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Review article

Addressing Intimate Partner Violence and Sexual Violence Among Adolescents: Emerging Evidence of Effectiveness

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A B S T R A C T

Intimate partner violence (IPV) and sexual violence (SV) are widespread among adolescents and place them on a lifelong trajectory of violence, either as victims or perpetrators. The aim of this review was to identify effective approaches to prevent adolescent IPV and SV and to identify critical knowledge gaps. The interventions reviewed in this article reflect the global focus on interventions addressing violence perpetrated by men against women in the context of heterosexual relationships. Interventions for girls and boys (10–19 years) were identified through electronic searches for peer-reviewed and gray literature such as reports and research briefs. Studies were excluded if they were published before 1990 or did not disaggregate participants and results by age. Programs were classified as "effective," "emerging," "ineffective," or "unclear" based on the strength of evidence, generalizability of results to developing country settings, and replication beyond the initial pilot. Programs were considered "effective" if they were evaluated with well-designed studies, which controlled for threats to validity through randomization of participants. A review of 142 articles and documents yielded 61 interventions, which aimed to prevent IPV and SV among adolescents. These were categorized as "parenting" (n = 8), "targeted interventions for children and adolescents subjected to maltreatment" (n = 3), "school based" (n = 31; including 10 interventions to prevent sexual assault among university students), "community based" (n = 16), and "economic empowerment" (n = 2). The rigor of the evaluations varies greatly. A good number have relatively weak research designs, short follow-up periods, and low or unreported retention rates. Overall, there is a lack of robust standardized measures for behavioral outcomes. Three promising approaches emerge. First, school-based dating violence interventions show considerable success. However, they have only been implemented in high-income countries and should be adapted and evaluated in other settings. Second, community-based interventions to form gender equitable attitudes among boys and girls have successfully prevented IPV or SV. Third, evidence suggests that parenting interventions and interventions with children and adolescents subjected to maltreatment hold promise in preventing IPV or SV by addressing child maltreatment, which is a risk factor for later perpetration or experience of IPV or SV. Results suggest that programs with longer term investments and repeated exposure to ideas delivered in different settings over time have better results than single awareness-raising or discussion sessions. However, lack of rigorous evidence limits conclusions regarding the effectiveness of adolescent IPV and SV prevention programs and indicates a need for more robust evaluation.

IMPLICATIONS AND CONTRIBUTION

The results of this review suggest that promising approaches to prevent intimate partner violence and sexual violence among adolescents should be replicated and scaled up in different settings, including school-based dating violence, parenting, and community-based interventions.

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There is increasing global recognition that addressing gender-based violence among adolescents is a human rights and public health imperative. The far-reaching consequences of gender-based violence among women are well documented, with significant sexual and reproductive health outcomes [1]. Tragically, exposure to gender-based violence places many adolescents on a lifelong trajectory of violence, either as victims or perpetrators [2]. The magnitude of the problem among adolescents, especially girls and young women, is significant. Evidence suggests that the prevalence of exposure to gender-based violence is already high among adolescent girls, indicating that violence commonly starts early in their lives. A report on estimates of intimate partner violence (IPV) based on data from 81 countries shows that the lifetime prevalence of physical and/or sexual IPV among ever-partnered girls (15–19 years) is 29.4% and 31.6% among young women (20–24 years) [1]. In some countries, violence affects as much as half of 15- to 24-year-old girls/women [3].

IPV occurs primarily from adolescence and early adulthood onward, most often in the context of marriage or cohabitation, and usually includes physical, sexual, and emotional abuse as well as controlling behaviors. Sexual violence (SV) can occur at any age—including childhood—and can be perpetrated by parents, family members, teachers, peers, acquaintances and strangers, as well as intimate partners. Although IPV includes, but is not limited to SV, SV includes all perpetrators including intimate partners. Among adult and young women, SV by intimate partners is much more common than by other perpetrators. This may not be the case, however, for very young adolescents (i.e., 10–14 years). As children grow into puberty, they may experience sexual harassment or assault in their home, community, or school or forced first sex. Research also shows that violence is not limited to sexual debut but can be an ongoing feature of adolescent relationships. Generally called "dating violence" in the United States and Canadian literature, it refers to physical or SV occurring in the context of a relationship that is neither marriage nor a long-term cohabitating partnership. In Asia, and parts of the world where marriage often takes place at a young age, the phenomenon of dating violence is rare and IPV begins earlier. Internationally, population-based studies of dating violence are few, but limited evidence suggests that this affects a substantial proportion of youth [2]. Although more females are sexually victimized than males, there is growing recognition that the sexual victimization of boys and men may be a serious, yet largely invisible, problem especially in conflict-affected settings [4–6]. IPV and SV also occur in same sex relationships, although prevalence is not well documented. Particular groups of adolescents may be especially vulnerable to SV such as adolescents from marginalized groups, working children, those with disabilities, homeless youth, youth living in conflict-affected settings, and children who have dropped out of school [7–10].

