Chapter 9 Early Detection and Intervention for Adolescents at Risk for Engaging in Abusive Sexual Behavior: A Case for Prevention

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Adolescents Who Have Engaged in Abusive Sexual Behavior

Sexually abusive behavior by adolescent youth is a serious problem, accounting for more than one third of all sexual offenses against minors (Finkelhor, Ormrod, & Chaffin, 2009). However, it is also known that most of these youth do not continue to sexually offend and most do not develop into sexually abusive adults (Caldwell, 2010; Taylor, 2003). In fact, most adolescents will desist from engaging in sexually abusive behavior after contact with the criminal justice system (van Wijk, Mali, & Bullens, 2007). Decades of studies indicate that between 80 and 95 % of adolescents who have engaged in abusive sexual behavior will not reoffend—even without formal therapeutic intervention—with the higher end of this range more often typifying those who complete some sort of treatment program, and the lower end more often describing those who do not (Alexander, 1999; Caldwell, 2002; Rasmussen, 1999; Reitzel & Carbonell, 2006; Worling, Litteljohn, & Bookalam, 2010). Although the vast majority of sexually abusive adolescents are boys, at least 7 % are girls, a population about which much less is known (Snyder, 2002).

Targeted interventions are effective for children and adolescents who have engaged in sexually abusive behavior (Fanniff & Becker, 2006; Reitzel & Carbonell, 2006; St. Amand, Bard, & Silovsky, 2008). Sexually abusive adolescents who have participated in specialized treatment to address their sexual offending are approximately 12 % less likely to reoffend sexually than youth who have not participated in such treatment (Reitzel & Carbonell, 2006; Worling et al., 2010). Interventions are particularly successful when they are caregiver inclusive, strengths-based, develop-

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mentally appropriate, matched to the youth's dynamic risk and needs, and attentive to factors that can impact the youth's responsiveness to intervention such as early childhood neglect and trauma, neurodevelopmental disorders, cognitive ability, learning style, and culture (Association for the Treatment of Sexual Abusers, 2012). Although this description does not yet characterize the majority of North American treatment programs for sexually abusive youth, recent surveys indicate that an increasing number of clinicians are becoming attentive to these principles (McGrath, Cumming, Burchard, Zeoli, & Ellerby, 2010).

Despite the fact that most adolescents who have engaged in abusive sexual behavior do not persist with this behavior into adulthood, it is also known that about half of adults who have sexually offended report that their first sexual offenses occurred when they were adolescents (Abel, Mittelman, & Becker, 1985; Groth, Longo, & McFadin, 1982). Furthermore, in consideration of the low sexual reoffense rates for youth, it follows that the high proportion of sexual offending perpetrated by adolescents must be largely representative of first-time offenses. Therefore, if one were interested in having a maximal impact on reducing sexual offending against young children, an especially promising approach would involve early detection and intervention with adolescents at risk for engaging in abusive sexual behavior. This requires a public health perspective and the methods of prevention.

Prevention

The field of sexual abuse prevention has a lengthy history, and there have been considerable gains over the last 30 years in terms of public education and awareness, legal protections for victims, funding, community mobilization, and research on the prevalence, etiology, and prevention of sexual violence (DeGue et al., 2014). Sexual violence has been recognized as a significant public health problem impacting millions of people on a global scale (Krug, Dahlberg, Mercy, Zwi, & Lozano, 2002). Public health is a population-based approach that is ultimately concerned with strategies that address the health of a population—as opposed to an individual—and a public health prevention strategy aims to benefit the largest group of people possible, recognizing that the problem is pervasive and typically affects the entire population, either directly or indirectly (Centers for Disease Control and Prevention, 2004). A public health intervention is also a community-oriented approach that depends upon collective action of an entire community to prevent the problem at hand (Krug et al., 2002). A clear advantage of a population-based intervention is that, if a strategy is widely enough implemented, even a small effect on perpetration behavior may have a large overall impact. Furthermore, large-scale public health initiatives targeting sexual violence promise significant cost savings over reactive measures to sexual abuse, when one considers the extraordinary costs of child sexual abuse in terms of health care, social services, and criminal justice (Freyd et al., 2005; Letourneau, Eaton, Bass, Berlin, & Moore, 2014). Public health interventions

for sexual violence are often grouped into three prevention categories based on when the intervention occurs:

- 1. Primary prevention strategies are aimed at preventing sexual violence before it has happened (Centers for Disease Control and Prevention, 2004). These approaches include universal interventions directed at the general population as well as selected interventions aimed at those who may be at increased risk for sexual violence perpetration. They can focus either on preventing perpetration of sexual harm (e.g., implementing a media campaign to educate the public about the negative effects of child pornography) or preventing victimization (e.g., a schoolbased curriculum teaching children how to recognize abuse and avoid and report it). Historically, sexual violence prevention efforts have focused on education, safety promotion, and risk reduction for potential victims (Cook-Craig, 2012). While these strategies can be effective at changing the attitudes of potential victims, research has so far failed to demonstrate their effectiveness in actually changing key behaviors or preventing sexual violence (Morrison, Hardison, Mathew, & O'Neil, 2004). A truly high-impact public health approach to sexual violence prevention would primarily aim to prevent violence perpetration, rather than victimization or risk reduction, as it has been recognized that a decrease in the number of actual and potential perpetrators in the population is necessary to achieve measurable reductions in the prevalence of sexual violence (DeGue et al., 2012). As such, primary prevention strategies aimed at perpetrators of sexual violence have been increasingly recognized as being critical to prevention and necessary to complement approaches aimed at preventing victimization or recidivism and addressing the adverse impact of sexual violence on victims (DeGue et al., 2014).
- 2. Secondary prevention strategies represent an immediate response after sexual violence has been perpetrated and deal with the short-term consequences of violence (Centers for Disease Control and Prevention, 2004). Examples include attempts to reduce the harm to the victims in the immediate aftermath of the violence (e.g., separating the victim and the perpetrator; providing immediate crisis counseling for the victim) and address the perpetrators. Both secondary and tertiary prevention (defined below) can be directed toward affected populations including individuals who have perpetrated sexual violence or those who have been victimized (Association for the Treatment of Sexual Abusers, 2014).
- 3. *Tertiary prevention* strategies characterize long-term responses after sexual violence has been perpetrated (Centers for Disease Control and Prevention, 2004). Tertiary prevention approaches address the longer-term consequences of sexual victimization (e.g., by providing ongoing counseling for victims) and the provision of specialized intervention and risk management for the perpetrators of sexual violence to minimize the possibility of reoffending (Association for the Treatment of Sexual Abusers, 2014).

Most sexual abuse perpetration prevention initiatives to date have been aimed at the tertiary level of prevention—preventing further sexually abusive behavior—which, overall, are the least likely to be effective in promoting healthy communities,

principally because of their limited scope (Laws, 2000, 2008). Efforts at early detection and intervention for adolescents at risk for perpetration of sexual violence could and should include prevention strategies at all three of these levels. However, because secondary and tertiary prevention strategies (particularly intervention approaches for adolescents who are known to have engaged in abusive sexual behavior) have frequently been discussed elsewhere (see Fanniff & Becker, 2006; Letourneau & Borduin, 2008; Reitzel & Carbonell, 2006), the current chapter will focus on primary prevention strategies for this population.

Primary Prevention Strategies for Sexual Violence

One of the first critical steps in designing an effective primary prevention program is to ensure that its implementation is well timed, so that the intervention happens prior to the development of the problem (Nation et al., 2003; Nation, M, Keener, Wandersman, & DuBois, 2005). From a public health perspective, the target group for primary prevention of adolescent sexually abusive behavior is reasonably well defined: research indicates that the average age of onset for sexually abusive conduct is in early adolescence, between 12 and 15 years of age (Caldwell, 2002; Finkelhor et al., 2009). Therefore, primary prevention strategies should focus on preadolescent children and should target risk and protective factors identified for that population.

