HHS Public Access

Author manuscript

Lancet Child Adolesc Health. Author manuscript; available in PMC 2022 July 11.

Published in final edited form as:

Lancet Child Adolesc Health. 2021 March ; 5(3): 223–232. doi:10.1016/S2352-4642(20)30276-5.

Adolescent dating violence prevention programmes: a global systematic review of evaluation studies

H Luz McNaughton Reyes,

Laurie M Graham,

May S Chen,

Deborah Baron,

Andrew Gibbs,

Alison K Groves,

Lusajo Kajula,

Sarah Bowler,

Suzanne Maman

Department of Health Behavior, Gillings School of Global Public Health, University of North Carolina at Chapel Hill, Chapel Hill, NC, USA (H L McNaughton Reyes PhD, D Baron MPH, S Maman PhD); School of Social Work, University of Maryland, Baltimore, MD, USA (L M Graham PhD); Division of Violence Prevention, National Center for Injury Prevention and Control, US Centers for Disease Control and Prevention, Atlanta, GA, USA (M S Chen PhD); Gender and Health Research Unit, South African Medical Research Council, Durban, South Africa (A Gibbs PhD); Department of Community Health and Prevention, Dornsife School of Public Health, Drexel University, Philadelphia, PA, USA (A K Groves PhD, S Bowler BA); and UNICEF Office of Research, Florence, Italy (L Kajula PhD)

Abstract

Adolescent dating violence negatively affects millions of young people worldwide. Through a global systematic review, we synthesised evidence from rigorous studies of prevention programmes for adolescent dating violence. Our aims were to: (1) describe the breadth of research in this area and evidence of programme effects, and (2) identify gaps in the evidence base.

We included experimental and controlled quasi-experimental programme evaluations, published before Jan 1, 2020, that assessed effects on victimisation or perpetration, or both, in adolescent

Correspondence to: Dr H Luz McNaughton Reyes, Department of Health Behavior, Gillings School of Global Public Health, University of North Carolina at Chapel Hill, Chapel Hill, NC 27599, USA mcnaught@email.unc.edu.

Contributors

HLMR and LMG were jointly responsible for the design of the study. LMG did the search of the reported work, and HLMR, LMG, and MSC reviewed studies for inclusion. HLMR, LMG, DB, MSC, and SB extracted and checked the data. LMG and MSC did the quality assessment. HLMR and MSC did the analyses. HLMR developed the initial draft of the manuscript, tables, and figures. All authors reviewed and interpreted the results and edited the manuscript.

Declaration of interests

The views and opinions expressed in this paper are those of the authors and do not reflect the official position of any of the organisations for which the authors work. We declare no competing interests.

For the Chinese translation of the abstract see Online for appendix 1

For the French translation of the abstract see Online for appendix 2

For the Spanish translation of the abstract see Online for appendix 3

dating violence and in which at least half of the study population was 10–19 years old. Study design, programme elements, and outcomes were compared between evaluations implemented in high-income countries (HICs) and low-income and middle-income countries (LMICs). 52 evaluations met inclusion criteria, of which 20 (38%) were implemented in LMICs. Evaluations in HICs were more likely to assess effects on adolescent dating violence victimisation and perpetration, rather than just victimisation, than those in LMICs, and they were also more likely to include boys and girls, as opposed to just a single sex. Overall, 26 (50%) of the 52 evaluations reported a significant preventive effect on at least one outcome for adolescent dating violence, of which nine were implemented in LMICs. Across LMICs and HICs, findings suggest research is needed to shed light on how adolescent dating violence prevention programmes work and to identify whether programme effects generalise across different settings, outcomes, and subgroups.

Introduction

Adolescent dating violence is a considerable public health and human rights problem affecting millions of young people worldwide.[1–3] Adolescent dating violence is defined as a type of intimate partner violence that can include sexual, physical, or psychological abuse that occurs between two adolescents in a close relationship.[4] WHO estimates that approximately 29% of adolescent girls worldwide who have ever had a partner have experienced physical or sexual violence, or both, from their partners in their lifetime.[3] This rate almost mirrors the estimated global prevalence of lifetime partner violence among women of reproductive age (30%),[5] suggesting that partner abuse commonly starts early in life. Although little global research has assessed adolescent dating violence among boys or transgender youth, local studies in both high-income countries (HICs)[6–8] and some low-income and middle-income countries (LMICs)[9–12] suggest boys are also at risk of experiencing some forms of victimisation, and emerging research in the USA suggests that transgender youth might be at greater risk than cisgender youth of experiencing adolescent dating violence.[13,14]

Exposure to adolescent dating violence is associated with a range of adverse health and social outcomes, as well as behaviours that pose health risks, such as substance use, delinquency, mental health problems See Online for appendix 4 (eg, depression, anxiety, suicide ideation), risky sexual behaviours and outcomes (eg, sexually transmitted infections, unwanted pregnancies), family conflict, decreased academic aspirations, injury, and, among girls in particular, death.[2,3,15–18] A study of intimate partner homicide in the USA found that approximately 7% of adolescent homicides were perpetrated by a current or former intimate partner, and 90% of adolescent victims of intimate partner homicide were girls.[17] Furthermore, longitudinal research suggests that exposure to adolescent dating violence increases risk of involvement in partner violence during adulthood, contributing to an inter-generational cycle of violence.[19–22]

The prevalence and adverse effects of adolescent dating violence highlight the importance of identifying effective prevention programmes. This objective is especially important in LMICs, where the burden of adolescent dating violence is high.[1] Yet, historically, few programmes have been rigorously evaluated.[20] We present findings from a systematic

review of experimental and quasi-experimental studies investigating the effects of prevention programmes on adolescent dating violence victimisation or perpetration outcomes, or both, among youth aged 10–19 years. We describe the distribution of outcome evaluation studies on adolescent dating violence geographically, and identify patterns of study characteristics and programmatic elements across evaluations done in HICs and LMICs, as well as programmes for which there is evidence of a preventive effect. By synthesising this information, this Review aims to identify gaps in the evidence base to inform future research and programme development.

