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## Identifying Links Between Sexual Violence and Youth Violence Perpetration: New Opportunities for Sexual Violence Prevention

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### Abstract

**Objective**—One promising opportunity for advancing sexual violence (SV) research and identifying new avenues for prevention involves examining other forms of violence that may share risk factors with SV. Youth violence (YV) is ideal for consideration given evidence of overlap in SV and YV risk factors, a large set of established YV risk factors across the social ecology, and the number of evidence-based YV prevention strategies available. The current paper identifies shared and unique risk factors for SV and YV and highlights evidence-based YV prevention strategies that impact these shared risk factors.

**Conclusions**—Researchers and program developers should consider adapting and evaluating evidence-based YV prevention strategies to prevent SV. Modifying these programs to address SV's unique risk factors may maximize their potential effectiveness. In addition, expanding SV research at the outer levels of the social ecology is critical to developing community-level prevention strategies. The YV literature suggests several potential risk factors at these levels in

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need of research for SV, including school connectedness, social disorganization, and availability of alcohol and drugs. Using the YV literature as a starting point for expanding SV research leverages prior investments in YV research, may help identify new SV prevention strategies at a limited cost, and moves the field more quickly toward implementation of cost-effective, multidomain violence prevention strategies in communities.

### Keywords

rape; bullying; prevention; risk factors

Sexual violence is a serious social and public health problem affecting the health and well-being of millions of individuals each year in the United States and throughout the world (Basile, Chen, Black, & Saltzman, 2007). The U.S. Centers for Disease Control and Prevention (CDC) defines *sexual violence* (SV) as any attempted or completed sexual act, sexual contact, or non-contact sexual abuse with someone who does not consent or is unable to consent or refuse (Basile & Saltzman, 2002). The public health approach to SV prevention emphasizes the need for primary prevention approaches to effect population-level reductions in SV (Basile, 2003). Two key steps in this model involve the identification of empirically supported risk and protective factors and utilization of these factors in the development and evaluation of prevention strategies (Basile, 2003). Although significant progress has been made in each of these areas with regard to the prevention of SV over the past 3 decades, few evidence-based approaches for the primary prevention of SV perpetration exist today (Teten Tharp et al., 2011). One opportunity for expanding the SV prevention landscape involves examining other forms of violence that may co-occur and share risk factors with SV. The present article moves in this direction by examining the overlap in prevalence, risk factors, and prevention strategies for SV and youth violence (YV) to suggest possible directions for expanding future SV etiological research and the development or evaluation of promising new strategies for SV prevention.

This review has several aims. First, we identify shared risk factors for SV and YV to guide the selection or development of cross-cutting prevention strategies (see Table 1). Second, we identify risk factors for YV that have not yet been examined for SV, but which may hold promise for expanding the SV literature and informing prevention efforts. Third, we highlight risk factors unique to SV, as addressing these factors in multidomain prevention programs may help ensure impacts on both SV and other forms of violence. Finally, we provide an overview of the literature on evidence-based prevention strategies for YV and highlight approaches with potential for concurrent impact on SV. The CDC defines YV as the intentional use of physical force or power, threatened or actual, exerted by or against youth ages 10–24, which results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment, or deprivation (Dahlberg, 1998). Our review focuses primarily on studies of peer victimization and bullying.

### Shared Risk Factors for Sexual and Youth Violence

Most prevention programs for youth tend to focus on only one domain of violent behavior (e.g., SV, dating violence, bullying), despite evidence that the same individuals often engage

in multiple forms of violence. For example, adolescent boys who engage in peer-directed violence are more likely to perpetrate SV concurrently and at a 1-year follow-up than nonviolent boys (Ozer, Tschann, Pasch, & Flores, 2004). Similarly, bullying behaviors in middle school predict subsequent involvement in sexual harassment (Espelage, Basile, & Hamburger, 2012). Overlap in the perpetration of sexual and youth violence may reflect the presence of shared risk factors that increase the likelihood of either behavior. Understanding these shared risk factors may improve our ability to develop and test prevention strategies that target these factors, producing impacts across domains. Thus, we begin by identifying shared risk factors for SV and YV at each level of the social ecology in order to guide the selection or development of violence prevention programs aimed at targeting both behaviors. We organize these factors into a social–ecological framework to demonstrate the multiple levels of influence involved in risk for violence, as well as to highlight levels of the social ecology with more or less evidence.

### Individual-Level Factors

**Delinquency/antisocial behavior**—In addition to an extensive literature linking delinquency and antisocial behavior to YV (Bosworth, Espelage, & Simon, 1999), early involvement in delinquent behavior has been linked to SV perpetration in several studies across populations, including samples of college and community men and adjudicated sexual offenders (e.g., Abbey & McAuslan, 2004; Lacasse & Mendelson, 2007). Indeed, Malamuth’s well-established confluence model identified early delinquency as a key etiological factor in the development of SV behavior (Malamuth, Linz, Heavey, Barnes, & Acker, 1995), and a direct effect of delinquency on sexual aggression was recently identified in an expanded version of the confluence model (Abbey, Jacques Tiura, & LeBreton, 2011). Studies using longitudinal data also found that persistent SV perpetrators (who engaged in SV at multiple time points) reported elevated rates of adolescent delinquency (e.g., Hall, DeGarmo, Eap, Teten, & Sue, 2006).