Risk Factors for Adolescents at Risk for Sexual Offending

Risk factors for the perpetration of sexual violence describe individual, relational, community, and societal characteristics that increase the probability of an individual engaging in sexually abusive behavior (Centers for Disease Control and Prevention, 2004). A large amount of research has been conducted in this field over the past 20 years, resulting in a number of important findings. One of the more important discoveries has been that most of the factors that predict adolescent sexually abusive behavior are not specific to sexual offending but also predict general delinquency (Caldwell, 2002). In fact, it has become well understood that youth who have engaged in sexually abusive behavior are far more likely to engage in future *non-sexual* offending (e.g., nonsexual violence and general delinquency) than sexual offending, indicating that there is substantial overlap between sexually and non-sexually delinquent youth (Caldwell, 2007, 2010; Seto & Lalumiere, 2010).

At the same time, there are some specific differences between these populations. Although research has identified some of the risk factors for general delinquency among adolescents who have offended sexually—including prior nonsexual delinquency, age at first commission of a nonsexual offense (youth who were younger at

the time of their first nonsexual offense being at greater risk for future nonsexual delinquency), and peer delinquency (Spice, Viljoen, Latzman, Scalora, & Ullman, 2012) and school functioning (Worling & Langton, 2015)—there has been less clarity in identifying risk factors unique to sexual offending among adolescent populations. Risk assessment instruments designed to predict adolescent sexual recidivism—although certainly better than unstructured clinical judgment—remain works in progress, in need of further research and development (Viljoen, Elkovitch, Scalora, & Ullman, 2009). Differences in the methodologies and sample populations between studies, as well as the overall low base rate of sexual recidivism among youth, have made it difficult to form strong conclusions from these studies.

Nevertheless, research has thus far identified a number of potential risk factors for the perpetration of sexual violence among adolescents. Listed here are the ones that have received empirical support in multiple investigations: opportunities to sexually offend/inadequate adult supervision, atypical/deviant sexual interests or arousal (i.e., sexual arousal to prepubescent children and/or violence), childhood sexual victimization, witnessing and experiencing intrafamilial violence, parental neglect, having ever resided in a family with poor sexual boundaries, sexual preoccupation, poor self-regulation, social isolation, precocious sexual behavior/prepubescent nonnormative sexual behavior, having engaged in multiple types of sexual behaviors, antisocial personality characteristics, and attitudes supportive of sexual offending (Carpentier, Leclerc, & Proulx, 2011; Curwen, Jenkins, & Worling, 2014; Hanson & Morton-Bourgon, 2005; McCann & Lussier, 2008; Nunes, Hermann, Malcom, & Lavoie, 2013; Salter et al., 2003; Seto & Lalumiere, 2010; Spice et al., 2012; Tharp et al., 2012; Wanklyn, Ward, Cormier, Day, & Newman, 2012; Worling & Langstrom, 2006). It is important to note, however, that these risk factors are only known (or suspected) to be relevant to sexual recidivism among adolescent populations. Risk factors for the *initiation* of sexual offending behavior among adolescents remain yet unknown. It is certainly possible that there exist differences between those factors that place a teenager at risk for initially engaging in sexually abusive behavior and those factors that predict subsequent sexual offending, but this remains an empirical question.

Another problem that impacts on the implementation of primary prevention efforts for this population is the tremendous diversity among adolescents known to have offended sexually. Individual youth who have engaged in sexually abusive behavior can and often do differ from other youth within this population in terms of family history, intellectual functioning, learning style, mental health, motivation, personality, and specific offending behaviors, among so many other characteristics (Caldwell, 2002; Chaffin, 2008; Chaffin, Letourneau, & Silovsky, 2002; Hunter, Figueredo, Malamuth, & Becker, 2003; Knight & Prentky, 1993; Oxnam & Vess, 2008). While some of these youth have offended against prepubescent children, others (though far fewer) have offended against peers or adults (Finkelhor et al., 2009). And even among those adolescents who have sexually abused younger children, it is likely that the majority does not exhibit sexual arousal to prepubescent children (Seto, Lalumiere, & Blanchard, 2000; Worling, 2012; Worling, Bookalam, & Litteljohn, 2012).

Atypical Sexual Interests

The early development of atypical sexual interests (i.e., sexual arousal to prepubescent children, violence, or other nonnormative stimuli) and their role in offending is not well understood. Recent advances in neuroscience have implicated a number of possible biological mechanisms in the development of pedophilia, such as alterations in brain structure and function (Mohnke et al., 2014). Psychosocial factors have also long been theorized to contribute to the development of atypical sexual preferences, and conditioning theories (see Laws & Marshall, 1990) continue to hold strong explanatory power (Santtila et al., 2010). Among adult offenders, the presence of a child victim suggests pedophilic interests, and a pedophilic arousal pattern has been found to be one of the most reliable predictors of risk for persistent sexual offending for adults (Hanson & Morton-Bourgon, 2005).

However, the meaning of adolescent-perpetrated sexual offenses against young children is far less clear. While atypical sexual interests in adolescents have been associated with a higher probability for future sexual offending (Carpentier et al., 2011; Hanson & Morton-Bourgon, 2005; McCann & Lussier, 2008; Seto & Lalumiere, 2010), the fact remains that most adolescents who have engaged in abusive sexual behavior do not exhibit sexual arousal to prepubescent children (Seto et al., 2000; Worling, 2012; Worling et al., 2012). Current research indicates that, depending on the sample studied, approximately 60–75 % of adolescent males who have offended sexually are, in fact, primarily sexually interested in consensual activities with age-appropriate partners (Worling, 2013). Although atypical sexual arousal likely plays a role in the development and/or maintenance of adolescent sexual offending for some adolescents, there are many other factors that clearly play roles as well. Indeed, one of the most resilient findings in the research on adolescents who have sexually offended is that they comprise an extremely heterogeneous group (Caldwell, 2002).

The meaning and motivations of an adolescent's abusive sexual behavior will vary between individual youths and situations. Adolescents who sexually abuse younger children include but are not limited to teenagers reacting to their own sexual victimization; persistently delinquent or aggressive teens who commit both sexual and nonsexual crimes; otherwise normal adolescent boys who are curious about sex and act experimentally but irresponsibly; immature, impulsive, and poorly self-regulated youth acting without thinking; callous youth who are indifferent to others and selfishly take what they want; youth misinterpreting what they believed was consent or mutual interest; children imitating actions they have seen in movies or television or online; youth ignorant of the law or the potential consequences of their actions; youth attracted to the thrill of rule violation; those imitating what is normal in their own family; depressed or socially isolated teens who turn to younger children as substitutes for peers; youth with serious mental illness; teens responding primarily to peer pressure; youth preoccupied with sex; youth under the influence of drugs and alcohol; or youth with emerging sexual deviancy problems (Chaffin, 2008). And as observed by Caldwell (2002):

The difficulty with identifying sexual deviance in teen offenders is that teen sexual behaviors are so varied, and juvenile sexual offenders are so heterogeneous, that offenses against young children committed by younger teens serves as a poor proxy for pedophilic deviance.

Even though some teens that commit this type of offense will probably develop into lifelong pedophilic offenders...for the majority of these offenders, there is a strong trend toward desisting pedophilic offending as the offender age increases just a few years. Concluding then, that sexual assault of a young child by an offender in their early teens indicates developing high-risk sexual deviancy or pedophilia does not appear warranted. (p. 296)

Protective Factors for Adolescents at Risk for Sexual Offending

As difficult as it has been to identify risk factors for adolescent-perpetrated sexually abusive behavior, the search for protective factors—those individual, relational, community, and societal characteristics that would reduce the likelihood of sexual offending—has yet to provide clarity. First, there is some debate about whether protective factors should be conceptualized as mirror images of risk factors (i.e., whether an absence of a particular risk factor should be considered a protective factor) or as entities that are entirely distinct (Spice et al., 2012). Secondly, although some studies have identified protective factors for general delinquency among adolescents who have offended sexually—such as strong attachments or bonds (Klein, Rettenberger, Yoon, Köhler, & Briken, 2015; Spice et al., 2012; Worling & Langton, 2015)—research has so far failed to distinguish factors that specifically promote desistance from adolescent sexual offending.