Methods

This Review conformed to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines.[23] Criteria for study inclusion were applied to all titles, abstracts, and full texts (appendix 4 p 1). Eligible studies reported the findings of a randomised controlled trial (RCT), including cluster RCTs or controlled quasi-experimental studies that evaluated the preventive effects of a primary prevention programme on any type of victimisation or perpetration behaviour related to adolescent dating violence. Although RCTs are the gold standard for assessing programme effects, random allocation of violence prevention programmes is not always possible in real-world settings due to practical or ethical constraints; thus, we chose to include evaluations that used a controlled quasi-experimental design to not exclude potentially promising programmes from the Review. WHO defines adolescents as people aged between 10 and 19 years.[24] Thus, studies were eligible if over half of the study sample was comprised of 10–19-year-olds or if summary statistics were provided for the focal age group. Eligible studies assessed programme effects using one or more measures of victimisation or perpetration, or both, in adolescent dating violence that specifically assessed abuse perpetrated or experienced within a dating or romantic relationship. We also included studies that assessed sexual violence broadly using measures that did not specify whether the violence was perpetrated in the context of a dating or non-dating relationship.

We searched 18 databases in June, 2019, and January, 2020, for studies published up to and including Dec 31, 2019, in English or Spanish (appendix 4 p 2). We identified a total of 7415 articles, providing us with 5439 articles for title and abstract screening after duplicate removal. Each study title and abstract was screened by at least two reviewers among HLMR, LMG, MSC, and one external reviewer, identifying 149 for potential inclusion. Full versions of relevant articles were independently assessed by at least two reviewers from the same group, resulting in 45 docu ments for inclusion. An additional 16 documents were identified through manual searching of reference lists of included studies and research network consultation. The 61 included documents describe 45 unique studies, of which 39 (87%) used a two-arm design and six (13%) used a multi-arm design (ie, in which two or more prevention programmes were evaluated against a comparison group). Data from multiarm studies were extracted separately for each prevention programme for adolescent dating violence evaluated against the no (or minimal) programme comparison group.[25] Thus, we identified and extracted data corresponding to 52 programme evaluations from the 45 studies described in the 61 reports that were reviewed (figure 1).

We assessed risk of bias for RCTs and cluster RCTs using the revised Cochrane risk-of-bias tool (RoB 2).[26] Quasi-experimental studies were all considered to be at high risk of bias due to non-random allocation. We developed and piloted a structured extraction form to ensure extraction of comparable data from eligible studies. One reviewer among HLMR, LMG, MSC, and one external reviewer extracted data from all included study documents and a second checked data accuracy, with discrepancies resolved through discussion. Study characteristics that were extracted included the implementation country and its income level (eg, HIC or LMIC using World Bank categorisation), evaluation design, sample size, number and timing of follow-up assessments, age and sex of the study population, and assessed outcomes for adolescent dating violence. Outcome measures were classified by form of violence assessed (eg, physical, sexual, psychological); measures that combined scores on more than one form of violence were classified as composite. When available, programme characteristics that were extracted also included the implementation setting, number of sessions, total programme exposure time (eg, number of sessions multiplied by session length), presenter or implementer type, programme target audience (eg, sex and other target group attributes), and programme content, using a coding scheme developed by the study team (appendix 4 p 3). We used χ^2 and Fisher's exact tests to assess differences in study and programme characteristics by income level of the country of implementation.

Overall programme effects on adolescent dating violence outcomes were classed as positive if they reported at least one positive effect on any outcome (defined as a statistically significant [$p<0{\cdot}05$] effect in the direction of preventing or reducing adolescent dating violence at any follow-up and in any subgroup [eg, among boys or girls] and no negative effects), marginal if they reported at least one marginally significant ($0{\cdot}05\leq p<0{\cdot}10$) positive effect and no negative effects on adolescent dating violence, and null if only null or negative effects on adolescent dating violence were reported. For all programmes with a positive or marginal effect, we describe within-study effects for each outcome measured, whether the programme had a positive effect on targeted risk factors for adolescent dating violence and secondary (unrelated to adolescent dating violence) behavioural outcomes, and whether mediation or moderation analyses of programme effects were done. To ensure that we captured all programme effects on outcomes unrelated to adolescent dating violence, we did a secondary search via Google Scholar of each prevention programme. This search identified three additional documents reporting effects of included programmes on outcomes other than adolescent dating violence behaviour.

Results

Of the 52 included programme evaluations, 32 (62%) were implemented in HICs, of which 27 (84%) were done in the USA (appendix 4 p 4). Of the 20 (38%) programmes evaluated in LMICs, 14 (70%) were implemented in sub-Saharan Africa; other LMIC evaluations took place in India (n=3), Bangladesh (n=2), and Mexico (n=1). No evaluations were identified in the Middle East and north Africa region or the east Asia and Pacific region (as defined by the World Bank). There were only five evaluations in LMICs before 2010, with a steep increase thereafter and remaining fairly steady since (ranging between four and seven studies annually). Most studies in LMICs have been published in the past five years (13 [65%] of 20 studies; appendix 4 p 5).

Table 1 describes study characteristics. Overall, 42 (81%) of 52 evaluations were from 36 studies that were RCTs or cluster RCTs. The proportion of programme evaluations with two or more follow-up assessments was greater in HIC evaluations (24 [75%] of 32) than in LMIC evaluations (6 [30%] of 20). Time to last follow-up, however, did not differ between HIC and LMIC evaluations, with over half (29 [56%] of 52) of the programme evaluations following participants at least one year after baseline. Nearly all evaluations in HICs assessed outcomes among both boys and girls (29 [91%] of 32) and assessed both victimisation and perpetration outcomes (25 [78%] of 32). By contrast, evaluations in LMICs were more likely to assess girls only (9 [45%] of 20) and to assess only victimisation outcomes (12 [60%] of 20). Evaluations in LMICs were also more likely than those in HICs to assess programme effects on sexual victimisation and less likely to assess specific effects on physical adolescent dating violence perpetration or on psychological adolescent dating violence (table 1). 24 (67%) of the 36 RCTs or cluster RCTs were ranked as having a high risk of bias, 11 (31%) were ranked as having some risks, and one (3%) was ranked as having a low risk of bias. Two domains—outcome measurement and randomisation process—triggered risk of bias concerns for most studies, primarily due to an absence of information in the reviewed documents (appendix 4 pp 6–8).

Table 2 describes programme characteristics. Most programmes were implemented in schools (39 [75%) of 52), and most used a so-called universal[27] prevention approach (41 [79%] of 52), in that they were broadly designed for adolescents without regard for individual risk factors for adolescent dating violence. A few programmes (11 [21%] of 52) were developed for a specific audience considered to be at high risk of involvement in adolescent dating violence (referred to as selective programmes). Nine of these selective programmes were evaluated in HICs with participants that included violence-exposed youth (n=4), specific racial or ethnic groups (n=3), pregnant adolescents (n=1), and male athletes (n=1). The two selective programmes evaluated in LMICs were designed for male athletes (n=1) and girls in refugee camps (n=1).