**General aggression**—Generalized aggressiveness is typically assessed as personality trait or tendency to engage in aggressive (but not necessarily illegal) behaviors, differentiating it from more specific measures of antisocial and delinquent behavior. Aggressiveness is a well-established risk factor for YV, with studies finding that high levels of aggression in childhood and early adolescence consistently predicted later violence among males (Tolan & Gorman-Smith, 1998). In addition, general aggressiveness has been consistently associated with SV perpetration in the literature, with numerous studies suggesting that individuals exhibiting greater nonsexual aggression or self-reporting aggressive tendencies are more likely to engage in SV than their less aggressive peers (e.g., DeGue, DiLillo, & Scalora, 2010).

**Substance use**—Substance use (primarily alcohol and tobacco use) among children is one of the strongest predictors of later violence perpetration (Lipsey & Derzon, 1998). Substance use has also been consistently recognized as a correlate of SV, with several studies suggesting an association between alcohol use (e.g., Abbey et al., 2011) or drug use (e.g., Segurado et al., 2008) and SV perpetration history. For instance, a large, statewide study of high school students found that male and female SV perpetrators were more likely

than nonperpetrators to consume alcohol on a daily basis and to use illegal drugs (Borowsky, Hogan, & Ireland, 1997). Alcohol use has also been linked to an increased risk for sexual aggression in laboratory analog studies (Testa, 2002). However, Testa (2004) notes that alcohol may interact with existing attitudinal or environmental risk factors to influence risk for SV rather than acting as a causal agent. Similarly, the relationship between substance use and YV may not be simple or direct (van der Merwe & Dawes, 2007). Substance use may have some proximal psychopharmacological effects on violence risk, and it might also increase the risk for violence indirectly through social processes, such as involvement in the drug trade (Boles & Miotto, 2003).

**Attitudes supportive of violence**—Attitudes supportive of violence have been consistently associated with YV perpetration. Herrenkohl et al. (2000) found that proviolence attitudes at age 14 doubled the risk of self-reported violence at age 18. Furthermore, middle school students who held beliefs supportive of violence were more likely to engage in bullying (Bosworth et al., 1999). Acceptance of violence as normative and instrumental, as well as attitudes supporting the use of violence to obtain sex, have also been consistently linked to SV perpetration in studies of adolescent boys (Sears, Byers, & Price, 2007), college students (Abbey & McAuslan, 2004), and adults (Abrahams, Jewkes, Hoffman, & Laubsher, 2004).

### Family-Level Factors

**Child maltreatment/exposure to parental violence**—Research consistently suggests that child maltreatment can increase the risk for later violence perpetration (Widom & Maxfield, 2001). Violent offenders are more likely to have experienced physical punishment and child abuse than nonoffenders (Loeber et al., 2005), and exposure to parental violence and child maltreatment have been associated with bullying behavior (Baldry, 2003). Similarly, two recent meta-analyses reported consistent associations between physical and sexual abuse histories and SV in samples of convicted sex offenders (Jespersen, Lalumiere, & Seto, 2009; Seto & Lalumiere, 2010). SV perpetration has also been linked to childhood psychological abuse (DeGue & DiLillo, 2004) and exposure to parental violence (Borowsky et al., 1997).

**Parent–child relationship quality**—Ineffective parenting practices, including low parental social support, poor parental monitoring, and low levels of parental involvement, are consistently associated with an increased risk for youth violence (e.g., Demaray & Malecki, 2003). Although few parenting risk factors have been examined in the SV literature, there is some evidence that poor parent–child relationship quality may be associated with SV perpetration. For example, one study found that adjudicated adolescent sex offenders had lower quality mother–son relationships than nonoffenders, using an observational measure of parent–child interactions (Blaske, Borduin, Henggeler, & Mann, 1989). SV perpetrators also reported worse relationships with their fathers (e.g., Smallbone & Dadds, 1998) and less responsive fathers, looser parental boundaries (defined by levels of supervision and discipline), and less perceived safety in childhood (McCormack, Hudson, & Ward, 2002) than nonperpetrators.

## Peer-Level Factors

**Association with delinquent/violent peers**—Association with antisocial peers has also been identified as a critical risk factor for serious violence in adolescence (Loeber et al., 2005). Keenan, Loeber, Zhang, Stouthamer-Loeber, and van Kammen (1995) found that exposure to deviant peer behavior predicted the subsequent initiation of disruptive and delinquent behaviors by boys, suggesting a temporal relationship rather than a simple correlation between one's own delinquency and that of their peers. Another study also found that middle school students tended to associate with peers who engaged in bullying at similar rates as themselves, and that having peers who bullied was associated with an increase in bullying behavior over time (Espelage, Holt, & Henkel, 2003). Association with violent or delinquent peers may also increase risk of SV perpetration by providing implicit support for and modeling violent behavior. Having friends who had engaged in physical or sexual dating violence was associated with sexual, but not physical, dating violence among high school students (Sears et al., 2007). Similarly, college students who reported having friends who engaged in SV were more likely to have perpetrated SV themselves (e.g., Christopher, Owens, & Stecker, 1993).