The difficulty in identifying risk and protective factors for this population highlights the population's diversity, as discussed above, as well as the dynamic nature of childhood development. Arguably the defining characteristic of adolescence is change, and it has been observed that a child's level of risk and needs changes quickly as he or she matures (Chaffin, 2008; Prentky & Righthand, 2003; Worling, 2004). Also in support of this notion is that, for both adolescents and adults who have engaged in abusive sexual behavior, risk and protective factors appear to interact and combine in multiple and nuanced ways to increase or decrease the likelihood of sexual violence perpetration, suggesting that these factors are activated in certain situations and may be most relevant during particular developmental periods (Tharp et al., 2012). Nevertheless, the identification of protective factors for adolescents at risk for sexual offending remains an important task, as a greater understanding of risk and protective elements promises to guide the refinement of primary prevention strategies for this population.

What Works in Primary Prevention for Sexual Violence?

Nation and colleagues (2003, 2005) identified nine "principles of prevention" (see Table 9.1) that are strongly associated with positive effects across multiple studies in multiple domains, indicating that effective prevention-oriented interventions have the following characteristics: (a) comprehensive, (b) appropriately timed, (c) utilize varied teaching methods, (d) have sufficient dosage, (e) administered by well-trained staff, (f) provide opportunities for positive relationships, (g) socioculturally relevant,

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| Principle | Definition |
|--------------------------|--|
| Comprehensive | Multicomponent interventions that address critical domains (e.g., family, peers, community) that influence the development and perpetuation of the behaviors to be prevented |
| Appropriately timed | Programs are initiated early enough to have an impact on the development of the problem behavior and are sensitive to the developmental needs of participants |
| Varied teaching methods | Programs involve diverse teaching methods that focus on increasing awareness and understanding of the problem behaviors and on acquiring or enhancing skills |
| Sufficient dosage | Programs provide enough intervention to produce the desired effects and provide follow-up as necessary to maintain effects |
| Well-trained staff | Program staff support the program and are provided with training regarding the implementation of the intervention |
| Positive relationships | Programs provide exposure to adults and peers in a way that promotes strong relationships and supports positive outcomes |
| Socioculturally relevant | Programs are tailored to the community and cultural norms of the participants and make efforts to include the target group in program planning and implementation |
| Theory driven | Programs have a theoretical justification, are based on accurate information, and are supported by empirical research |
| Outcome evaluation | Programs have clear goals and objectives and make an effort to systematically document their results relative to the goals |

Table 9.1 Definitions of the principles of effective programs (Nation et al., 2003)

(h) theory driven, and (i) include outcome evaluation. It has also been recognized that effective prevention programs for sexual violence need to focus on actual skill building and not solely knowledge enhancement or attitude change (Nation et al., 2003, 2005).

Contrary to many of these principles, the majority of sexual violence prevention strategies have been brief, psychoeducational programs focused on increasing knowledge or changing attitudes, and, unsurprisingly, none have shown evidence of effectiveness in preventing sexually violent *behavior* (DeGue et al., 2014).

To date, one initiative aimed at child and adolescent populations has clearly demonstrated its effectiveness in reducing the perpetration of sexually abusive behavior in a rigorous evaluation study (DeGue et al., 2014). Safe Dates is a universal dating violence prevention program for middle- and high-school students involving a ten-session curriculum teaching about the consequences of dating violence and addressing attitudes (including gender stereotyping, attributions for violence), social norms, and healthy relationship skills (including conflict management skills), a 45-min student theater production about dating violence, and a poster contest aimed at changing school norms by immersing and exposing students to violence prevention messaging. The program also facilitates access to community services for victims of dating violence. Over a 4-year follow-up period (that included a booster session to reinforce the program's impact), students who received the intervention were significantly less likely to be victims or perpetrators

of self-reported sexual violence involving a dating partner, relative to students who did not participate in the program (Foshee et al., 2004). Clearly, the Safe Dates program follows a number of the principles of effective prevention. It utilizes a thoroughly evaluated comprehensive, community-based approach aimed at middle adolescents that combines a variety of educational and skill building methods with social norm campaigns over an extended period of time. More recently, the program has evolved to engage and include parents in these efforts, to promising early results (Foshee et al., 2012). And although not specifically intended by the developers, the Safe Dates initiative has also been effective in preventing other kinds of youth violence (Foshee et al., 2014).

In addition to Safe Dates, the literature has identified some other promising sexual violence prevention practices for school-aged children, although sufficient evidence has not yet been collected to form conclusions about their efficacy in terms of actual behavior change. These include *Coaching Boys Into Men* (Miller et al., 2012), a coach-delivered norm-based dating violence prevention program for high-school students, and *Expect Respect–Elementary Version*, a bullying- and sexual harassment-focused program for elementary school-aged children (Meraviglia, Becker, Rosenbluth, Sanchez, & Robertson, 2003). Both programs provide a reasonable dose of intervention (11–12 sessions), and the *Expect Respect* program also involves parent education and engages youth in facilitated peer support groups.

It is also worth noting that some bystander intervention programs (e.g., *Bringing in the Bystander*; Banyard, Moynihan, & Plante, 2007) have shown promise, but none have yet been geared toward school-aged children. These approaches generally involve bystander education and training aimed at engaging potential witnesses to violence and providing them with skills to help when they see behavior that puts others at risk, including speaking out against rape myths and sexist language, supporting victims, and intervening in potentially violent situations (DeGue et al., 2014). There remains a significant gap in the literature, however, when it comes to the primary prevention of adolescent-perpetrated sexual abuse of young children.

The First Wave of a Primary Prevention Initiative: A School-Based Primary Prevention Program for Adolescents at Risk for Engaging in Abusive Sexual Behavior

A comprehensive primary prevention program for adolescents at risk for engaging in sexually abusive behavior would be tailored to the intellectual, cognitive, and social development level of the participants, target known or suspected risk and protective factors, and be guided by the known principles of effective prevention programs (Nation et al., 2003, 2005). Because the most frequently endorsed principles (comprehensive, varied teaching methods, appropriately timed) encourage multicomponent, coordinated preventive interventions (Nation et al., 2003), a primary prevention strategy for adolescent-perpetrated sexual violence should address as

many risk factors as possible and involve stakeholders throughout the community, including school personnel, parents, child welfare/child protection agencies, and community mental health service providers.

Ideally, such efforts would also be informed by the input of individuals who currently struggle or who have struggled in the past with sexual behavior problems in adolescence. Certainly, one way to increase the sociocultural relevance of a program (and thereby attend to one of the principles of effective prevention programming) is to include participants in the program's planning and implementation. In fact, participants who are involved in planning are more likely to be invested in good outcomes and may have ideas that can be used to complement or enhance the program design (Nation et al., 2005). It happens surprisingly often that the developers of intervention efforts—perhaps especially those directed at offenders or children—tend to ignore input from the affected individuals, themselves. Indeed, the research literature on adolescent sexually abusive behavior has rarely incorporated feedback from adolescents about their treatment experiences. The following recommendations incorporate data gathered from the above literature review with information provided by individuals who, in their adolescence, struggled with their own sexual interests in prepubescent children (Malone, 2014; Oliver, 2005).