A number of reviews identify risk and protective factors for victimization of women and for perpetration by men in the context of heterosexual relationships [2,6,11]. Gender inequality is a root cause of IPV and SV at the population level; however, at the individual level, childhood violence is also a risk factor. Evidence suggests that risk factors for adolescents may be similar to those identified for adults. These include exposure to violence as a child, prior victimization, bullying and homophobic teasing, poor parental practices, harmful alcohol and substance use, unequal social norms that condone gender-based violence, lack of empowerment among women and girls, controlling male behavior, and laws and policies that perpetuate gender inequality (Table 1) [2,12–18]. The importance of exposure to violence as a child or witnessing parental abuse as a child in shaping both the risk of victimization of women and for perpetration by men highlights the need to take a life course perspective, particularly in examining interventions that are aimed at preventing or addressing violence against children.

Therefore, concerted efforts at multiple levels are required to address IPV and SV among adolescents. Given that many adolescent girls and young women already experience high levels of violence, primary prevention efforts among younger adolescents are needed to stop violence before it occurs. Moreover, adolescence represents a unique opportunity to promote attitudes and behaviors that prevent IPV and SV over the life course because it is during this period that gender role differentiation intensifies, and boys and girls try out new ways of thinking and acting in intimate relationships. The aim of this review was to identify effective approaches to prevent gender-based violence, in particular, IPV and SV among adolescents in heterosexual relationships. The questions guiding this review are as follows: What types of interventions or programs show evidence of being effective in preventing experience/perpetration of IPV and SV among adolescents? What types of interventions change adolescent attitudes which support IPV and SV? What are the critical knowledge gaps? What lessons can we learn from the growing evidence in this area? What are the implications for designing programs and policies for preventing gender-based violence among adolescents? This article was commissioned for

Table 1
Risk and protective factors for intimate partner and sexual violence among adolescents (based on evidence in the literature)

Perpetration by men	Both perpetration by men and victimization of women	Victimization of women
Individual		
• Antisocial personality	• Harmful alcohol and substance use • Witnessing or being a victim of violence • Belief that violence is justified/tolerable • Low education	• Socioeconomic status (weak) • Risky sexual practices • Young age • Marital status • Depression
Relationship and family		
• Bullying and homophobic teasing • Academic achievement • Partner has concurrent relationships	• Violence within family • Connectedness with adults • Divorced/separated parents • Poor parenting practices (harsh discipline, lack of supervision, and low affective proximity) • Friends with delinquent behaviors/who approve of/experience IPV • Relationships characterized by power imbalances • Relationship conflict	• Forced/unwanted first sex

Data from [2,11,17,18,20].

an Expert Group Meeting on Adolescent Sexual and Reproductive Health in February 2013 as part of a 20-year review of progress made in implementing the Programme of Action of the International Conference on Population and Development.

Methods

In addition to IPV and SV, there are many other forms of gender-based violence that undermine the sexual and reproductive health of adolescents and their broader well-being. These include early and forced marriage, sexual trafficking, rape as an instrument of war, acid throwing, honor killings, female genital cutting, sexual harassment, and homophobic bullying. However, the scope of this review was limited to interventions that prevent IPV and SV, including those that influence risk factors for later perpetration or victimization because they are the most common forms of gender-based violence that young women and girls experience globally with grave consequences for their sexual and reproductive health, greatly exceeding the prevalence of other forms of violence in most women's lives [19]. Although boys are also victims of SV and IPV, the evidence suggests that girls are disproportionately affected. With the exception of interventions addressing boys in conflict settings (excluded from this review), the literature is strongly biased toward programs that address violence against women and girls. There are few documented programs addressing same-sex violence or violence against men in low- and middle-income country settings, and they are not included in this review.

The review uses the definition of IPV from the World Report on Violence and Health—behavior within an intimate relationship that causes physical, sexual, or psychological harm, including acts of physical aggression, sexual coercion, psychological abuse, and controlling behaviors [11,20]. SV is defined by the World Health Organization as, "any sexual act, attempt to obtain a sexual act, unwanted sexual comments or advances, or acts to traffic, or otherwise directed against a person's sexuality using coercion, by any person regardless of their relationship to the victim, in any setting including but not limited to home and work" [2].