**Peer norms supportive of violence**—Peer aggression has been found to vary as a function of social norms in one's immediate peer group (Chang, 2004). In one study, classmates' beliefs about the acceptability of aggression predicted their beliefs about aggression and aggressive behavior (Henry et al., 2000). Also, a longitudinal study of middle school students found that both actual class norms and perceived school-level norms supporting aggression were associated with aggressive behavior over time (Farrell, Henry, Mays, & Schoeny, 2011). Several studies have found that men who engage in SV behavior are also more likely than nonperpetrators to perceive peer norms supportive of SV (e.g., Abbey, Parkhill, Clinton-Sherrod, & Zawacki, 2007). Peer support for SV, whether real or perceived, may encourage, facilitate, or justify these tactics as normative and acceptable means of obtaining sex.

## Identifying Potential Risk and Protective Factors for Sexual Violence

The SV literature to date has focused heavily on the identification of individual-level factors associated with perpetration, and these factors are targeted most often by existing prevention efforts. Fewer studies have examined factors at the relationship level, including characteristics of peer, family, or intimate relationships. In addition, little is known about potential community- and societal-level factors that may influence risk for SV perpetration; and very few, if any, protective factors have been identified. These gaps in our understanding of risk and protective factors for SV limit the number of modifiable targets that can be explicitly addressed with prevention strategies. In contrast, the YV literature has benefited from a longer history of etiological research, higher levels of research funding over time, and more cross-disciplinary attention to the identification of risk and protective factors. These advantages have resulted in a large literature with greater availability of prospective and longitudinal data, as well as a broader range of known risk and protective factors across levels of the social ecology. Thus, looking toward the YV literature for guidance on

additional promising factors to examine for SV, especially at the outer levels of the social ecology, may help direct future research.

Toward this end, the following section highlights three modifiable, community-level risk and protective factors for YV with potential for impacting SV. Identification of new SV risk factors at the community level would facilitate the development of multilevel prevention strategies with greater potential for achieving long-term and population-level reductions in SV than approaches targeting only individual characteristics, attitudes, or behaviors (Casey & Lindhorst, 2009). Furthermore, the identification of additional shared risk factors increases the potential for development of programs with crossover effects, that is, programs capable of impacting violent behavior across domains.

### School Connectedness

Greater *school connectedness* (defined as the attachment between students and their teachers or school environment; Catalano, Oesterle, Fleming, & Hawkins, 2004) has been associated in several studies with lower risk for violence perpetration and delinquency among youth. Moderate to high levels of connectedness may represent a form of social bonding that serves a protective function for youth; conversely, low levels of perceived school connectedness may actually increase the risk for aggressive behavior (van der Merwe & Dawes, 2007). For example, findings from the Seattle Social Development Study indicated that school connectedness during middle and high school was negatively associated with substance use, delinquency, gang membership, violence, and sexual activity in adolescence and young adulthood (Catalano et al., 2004). Other studies also have found that higher levels of school connectedness predicted delayed initiation or lower levels of behavior problems among adolescents, including substance use, delinquency, and violence (Dornbusch, Erickson, Laird, & Wong, 2001).

Preliminary evidence suggests that school connectedness, and broader community connectedness, may also play a role in the perpetration of SV (Basile, Espelage, Rivers, McMahon, & Simon, 2009). Borowsky et al. (1997) found that perceived community connectedness, or feeling that individuals in one's school, church, or community care about them, was associated with a decreased SV risk for adolescents. Another study found that adolescent sexual offenders felt less attached to their peers and school than their nonsexual offending peers, suggesting that school and community connectedness may serve as a risk factor for SV as well. However, the literature regarding school connectedness and SV remains very limited. Given the potential for improving school connectedness through school-based interventions (Battistich, Schaps, & Wilson, 2004), increased attention to this potential predictor could provide support for considering these approaches in the development of SV prevention strategies.

### Social Disorganization/Lack of Social Controls

*Social disorganization* refers to the absence or breakdown of communal institutions (e.g., family, school, church, and local government) that traditionally encourage cooperative relationships among people. High levels of social disorganization in communities often result in an absence of effective social controls to constrain and discourage antisocial



behavior (Chung & Steinberg, 2006; Sampson, Raudenbush, & Earls, 1997). Indeed, indicators of social disorganization such as neighborhood disorder, weak social ties, and low levels of informal social controls (the extent to which community adults cooperate to regulate the behavior of neighborhood youths) and collective efficacy have been consistently linked to adolescent delinquency and deviant behavior (Leventhal & Brooks-Gunn, 2000; van der Merwe & Dawes, 2007). Social disorder and social controls might also impact aggressive behavior within more defined and structured communities, such as schools. For example, school-level norms about violence and aggression (Brezina, Piquero, & Mazerolle, 2001), greater perceived fairness and clarity of rules (Gottfredson, Gottfredson, Payne, & Gottfredson, 2005), and the presence of a positive community of adults in the school who interact with students and share norms and expectations (i.e., informal social controls; Bryk & Driscoll, 1988) have all been linked to levels of school violence and disorder. Social controls in schools may originate from informal sources, such as teacher or staff behavior and attitudes, or from the presence and enforcement of formal school policies. One study found that classrooms in which students and teachers provided formal or social sanctions for aggressive behavior saw levels of aggressive behavior decrease over time (Henry et al., 2000).