Most programmes (41 [79%] of 52) included content that was delivered in defined sessions of varying length; on average, these programmes tended to be longer, in terms of participant exposure time, in LMIC evaluations than in HIC evaluations (table 2). Programmes evaluated in LMICs were also more likely to be implemented by agency or non-governmental organisation staff and to target girls exclusively. The three most prevalent types of programme activities were education or training for healthy relationships (42 [81%] of 52), promotion of gender-equitable attitudes or norms (21 [40%]), and modifications to school environments, policies, or services (15 [29%]). Programmes that included education or training for healthy relationships were more likely to be evaluated in HICs than in LMICs. By contrast, programmes evaluated in LMICs were more likely to include activities related to promoting gender-equitable attitudes or norms. Notably, only three programmes included economic empowerment or vocational skills training, and all of these were implemented in LMICs.

Table 3 summarises patterns of overall programme effects by study and programme characteristics, and outcome types. 26 (50%) of the 52 evaluations showed significant ($p<0·05$) positive programme effects for at least one outcome measure for adolescent dating

violence and three (6%) showed marginal (0·05≤p<0·10) positive effects. The proportion of programmes classified as having a positive effect, as opposed to a marginal or null effect, did not differ significantly across those tested in HICs and LMICs, by study design type, by length of follow-up, or by programme implementation setting (table 3). A trend was observed for exposure time, in which there was a higher likelihood of a positive effect for programmes with a greater exposure time; however, group differences were not statistically significant (table 3). When examining patterns of effects by outcome type, results suggest that positive effects were generally more likely to be found for perpetration outcomes than for victimisation outcomes. Positive effects were the least common in sexual violence perpetration outcomes; only four (24%) of the 17 programmes assessing sexual violence perpetration found a positive effect (table 4, appendix 4 p 9). Overall, a greater proportion of HIC evaluations found effects on adolescent dating violence perpetration than LMIC evaluations. However, as noted above, few LMIC studies assessed perpetration outcomes (appendix 4 p 9). A summary of findings for all included studies is provided in appendix 4 (pp 10–33).

Figure 2 depicts specific effects by outcome type for adolescent dating violence for the 29 programmes classified as having a positive or marginal effect. Notably, of the 11 LMIC evaluations reporting a significant or marginal preventive effect on any adolescent dating violence outcome, four (36%) were evaluations of a self-defense or assertiveness programme that aimed to prevent sexual violence victimisation among girls and was modified across each evaluation study.[28–31] One LMIC programme[32] implemented in Mexico was shown to have a significant positive effect on adolescent dating violence perpetration, with that effect limited to psychological perpetration among boys. However, two other LMIC programmes showed promising marginal preventive effects on composite perpetration outcomes among boys in South Africa and Ethiopia.[33,34] Of the 18 HIC evaluations reporting a positive or marginal effect on an adolescent dating violence outcome, ten (55%) reported significant effects on both victimisation and perpetration outcomes among boys and girls. Five programmes were also shown to have long-term effects on adolescent dating violence (ie, effects 1 year or more after baseline), affecting at least one risk or protective factor for adolescent dating violence, and at least one secondary outcome (unrelated to adoles cent dating violence), suggesting potentially robust and sustained effects (Figure 2).[35–39] Across the 29 evaluations classified as having a positive or marginal effect, only four (14%) reported using mediation analysis to examine how programme effects were achieved.[36,40–42] By contrast, the majority (16 [55%] of 29) reported examining subgroup differences (eg, sex differences) in programme effects through inclusion of interactions or stratification.

Discussion

Preventing adolescent dating violence among young people has been increasingly prioritised by public health and human rights agencies worldwide, with growing recognition of the need to identify efficacious prevention strategies to inform policy and practice. To this end, this systematic review synthesised the best available evidence from rigorous studies that have evaluated prevention programme effects on behavioural outcomes for adoles cent dating violence. 26 (50%) of 52 evaluations reported a significant positive preventive effect on at least one adolescent dating violence outcome. Although the proportion of programmes

showing a positive effect did not differ significantly across studies in LMICs and HICs, there were differences among LMIC and HIC programme evaluations in terms of study population sex, programme characteristics, and outcome measurement. The distribution of studies across geographical regions, study populations, and types of violence is uneven, suggesting several areas where more evaluation work is needed.

Overall, findings indicate that the evidence base for prevention of adolescent dating violence is expanding, albeit at a modest pace and only in the past decade. For LMICs, this growth has only occurred since 2015. Furthermore, nearly all LMIC evaluations have been done in a few countries within sub-Saharan Africa or south Asia. Geographical concentration was also evident in HICs, as nearly all studies were done in the USA. In terms of specific populations, very few programmes focused on or examined outcomes for out-of-school, pregnant or parenting, or violence-exposed adolescent populations, and no programmes focused on transgender or sexual minority youth, despite research suggesting elevated risk among these populations.[13,14] Evaluation research is thus needed to understand what works to prevent adolescent dating violence in understudied regions and in these understudied populations.

Whereas most evaluations in HICs assessed both adolescent dating violence victimisation and perpetration in study populations of boys and girls, evaluations in LMICs were more likely to exclusively assess victimisation outcomes for adolescent dating violence among girls. Of the eight LMIC evaluations that evaluated effects on adolescent dating violence perpetration, only one reported a statistically significant ($p<0{\cdot}05$) association between programme exposure and perpetration behaviour.[32] The evidence base for programmes that effectively impact adolescent dating violence perpetration is thus very scarce in LMICs. We note that differences across HIC and LMIC studies in terms of outcome types measured and target population sex probably reflects, at least partly, a more gender-neutral focus of programme evaluation research on adolescent dating violence in HICs. As described by Ellsberg and colleagues,[43] programmes implemented in HICs often include explicit recognition that both boys and girls can be victims and perpetrators of abuse. By contrast, programmes implemented in LMICs typically have a strong gender lens informed by empirical research showing that girls are at a higher risk for experiencing sexual violence than boys, and that gender disparities in access to education, health, and economic opportunities, in conjunction with inequitable gender norms, contribute to girls' susceptibility to adolescent dating violence victimisation (and boys' propensity for perpetration).[43] These differing lenses are reflected in our findings that programmes tested in LMICs were more likely than those in HICs to include activities focused on changing gender inequitable norms or to include economic empowerment and vocational skills training. The restricted focus of programmes implemented in HICs on how gender inequalities and poverty drive adolescent dating violence suggests the need to evaluate the benefits of integrating components designed to address these drivers. Such research should consider calls for violence prevention approaches that are gender transformative and that go beyond seeking to modify normative beliefs about partner violence to engaging communities and youth in changing the structural processes that produce and sustain gender inequalities.[44–46]