The interventions included here address a number of the risk factors associated with IPV and SV identified in Table 1. The review sought interventions for girls and boys between the ages of 10 and 19 years. However, because few programs target this specific age range, interventions for 15- to 26-year olds are also included. Electronic searches for published and peer-reviewed literature were conducted using PubMED, Google Scholar, PsycINFO, and SciVerse Science Direct. Web sites of organizations known to work in IPV and SV, such as Promundo, the World Health Organization, and the Sexual Violence Research Initiative, were examined for reports and articles. Google search was used to find unpublished or nonindexed gray literature. Previous SV literature reviews were analyzed, as were the reference lists for all reports and articles identified. Search terms included ("adolescents" OR "school" OR "youth") AND ("dating violence" OR "rape" OR "sexual violence" OR "partner violence" OR "sexual assault" OR "bullying" OR "harassment") OR ("gender" OR "gender norms" AND "violence" AND "adolescents" OR "youth" OR "school").

The articles of interest in this study presented quantitative and/or qualitative evaluation results of a violence prevention intervention. Interventions were included regardless of whether IPV or SV were primary or secondary outcomes of interest as long as they were reported. Studies were excluded if they were published before 1990 or did not disaggregate participants and results by age. Editorials, conference abstracts, and opinion pieces were also excluded. Because there is little evidence published on the results of violence prevention interventions in low- and middle-income countries, all studies identified which met these criteria were included in the review, even those with weaker evaluation designs. When available, preference was given interventions tested in low- and middle-income countries, although studies from higher income countries were included if there was strong evidence of their effectiveness. Despite efforts to provide as comprehensive a review as possible, limitations exist. Studies not published in English, inaccessible through the sources listed previously, and many programs from higher income countries without strong evidence were not included. Other limitations arise because of the scarcity of documented and evaluated interventions targeting adolescents, particularly in developing countries.

Results

A total of 142 articles were reviewed and yielded 61 adequately documented interventions that address risk and protective factors for adolescent IPV or SV. Most of the programs included in the review are designed to influence factors such as inequitable gender norms, tolerance of SV, and relationship conflict. The interventions can be categorized as parenting ($n = 8$), targeted interventions for children and adolescents exposed to violence ($n = 3$), school based ($n = 31$; including 10 interventions to prevent sexual assault among university students), community based ($n = 16$), and economic empowerment ($n = 2$). No interventions were found that addressed alcohol use and IPV or SV among adolescents or policy initiatives that focused on adolescents. Many of the programs employ multisectoral and integrated designs; thus, there is overlap across program categories. For the purposes of this review, social norms marketing interventions are included in the category of community-based programs. Of the programs reviewed, only 17 were implemented in developing countries. Eight programs targeted youth under 15 years, although two programs focused on 14- to 16-year olds, one on 11- to 17-year olds, and one on 10- to 17-year olds. In total, eight programs utilized media components. A table describing the target population, type of intervention, risk and protective factors addressed, research design, outcome indicators, scalability, and overall effectiveness of each of the 61 studies can be accessed in the Appendices. Most of the programs reviewed were guided by a life-course perspective which identified early risk factors and attempted to disrupt developmental trajectories leading to violence.

The rigor of the evaluations varies greatly. A good number have relatively weak research designs (e.g., no comparison group), short follow-up periods (less than 6 months), and low or unreported retention rates (less than 75%). Overall, there is a lack of robust standardized measures for behavioral outcomes. Table 2 presents the research designs of programs implemented in developing country settings, as well as four North American programs with relatively strong evidence of effectiveness. Only six of the evaluations were randomized controlled trials and eight used quasi-experimental designs. While the results of many evaluations suffice to suggest that the interventions are promising, few results are definitive in terms of effectiveness. The lack of rigorous evidence limits the conclusions that can be drawn regarding the effectiveness of programming for preventing IPV and SV among adolescents and indicates a need for more robust evaluation of promising interventions.

Programs were assessed in terms of changes in behavior, attitudes, and knowledge related to reduced perpetration/

Table 2
Research design of selected adolescent intimate partner sexual violence prevention programs

