# Juvenile Sex Offenders

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# 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.

# 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<br>◆ Use less aggression in their sexual offending<br>◆ More likely to offend against relatives<br>◆ More likely to meet criteria for clinical intervention for depression and anxiety | ◆ Employ more force in the commission of their sexual offense<br>◆ More likely to use a weapon and to be under the influence of alcohol or drugs at the time of the offense<br>◆ Less likely to be related to their victim<br>◆ Less likely to commit the offense in the victim's home or in their own residence<br>◆ More likely to have a prior arrest history for a nonsexual crime<br>◆ 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 outpatient 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<br>Empirical support in at least two published, independent research studies | Promising Risk Factors<br>Empirical support in at least one study |
|---|---|
| • Deviant sexual arousal<br>• Prior convicted sexual offenses<br>• Multiple victims<br>• Social isolation<br>• Incomplete sexual offender treatment | • Problematic parent-child relationships<br>• Attitudes supportive of sexually abusive behavior |
| **Possible Risk Factors<br>General clinical support only** | **Unlikely Risk Factors<br>Lack empirical support or contradicted by empirical evidence** |
| • Impulsivity<br>• Antisocial orientation<br>• Aggression<br>• Negative peer group association<br>• Sexual preoccupation<br>• Sexual offense of a male<br>• Sexual offense of a child<br>• Use of violence, force, threats, or weapons in a sexual offense<br>• Environmental support for reoffense | • History of sexual victimization<br>• History of nonsexual offending<br>• Sexual offenses involving penetration<br>• Denial of sexual offending<br>• 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<br>• Juvenile Risk Assessment Scale<br>• Wisconsin Department of Corrections Guidelines for Release |
| Chu et al. (2012) | X | X | | |
| Epperson et al. (2006) | | | X | |
| Epperson & Ralston (2009);<br>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).

# 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, Littleljohn, 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, Littleljohn, & 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.

# 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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