Within and across HICs and LMICs, evaluations varied substantially in design, analytic methods, and outcome measures, making comparisons of findings across studies challenging. Moreover, the programmes studied were heterogeneous in terms of theoretical underpinning, context, participants, and components (with most including multiple components), making it difficult to draw conclusions about which particular intervention strategies are effective for preventing adolescent dating violence. It is notable, however, that all five of the programme evaluations for adolescent girls that specifically targeted self-defense and assertiveness skills were effective in preventing sexual violence victimisation (three of these evaluations were implemented in Kenya, one in Malawi, and one in the southern USA), suggesting this type of approach is promising for reducing girls' vulnerability to sexual violence.[28–31,47] Furthermore, findings from the four evaluations that used mediation analysis to identify the causal mechanisms through which prevention programmes for adolescent dating violence work suggest that this violence can be prevented by programme activities that lead to: delayed sexual debut, fewer sexual partnerships,[42] decreased acceptance of adolescent dating violence,[40,48,49] more equitable gender-role norms,[48] greater awareness of community services for adolescent dating violence,[48] improved conflict management skills,[49] increased family cohesion, or a combination of these objectives.[49] As such, future prevention programmes for adolescent dating violence should consider including components that target these factors, although further research is needed that examines other potential causal pathways and identifies the particular programme components (or combinations of components) that activate the causal chains leading to prevention of adolescent dating violence.

Notably, several of the factors described above that mediated prevention programme effects on adolescent dating violence are also factors that might predict (ie, are shared with) other health risk behaviours. Programmes that work through changes in these factors to affect adolescent dating violence might thus also simultaneously work to prevent other adolescent health risk behaviours and outcomes. For example, programmes that decrease inequitable gender norms might not only lead to reductions in adolescent dating violence but also prevent sexual harassment, bullying, homophobic behaviour, substance use, and high-risk sexual behaviour. In this Review, of the 26 programmes that found any significant positive preventive effect on an adolescent dating violence outcome, ten reported positive effects on other types of interpersonal violence outcomes (eg, bullying), health behaviours, or outcomes in other domains (eg, substance use). However, only one of these ten cross-cutting programmes was implemented in an LMIC. Specifically, the Empowering Livelihoods for Adolescents programme, which provided life and vocational skills training to Ugandan girls in after-school clubs, reduced participants' risk of experiencing forced sex, increased condom use, and delayed marriage and childbearing.[50] Researchers have noted that programmes that effectively target shared risk or protective factors and, in turn, prevent multiple adolescent health risk behaviours, might be more efficient and effective than programmes that target a single risk behaviour.[51,52] Programme development and research to identify cross-cutting programmes that affect adolescent dating violence and other health risk behaviours is thus needed, particularly in settings with scarce resources.

Few of the programmes evaluated included activities fostering policy or environmental changes at the community, family, or peer-network levels, despite research that suggests

there are important drivers of adolescent dating violence within these so-called upstream social ecological levels that could be targeted by prevention efforts.[53–55] Similarly, although a large and growing research base showing that adverse childhood experiences, such as child maltreatment, increase risk of involvement in adolescent dating violence victimisation and perpetration,[56] few programmes explicitly included components addressing previous exposure to violence, and none of the included evaluations sought to evaluate the effect of prevention strategies for adverse childhood experiences on adolescent dating violence outcomes. Further research is thus needed in HICs and LMICs to assess the preventive effects of programmes that target adverse childhood experiences and that include components aiming to modify upstream determinants of adolescent dating violence.

Although we did not find strong evidence that programmes with longer exposure time were more likely to show a positive preventive effect on adolescent dating violence, there was a non-significant trend in this direction. Understanding whether programmes with longer exposure times or that include more comprehensive multilevel strategies, or both, are more effective is an important area for future research given that there are practical limitations on the time and resources available to implement prevention efforts, particularly in LMICs. Our findings also suggest that, although the average interval between baseline and last follow-up did not differ across HIC and LMIC evaluations, fewer LMIC evaluations included multiple follow-ups. Inclusion of multiple follow-ups, although costly, is key to informing understanding of when programme effects emerge and whether they are sustained. For example, some findings from evaluations in the USA suggest that the effects of programmes that seek to change social norms might only emerge over the long term, after changes have had a chance to diffuse through the population.[35,57] Notably, few studies in HICs and LMICs reported on time elapsed between the end of programme implementation and follow-up assessment, restricting our ability to assess the extent to which effects were sustained after programme implementation had ended.

Several evaluations examined the possibility that programme effects on adolescent dating violence outcomes might differ across subgroups in the study population, by including interactions or stratified analyses. For example, the majority (20 [54%] of 37) of the evaluations that assessed outcomes for adolescent dating violence among boys and girls did analyses to identify sex differences in the effects. Five (25%) of these 20 studies reported sex differences in programme effects on an adolescent dating violence outcome, although no clear patterns emerged from these findings. Few studies examined other types of effect moderators, such as baseline reports of adolescent dating violence experiences, socioeconomic status, or contextual variables that might modify programme effects on adolescent dating violence. This is a key area for future evaluation research as such analyses can identify whether programme effects generalise across subgroups and implementation settings, although we acknowledge that the ability to do such analyses might be limited by sample size and associated power considerations.

This Review has several limitations. First, it is possible that our search strategy did not identify all studies on violence prevention outcomes, particularly those in the grey literature and those published in languages other than English or Spanish. Second, most articles showed positive effects on at least one adolescent dating violence risk or protective factor

or adolescent dating violence or other outcome, suggesting the possibility of publication bias. Third, for quality assessment, many reports did not contain enough information to fully assess bias potential. Fourth, although our analyses focused on identifying differences and similarities between evaluations done in HICs and LMICs, substantial heterogeneity exists within studies done in HICs and LMICs in terms of quality, programme content, and outcome effects that should be explored in future research. Finally, the diversity of outcome measures and analysis strategies used to evaluate programme effects precluded our ability to do a meta-analysis of findings or report effect sizes that would allow for meaningful comparison across studies. Moreover, our reliance on a p-value threshold of 0·05 as our primary criterion for classifying programme effects on adolescent dating violence outcomes is an important limitation given that these values are influenced both by the magnitude of association and the sample size. To facilitate cumulative science in the field of adolescent dating violence prevention, future studies should identify common measures to assess effects on behavioural outcomes and report effect sizes.