	Randomized control trial	Quasi-experimental design	Other	Outcomes measured	
				Attitudes: norms, bystander acceptance	Behavior: experience, perpetration
Interventions tested in low- and middle-income country settings					
Berhane Hewan (Erulkar 2009 [40])		X		X	
Gender Equality Movement in Schools (ICRW 2012 [41])		X		X	
Go Girls Initiative (Underwood and Schwandt 2011 [42])		X		X	X
Intervention with Microfinance for AIDS and Gender Equity (Pronyk et al., 2006 [43])[a]	X			X	X
Ishraq (Brady et al., 2007 [44])			X	X	
No Means No Worldwide (Sinclair et al. [25])[b]			X		X
Parivartan (Das et al. 2012 [45])		X		X	
Program H/Yaari Dosti (Pulerwitz et al. [21]; Verma et al., 2008 [46])		X		X	X
Safe and Smart Savings (Austrian 2010 [47])		X		X	
School-based Guardianship (Mgalla, Schapink, and Ties Boerma 1998 [48])				X	X
Soul City (Udsin et al., 2006 [49])				X	
Stepping Stones (Jewkes et al., 2008 [50]) (South Africa)	X	X		X	X
Stepping Stones[a] (Paine et al., 2010 [51]) (The Gambia)			X	X	X
Tap and Reposition Youth[a] (Erulkar and Chong, 2005 [52])			X	X	
World Starts with Me (Rijdsk et al., 2011 [53])				X	
Youth Relationship Project (WHO/London School of Hygiene and Tropical Medicine 2010 [54]) (Canada)				X	
Interventions shown effective in higher income countries[c]					
Parenting Programs: Triple P (Sanders 1999 [55]) (Leung et al. [24])	X			X	
Safe-dates (Foshee et al., 1998; Foshee et al. [31])	X			X	X
The Fourth R (Wolfe et al. [56])	X				X
Shifting Boundaries (Taylor et al. [29])		X	X		X
Total (21)	5	9	5	17	10

WHO = World Health Organization.
[a] Matched control group.
[b] Nonrandomized census-based longitudinal cohort study.
[c] North America only.

experience of violence (Table 3). Changes in knowledge and attitudes are the weakest of the outcomes measured because they do not necessarily lead to changes in behavior. Therefore, programs were not considered effective without demonstrated reductions in experience or perpetration of violence. Measuring changes in violence is challenging, however, especially over the short-time period of most projects, and few of the evaluations reviewed assessed behavior change. Specific sexual and reproductive health outcomes were also measured infrequently.

The inconsistent metrics (e.g., lack of standardized outcomes, different measures of experience of women's victimization and men's perpetration) result in a lack of comparability across programs and complicate efforts to formulate recommendations, even within subgroups of interventions. Almost all studies measured changes in gender attitudes and the acceptability of IPV or SV, relying on scales to measure constructs such as "gender inequitable norms" and "tolerance of IPV." The Gender Equitable Men Scale, used to measure gender norms, is the only scale used more than once in studies in developing country settings [21]. Various scales measuring "self-efficacy to avoid/prevent violence," "empathy," and "willingness to intervene" were used frequently by programs in the United States. Indicators specific to programs targeting college-age populations or those geared toward preventing SV among older adolescents, most in Western settings, include knowledge of rape myths and consequences. "Parental competence," "marital discord," "harsh and dysfunctional parenting," and "violent discipline" are specific to parenting programs and measure risk factors for experiencing or perpetrating SV/partner violence later in life.

The programs reviewed were classified as "effective," "emerging," "ineffective," or "unclear" based on the strength of evidence, generalizability of results to developing country settings, and replication beyond the initial pilot (Figure 1). Programs were considered effective if they were evaluated with well-designed studies, which controlled for threats to validity through randomization of participants, such as randomized controlled trial designs with adequate sample size. Some programs are labeled unclear either because of weak methodologies or inconsistencies across evaluations or subpopulation responses, such as in the systematic review by Morrison et al. [22]. Programs that saw no measurable reduction in violence were considered ineffective and those that measured only knowledge and attitudes were considered emerging. Of the entire 61 programs included in the review, 14 are considered effective, 28 emerging, 13 unclear, five ineffective, and one is under evaluation (Table 4).

Parenting programs and interventions with children subjected to maltreatment

Parenting programs and interventions with children subjected to maltreatment seek to prevent future perpetration of partner violence by creating safe homes in which conflict is handled nonviolently, parents utilize healthy parenting strategies, and children neither witness nor experience interpersonal violence. Most of the programs reviewed were implemented in higher income settings, although parenting, particularly fatherhood, programs are emerging in developing countries. Parent-centered programs utilize home visitation, couples or group education, peer or one-on-one support, and referrals. They focus on harsh or dysfunctional parenting, violent discipline and child maltreatment, as well as partner communication, anger management, and healthy masculinities.