Before implementing a program around a problem as frequently misunderstood and potentially incendiary as adolescent-perpetrated sexual abuse, it will be necessary to first assess the target community's readiness to address the problem. Community readiness assessments are tools that can be helpful in matching primary prevention strategies to the specific needs of the communities that will implement them, partnering with the stakeholders in a truly collaborative sense (DeWalt, 2008). These assessments measure the extent to which a community is prepared to take action on an issue by exploring the culture and resources that the community currently has to address the defined problem (see Oetting et al., 2014 for a detailed manual on how to conduct this process). Among other things, the process allows one to assess the level of buy-in from community stakeholders while also allowing the community to evaluate the resources it has (and the ones that will be needed) for strategy implementation, identify potential implementation sites, and assess how available strategies might need to be adapted to address local culture (Cook-Craig, 2012). As is common practice with victimization prevention efforts or sexual health education programs in schools—and out of consideration of different families' beliefs and values—parents of participating schools should be provided with a description of the program and its goals and should be afforded the opportunity to have their children opt out of the program or withdraw from it at a later date if that is what they wish.

According to current and recent research in the fields of child development, public health, and assessment and intervention for youth with sexual and other conduct problems—and subject to any required adaptations to facilitate its implementation within targeted communities—a comprehensive strategy to prevent adolescent sexually abusive behavior might include the components outlined below.

Preadolescent Children

Given that the average age of onset for adolescent sexually abusive behavior is between 12 and 15 years, primary prevention efforts should be geared toward children before the development of the problem behaviors, when they are 10–11 years old or in Grade 5.

Prompt Intervention for Child Victims of Sexual Abuse

Although there remains some disagreement in the literature, there exists enough evidence of a link between childhood sexual victimization and subsequent adolescent sexual offending—whether as a risk factor for the initiation of offending or its persistence over time—to indicate that targeted intervention for sexually abused youth could play a role in the prevention of subsequent sexual abuse perpetration (Grabell & Knight, 2009; Hartinger-Saunders et al., 2011; McGrath, Nilsen, & Kerley, 2011; Nunes et al., 2013). While it is known that (a) an abuse experience is neither a necessary nor a sufficient factor in the development of sexually abusive behaviors (Chaffin, 2008), (b) that most child victims of sexual violence do not go on to sexually abuse others (Salter et al., 2003), and (c) that not all children who have been sexually abused suffer long-term psychological injury or require intervention (Child Welfare Information Gateway, 2013; Dykman et al., 1997), it is also known that victims of childhood sexual abuse are far more likely than their non-abused cohorts to experience a range of negative developmental outcomes through adolescence and adulthood including higher rates of psychosis; posttraumatic stress; other anxiety, mood, personality, substance abuse, and psychotic disorders; sexual risk taking; life dissatisfaction; and contacts with the mental health system (Cutajara et al., 2010; Putnam, 2003; Senn, Carey, & Vanable, 2008; Silverman, Reinherz, & Giaconia, 1996).

Although the mechanisms through which a victim sometimes becomes an offender are not yet well understood, recent research suggests that psychological distress caused by childhood victimization, if left untreated or unidentified, tends to accumulate over time, and this *cumulative* effect may increase the probability of an adolescent offending (Hartinger-Saunders et al., 2011). It is also understood that *early starters*—prepubescent children who engage in antisocial, aggressive, or sexualized behavior—have a higher likelihood of persisting with those behaviors into adolescence and adulthood than peers whose conduct problems begin in adolescence (Carpentier et al., 2011; Moffitt, 1993, 2003). Therefore, in addition to the obvious benefits of alleviating distress and improving developmental outcomes, prompt intervention for sexually abused children—if judged as needed and appropriate through professionally guided screening or assessment—may actually reduce the likelihood of subsequent offending. Trained school staff would ideally conduct this initial screening, and this is discussed further, below.

Screening should also be attentive to those risk factors associated in the literature with the perpetration of sexually abusive behavior (as discussed earlier in this chapter), including but not limited to signs of precocious sexual behavior, indications of sexual interest much younger children or violence, sexual preoccupation, and more general conduct problems or antisocial behavior. Also worthy of attention is another set of behavioral indicators that has been linked to a propensity for involvement in adolescent sexually abusive behavior (see Stop It Now!, 2008). This includes such things as a child preferentially seeking out younger playmates, engaging in secretive play with younger playmates, persisting in unwanted physical touch with other children, viewing sexual images of children, and frequently using age-inappropriate, sexualized language. Although many of these indicators have not yet been subjected to empirical investigation, they are a product of some consensus among child protection and treatment providers in the field. As with all sources of information, appropriate caution is recommended in interpreting and applying this kind of information, since there can be many different reasons and explanations for concerning behavior in children, and most of the time these behaviors will not be indicative of special sexual behavior concerns.

Screening should also look for the most common signs of trauma-related psychological distress in children (see National Child Traumatic Stress, 2005; National Institute of Mental Health, 2013). Indeed, expanding this intervention effort to the provision of prompt screening and intervention services for children who have experienced *any* trauma (including exposure to nonsexual violence) would very likely assist in the prevention of many other forms of adolescent delinquency, as well (Adams, 2010). Multiple problem prevention programs make good sense because at-risk children tend to be at risk for multiple negative outcomes as a result of dysfunctional families, neighborhoods, schools, and peer relationships (Nation et al., 2003).

School-Based Programming

Due to the fact that children spend a considerable portion of their early lives in school, schools have the potential to reach some of the largest populations of children and are ideally positioned to provide a wealth and breadth of universal primary prevention programming for a target group of 10- and 11-year-old children. Delivery in a school setting can and should create an environment, culture, and set of norms in which sexual violence is not accepted. In many cases, it may be possible to integrate sexual abuse perpetration prevention programs with existing sexual education, anti-bullying, or health curricula without significant extra expenditure related to delivery or personnel. Consistent with what is known about successful or promising programs for other populations, curricula should involve diverse and active teaching methods (e.g., teacher-facilitated classroom discussions, role-plays, student presentations, posters, and theatrical productions) that focus on increasing awareness and

understanding of sexually abusive behavior and obtaining or enhancing skills. Content might focus on a number of different related areas, including:

- A comprehensive definition of abusive sexual behavior.
- Education about *consent* to sexual contact that anticipates common misinformation and distorted beliefs (e.g., teaching that sexual contact with a younger child is never okay, even if the child doesn't resist, appears to consent, and actively participates in the behavior).
- Education about the negative effects of sexual abuse on children.
- Education about the crimino-legal consequences of sexual abuse.
- Education and skills development in setting healthy sexual boundaries.
- Education to acknowledge sexual feelings and arousal as normal.
- Education about healthy versus unhealthy sexual thoughts, feelings, and behaviors.
- Skills development for healthy management of thoughts and feelings (self-regulation).
- Healthy relationship skills development.
- Engaging students in advocating for and creating a healthy environment at school and at home that does not tolerate abusive sexual behavior.
- Instruction about when and who to ask for help, if a child becomes concerned about him-/herself or the behavior of another person.

Anticipating the negative reactions that parents and community members sometimes have toward curricula focused on sexuality, it is worth noting that some of the specific skills development need not focus solely or specifically on sexual arousal but could involve practice in managing different kinds of emotional arousal—such as anxiety—using commonly used self-regulation procedures (such as relaxation breathing, mindfulness techniques, and visualization). And particularly given that one of the desired outcomes of such a program would be for children to seek and receive help when needed, special efforts should be made to deliver content and facilitate discussion in a manner that—while clearly communicating the wrongness of sexually abusive behavior—withholds negative judgment and shaming of youth who might struggle with unhealthy thoughts or arousal.

Based on other programs that have demonstrated efficacy, the school-based portion of the program should be approximately ten sessions in length. Based upon the content of the program and the developmental level of the participants, sessions of approximately 50 min would likely be sufficient. Nation and colleagues (2003, 2005) also note that, because the effects of most strategies diminish over time, effective interventions often include some type of follow-up or booster sessions to support the continued use of information and skills learned in the original activities. Although the prevention literature does not provide any guidelines regarding optimal timelines for effective booster sessions, given that the known mean age for the onset of sexually abusive behavior is 12–15 years, a booster session to review the program content should probably occur within 1 year of completion of the main set of sessions.