In sum, research on adolescent dating violence prevention is growing modestly, with evaluations still skewed to HICs despite the heavy burden of adolescent dating violence in LMICs. Findings suggest a need to identify programmes that prevent adolescent dating violence perpetration and that have cross-cutting effects across different violence outcomes and health risk behaviours in LMICs. Further research is needed in both HICs and LMICs that develops and evaluates programmes targeting drivers of adolescent dating violence at the community, family, and peer-network levels; specifies how prevention programmes for adolescent dating violence work, including assessment of the activities and strategies that are responsible for programme effectiveness; and establishes for whom adolescent dating violence prevention programmes work. Identifying strategies that effectively prevent adolescent dating violence is crucial because such programmes might alter exposure trajec tories across life, contributing to the fulfillment of the collective obligation to guarantee children's right to a life free of violence.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

Acknowledgments

We thank Ametisse Gover-Chamlou for assisting the authors with title and abstract screening and data extraction.

References

1. Decker MR, Latimore AD, Yasutake S, et al. Gender-based violence against adolescent and young adult women in low- and middle-income countries. J Adolesc Health 2015; 56: 188–96. [PubMed: 25620301]
2. Stöckl H, March L, Pallitto C, Garcia-Moreno C. Intimate partner violence among adolescents and young women: prevalence and associated factors in nine countries: a cross-sectional study.BMC Public Health 2014; 14: 751. [PubMed: 25059423]
3. WHO, London School of Hygiene and Tropical Medicine, South African Medical Research Council. Global and regional estimates of violence against women: prevalence and health effects of intimate partner violence and non-partner sexual violence. 2013. https://www.who.int/reproductivehealth/publications/violence/9789241564625/en/ (accessed Nov 1, 2020).

4. US Centers for Disease Control and Prevention. Preventing teen dating violence. 2020. https://www.cdc.gov/violenceprevention/pdf/ipv/TDV-factsheet_2020.pdf (accessed Nov 1, 2020).
5. Devries KM, Mak JY, García-Moreno C, et al. Global health. The global prevalence of intimate partner violence against women. Science 2013; 340: 1527–28. [PubMed: 23788730]
6. Taylor BG, Mumford EA. A national descriptive portrait of adolescent relationship abuse: results from the National Survey on Teen Relationships and Intimate Violence. J Interpers Violence 2016; 31: 963–88. [PubMed: 25548142]
7. Young H, Turney C, White J, Bonell C, Lewis R, Fletcher A. Dating and relationship violence among 16–19 year olds in England and Wales: a cross-sectional study of victimization. J Public Health (Oxf) 2018; 40: 738–46. [PubMed: 29136181]
8. Shaffer CS, Adjei J, Viljoen JL, Douglas KS, Saewyc EM. Ten-year trends in physical dating violence victimization among adolescent boys and girls in British Columbia, Canada. J Interpers Violence 2018; published online July 1. 10.1177/0886260518788367.
9. Wubs AG, Aarø LE, Flisher AJ, et al. Dating violence among school students in Tanzania and South Africa: prevalence and socio-demographic variations. Scand J Public Health 2009; 37 (suppl 2): 75–86.
10. Boafo IM, Dagbanu EA, Asante KO. Dating violence and self-efficacy for delayed sex among adolescents in Cape Town, South Africa. Afr J Reprod Health 2014; 18: 46–57. [PubMed: 25022141]
11. Rivera-Rivera L, Allen-Leigh B, Rodríguez-Ortega G, Chávez-Ayala R, Lazcano-Ponce E. Prevalence and correlates of adolescent dating violence: baseline study of a cohort of 7,960 male and female Mexican public school students. Prev Med 2007; 44: 477–84. [PubMed: 17467784]
12. Swedo EA, Sumner SA, Hillis SD, et al. Prevalence of violence victimization and perpetration among persons aged 13–24 years—four sub-Saharan African Countries, 2013–2015. MMWR Morb Mortal Wkly Rep 2019; 68: 350–55. [PubMed: 30998666]
13. Johns MM, Lowry R, Andrzejewski J, et al. Transgender identity and experiences of violence victimization, substance use, suicide risk, and sexual risk behaviors among high school students—19 states and large urban school districts, 2017. MMWR Morb Mortal Wkly Rep 2019; 68: 67–71. [PubMed: 30677012]
14. Johns MM, Lowry R, Rasberry CN, et al. Violence victimization, substance use, and suicide risk among sexual minority high school students—United States, 2015–2017. MMWR Morb Mortal Wkly Rep 2018; 67: 1211–15. [PubMed: 30383738]
15. Chen MS, Foshee VA, Reyes HLM. Dating abuse: prevalence, consequences, and predictors. In: Levesque RJR, ed. Encyclopedia of adolescence. Cham, Switzerland: Springer International Publishing, 2018: 856–76.
16. Tharp AT, Reyes HLM, Foshee V, Swahn MH, Hall JE, Logan J. Examining the prevalence and predictors of injury from adolescent dating violence. J Aggress Maltreat Trauma 2017; 26: 445–61. [PubMed: 29593374]
17. Adhia A, Kernic MA, Hemenway D, Vavilala MS, Rivara FP. Intimate partner homicide of adolescents. JAMA Pediatr 2019; 173: 571–77. [PubMed: 30985886]
18. Bacchus LJ, Ranganathan M, Watts C, Devries K. Recent intimate partner violence against women and health: a systematic review and meta-analysis of cohort studies. BMJ Open 2018; 8: e019995.
19. Halpern CT, Spriggs AL, Martin SL, Kupper LL. Patterns of intimate partner violence victimization from adolescence to young adulthood in a nationally representative sample. J Adolesc Health 2009; 45: 508–16. [PubMed: 19837358]
20. Exner-Cortens D, Eckenrode J, Rothman E. Longitudinal associations between teen dating violence victimization and adverse health outcomes. Pediatrics 2013; 131: 71–78. [PubMed: 23230075]
21. Cui M, Ueno K, Gordon M, Fincham FD. The continuation of intimate partner violence from adolescence to young adulthood. J Marriage Fam 2013; 75: 300–13. [PubMed: 23687386]
22. Manchikanti Gómez A Testing the cycle of violence hypothesis: child abuse and adolescent dating violence as predictors of intimate partner violence in young adulthood. Youth Soc 2010; 43: 171–92.