Table 3
Selected outcomes from intimate partner and sexual violence prevention programs

Behaviors

- Social skills
- Nonviolent conflict resolution
- Violence
  - Perpetration/experience of sexual violence
  - Perpetration/experience of intimate partner violence/dating violence
  - Perpetration/experience of bullying
  - Perpetration/experience of sexually aggressive behavior
  - Perception/experience of harassment
  - Level of marital discord
- Gender equitable behavior
  - Girls enrollment in school
  - Age at marriage
  - Shared decision making
- Protective behaviors
  - Help seeking
  - Bystander intervention
- Sexual and reproductive health
  - Early sexual debut/coerced sex
  - Transactional sex
  - Multiple sexual partners
  - Use of health services (VCT, contraception)
  - Condom/contraceptive use
  - STI diagnosis, including HIV
  - Unwanted pregnancy

Attitudes/skills/self-efficacy

- Gender equitable norms
- Rejection of rape myths and victim blaming
- Perception that IPV is not a private affair
- Intolerance of IPSV
- Approval of healthy timing and spacing of births
- Ability to resolve couple disputes nonviolently
- Self-efficacy dealing with sexual coercion
- Intention to intervene
- Perceived parental competence

Knowledge

- Violence risk and protective factors
- Ability to label rape scenarios as rape
- Awareness of risks/consequences of IPSV
- Contraceptive knowledge
- HIV prevention knowledge

IPSV = intimate partner sexual violence; IPV = intimate partner violence; STI = sexually transmitted infections; VCT = voluntary counseling and testing.

A few programs were found, which target children who experienced child abuse or who were exposed to parental IPV to build their assets and promote resiliency. These programs, all in developed country settings, emphasize psychological treatment and social and emotional skill-building interventions.

Effectiveness. There is strong evidence from high-income countries that parenting programs can reduce conduct disorders and later antisocial behavior among children, both of which are associated with future partner violence [23]. There is also emerging evidence in high-income countries that parenting programs prevent child maltreatment, a factor strongly associated with later IPV and SV, by improving child-rearing skills, increasing knowledge of normal development, and helping parents discipline and manage problems constructively [24]. However, as yet there is no evidence from longitudinal follow-up showing that grown up children whose parents participated in these programs are less likely to report IPV or SV later in life than those whose parents did not. Although there is no direct evidence of effectiveness, they do modify a known risk factor for adolescent IPV and SV. Therefore, their effectiveness is classified as emerging, with the caveat that many of these programs have mainly been tested in high-income settings, and therefore, their relevance and effectiveness in low- and middle-income country settings are not known.

On the other hand, three of the 11 studies in this category targeted children and adolescents who had experienced child maltreatment or who were exposed to parental IPV. These psychological interventions have been shown to be effective in improving cognitive, emotional, and behavioral outcomes, and one randomized trial also showed impact on reductions in perpetration and experience of dating violence among adolescents. Compared with parenting interventions which do not have direct evidence on long-term effects among grown up children of parents exposed to the intervention, psychological interventions for children and adolescents exposed to child maltreatment have a more proximal and direct link to adolescent IPV prevention outcomes. Therefore, these targeted interventions are classified as effective, with the caveat that their effectiveness has only been established in high-income settings and they are resource intensive. Their relevance, feasibility, and effectiveness in low- and middle-income settings are therefore not yet established.

School-based interventions including dating violence and sexual assault interventions among high school and university students

School-based interventions, targeting younger adolescents, address factors such as tolerance of SV, healthy relationships, nonviolent conflict resolution, communication skills, and help seeking. Some address violence more broadly by examining unequal gender norms, power, and control in relationships. Most were evaluated in the United States, but this review includes at

Effective: Programs supported by multiple well-designed studies showing prevention of perpetration and/or experience of intimate partner and/or sexual violence. In order to be considered effective, programs had to demonstrate change in the experience or perpetration of violence, not only improved knowledge and/or attitudes. This category also includes programs which have been replicated beyond the initial pilot.

Emerging evidence of effectiveness: Programs evaluated by well-designed studies showing positive changes in knowledge, attitudes and beliefs related to intimate partner violence and/or sexual violence. Violence perpetration or experience not measured. Little or no replication, unclear relevance to developing country settings.

Effectiveness unclear: Insufficient or mixed evidence, including programs with weak evaluation designs and only one pilot.

Ineffective: Evidence from well-designed studies which show no change in attitudes, knowledge or beliefs related to intimate partner and sexual violence.

Figure 1. Criteria for ranking program effectiveness.

Table 4
Effectiveness of adolescent violence prevention approaches

Type	n	Effective	Emerging	Unclear	Ineffective	Under evaluation
Parenting	8	1	4	3	0	0
Targeted interventions for children/adolescents subjected maltreatment to or exposed to violence	3	3	0	0	0	0
School based (broad)	15	3	10	1	1	0
School based (dating violence)	7	2	3	1	1	0
School based (sexual assault prevention)	10	1	3	3	3	0
Community based	16	4	8	3	0	1
Economic empowerment	2	0	0	2	0	0
	61	14	28	13	5	1

least one program each from Tanzania, Spain, India, and Uganda. Target populations include primary through secondary school students; some include all students; and some target exclusively boys or girls. Interventions include after school or community activities and use methods such as computer-based interactive learning, participatory-based learning (games, theater, and debates), curriculum-based learning, parent, peer mediator, and teacher training and community involvement. Some programs also map and address violence "hot spots."