Caregiver Involvement

Consistent with what is known about the risk factors for sexually abusive behaviors in children and adolescents, the ingredients of effective interventions for this population, and the *positive relationships* principle of effective prevention, parent/caregiver involvement is key to any prevention efforts. One of the most frequently found risk factor for this population—in terms of both sexually abusive behavior and other serious conduct problems—involves opportunities to offend, inadequate parental supervision, or parental neglect (Hartinger-Saunders, Rine, Wieczorek, & Nochajski, 2012; Carpentier et al., 2011; Spice et al., 2012). This factor is usually conceptualized as an environment that supports reoffending, as evidenced by such things as unsupervised access to potential victims, poor monitoring of the adolescent's whereabouts, and proximity to adults who are unaware of the adolescent's risk factors, engage in denial, or blame the victim (Worling & Curwen, 2001).

Conversely, parental monitoring and a strong parent—child bond have been identified as protective factors for antisocial conduct in adolescents, though not specifically for sexual conduct problems (Klein et al., 2015; Spice et al., 2012; Worling & Langton, 2015). However, early, healthy parent—child attachments have certainly been postulated as a protective factor that may inhibit the development of sexually abusive behavior (Borowsky, Hogan, & Ireland, 1997; Marshall & Marshall, 2010). It is also known that effective interventions for adolescents who have engaged in sexual offending tend to have strong family involvement (Association for the Treatment of Sexual Abusers, 2012). Whether or not failures in parental supervision might on occasion signal disruptions in the child—parent bond or relationship remains an empirical question. Regardless, embedded in this risk factor are a number of rather concrete intervention targets that could be implemented in a comprehensive prevention strategy.

It has been observed that family-based programs for preventing adolescent behavior problems often present with a number of obstacles to parent involvement that can result in low participation, such as high time demands or the requirement that parents travel to locations outside the home in order to participate in the program (Kumpfer & Alvarado, 2003; Spoth & Redmond, 2000). An effective program will need to address these limitations. In their successful family-focused prevention program for teen dating violence, Foshee and colleagues (2012) mailed parent booklets conveying a combination of information and interactive activities for the parents and their teens to do together, designed to address known risk factors for dating violence. Parents additionally received phone calls every 2 weeks by a health educator to determine whether activities were completed, encourage family participation, answer questions, and assess caregiver satisfaction and other reactions to the materials.

A program for preventing sexual abuse perpetration by adolescents would do well to follow this structure, and the family component could complement the school-based portion of the program. An initial mailing containing information about sexual abuse could be directed at the parents. The mailed materials might include a definition of sexual abuse, the impact and consequences of sexual abuse

on children, clarification around facts versus myths about the perpetration of sexual abuse (including the fact that many perpetrators begin in adolescence and most sexual abuse is perpetrated by individuals known to the child), known risk factors and early warning signs for sexually abusive behavior, and the contact information for specific individuals with whom parents can consult if they have questions about the material or become concerned about their child's behavior. Special emphasis should be placed on the importance of parents properly monitoring their children. Subsequent mailings could include activities to reinforce the concepts and skills being taught to the children in school (including healthy self-regulation and relationship skills). The number of mailings should not be overly burdensome. If the school curriculum is ten sessions, mailings might occur every two sessions. Follow-up by phone or email should be initiated every 2 weeks, as well.

Staff Training and Access to Specialized Services

Effective delivery of the program would, of course, require training for the individuals delivering it (presumably teachers and guidance counselors, primarily), the individuals responsible for follow-up phone calls with the caregivers, and the school administrators, who need to be fully informed about the program so they can best support their teachers and respond to concerns. There should also be staff within the school that are specifically trained in screening for signs of trauma and recognizing at-risk behaviors. These staff should also be equipped for making referrals of children for further assessment by a psychologist or child and adolescent behavior specialist, if necessary. Before implementing a prevention program for sexual abuse perpetration, schools will need to ensure that they have identified and established relationships with child and adolescent mental health/behavior service providers in their communities, in the likely event the schools do not have the capacity to manage these referrals internally. Local child welfare agencies should also be made aware of the purpose, content, and process of the program so they are prepared and able to best collaborate in the event of any disclosures or child protection concerns that might become known through the program.

Outcome Evaluation

The final component of a good prevention strategy involves an evaluation of its outcome (Nation et al., 2003). Outcomes such as a reduction in sexual abuse perpetration are often too difficult to assess, given the low base rates for these kinds of behaviors and the long follow-up intervals necessary to detect any desired effects (Worling & Langstrom, 2006). Outcomes should be tracked at at least two points in time: within a year of completion of the program (just before the booster session is delivered) and again at a later time. Foshee and colleagues (2004) evaluated their

Safe Dates program 4 years after its delivery and were able to detect positive outcomes. Given the very low base rates for sexual offending behavior in adolescent populations and the fact that rates of sexual offending among adolescents decline dramatically after age 15 (Finkelhor et al., 2009), one might be interested in obtaining outcome measurements at 1 year following completion and then again 3 years later (4 years after the main components of the program are delivered).

Self-report methodologies have been used successfully to evaluate other sexual violence prevention initiatives with youth (see Foshee et al., 2004, 2012; 2014) and likely could be adapted and validated to suit the purposes of this initiative. Actual behavior change would be of the greatest interest to this initiative, as changes in attitudes or accumulation of knowledge are not necessarily associated with changes in the target behavior, the perpetration of sexual abuse (DeGue et al., 2014). Rates of sexual violence perpetration for the population participating in the intervention would need to be compared with rates in a matched comparison sample, such as students at other schools who are similar in important demographics (such as age, family socioeconomic status, etc.) and who have not taken part in the intervention. In order to ensure that the initiative has the capacity for a thorough outcome evaluation in terms of both funding and expertise, partnerships should be sought with universities, government departments, and private agencies and foundations with an interest in effectively addressing critical public health problems.

It is unknown whether a program aimed at preventing adolescents from sexually abusing younger children would also be effective for preventing other kinds of sexual offending behavior, such as sexually abusive behavior toward peers. However, as demonstrated by the Safe Dates program, it is not unreasonable to expect that a well-designed violence prevention initiative, particularly one that includes components targeting known correlates of general and sexual violence—such as early detection and intervention of childhood abuse and trauma—might have a number of positive, ancillary benefits. An evaluation of this program's outcomes would do well to consider these kinds of questions.

It should also be mentioned that general prevention programs focused on healthy youth development, conducted in place of (or in addition to) programs more specifically focused on sexual violence prevention, could be effective in reducing sexual violence (Morrison et al., 2004). Positive Youth Development (PYD) is an alternative approach to prevention that, instead of focusing on risk factors for negative health outcomes (such as sexual violence), concentrates on building youth capacities that have long been associated with positive health outcomes (Mannes, Benson, Scales, Sesma, & Rauhouse, 2010). For example, a set of interventions of a PYD program might support the development of youth resiliency—a known protective factor for a wide range of negative health outcomes—by targeting some of its constituent elements such as family support, caring adults, positive peer groups, a strong sense of self and self-esteem, and engagement in school and community activities (Catalano, Berglund, Ryan, Lonczak, & Hawkins, 1998). Although beyond the scope of this chapter and the proposed program, assessing the effect of such general prevention approaches on adolescent sexual violence—with and without the integration of more specialized components—will no doubt be an additional, important step in understanding and preventing sexual violence (Morrison et al., 2004).

The Second Wave of a Primary Prevention Initiative: Reaching Out to Potential Abusers

Over the past number of years, some interesting, alternative public health approaches have emerged with regard to the prevention of sexual abuse of children. These approaches are grounded in the evidence-based understanding that many individuals with sexual interests in children experience distress due to the problems associated with their sexual preference, and therefore many would be inclined to seek treatment if it were available and safe for them to do so (Beier et al., 2009; Stop It Now!, 2000). These kinds of approaches hold promise for reaching large numbers of individuals struggling with pedophilia before they engage in actual abusive sexual conduct (primary prevention) as well as those who have already engaged in sexually abusive behaviors but have made contact with the program on their own, wishing to stop (secondary prevention). They are conceptualized here as the second wave of a comprehensive primary prevention strategy, reaching out to those who might have been missed or unaffected by the universal school-based program of the first wave.