23. Moher D, Liberati A, Tetzlaff J, Altman DG. Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. PLoS Med 2009; 6: e1000097. [PubMed: 19621072]
24. WHO. Adolescence: a period needing special attention. 2020. https://apps.who.int/adolescent/second-decade/section2/page1/recognizing-adolescence.html (accessed Nov 1, 2020).
25. DeGue S, Valle LA, Holt MK, Massetti GM, Matjasko JL, Tharp AT. A systematic review of primary prevention strategies for sexual violence perpetration. Aggress Violent Behav 2014; 19: 346–62. [PubMed: 29606897]
26. Sterne JAC, Savović J, Page MJ, et al. RoB 2: a revised tool for assessing risk of bias in randomised trials. BMJ 2019; 366: l4898. [PubMed: 31462531]
27. National Research Council and Institute of Medicine. Preventing mental, emotional, and behavioral disorders among young people: progress and possibilities. Washington, DC: The National Academies Press, 2009.
28. Baiocchi M, Omondi B, Langat N, et al. A behavior-based intervention that prevents sexual assault: the results of a matched-pairs, cluster-randomized study in Nairobi, Kenya. Prev Sci 2017; 18: 818–27. [PubMed: 27562036]
29. Decker MR, Wood SN, Ndinda E, et al. Sexual violence among adolescent girls and young women in Malawi: a cluster-randomized controlled implementation trial of empowerment self-defense training. BMC Public Health 2018; 18: 1341. [PubMed: 30514264]
30. Sarnquist C, Omondi B, Sinclair J, et al. Rape prevention through empowerment of adolescent girls. Pediatrics 2014; 133: e1226–32. [PubMed: 24733880]
31. Sinclair J, Sinclair L, Otieno E, Mulinge M, Kapphahn C, Golden NH. A self-defense program reduces the incidence of sexual assault in Kenyan adolescent girls. J Adolesc Health 2013; 53: 374–80. [PubMed: 23727500]
32. Sosa-Rubi SG, Saavedra-Avendano B, Piras C, Van Buren SJ, Bautista-Arredondo S. True love: effectiveness of a school-based program to reduce dating violence among adolescents in Mexico City. Prev Sci 2017; 18: 804–17. [PubMed: 27738783]
33. Jewkes R, Nduna M, Levin J, et al. Impact of stepping stones on incidence of HIV and HSV-2 and sexual behaviour in rural South Africa: cluster randomised controlled trial. BMJ 2008; 337: a506. [PubMed: 18687720]
34. Pulerwitz J, Martin S, Mehta M, et al. Promoting gender equity for HIV and violence prevention results from the PEPFAR Male Norms Initiative Evaluation in Ethiopia. Washington, DC: Program for Appropriate Technology in Health, 2010.
35. Coker AL, Bush HM, Cook-Craig PG, et al. RCT testing bystander effectiveness to reduce violence. Am J Prev Med 2017; 52: 566–78. [PubMed: 28279546]
36. Foshee VA, Bauman KE, Ennett ST, Linder GF, Benefield T, Suchindran C. Assessing the long-term effects of the Safe Dates program and a booster in preventing and reducing adolescent dating violence victimization and perpetration. Am J Public Health 2004; 94: 619–24. [PubMed: 15054015]
37. Niolon PH, Vivolo-Kantor AM, Tracy AJ, et al. An RCT of dating matters: effects on teen dating violence and relationship behaviors. Am J Prev Med 2019; 57: 13–23. [PubMed: 31128957]
38. Sánchez-Jiménez V, Muñoz-Fernández N, Ortega-Rivera J. Efficacy evaluation of "Dat-e Adolescence": a dating violence prevention program in Spain. PLoS One 2018; 13: e0205802. [PubMed: 30321224]
39. Peskin MF, Markham CM, Shegog R, Baumler ER, Addy RC, Tortolero SR. Effects of the It's Your Game···. Keep It Real program on dating violence in ethnic-minority middle school youths: a group randomized trial. Am J Public Health 2014; 104: 1471–77. [PubMed: 24922162]
40. Joppa MC, Rizzo CJ, Nieves AV, Brown LK. Pilot investigation of the Katie Brown Educational Program: a school-community partnership. J Sch Health 2016; 86: 288–97. [PubMed: 26930241]
41. Foshee VA, Benefield T, Dixon KS, et al. The effects of moms and teens for safe dates: a dating abuse prevention program for adolescents exposed to domestic violence. J Youth Adolesc 2015; 44: 995–1010. [PubMed: 25776110]
42. Kilburn KN, Pettifor A, Edwards JK, et al. Conditional cash transfers and the reduction in partner violence for young women: an investigation of causal pathways using evidence from a randomized experiment in South Africa (HPTN 068). J Int AIDS Soc 2018; 21 (suppl 1): 1.