Much less is known about the effects of community- and neighborhood-level factors on SV. One study examining macrolevel predictors of rape found that indicators of social disorganization had direct effects on the incidence of rape at the state level (Baron & Straus, 1987). Limited evidence also suggests that school norms or cultures that promote or tolerate sexual teasing or harassment between students may be associated with an increased risk of these behaviors (Basile et al., 2009). In contrast, school policies that support reporting sexual harassment may result in a higher likelihood of staff intervention and a lower incidence of these behaviors (Kosciw & Cullen, 2002). Additional research is needed to examine whether the effects of social disorganization and informal social controls extend from general violence and delinquency in communities and schools to the perpetration of SV.

### **Availability of Drugs/Alcohol in Community**

The availability of drugs and alcohol in a community has been associated with community violence rates, as well as rates of violent delinquency (e.g., van der Merwe & Dawes, 2007). Both the density of alcohol outlets and the density of drug crimes per capita can predict violent crime rates in those communities (Gorman, Zhu, & Horel, 2005). Other studies have also reported links between alcohol outlet density and assault rates (Gruenewald, Freisthler, Remer, LaScala, & Treno, 2006). High levels of alcohol availability in a community may increase rates of violence through behavioral disinhibition at the individual level, especially in contexts with existing norms supportive of violence, or by undermining social organization and collective efficacy in disadvantaged or high-risk communities (Nielsen, Martinez, & Lee, 2005). Likewise, the availability of drugs or presence of drug crime in a community may directly impact the behavior of individual drug users, while increasing opportunities for involvement in drug crime, motivating drug-related violence, and contributing to decreased social cohesion and community safety (Herrenkohl et al., 2001).

The direct relationship between alcohol use and SV perpetration is well established, with evidence that about half of all sexual assaults involve alcohol use by the perpetrator, victim, or both (Abbey, Zawacki, Buck, Clinton, & McAuslan, 2004). Several studies have also identified an association between drug use and SV perpetration (e.g., Shannon et al., 2008), although this literature is less consistent. Given that substance use has been identified as a contributor to SV behavior at the individual level, it is possible that increased access to alcohol and drugs in communities might also have a negative impact on rates of these behaviors. Although research is limited, two studies found that higher state alcohol prices (which may lead to decreased alcohol consumption) were associated with lower rates of sexual assault on college campuses (Markowitz & Grossman, 1999) and fewer reports of rape using FBI data (Cook & Moore, 1993). No research, to date, has examined the impact of alcohol outlet density or drug availability on SV outcomes, but there is some evidence that alcohol availability may impact rates of intimate partner violence (Livingston, 2011). Given the potential implications for local and state policy regarding alcohol outlet zoning, the identification of drug “hot spots” for targeted policing, and community-level interventions aimed at reducing substance use or availability, the SV prevention field would benefit from research examining whether the impact of alcohol and drug availability in communities extends to the perpetration of sexual offenses.

## Risk Factors Unique to Sexual Violence Perpetration

It is useful to consider how shared risk factors for SV and YV might guide the identification of effective multi-domain prevention strategies, but we also recognize the unique nature of SV behavior and the potential utility of addressing SV-specific risk factors in cross-cutting prevention approaches. SV is distinct from YV in several meaningful ways: Most victims are female, it typically takes place in private rather than public settings, victimization frequently occurs in the context of a close relationship and may involve a violation of trust, and high perpetration rates exist across the socioeconomic scale. Furthermore, the problem of SV is influenced, and aggravated, by a cross-cultural history of laws and social norms justifying and supporting men’s violence against women. These unique features of SV perpetration may have implications for determining whether existing YV programs hold potential for SV prevention. For example, strategies that rely on active intervention in high-risk situations may be less applicable to behaviors that frequently occur behind closed doors. Similarly, approaches that target only low-income, high-crime neighborhoods will likely miss a large proportion of those at risk for SV perpetration. Furthermore, given the strongly gendered nature of SV, approaches that ignore the cultural context of SV and the role of gender-related beliefs and attitudes in perpetration may show less impact on these behaviors.

In addition to the unique characteristics and context of SV, research has identified several risk factors that are likely specific to SV or other forms of violence against women. These risk factors include belief in rape myths (Lonsway & Fitzgerald, 1994), victim-blaming attitudes (Maxwell, Robinson, & Post, 2003), hostility toward women (Marshall & Moulden, 2001), exposure to sexually explicit media (Vega & Malamuth, 2007), deviant sexual fantasies (Malamuth et al., 1995), and perceived peer support for forced sex (Abbey et al., 2007). Some of these factors have been addressed frequently by SV prevention programs (e.g., belief in rape myths, victim-blaming attitudes), and others are considered most often in



treatment settings (e.g., deviant sexual fantasies). As such, approaches exist to target some of these factors. Although the SV literature has yet to demonstrate substantial success in preventing SV behavior by modifying these risk factors alone, including them in existing comprehensive, evidence-based violence prevention programming may prove more effective (Teten Tharp et al., 2011). Thus, programs or strategies developed for the prevention of YV may benefit from inclusion of additional content, modifications, or modules to address some of these SV-specific risk factors. Although it remains to be tested, this approach may improve the odds of finding an effective program for the prevention of both SV and YV.