"Dating violence programs" seek to reduce or prevent partner violence by improving relationships, decreasing acceptance of SV, and fostering gender equitable norms. Group education and activities (theater, poster contests, and community service), peer mentor training, relationship skill-building, and "bystander" approaches are the primary interventions used.

"Sexual assault prevention programs" are designed to prevent sexual assault among high school and university students. Ten programs, targeting almost exclusively university students from high-income countries, are included in this review. These interventions challenge acceptance of male sexual dominance and include group education and discussion of rape myths and self-protection. Only one intervention from a low- and middle-income country was found—a standardized 6-week self-defense program conducted with slum-dwelling high school girls in Kenya [25].

Effectiveness. School-based interventions targeting younger adolescents show emerging evidence for improving gender-equitable attitudes and increasing self-reported likelihood to intervene in situations of bullying and partner violence [26,27]. Most evaluations saw minimal changes in girls' perceived ability to cope with SV, suggesting that creating enabling environments to make violence unacceptable may be more effective than placing the burden on girls to protect themselves by teaching them self-protection skills [28]. Interestingly, a recent evaluation of a comprehensive U.S. program that included school safety initiatives as well as a classroom intervention addressing dating norms found significant reductions in SV [29]. More research on school-based interventions measuring violence as an outcome is needed.

There is strong evidence from the United States and Canada that dating violence prevention programs are effective in preventing physical, sexual, and emotional violence in adolescent dating relationships and may also help to prevent IPV and SV among adults [30,31]. These programs aim to build communication and negotiation skills among early adolescents with the assumption that these healthy attitudes and skills will carry through as they transition into later adolescent years and form long-term intimate relationships. However, these interventions have not been replicated outside North America. Therefore, it is unclear how well they would work in low- and middle-income country settings.

Most evaluations of sexual assault prevention programs showed decreased acceptance of rape myths and increased ability to correctly identify rape scenarios, but only the longer term programs reduced violence. An important exception is the Kenyan program, which significantly reduced annual incidence of sexual assault over a 10-month period [25].

Community-based programs

Community-based programs designed to bring about more equitable gender norms and decrease tolerance of IPV and SV were the most common interventions implemented in low- and middle-income countries. Some target adolescent boys and young men, others target both sexes, married and unmarried, as well as families, teachers, and athletes. Popular interventions include group education, community mobilization, social norm marketing, media campaigns, mentorship, and identification of safe spaces (Figure 2). Initiatives targeting men and boys include fatherhood programs that aim to improve gender equality in parenting, build parenting skills, and increase paternal involvement. Sports programs implemented in Mexico, Chile, Brazil, Argentina, and India incorporate leadership development and gender-equitable attitudes into team activities.

Effectiveness. Several community-based programs decreased self-reported perpetration of violence and harassment and increased equitable gender norms, awareness of SV, and the likelihood of intervening in a violent situation [21,32–34]. Some interventions saw mixed results or did not explicitly measure changes in violence perpetration or experience of violence. Only a handful of well-documented community-based programs focused on younger adolescents, and none has sufficient evidence to be classified as effective.

Evaluations of sports programs with men and boys have shown changes in attitudes but have not shown reductions in violence perpetration [35,36], with the exception of one recently evaluated program [37]. Therefore, evidence on their effectiveness is still considered emerging. Fatherhood programs represent a new program area, and results are unclear. However, group education and community mobilization programs (e.g., social marketing, media, and community engagement) with boys and young men following the Program H model, such as the Ethiopian Male Norms Project, have been shown to be effective in reducing self-reported violence perpetration. These results, however, have not yet been triangulated with the responses of girls. Therefore, the overall effectiveness of community-based programs is considered emerging.

Economic empowerment programs

Economic empowerment programs aim to prevent IPV and SV against adolescent girls and young women by increasing their

Stepping Stones workshops address a wide range of issues including gender, HIV, violence and relationships. Grounded in the popular education techniques of Paulo Freire, the methodology has been adapted and used in over 40 different countries. Most versions involve at least 50 hours of intervention over 10 to 12 weeks, delivered in 15 sessions. Stepping Stones has been evaluated in a number of settings including a community randomized trial in South Africa and a large quasi-experimental study in India. Generally, the results demonstrate that Stepping Stones, when implemented with fidelity, can increase knowledge and have a positive impact on a range of attitudes and beliefs. The South Africa trial among 15 to 25 year olds demonstrated changes in self-reported intimate partner violence among men; however female participants did not report lower rates of partner violence of forced sex. Evaluation of an Indian adaptation found significant changes in the proportion of men reporting perpetration of intimate partner violence, but also revealed limited diffusion of information into the wider community.