43. Ellsberg M, Ullman C, Blackwell A, Hill A, Contreras M. What works to prevent adolescent intimate partner and sexual violence? A global review of best practices. In: Wolfe DA, Temple JR, eds. Adolescent dating violence. San Diego, CA: Academic Press, 2018: 381–414.
44. Brush LD, Miller E. Trouble in paradigm: “gender transformative” programming in violence prevention. Violence Against Women 2019; 25: 1635–56. [PubMed: 31640536]
45. Brush LD, Miller E. Authors’ response to commentaries on “trouble in paradigm”. Violence Against Women 2019; 25: 1689–95. [PubMed: 31640534]
46. Dworkin SL, Barker G. Gender-transformative approaches to engaging men in reducing gender-based violence: a response to Brush & Miller’s “trouble in paradigm”. Violence Against Women 2019; 25: 1657–71. [PubMed: 31640533]
47. Rowe LS, Jouriles EN, McDonald R. Reducing sexual victimization among adolescent girls: a randomized controlled pilot trial of my voice, my choice. Behav Ther 2015; 46: 315–27. [PubMed: 25892168]
48. Foshee VA, Bauman KE, Ennett ST, Suchindran C, Benefield T, Linder GF. Assessing the effects of the dating violence prevention program “safe dates” using random coefficient regression modeling. Prev Sci 2005; 6: 245–58. [PubMed: 16047088]
49. Foshee VA, Benefield T, Chen MS, et al. The effects of the Moms and Teens for Safe Dates program on dating abuse: a conditional process analysis. Prev Sci 2016; 17: 357–66. [PubMed: 26494314]
50. Bandiera O, Buehren N, Burgess R, et al. Empowering adolescent girls: evidence from a randomized control trial in Uganda. Washington, DC: World Bank, 2012.
51. Hale DR, Fitzgerald-Yau N, Viner RM. A systematic review of effective interventions for reducing multiple health risk behaviors in adolescence. Am J Public Health 2014; 104: e19–41.
52. Massetti GM, Simon TR, Smith DG. Methodological and design considerations in evaluating the impact of prevention programs on violence and related health outcomes. Prev Sci 2016; 17: 779–84. [PubMed: 27543077]
53. Hébert M, Daspe M-È, Lapierre A, et al. A Meta-analysis of risk and protective factors for dating violence victimization: the role of family and peer interpersonal context. Trauma Violence Abuse 2019; 20: 574–90. [PubMed: 29333960]
54. Johnson RM, Parker EM, Rinehart J, Nail J, Rothman EF. Neighborhood Factors and dating violence among youth: a systematic review. Am J Prev Med 2015; 49: 458–66. [PubMed: 26296444]
55. Rothman EF, Bair-Merritt MH, Tharp AT. Beyond the individual level: novel approaches and considerations for multilevel adolescent dating violence prevention. Am J Prev Med 2015; 49: 445–47. [PubMed: 26296442]
56. Hughes K, Bellis MA, Hardcastle KA, et al. The effect of multiple adverse childhood experiences on health: a systematic review and meta-analysis. Lancet Public Health 2017; 2: e356–66. [PubMed: 29253477]
57. Miller E, Tancredi DJ, McCauley HL, et al. One-year follow-up of a coach-delivered dating violence prevention program: a cluster randomized controlled trial. Am J Prev Med 2013; 45: 108–12. [PubMed: 23790995]

Key messages

- Our literature search identified 52 experimental and quasi-experimental programme evaluations that assessed effects on adolescent dating violence victimisation or perpetration, or both, 20 of which were implemented in low-income and middle-income countries (LMICs) and 32 OF which were implemented in high-income countries (HICs).
- Overall, half of the programme evaluations identified reported a significant preventive effect on at least one adolescent dating violence outcome, and this proportion did not differ between LMICs (9 of 20) and HICs (17 of 32)
- Evaluations in LMICs were more likely than those in HICs to exclusively assess adolescent dating violence victimisation outcomes among girls; only eight LMIC programme evaluations assessed effects on perpetration outcomes, suggesting the need to develop and identify effective prevention programmes for perpetration of adolescent dating violence in LMICs
- Very few programme evaluations did analyses to identify the mechanisms through which programmes worked to prevent adolescent dating violence or to determine whether effects differed across subgroups in the study population; more research along these lines is crucial for informing future programme adaptation and development work
- Across both HICs and LMICs more work is needed to develop and evaluate the preventive effect of programmes that: (1) seek to foster community, family, and peer environments that protect against adolescent dating violence, (2) target youth at heightened risk for experiencing dating violence, including sexual minority youth, pregnant or parenting youth, and violence-exposed youth, or (3) that may have cross-cutting effects on other violence outcomes (eg, bullying) and health risk behaviours (eg, risky sexual behaviour) among youth

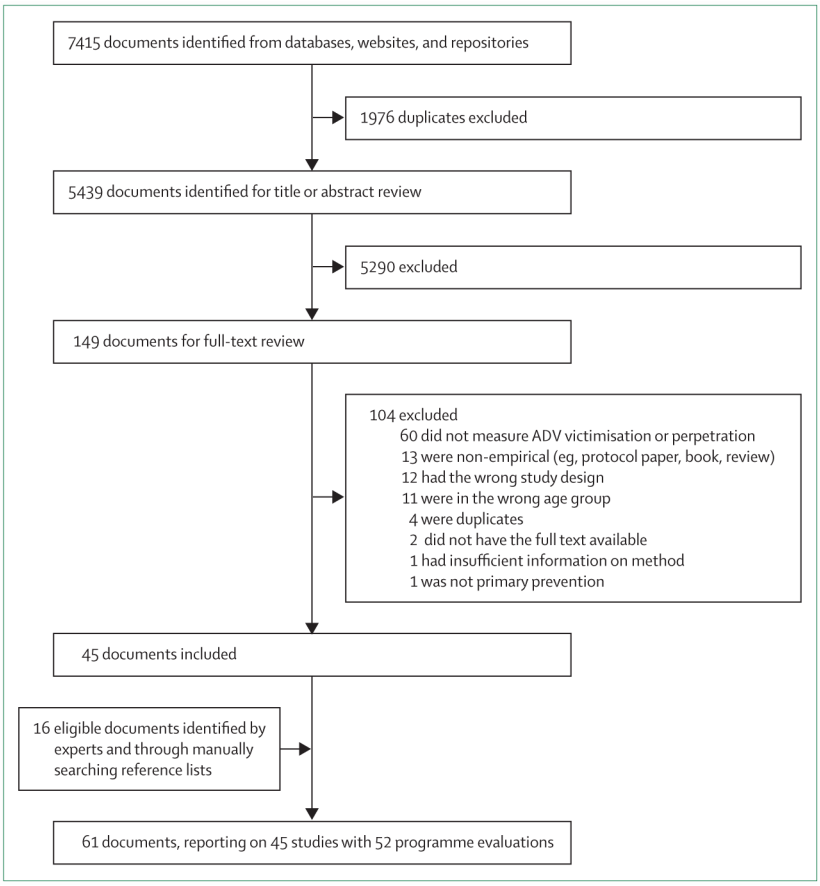

Figure 1:

Flow chart of article selection process

ADV=adolescent dating violence.

Figure 2: Heatmap of programmes and outcomes among evaluations that showed a significant or marginal positive programme effect on any ADV outcome (n=29)

Effects by sex coded as unclear when programmes evaluated outcomes among boys and girls but did not assess differences in effects by sex. ADV=adolescent dating violence. COMP=composite. CRCT=cluster randomised controlled trial. PHY=physical. PSY=psychological. QES=quasi-experimental study. RCT=randomised controlled trial. RPF=risk or protective factor. SEX=sexual. *Effect found in at least one assessment 12 months or more after baseline. †Effect for any ADV RPF. ‡Effect for at least one non-ADV related outcome behaviour.