Stop It Now!

Stop It Now! is a community-based public health organization in the United States that has been successful in educating large numbers of people about sexual abuse and soliciting contact from individuals seeking help regarding their sexual attraction to children and obtaining them professional help (Donovon Rice, Hafner, & Pollard, 2010; Stop It Now!, 2000). Its methods have included a public education/ social marketing campaign raising awareness about sexual abuse perpetration (providing definitions, discussing consequences, dispelling myths, educating about early warning signs, and providing tips for prevention), a free and confidential help line and online help center, and a referral database of treatment providers. The program has succeeded in facilitating treatment access for both adults and adolescents, the latter as a result of a parent or guardian soliciting help (Chasan-Taber & Tabachnick, 1999).

Prevention Project Dunkelfeld

The *Prevention Project Dunkelfeld* (Beier et al., 2009; Schaefer et al., 2010) is another prevention effort directed at self-identified individuals with pedophilic sexual preferences, encouraging them to seek professional help through their program. The project, based at the Institute of Sexology and Sexual Medicine at the Charité University Hospital in Berlin, is comprised of a large-scale social marketing campaign communicating empathy, hope, and personal accountability for individuals

struggling with pedophilia ("You are not guilty because of your desire, but you are responsible for your sexual behavior. There is help! Don't become an offender!"), as well as confidentiality and anonymity for those who reach out to the program. Individuals who make contact with the program are screened over the telephone and, if appropriate, given the opportunity to participate in a free-of-charge assessment and treatment program designed to support their desistence from sexual offending. The program has reported success in making contact with hundreds of individuals struggling with pedophilic sexual interests who might not otherwise have come into contact with treatment providers. These have included individuals who have never acted on their pedophilic sexual urges as well as individuals who have sexually abused a child in the past but want to prevent future offending. Early results of the treatment program (which reportedly includes cognitive behavior therapy, sexological components, and pharmacological options) are encouraging in terms of self-reported reductions in dynamic risk factors for sexual abuse perpetration (Beier et al., 2015), although data is not yet available regarding the impact on actual offending behavior.

Project Primary Prevention of Sexual Child Abuse by Juveniles (PPJ)

In November 2014, researchers at the Charité in Berlin began piloting a primary prevention program that borrows from the methodology of Prevention Project Dunkelfeld but is specifically directed at adolescents aged 12–18 years. The program, *Project Primary Prevention of Sexual Child Abuse by Juveniles (PPJ*; https://www.just-dreaming-of-them.org), involves a social marketing campaign that conveys empathy, a nonjudgmental stance, and confidentiality, as well as a message of personal responsibility for one's own behavior ("You are not responsible for your sexual feelings, but you are responsible for your actions"). And like Prevention Project Dunkelfeld, it offers a specialized, no-cost intervention program for youth who feel sexually aroused by prepubescent children. According to the developers, youth who have contacted the project include those who have never acted on their urges as well as those who have already sexually abused a child or used child abuse images (E. Schlinzig, personal communication, January 23, 2015).

It is worth noting that both of the Charité prevention initiatives are able to guarantee confidentiality to their participants because, unlike the United States, Canada, and Australia, Germany does not have mandatory child abuse reporting laws for mental health professionals. According to German law, it would be a breach of confidentiality to report either a committed or a planned act of child sexual abuse (Beier et al., 2009). The adults and adolescents who contact the program can therefore feel assured that project staff will not report any disclosures of pedophilic interest to child protection or criminal justice authorities.

Help Wanted

Inspired in part by Prevention Project Dunkelfeld, another primary prevention initiative is currently in development in the United States, called *Help Wanted* (Letourneau, 2014). The purpose of Help Wanted is to bring together experts from law enforcement, mental health, victim advocacy, prevention, research, and policy to develop, evaluate, and disseminate a primary prevention intervention for adolescents with sexual interests in prepubescent children. The project is intended to create a safe place for young people to seek early, effective professional intervention, helping them develop the skills and resources needed to prevent them from harming children while at the same time promoting healthy adolescent development. Recognizing how little is known about non-offending youth with child-oriented sexual interests, Help Wanted's initial phase involves conducting qualitative interviews with young adults who have self-identified as attracted to children. Interviews will be focused on aspects of their sexual attraction, their coping strategies, and problems that resulted from their sexual interests or the need to keep it hidden. Additionally, interviewees will be asked about what might have helped them during adolescence. Results from these interviews will help inform development of the subsequent intervention. Based on the results of these interviews, a literature review, and the expertise of the development team, assessment and intervention protocols and outreach strategies and materials will be developed, followed by a pilot testing of the program. The final phase will involve revisions based on the pilot evaluation followed by delivery of the intervention as a large-scale, randomized controlled trial (Letourneau, 2014).

A significant strength of the Help Wanted approach to designing a primary prevention program for this population is that embedded in its development is an investigation into the risk, protective factors, and intervention needs of adolescents with child-oriented sexual interests but who have never acted on them, a population about which very little is actually known. This investigation in itself will help determine the design of the intervention program.

Challenges of a Targeted Primary Prevention Plan for Adolescents

A primary prevention approach directed at a selected population of teens at risk for sexually abusive behavior will certainly have a number of unique challenges. First, it might be difficult to protect the confidentiality of the adolescent participants. The nature of mandatory child abuse reporting laws in a number of jurisdictions in the United States, in particular, compels treatment providers to report not only instances of past child abuse but also concerns about potential, future child abuse (Mathews & Kenny, 2008). Therefore, program participants who disclose not only past sexual offenses but also current child-oriented sexual fantasies or interests might be subject to reporting to child protection or law enforcement authorities, depending upon the wording (and the treatment provider's interpretation) of the reporting statute. Statutes can sometimes be ambiguous, leaving much discretion to the reporter and

leading, alternately, to problems with underreporting as well as overzealous reporting (Mathews & Kenny, 2008). This places obvious limitations on a prevention program that attempts to solicit contact from adolescents seeking help in managing their sexual arousal to children, who might be unwilling to contact the program for fear of legal repercussions.

Another challenge relates to the provision of health-related services to minors. Different jurisdictions have different laws when it comes to the age at which a teenager can consent to receiving treatment. Some jurisdictions view decision-making as a developmental process, by which an adolescent's ability to consent to health care depends upon her/his ability to understand and communicate relevant information; think and choose with some degree of independence; assess potential benefit, risk, or harms of multiple options; and consider their consequences (Harrison et al., 2004). Others use strict, age-based guidelines for determining an adolescent's capacity to consent to health-care services (Coleman & Rosoff, 2013). Depending upon the adolescent's age and the jurisdiction in which they reside, the consent of her or his parents or caregivers may need to be obtained before intervention can be provided. It is reasonable to assume that some adolescents would be at least initially reluctant to make their parents aware of their struggles with pedophilic sexual interests and therefore disinclined to seek help if they believe their parents will need to become involved.

These challenges, although not insurmountable, will require careful consideration. Clarification around mandatory reporting laws will need to be obtained in those jurisdictions intending on delivering the program, and it is possible that the laws in some states might preclude the implementation of the program there. Regardless, it will also be necessary to formulate a process for responding to situations in which there are concerns about potential risk. Dialogue and collaboration between the program and child protection and law enforcement authorities will be instrumental in developing a process that balances the need for confidentiality while also responding decisively to child protection concerns.