Program H is a community-education approach developed in Brazil to promote gender equitable attitudes and behaviors among young men. It has been expanded to India, Tanzania, Croatia, Vietnam and countries in Central America. Using a small-group format and a cartoon video called "Once Upon a Boy", Program M encourages boys and young men to question traditional views of masculinities. Trained facilitators serve as mentors and lead youth through participatory group activities implemented during regular (often weekly) sessions over four to six months. Program H has evolved into a multipronged strategy combining participatory training with advocacy and lifestyle social marketing aimed at changing community norms. In some settings it also includes a parallel program for women called Program M. Impact evaluations have found lower rates of self-reported sexual harassment and violence against women. In the Indian version Yaari-Dosti, the proportion of men in the urban intervention sites who reported violence against a partner in the last three months declined more than two-fold (Verma, 2008).

Figure 2. Effective community-based programs.

economic independence and decision-making power. Financial literacy education and savings and loan groups target girls whose vulnerability to transactional sex and violence is exacerbated by poverty.

Effectiveness. There is limited evidence that economic empowerment interventions prevent IPV or SV among adolescents. Microfinance interventions with girls and young women have shown more promising results addressing violence when combined with an educational component [38,39]. Microfinance interventions, however, can be challenging to implement among adolescents because of limits on legal age of participation, and rapid lifecycle changes may limit effective participation. Without adequate support and in a context of economic instability, loan repayment and business success can be poor. Ultimately, the vulnerability and instability associated with youth can potentially exacerbate unintended consequences of microfinance programs, raising doubts about their feasibility as a violence prevention intervention for adolescents. Therefore, overall, these interventions would be considered as unclear for this population.

Although harmful use of alcohol is identified as a contributing factor to IPV and SV, as noted earlier, we could not find any interventions that specifically addressed this among adolescents. Much evidence on interventions designed to reduce harmful use of alcohol comes from policy level efforts to reduce alcohol availability, and their impact has been assessed primarily among adults.

Scalability. Most of the programs reviewed were one-time pilots. Only five were replicated in other settings. These include dating violence prevention programs in the United States and Canada, school-based interventions to promote gender-equitable norms replicated in India, and community-based interventions to foster gender-equitable norms and attitudes implemented in a number of low-income countries. Consequently, there is little evidence of how these pilot programs function at scale. In fact, no mention was found of the large-scale implementation of any program. There is also little information available on the feasibility of scaling up these programs in a wide set of contexts and settings.

Discussion

This review summarizes an exciting and growing body of research assessing the effectiveness of interventions to prevent IPV and SV among adolescents. Three promising approaches emerge from this review. First, school-based dating violence interventions show considerable success. However, they have only been implemented in high-income countries and should be adapted and evaluated in other settings. Second, community-based interventions to form gender-equitable attitudes among boys and girls, either by working only with boys and young men or simultaneously with separate groups of boys and girls, have successfully prevented IPV or SV. These approaches could be replicated and scaled up in different settings; however, their feasibility in terms of human and financial resources is unclear. Third, evidence suggests that parenting interventions prevent child maltreatment and abuse—risk factors that are associated with IPV or SV over the life course. However, no longitudinal research has been conducted to determine whether participation in these programs reduced perpetration or experience of violence once children reach adolescence. Moreover, these programs have only been implemented in high-income countries (i.e., United States, Canada, and Japan). Therefore, these programs can be considered as emerging. Psychological interventions for children who have experienced maltreatment or been exposed to IPV have been shown effective in high-income settings. Economic empowerment interventions for youth raise a number of questions regarding their feasibility given rapid life-cycle changes and their ability to pay back loans. Instead, limited evidence suggests the importance of including an

educational, skills, and mentoring component to such interventions. The impact of school-based interventions aimed at promoting gender-equitable norms, either through sports or group education, are classified as emerging because their impact on perpetration and experience of violence remains to be seen.