## Promising Prevention Approaches

The literature on evidence-based approaches to YV prevention has grown significantly in the past 30 years. A number of strategies and programs have been rigorously evaluated and found to have significant impact on reducing risk for violence. Given the overlap in risk factors for SV and YV, as well as evidence indicating that the onset of SV and YV tend to occur in similar developmental periods, it is possible that these programs may also be effective in preventing SV. To aid in the identification of promising approaches that could be evaluated for their impact on SV, this section provides an overview of evidence-based programs for preventing YV grouped according to similarities in their approach and/or delivery mode. Within each category, one or two examples of specific programs that exemplify the approach are described. To identify opportunities for cross-cutting prevention, we examine the extent to which these programs address empirically supported risk factors for SV.

### Universal School-Based Programs

Much of the work in evaluating programs to prevent YV has occurred in the area of school-based universal strategies, in which all students in a grade receive the program in their classroom. Reviews and meta-analyses have supported the effectiveness of universal, school-based programs in reducing youths' risk for engaging in violent behavior (Hahn et al., 2007; Wilson & Lipsey, 2007). Most universal school-based programs focus on building youths' skills and provide opportunities for positive development. In examining how these programs may impact SV, it is important to determine the extent to which they address skills that are related to SV perpetration.

The Life Skills Training (LST) program teaches youth about violence and the media, anger management, and conflict resolution (Botvin, Griffin, & Nichols, 2006). LST has been found to have beneficial effects on shared risk factors for YV and SV, including substance abuse, delinquency/antisocial behavior, and general aggression. Several studies have found that youth who participated in LST had significantly lower rates of substance abuse (Botvin, Griffin, Diaz, & Ifill-Williams, 2001; Spoth, Randall, Trudeau, Shin, & Redmond, 2008), verbal and physical aggression, fighting, and delinquency (Botvin et al., 2006) than comparison youth. Similarly, Positive Action (Beets et al., 2008) is a school-based universal program that emphasizes concepts related to positive behaviors for youth. With respect to shared risk factors for SV and YV, studies have reported the significant impact of Positive Action on delinquency/antisocial behavior, general aggression, and substance abuse.

Findings include lowered rates of alcohol and illegal drug use as well as significant reductions in the occurrence of violence among boys (Flay & Allred, 2003).

### **Parenting Skill and Family Relationship Programs**

Programs that build parents' skills and enhance connectedness among family members have been shown to have beneficial effects on parent and youth behavior, as well as family cohesion (Wyatt Kaminski, Valle, Filene, & Boyle, 2008). Evidence-based parenting programs teach parents strategies for identifying, managing, and reducing youths' maladaptive behaviors. Such programs also build family connectedness and cohesion, and provide opportunities for parents to actively acquire parenting skills and build positive relationships with their children. There are a number of evidence-based parenting and family programs that have shown positive effects on parenting behaviors, parent-child relationships, and youth aggression.

For example, Guiding Good Choices (GGC; Park et al., 2000) is a prevention program for parents of youth ages 9 to 14 that emphasizes building parenting skills, enhancing family bonding, and teaching youth skills. Evaluations of GGC have demonstrated positive effects on several overlapping risk factors between YV and SV: delinquency/antisocial behavior, substance abuse, and parent-child relationships. One evaluation reported that adolescents from families who participated in GGC had lower rates of marijuana, tobacco, and alcohol use than comparison youth, as well as lower rates of delinquency (Mason, Kosterman, Hawkins, Haggerty, & Spoth, 2003). GGC has also shown positive effects on parents' use of effective discipline strategies, lower rates of negative parent-child interactions, and better parent-child relationship quality (Redmond, Spoth, Shin, & Lepper, 1999).

The Strengthening Families Program (SFP; Spoth, Redmond, & Shin, 2000) is also a skills training program for families with adolescent youth. SFP has been shown to have positive effects on several risk factors for YV and SV: general aggression, substance abuse, and parent-child relationships. Children whose families participated in SFP had lower rates of aggression, conduct problems, delinquency, and alcohol and drug use than comparison youth (Spoth et al., 2000). Participating parents also used effective parenting strategies more frequently and had better parent-child relationships (Spoth, Redmond, & Shin, 1998). Both GGC and SFP target parents and families of older youth, which may make them more relevant than other parenting programs for addressing the development of SV behavior.

### **Intensive Family- and Community-Based Approaches for High-Risk Youth**

There is evidence that very high-risk youth with a history of delinquency and a host of other risk factors for violence need more intensive programs and services to address the accumulation of risk factors influencing their development. Strategies that intervene with high-risk, chronic youth offenders can be effective in preventing violence among these youth (Hahn et al., 2005). These intensive strategies address factors in the youth's environment that contribute to violent and delinquent behavior, including individual characteristics of the youth, family relations, peer relations, and school performance.

Multidimensional family therapy (MDFT; Liddle, Rowe, Dakof, Henderson, & Greenbaum, 2009) is an intensive family therapy program that can be delivered either through outpatient

or day treatment. Evaluations of MDFT have demonstrated significant effects on several shared risk factors for YV and SV: delinquency/antisocial behavior, substance abuse, parent–child relationships, and association with delinquent peers. Youth whose families participated in MDFT had lower rates of marijuana, alcohol, and overall drug use, as well as decreased risk for delinquency, problem behaviors, externalizing symptoms, and affiliation with delinquent peers (Liddle et al., 2009). Families who participated in MDFT had higher family competence and higher family cohesion (Liddle et al., 2009).