And while some teenagers may be hesitant to inform their caregivers about their struggles with sexuality, they may become amenable to this if engaged in a supportive therapeutic process through which the risks and benefits of caregiver involvement are discussed and caregivers are assisted in responding therapeutically to their children's disclosures. In some situations, conflict may arise if the values and beliefs of the caregivers differ from those of their child or the treatment providers. It seems likely that, in many of these cases, conflicts will be resolvable through better communication about the risks and benefits of treatment. However, parental decisionmaking ought to be accepted unless it is obvious to many that the decision is demonstrably not in the best interest of the adolescent (Harrison et al., 2004). If disagreement persists and the treatment providers believe that the caregiver's wishes are clearly inconsistent with the adolescent's best interests, the treatment provider could provide the opportunity for a second opinion (either within his or her own center or from another center) or may, in some cases, even involve local child protection authorities, if deemed necessary (Harrison et al., 2004). Although the latter course of action should, of course, only be used as a last recourse, its ethical basis rests firmly on the treatment provider's duty to ensure that the best interests of the adolescent are being prioritized (Harrison et al., 2004).

It bears mention here that the effectiveness of mandatory child abuse reporting laws—in terms of whether or not they serve to protect children—is unknown. Although these laws are doubtlessly well intentioned, an empirical question remains: "What evidence is there that children are abused and neglected less in jurisdictions where mandatory reporting exists by comparison with jurisdictions where it does not exist?" (Ainsworth, 2002). Although the implementation of mandatory reporting has verifiably increased the number of reports of suspected abuse, there is no evidence that it has actually increased the detection of substantiated cases of abuse or resulted in improved outcomes (Ainsworth, 2002). Additionally, questions have been raised about the cost of mandatory reporting and the extent to which it diverts financial resources away from support services for families in need and at risk as well as the negative consequences on families in which abuse has been misidentified (Ainsworth, 2002; Hutchison, 1993). Although these issues are beyond the scope of the current chapter, they hold relevance to the successful implementation of a primary prevention program for at-risk adolescents and may be worth revisiting with legislative authorities at a future time.

Possible Components of a Targeted Intervention

In some cases, teens will likely contact a prevention program such as Help Wanted on their own initiative. In other cases (as with Stop It Now!, Dunkelfeld, and PPJ), concerned parents will likely be the ones to bring their teenagers to the program's attention. In either case, a comprehensive assessment of the teen's and her/his family's strengths and liabilities will need to be conducted in order to identify appropriate, individualized targets for intervention. Information from the youth, her/his parents, and any other relevant collateral sources (such as the child's school), as appropriate, would be invaluable. In addition to specific sexual behavior concerns, treatment targets might include such things as reducing symptoms of posttraumatic stress, strengthening parent—child relationships, or ensuring the child has a safe and stable place to live, if/as needed.

Although not all teens who present to the program will have histories of sexual abuse perpetration, treatment would likely be guided by the known, effective elements of intervention for adolescents who have engaged in abusive sexual behavior, including caregiver involvement; a developmentally sensitive, strengths-based orientation; and a matching of treatment methods and intensity to the youth's dynamic risk, needs, and factors that impact their responsiveness to intervention. Given that teens will presumably present themselves to the program based, in part, on concerns about their sexual interests or behavior, the initial assessment will need to specifically evaluate their sexual interests and arousal patterns and consider their range of possible implications, as discussed above.

Procedures for Assessing Sexual Interests of Adolescents. Clinicians have historically used a variety of methods for evaluating the sexual interests of individuals with suspected atypical or deviant arousal patterns. Penile plethysmography (PPG) is a physiological measurement procedure that involves attaching an instrument to a

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person's penis in order to measure changes in penile arousal in response to stimulation such as videos, photos, and/or audio cues. If assessing for pedophilic sexual preferences, individuals being assessed would be exposed to cues involving sexualized depictions of children while measuring the individual's erectile responses to the stimuli (Freund, 1991).

Penile plethysmography is a methodology originally developed for measuring adult sexual arousal. Although it has also been used to assess the sexual interests of adolescents, its use with young populations is problematic for a variety of reasons. First, normative data on adolescents has never been collected. In the absence of data describing what "normal" sexual arousal patterns look like in adolescents, it would be impossible to determine the degree of atypical or deviant sexual arousal in a teen who becomes aroused to sexual stimuli depicting young children. It has been found that adolescents who have engaged in abusive sexual behavior report a wider variety of atypical sexual interests than do comparable adults who have committed sexual offenses (Zolondek, Abel, Northey, & Jordan, 2001), and it is suspected that the "normal" range of sexual interests in teenagers is actually quite broad (Ogas & Gaddam, 2012; Rothman & Letourneau, 2013). Secondly, the reliability and validity of PPG with adolescents are known to be lacking, making the method problematic with this population (Association for the Treatment of Sexual Abusers, 2012; Mackaronis, Byrne, & Strassberg, 2014; Worling, 2012). Thirdly, there exist significant ethical grounds for objecting to PPG use with adolescents, a methodology that has been outlawed in several jurisdictions (Worling, 2012). It has been observed that the procedure is intrusive and potentially degrading, models sexually coercive behavior, and has the potential for inducing harm (particularly if used with adolescents with personal histories of sexual victimization) or even inadvertently contributing to the development of pedophilic arousal (Rothman & Letourneau, 2013; Worling, 2012). Until these concerns have been investigated, the continued use of PPG on adolescents is difficult to justify.

Thankfully, there exist empirically supported and ethically supportable alternatives. Viewing time methodologies have shown some utility with adolescents (Abel et al., 2004; Mackaronis et al., 2014). The principle behind viewing time is that individuals look longer at images of people to whom they are sexually attracted. Individuals are presented with images of models in different age groups and asked to rate the attractiveness of each model while the time that the individual takes to provide the ratings is recorded unobtrusively. In most viewing time software packages, the models are fully clothed and are not presented in sexualized poses. And adolescents undergoing viewing time assessments have reported not finding the experience upsetting (Worling, 2006). These findings address some of the ethical concerns related to PPG methods. Viewing time has been shown to correlate significantly with both adolescent self-report and PPG findings, although the reliability and validity data to date is only moderately supportive of the use of the methodology with adolescents (Worling, 2012).

Service providers who work with adolescent forensic populations have long assumed that their teenaged clients cannot be relied upon to tell the truth about their sexual interests and behaviors (Chaffin, 2011; Worling, 2013). In fact, the use of

polygraph ("lie detectors") by treatment providers in the United States for adolescents who have sexually offended has doubled since 1996 (McGrath et al., 2010), despite the fact that polygraphy fails to meet even the most basic scientific standards for validity and reliability; does not contribute to reduced sexual recidivism; is known to elicit false disclosures; may be biased against anxiety prone, immature, and naïve individuals; is rarely used in other countries; and is an ethically questionable, coercive practice that may cause harm (Chaffin, 2011). Nevertheless, there is little empirical evidence to support the belief that adolescents are inclined to be deceptive about their sexuality. A number of studies have demonstrated that teenagers can actually be quite forthcoming about these topics and that adolescents' self-report regarding their sexual interests and arousal tends to be quite consistent with physiologically measured arousal (Daleiden, Kaufman, Hilliker, & O'Neil, 1998; Seto et al., 2000; Worling, 2006).

Mindful of these findings, Worling (2006) developed a structured method for assessing the sexual interests and arousal patterns of teens, in which adolescents—guided by a clinician—are asked to graph their own sexual interests and levels of arousal to males and females in different age groups using a chart prepared for this purpose. The method also allows for ratings of arousal to other subjects of interest to the clinician (such as arousal to specific individuals, animals, inanimate objects, etc.). Self-report information gathered through this methodology has been shown to correlate well with physiologically measured sexual arousal (Worling, 2006). This approach has utility not only as a concrete, easy-to-use assessment strategy for adolescent sexual interests but also as a method for facilitating further exploration of these topics in a client- and child-centered, developmentally sensitive, therapeutic manner.