The results of this review suggest that programs with longer term investments and repeated exposure to ideas delivered in different settings over time have better results than single awareness-raising or discussion sessions. However, there is little empirical evidence on the essential elements of successful programs, such as the ideal dosage of interventions or whether single or mixed sex groups are more effective. There are still many unanswered questions, and substantial investment in research is needed to determine which programs should be implemented where. Insufficient resources for evaluation combined with ethical challenges and the fact that interventions to prevent IPV or SV among youth are still in their infancy pose significant challenges to rigorous impact evaluation. Studies tend to be underpowered, relying on small samples because of resource and feasibility constraints. Moreover, follow-up time is too short to assess the effect of interventions with children and adolescents on future violence perpetration or experience. Given that the most promising interventions seek to build social, economic, and health assets, longitudinal studies are needed to determine whether they lower the likelihood of relationship violence over time. Ultimately, the only way to demonstrate effectiveness is to show that participants commit or experience fewer acts of violence than a matched group of control subjects. Yet, only about two thirds of the studies reviewed measured behavioral outcomes. Moreover, most of the ones that did use behavioral outcomes did not triangulate self-reports of either experience or perpetration of violence with the perpetrator or victim, respectively. This is likely to result in some degree of unreliability.

In addition to the weaknesses in the evidence discussed previously, there are gaps in the breadth and depth of our knowledge of successful prevention approaches. A disproportionate number of interventions with strong research designs took place in high-income settings, primarily North America. Efforts are needed to expand the evidence base to include wider geographic scope, particularly in low- and middle-income countries, and to encompass settings beyond schools. Also, only a handful of programs focused on boys and girls less than 15 years, and there are few tested interventions for vulnerable groups such as migrants, out-of-school youth, or domestic workers.

Implications for policies and programs, particularly adolescent sexual and reproductive health programs

Adolescent sexual and reproductive health programs can work together with parents and other guardians, teachers, religious leaders, and community members to raise awareness of the need to prevent gender-based violence, challenge social norms, which condone gender-based violence, and take actions to build safer communities for adolescents. This could involve social marketing or mass media/edutainment efforts aimed at adolescents. It could also involve group education with groups of boys, girls, young women and men, and other community members. Integrating curricula on preventing gender-based violence, such as healthy relationship skills and gender equitable norm formation into school-based sexual and reproductive health and HIV programs (e.g., life skills education, comprehensive sexuality education) is a promising next step. Similarly, components of the parenting programs that seek to decrease harsh discipline and teach nonviolent conflict resolution could be integrated into child protection programs and adolescent sexual and reproductive health programs that work with parents.

At the policy level, efforts are needed to promote gender equality, including enforcing laws that prevent child and forced marriage. Legal reforms that increase women's control over household resources and enhance their ability to accumulate assets, such as bride price and dowry laws and property and inheritance rights are of particular interest. Policies providing equal access to bank loans, mortgages, and divorce expand women's options and contribute to efforts to protect them from violence. National policies are needed that improve women's access to employment, for example ensuring that women and girls are provided career and vocational guidance, access to educational resources, and opportunities for scholarships and grants on the same basis as men and boys. Another approach is to ensure that violence prevention is included in national curricula and policies and budgets, and is a standard component of child-protection program and policies. Finally, legislators can dedicate resources to increase safe spaces for adolescents, improving street lighting, making workplaces safer, establishing safe routes to communal water collection, and improving bathing and toilet facilities.

Given the powerful influence of social factors on violence, laws and policies which enhance women's rights and empowerment, reduce harmful alcohol use, or make the environment safer, hold great promise. Many believe that no approach to preventing gender-based violence, including against adolescents, will be fully effective without gender equality or without efforts by governments to honor their commitments to the Convention on the Elimination of all Forms of Discrimination against Women (1979) and other international or regional human rights conventions and agreements.

The way forward. The experiences reviewed here result from a dynamic community of researchers and practitioners working to address IPV or SV. Expanding communities of practice to foster learning between academics and program implementers or between siloed technical areas in high- and low-income settings could accelerate progress. Combined programming should be pursued when appropriate. For example, gender-based violence prevention interventions may be rooted in sexual and reproductive health (e.g., teen pregnancy programs) or HIV/AIDS programs. Interventions for younger adolescents, in particular, require collaboration across sectors. Active and meaningful youth and girl participation in gender-based violence prevention efforts is not well described in the studies reviewed and needs greater emphasis, as do strength-based approaches which build on adolescent and community assets. Achieving real impact will require working at scale over a sustained period. Only a handful of successful programs have been replicated, and no documentation was found of any operating at scale. In fact, the scalability of programs that promote gender-equitable attitudes is often questioned given required resource levels. During piloting, implementers must keep in mind resource constraints to avoid developing programs that cannot be sustained or scaled up. Beginning "with the end in mind" will increase the likelihood that pilot programs such as the ones reviewed here eventually make a difference at the population level.

Supplementary Data

Supplementary data related to this article can be found at http://dx.doi.org/10.1016/j.jadohealth.2014.08.012.

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