Multisystemic therapy (MST; Henggeler, Melton, & Smith, 1992) uses an intensive therapeutic approach to address the multidimensional nature of behavior problems by attending to characteristics of social networks that are contributing to youth antisocial behavior. Multisystemic therapy for youth with problem sexual behaviors (MST-PSB; Letourneau, Borduin, & Schaeffer, 2009) is a clinical adaptation of MST that is specifically targeted to adolescents who have committed sexual offenses. Evaluations of MST-PSB have reported significant impact on several shared risk factors for YV and SV: delinquency/antisocial behavior, general aggression, substance abuse, and parent–child relationships. These studies also reported lower rates of nonsexual delinquent behaviors, substance abuse, and peer aggression; fewer problem and externalizing behaviors; and greater family bonding and cohesion for youth who participated in MST-PSB (Borduin, Schaeffer, & Heiblum, 2009). In addition, evaluations of MST-PSB found that youth who participated were less likely to be arrested for a sexual crime and had lower rates of problem sexual behaviors following participation (Letourneau et al., 2009).

### Other Promising Youth Violence Prevention Approaches

There are a number of strategies addressing community-level risk factors that have shown promise in preventing violence. Specific structural and policy approaches that change the environmental characteristics of communities can enhance community safety, and in turn can be effective at influencing key risk and protective factors for YV. For example, evaluations of Business Improvement Districts (BIDs; MacDonald, Golinelli, Stokes, & Bluthenthal, 2010) have reported significant reductions in community rates of violent crime by addressing community-level processes, such as order maintenance, formal and informal social control, and community cohesion. BIDs are grassroots, community-level interventions that provide economic development opportunities within the business community. BIDs may have an impact on potential risk factors for SV, including social disorganization and a lack of social controls.

Another promising strategy involves the use of street-level outreach to intervene in high-risk communities. These approaches attempt to change social norms supportive of violence at the community level in order to impact multiple forms of violence. For example, the CeaseFire program (Skogan, Hartnett, Bump, & Dubois, 2008) works to interrupt violence, particularly shootings, and change neighborhood-level norms around violence. In one study, CeaseFire reduced shootings and killings and prevented retaliatory killings in most of the communities in which it was implemented (Skogan et al., 2008). The community mobilization and social norms strategies used by CeaseFire could inform the development of similar strategies

focused on the types of environmental, social, and situational factors that increase the risk for SV.

### Prevention Operating Systems

Prevention “operating systems” are broad-based strategies that do not involve implementation of any single evidence-based program or strategy. Rather, they assist communities and service delivery agencies in the selection and implementation of programs. One of the key benefits of prevention operating systems is that they provide opportunities within communities to engage in strategic planning processes and implement comprehensive strategies that address multiple related health outcomes. These approaches can leverage resources to address multiple forms of violence in communities. Through strategic planning and comprehensive, multisectoral strategies, prevention operating systems can establish prevention systems within communities so that efforts to prevent different forms of violence as well as related outcomes (such as substance abuse) are coordinated within an integrated system.

Communities That Care (CTC; Hawkins et al., 2008) is a prevention operating system that relies on building community coalitions to engage in a public health approach to prevent youth problem behaviors. A rigorous randomized trial of CTC involving 24 communities across seven states found that CTC communities had significantly lower rates of youth delinquency, alcohol and substance use, and YV than comparison communities (Hawkins et al., 2009). Given the significant impact of CTC on a number of key risk factors for SV, CTC presents a unique opportunity to establish a prevention operating system with the potential for impact on multiple forms of violence, including SV, as well as shared and unique risk factors.

PROSPER, or *P*ROmoting School–community–university *P*artnerships to *E*nhance *R*esilience, is a prevention operating system that facilitates implementation of evidence-based programs in communities (Spoth, Greenberg, Bierman, & Redmond, 2004). One of the unique aspects of PROSPER is the fact that it relies on established delivery systems within states—namely, the Cooperative Extension System and the public schools. These partnerships provide opportunities to leverage resources and expertise across states to conduct comprehensive prevention approaches in communities. Rigorous evaluations of PROSPER have demonstrated significant effects on alcohol and drug use, conduct problems, and family outcomes, including connectedness and discipline (Spoth et al., 2008).

### New Opportunities for Sexual Violence Prevention

This article examines the YV and SV literatures to identify shared and unique risk factors for these behaviors, as well as a set of risk and protective factors with potential for expanding our understanding of SV perpetration at the outer levels of the social ecology. Attention to these factors can inform the identification of existing evidence-based YV prevention strategies with potential for cross-over effects on SV. Indeed, we highlight several strategies with evidence of impact on shared risk factors for SV and YV. Although many advances have been made in the SV prevention literature, there remains a need for new and

innovative directions in the field. Implications of this review for research, practice, and policy are discussed below.

### Research, Practice, and Policy Implications

#### **Build on the YV literature to expand SV prevention at the community level—**

The development and evaluation of community-level prevention strategies are necessary to achieve to population-level reductions in SV; yet, to date very few approaches have been considered at this level and none have been rigorously evaluated (DeGue et al., 2012). One factor limiting the development of strategies at this level is the lack of etiological research identifying key outer level risk factors to target with appropriate prevention strategies. We have identified a selection of YV risk factors beyond the individual level that have theoretical promise for impacting SV. By building off the YV risk factor literature when identifying new potential risk factors to investigate at the relationship and community levels for SV, the scope of potential risk and protective factors is narrowed to those with existing or established measures and evidence of impact on violent behavior. This may decrease the time needed to build the SV etiological evidence at these levels and jump start efforts to expand SV prevention at the community level.