Interventions for Addressing Atypical Sexual Arousal with Adolescents From the time that the sexual offender treatment field began to evolve in the 1970s, the most common intervention approaches for addressing atypical or deviant sexual interests have been based on behavioral principles and have included aversion therapies (using electrical shocks, noxious odors, or shaming to reduce arousal), covert sensitization, masturbatory satiation, and orgasmic conditioning (Marshall & Laws, 2003). Although these procedures were developed for adults, many practitioners report that they currently use them with adolescent populations (McGrath et al., 2010), despite a number of ethical concerns and the absence of any controlled investigations to examine their effectiveness with youth or their potential to cause iatrogenic harm (Worling, 2012). And more recent and popular cognitive behavioral strategies such as thought stopping—where the adolescent is taught procedures to interrupt and remove a deviant sexual thought from conscious awareness and replace it with a thought that is healthier—have actually been shown to cause an unintentional (and ironic) rebound effect where the consciously suppressed thought often recurs even more frequently and with greater intensity than it did prior to using the technique in the first place (Johnston, Ward, & Hudson, 1997; Shingler, 2009; Worling, 2012).

Although a number of treatment programs use medications with adolescents to reduce atypical sexual arousal (McGrath et al., 2010), these pharmacological approaches were developed for adult males, and there is currently almost no empirical basis to support the use of medication with adolescents for this purpose

(Bradford & Federoff, 2006). Some of the medications typically used to control sexual arousal have been shown to cause a range of undesirable side effects in teenagers, and their long-term effects on physical and sexual maturation are unknown (Bradford & Federoff, 2006). It is also important to note that most governmental health regulatory bodies do not recognize the use of medication to treat deviant sexual interests (Bradford & Federoff, 2006).

In the absence of a body of research to guide interventions for addressing atypical sexual arousal in teenaged populations, it makes sense to consider empirically supported and ethically supportable approaches used with parallel populations or parallel problems that are also consistent with the principles of effective prevention. Originally borrowed from Buddhist meditation practices and integrated in Western cognitive therapy approaches, mindfulness involves the intentional, accepting, and nonjudgmental focus of one's attention on the emotions, thoughts, and sensations occurring in the present (Kabat-Zinn, 1982; Linehan, 1993). Effective at enhancing attention and focus and reducing anxiety, stress, and depressive symptoms in adults, mindfulness-based strategies have grown considerably in popularity over the past 30 years (Tan & Martin, 2015). More recently, mindfulness approaches have been extended to adolescent populations and have demonstrated utility in enhancing overall mental health and behavior control (increasing self-esteem, mental flexibility, attention, cognitive inhibition, and behavioral regulation) and successfully reducing problems including, anxiety, depression, somatic complaints, and sleep difficulties with youth (Black, Milam, & Sussman, 2009; Burke, 2010; Tan & Martin, 2015). The practice has recently shown value when integrated into interventions for intellectually disabled adults who have offended sexually (Singh et al., 2011).

Mindfulness approaches essentially teach individuals to notice their distressing or unwanted thoughts or urges and, without judgment, monitor their thoughts, feelings, and physiological responses without acting on them. The potential of these strategies for addressing deviant sexual arousal is evident: when applied to the management of sexual arousal, deviant arousal is neither acted upon nor suppressed; rather, it is simply noticed by the client and experienced until it inevitably subsides. Worling (2012) notes that the practice is actually not new to treatment programs for adolescents who have offended sexually, and its adaptation for this particular population has been described in at least one recent publication (Jennings, Apsche, Blossom, & Bayles, 2013). While the practice of mindfulness for addressing atypical sexual arousal in adolescents certainly needs to be evaluated, there are indications that these methods—devoid of aversive conditioning procedures, therapist-directed masturbation, and other elements likely to make engagement in treatment difficult for anyone—hold promise for this population.

Consistent with a strengths-based perspective, an accompanying approach for addressing atypical sexual interests would be to build skills for healthy sexuality. Sexual arousal patterns in adolescence have been observed to be quite fluid and dynamic (Bancroft, 2006; Powell, 2010), and therefore there is good reason to expect that—at least for some adolescents—healthy, nondeviant interests can be strengthened if the youth see the possibility of forming healthy emotionally and sexually intimate relationships in their futures (Worling, 2012). As discussed above,

it is already known that most youth who have engaged in abusive sexual behavior with younger children are mainly interested in consensual activities with age-appropriate partners. Strategies that seek to build on these interests by removing obstacles to sexual health would therefore have potential for modifying sexual interests in these teenagers. Consistent with what is known about risk factors for sexual offending among adolescents, some teens with sexual interests in younger children present with unhealthy attitudes about sex and sexuality, dysfunctional beliefs about intimate relationships, social anxiety and interpersonal skill deficits, and/or problems with self-regulation. Each of these factors creates real barriers to successfully navigating the complexities of forming healthy, prosocial peer relationships. By strengthening youth's capacity for healthy relationships, treatment approaches that target these liabilities, if present, can support adolescents in adjusting their developmental trajectories in the direction of sexual, emotional, and behavioral well-being.

Some youth may not be amenable to this kind of treatment approach. For example, youth with strong antisocial personality tendencies and callous/unemotional traits are known to respond less well to intervention, in general, than youth without these qualities (Caldwell, 2002; Caldwell, Skeem, Salekin, & Van Rybroek, 2006). Seto and Lalumiere (2010) speculated that, while atypical sexual interests are an important motivation for some adolescents who commit sexual offenses, antisocial tendencies can influence an adolescent's willingness to act upon this motivation. This suggests that for youth who present with a combination of antisocial personality characteristics and deviant sexual interests, interventions for addressing sexual arousal should be informed by practices that have been effective specifically for antisocial youth. Fortunately, certain treatment approaches have shown promise with even highly antisocial adolescents, particularly when they are tailored to the developmental, emotional, and behavioral needs and circumstances of the youth and her/his family; focused on behavioral functioning (monitoring progress closely, making adjustments as necessary, and rewarding desired behaviors over undesired ones); and emphasize caregiver involvement, interpersonal skill acquisition, and the development of conventional social bonds to displace delinquent associations and activities (Caldwell & Van Rybroek, 2013). Although it remains an empirical question for the time being, it is certainly feasible that youth who present to the program with a combination of antisocial personality features and atypical sexual interests might be responsive to this kind of approach. It is important to note that embedded in these kinds of methods is the close supervision and monitoring of responsible adults, which is known, in itself, to reduce the occurrence of sexual abuse perpetration in children and adolescents.

Another set of youth will likely present to an intervention program with atypical sexual interests that resist intervention and remain persistent, entrenched, and apparently immutable. For these individuals, treatment might focus more on managing atypical arousal than reducing it. In these cases, intervention strategies might focus on skills training centered on emotional and behavioral self-regulation and self-monitoring, ensuring the youth is involved in healthy activities, and the support and monitoring of caregivers or other responsible adults. Participation in a peer support group may be beneficial as well, whether in person or online. In a recent publication,

interviews were conducted with young adults who have struggled with child-oriented sexual interests since adolescence, and many reported finding helpful support, encouragement, and motivation to manage their arousal through their participation in online support groups for individuals with identical struggles (Malone, 2014). Although an online, anonymous support group for individuals self-identified as pedophilic has its hazards (especially possible infiltration by less virtuous individuals seeking pedophilic sexual stimulation), some of these risks can likely be mediated by professional or peer moderation. The advantages of an online support group are obvious. Anonymity can encourage treatment participation among those who might otherwise be disinclined and possibly help avoid triggering mandatory reporting protocols. Certainly, the potential reach of an online support network, if found to be beneficial, makes it an ideal tool for primary prevention.

Conclusion

There is little doubt that the problem of sexual violence perpetration requires a comprehensive public health strategy. A thoughtfully conceived primary prevention program specifically designed to facilitate early detection and intervention for adolescents at risk for engaging in sexually abusive behavior can be a key piece of such a strategy. However, despite tremendous advances in the science of prevention and intervention, societal responses to sexual offending and sexual abuse have been and continue to be largely reactive and misinformed. It is likely that the success of any prevention efforts will depend on the ability of researchers to educate and persuade the public that, although we do not yet know all the answers for sexual violence, what we do know is enough to make a difference right now.

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