniles who commit sexual offenses is to prevent recidivism, decrease risk, and increase protective factors that buffer against reoffending. Society clearly benefits from effective and appropriate intervention with this population, but more research is needed to examine whether SORN laws may require modification in their use with juveniles who commit sexual offenses if public safety is to be effectively enhanced.

Notes

1. For further details about each state's treatment of juveniles adjudicated delinquent of sex offenses and their corresponding registration responsibilities and notification requirements, see Ala. Code§ 15-20A-28 (2014), Ariz. Rev. Stat. Ann. § 13-3821(D) (2014), Ark. CodeAnn. § 9-27-356 (2014), Cal. PenalCode§ 290.008(a) (2014), Colo. Rev. Stat. § 16-22-102(3) (2013), Del. CodeAnn. tit. 11, §§ 4121(a)(4)(b) & 4123 (2014), Fla. Stat. § 943.0435(a)(1)(d) (2014), IdahoCodeAnn. § 18-8403 (2014), 730 Ill. Comp. Stat. 150/3-5 (2014), Ind. CodeAnn. § 11-8-8-4.5(b) (2014), IowaCode§ 692A.103 (2013), Kan. Stat. Ann. § 22-4902(b)(2) (2013), La. Rev. Stat. Ann. § 15:542 (2013), Md. CodeAnn., Crim. Proc. § 11-704.1 (2014), Mass. Gen. Laws. Ann. ch. 6, § 178K (2014), Mich. Comp. Laws. Serv. § 28.722 (2014), Minn. Stat. § 243.166 (2014), Miss. Code Ann. § 45-33-25 (2013), Mo. Rev. Stat. §§ 211.425 & 589.400 (2014), Mont. CodeAnn. § 46-23-502 (2013), Neb. Rev. Stat. Ann. § 29-4003 (2013) (only juveniles relocating from out of state with preexisting registration requirements are required to register, https://sor.nebraska.gov/FAQ), Nev. Rev. Stat. Ann. § 179D.095 (2014), N.H. Rev. Stat. Ann. 651-B:1(XI), N.J. Rev. Stat. § 2C:7-2 (2014), N.M. Stat. Ann. § 29-11A-5.1 (2013), N.C. Gen. Stat. § 14-208.26 (2014), N.D. Cent. Code§ 12.1-32-15 (2013), OhioRev. CodeAnn. § 2950.01 (2014), Okla. Stat. tit. 10A, § 2-8-102 (2013), Or. Rev. Stat. §§ 181.823 & 181.609 (2013), 42 Pa. Cons. Stat. § 9799.12 (2014), R.I. Gen. Laws§ 11-37.1-2(c)(4) (2014), S.C. CodeAnn. § 23-3-430(C) (2013), S.D. CodifiedLaws§ 22-24B-2 (2014), Tenn. CodeAnn. § 40-39-202(28) (2014), Tex. CodeCrim. Proc. Ann. art 62.001 & 62.351 (2014), UtahCodeAnn. § 77-41-102(9)(f) (2014), Va. CodeAnn. § 9.1-902(G) (2014), Wash. Rev. CodeAnn. § 9A.44.128 (2013), Wis. Stat. § 301.45(1g)(a) (2014), Wyo. Stat. Ann. § 7-19-301 (2014).

2. The federal government cannot require states to implement AWA; however, if states fail to "substantially implement" the provisions of the Act, they are subject to a 10-percent penalty of their Edward Byrne Memorial Justice Assistance Grant Program funding.

3. Per author request, permission was received to cite this paper, and Ms. Holmes Didwania (author's current name) anticipates a revision of the paper to be completed in 2014.

4. $p < .05$.

5. For example, Letourneau et al. (2009a) found the percentage of youth in their sample with new sexual offense charges (7.5 percent) or adjudications (2.5 percent) to below.

6. $p < .0001$.

7. $p < .001$.

8. $p > .05$.

9. $p < .04$.

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