#### **Evaluate evidence-based YV prevention programs for SV outcomes—**

Our review demonstrates the significant overlap in risk factors shared by YV and SV and highlights the potential value of evaluating evidence-based YV prevention strategies for SV outcomes. Of course, evaluation and program development efforts should not be limited to examination of these approaches; strategies tailored to SV risk factors and perpetrators are also needed and may prove most effective. Nevertheless, a wide range of evidence-based approaches with evidence of impact on SV risk factors already exist and are being implemented widely. The addition of SV measures to future outcome evaluations of these programs seems an efficient and cost-effective means of expanding the pool of potential strategies evaluated for SV outcomes. This approach has several advantages. First, it maximizes prior investments in these existing programs and evaluations, and may reduce the wait time for communities in search of effective SV prevention strategies to implement. Second, identifying programs, policies, and strategies that are effective at preventing multiple forms of violence presents an important opportunity for maximizing scarce resources available for violence prevention efforts in communities. If programs that are effective across different types of violence can be identified, communities can maximize their resources and ensure greater return on their investment. Third, identification of programs with evidence of effectiveness across domains may allow us to focus dissemination efforts to facilitate widespread adoption of these strategies with greater efficiency. The programs highlighted in this review illustrate the broad range of strategies with potential for impacting SV. YV researchers and program evaluators are encouraged to include measures of SV in future evaluations, with attention to the large literature on measurement of SV perpetration (e.g., Testa, VanZile-Tamsen, Livingston, & Koss, 2004; Valle et al., 2007).

**Adapt YV prevention strategies to address SV—**SV behavior is distinct from YV in several important ways, including the circumstances in which it occurs, the presence of

cultural and historical supports for violence against women, and gender differences in victimization and perpetration. These unique contexts and risk factors for SV should be considered when applying violence prevention strategies for other behaviors to SV. The odds of achieving meaningful reductions in SV using evidence-based YV prevention strategies would likely be improved by modifying or adapting them to include SV-specific content, modules, or strategies that take the unique aspects of SV into account.

The SV prevention field has developed a wide range of strategies for moderating or preventing SV-specific risk factors, such as belief in rape myths and attitudes toward sexual violence or women (e.g., Anderson & Whiston, 2005). These approaches often use brief, educational approaches in school-based settings to change attitudes and social norms that support or justify rape (Brecklin & Forde, 2001). Unfortunately, there is little evidence that these approaches produce lasting effects on SV behavior (Teten Tharp et al., 2011). However, it may be that these individual-level strategies would prove effective if included as part of a comprehensive violence reduction strategy that also addresses peer, family, or environmental risk factors or includes skill building or behavioral modification components, such as those often incorporated in effective YV prevention programs. Indeed, two universal school-based programs to prevent physical and sexual teen dating violence have demonstrated effects on SV behavior in rigorous evaluations using more comprehensive strategies, including multisession curricula, community or environmental change components, and opportunities for skill building or exposure to behavioral modification approaches: Safe Dates (Foshee et al., 2004) and Shifting Boundaries (Taylor, Stein, Woods, & Mumford, 2011).

Safe Dates is a school-based intervention that includes a student-led theater production, a curriculum with ten 45-min sessions administered by teachers, and a poster contest (Foshee et al., 2004). Students who participated in this program in eighth grade had lower rates of physical and sexual dating violence perpetration than a control group at a 4-year follow-up (Foshee et al., 2004). Shifting Boundaries includes a classroom-based six-session curriculum for middle school students that emphasizes the consequences of dating violence and sexual harassment for perpetrators and introduces norms around boundaries and personal space. This program also includes a school-wide component involving the use of a counseling intervention for students involved in “boundary” disputes (i.e., structured, staff-mediated response to disciplinary issues related to harassment), the use of student surveys to identify “unsafe” areas of the school for increased staff monitoring, and educational posters to increase awareness and reporting of dating violence and harassment. A rigorous evaluation of this program found a significant reduction in SV perpetration against dating partners and peers at a 6-month follow-up in the intervention versus control schools; findings indicated that these effects were due to the school-wide intervention, whereas the classroom-based curriculum alone had no impact (Taylor et al., 2011). The success of these multicomponent, multilevel school-based programs should guide future program development and evaluation work in SV prevention, and may also provide direction for the development of SV-specific adaptations of existing YV programs. For example, the effectiveness of the school-wide environmental intervention in Shifting Boundaries supports the inclusion of similar strategies in school-based YV programs (i.e., staffing in unsafe areas, student conflict mediation interventions, educational posters).



### Use YV programs as models for developing new approaches to SV prevention

—In addition to testing existing YV programs for SV outcomes or adapting these programs to include some SV components, the diverse range of evidence-based strategies for YV may also serve as informative models for the development of new and innovative approaches to SV-specific prevention. For example, in contrast to the SV literature, the YV prevention field has developed and tested a number of programs targeting family-level risk factors. The parenting skill and family relationship programs described above may provide models for the development of family-based interventions for youth at high risk for SV. Both SFP (Spoth et al., 2000) and GGC (Park et al., 2000) have successfully implemented strategies for engaging families in programming, teaching parenting skills, and enhancing parent–child relationships. These strategies could be coupled with more SV-specific content to target youth who demonstrate problem sexual behaviors or other early risk factors for SV. Similarly, evidence-based prevention operating systems, as described above, provide a framework for increasing capacity and implementing prevention approaches within communities. These operating systems could be implemented with the expressed goal of reducing community levels of SV (rather than other youth problem behaviors), resulting in an increased community investment in SV-specific strategies. Although this approach is limited by the current availability of evidence-based SV prevention strategies for communities to select from and implement, this approach may be useful to state- or local-level rape prevention organizations looking to empower communities and increase capacity for SV prevention in the future.

### Limitations and Future Directions

Although we focus here on ways that the YV literature might inform SV prevention, we recognize that the YV literature would also benefit from attention to lessons learned in the SV field. For instance, the use of bystander strategies has become increasingly popular in the SV field. These programs train individuals to intervene with their peers to change social norms and prevent SV in high-risk situations. Several programs have been developed and implemented with high school, college, and military populations (e.g., Banyard, Moynihan, & Plante, 2007; Coker et al., 2011; Potter & Moynihan, 2011). Although, to date, none of these programs have demonstrated effects on SV perpetration behavior using a rigorous evaluation design, the existing evidence is promising and additional evaluations are underway. Such strategies may also prove promising if applied to the prevention of YV. Some bullying prevention programs have already been incorporating aspects of the bystander approach (Whitted & Dupper, 2005).

The aim of the present article is to identify shared risk factors that support the identification of cross-cutting prevention strategies. However, the presence of shared etiologies and developmental trajectories for SV and YV also points to a need for explanatory theories that account for the co-occurrence of these behaviors. Popular developmental theories of aggression and antisocial behavior may be applicable to both forms of violence. For example, Moffitt's (1993) conceptualization of adolescence-limited and life-course persistent offenders has been well substantiated with regard to youth violence. This theory differentiates between youth who experience a temporary and normative increase in antisocial behavior in adolescence because of situational factors and a developmental

susceptibility to peer influence, and youth with a host of intersecting individual and environmental risk factors who initiate antisocial behavior prior to adolescence and continue to engage in such behavior throughout adolescence into young adulthood. Given evidence that some increases in sexual harassment and sexual bullying in early adolescence are also normative and temporary (Pellegrini, 2001), it may be that similar patterns of development exist for SV. Indeed, Seto and Barbaree (1997) proposed a model, based in large part on Moffitt's work, that distinguished between persistently antisocial SV offenders with early, chronic, and criminally versatile offense patterns and SV offenders with no history of antisocial behavior but with a tendency toward deviant sexual interests. This model has been supported by research examining adolescent SV offenders who engage in SV only or SV plus other types of offending (Butler & Seto, 2002). More work is needed to examine the application of theories such as this across types of violence, accounting for the overlap in risk factors and the likelihood that perpetrators of one form of behavior may also engage in other forms of violence. A better understanding of the application of theory across violence types may provide further support, or call into question, the utility of cross-domain prevention programs.

## Conclusion

SV is a serious public health problem in need of additional evidence-based strategies for prevention. Consideration of the broad YV prevention literature may provide one unique opportunity for advancing the primary prevention of SV, with several potential advantages. This approach would leverage prior investments in YV etiological and evaluation research, more quickly identify new evidence-based SV prevention strategies at limited cost, and move toward implementation of cost-effective, multi-domain violence prevention strategies in communities. This review suggests several ways that researchers, program developers, and prevention strategy evaluators could utilize lessons learned in the YV literature to inform future research and evaluation efforts in the SV field and move us closer to population-level reductions in both forms of violence.

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**Table 1****Summary of Shared and Unique Risk Factors for Sexual and Youth Violence**

|                                                   |                                                  |
|---------------------------------------------------|--------------------------------------------------|
| <hr/>                                             |                                                  |
| Shared risk factors for sexual and youth violence |                                                  |
| Individual level                                  |                                                  |
|                                                   | Delinquency/antisocial behavior                  |
|                                                   | General aggression                               |
|                                                   | Substance use                                    |
|                                                   | Attitudes supportive of violence                 |
| Family level                                      |                                                  |
|                                                   | Child maltreatment/exposure to parental violence |
|                                                   | Parent–child relationship quality                |
| Peer level                                        |                                                  |
|                                                   | Association with delinquent/violent peers        |
|                                                   | Peer norms supportive of violence                |
| <hr/>                                             |                                                  |
| Potential risk factors for sexual violence        |                                                  |
| School connectedness                              |                                                  |
| Social disorganization/lack of social controls    |                                                  |
| Availability of drugs/alcohol in community        |                                                  |
| <hr/>                                             |                                                  |
| Risk factors unique to sexual violence            |                                                  |
| Belief in rape myths                              |                                                  |
| Victim-blaming attitudes                          |                                                  |
| Hostility toward women                            |                                                  |
| Exposure to sexually explicit media               |                                                  |
| Deviant sexual fantasies                          |                                                  |
| Perceived peer support for forced sex             |                                                  |
| <hr/>                                             |                                                  |