Table 1:

Number of studies by study characteristic

	HIC (n=32)	LMIC (n=20)	χ^2	p value	All (n=52)
Study design					
CRCT	22 (69%)	13 (65%)	2·43 *	0·16	35 (67%)
RCT	6 (19%)	1 (5%)	··	··	7 (13%)
QES	4 (13%)	6 (30%)	··	··	10 (19%)
Number of follow-up assessments					
≥2	24 (75%)	6 (30%)	10·21	0·001	30 (58%)
1	8 (25%)	14 (70%)	··	··	22 (42%)
Months to last follow-up assessment					
≥12	16 (50%)	13 (65%)	4·30	0·14	29 (56%)
6–11	10 (31%)	7 (35%)	··	··	17 (33%)
≤5	6 (19%)	0 (0%)	··	··	6 (12%)
Study population sex					
Girls and boys	29 (91%)	8 (40%)	15·43	0·0002	37 (71%)
Girls	2 (6%)	9 (45%)	··	··	11 (21%)
Boys	1 (3%)	3 (15%)	··		4 (8%)
ADV outcome type					
VIC and PERP	25 (78%)	5 (25%)	14·23 †	<0·0001	30 (58%)
VIC	3 (9%)	12 (60%)	··	··	15 (29%)
PERP	4 (13%)	3 (15%)	··	··	7 (13%)
ADV outcome form ‡					
VIC outcomes					
Composite	13 (41%)	4 (20%)	2·38	0·14	17 (33%)
Physical	14 (44%)	4 (20%)	3·10	0·13	18 (35%)
Sexual	13 (41%)	14 (70%)	4·30	0·05	27 (52%)
Psychological	15 (47%)	3 (15%)	5·50	0·03	18 (35%)
PERP outcomes					
Composite	12 (38%)	6 (30%)	0·31	0·58	18 (35%)
Physical	17 (53%)	1 (5%)	12·59	0·0003	18 (35%)
Sexual	12 (38%)	5 (25%)	0·87	0·35	17 (33%)
Psychological	15 (47%)	1 (5%)	10·13	0·002	16 (31%)
Study population age, years §					
Mean (SD)	13·8 (1·7)	16·1(3·5)	··	··	14·7 (2·8)
Range	10–19	10–29	··	··	10–29
Cluster sample size, n ¶					
Mean (SD)	28·3 (24·4)	60·5 (45·3)	··	··	39·1 (35·7)
Range	7–94	16–150	··	··	7–150
Individual sample size, n ‖					
Mean (SD)	1078 (953·2)	2754·4(2697·5)	··	··	1776·5 (2039·9)

	HIC (n=32)	LMIC (n=20)	χ^2	p value	All (n=52)
Range	52–3616	309–9939	··	··	52–9939

All data are number of studies (n), unless otherwise indicated. HIC=high-income country. LMIC=low-income or middle-income country. CRCT=cluster randomised controlled trial. RCT=randomised controlled trial. QES=quasi-experimental study. ADV=adolescent dating violence. VIC=victimisation. PERP=perpetration.

[*] RCT *vs* non-RCT.

[†] VIC and PERP *vs* VIC or PERP.

[‡] Categories not mutually exclusive; most studies examined effects on more than one form of ADV.

[§] Age was estimated based on grade level for 12 studies; 13 studies (eight in HICs, five in LMICs) did not report a mean age and it could not be estimated; five studies (three in HICs, two in LMICs) did not report an age range for the study population and it could not be estimated.

[¶] Variable only assessed for the 35 CRCT evaluations; missing for two LMIC evaluations that did not report number of clusters analysed.

[//] Missing for four HIC evaluations that reported clusters but not individual sample size.

Table 2:

Number of studies by programme characteristics

	HIC (n=32)	LMIC (n=20)	χ^2	p value	All (n=52)
Implementation setting					
School	26 (81%)	13 (65%)	1·73 *	0·19	39 (75%)
Community	2 (6%)	5 (25%)	··	··	7 (13%)
Home	2 (6%)	0 (0%)	··	··	2 (4%)
Other or mixed	2 (6%)	2 (10%)	··	··	4 (8%)
Prevention approach					
Universal	23 (72%)	18 (90%)	2·42	0·17	41 (79%)
Selective	9 (28%)	2 (10%)	··	··	11 (21%)
Number of sessions †					
≥10	13 (41%)	9 (45%)	3·92	0·16	22 (42%)
6–9	11 (34%)	3 (15%)	··	··	14 (27%)
≤5	5 (16%)	0 (0%)	··	··	5 (10%)
Total exposure (sessions × length; in h) ‡					
≥10	11 (34%)	11 (55%)	8·34	0·02	22 (42%)
5–9	5 (16%)	0 (0%)	··	··	5 (10%)
<5	10 (31%)	1 (5%)	··	··	11 (21%)
Presenter type					
Teacher or school staff	9 (28%)	2 (10%)	10·30	0·04	11 (21%)
Research staff or professionals	4 (13%)	4 (20%)	··	··	8 (15%)
Agency or NGO staff	1 (3%)	6 (30%)	··	··	7 (13%)
Community members	5 (16%)	1 (5%)	··	··	6 (12%)
Others, mixed, or not applicable	13 (41%)	7 (35%)	··	··	20 (38%)
Gender of target audience					
Boys and girls§	29 (91%)	10 (50%)	10·84	0·003	39 (75%)
Girls	2 (6%)	7 (35%)	··	··	9 (17%)
Boys	1 (3%)	3 (15%)	··	··	4 (8%)
Programme content ¶					
Education or training for healthy relationships	29 (91%)	13 (65%)	5·20	0·03	42 (81%)
Shifting gender eguitable attitudes and norms	9 (28%)	12 (60%)	5·20	0·02	21 (40%)
Training for self-defense and assertive resistance against sexual assault	1 (3%)	4 (20%)	4·00	0·07	5 (10%)
Cash transfers or vocational skills training	0 (0%)	3 (15%)	5·10	0·05	3 (6%)
Education and training or cash transfers for parents and caregivers	8 (25%)	2 (10%)	1·78	0·28	10 (19%)
Bystander intervention education or training	8 (25%)	2 (10%)	1·78	0·28	10 (19%)
Education and training of school teachers or staff	5 (16%)	7 (35%)	2·60	0·11	12 (23%)
Modification to school environment, policies, or services	8 (25%)	7 (35%)	0·60	0·44	15 (29%)
Education and training of community members	2 (6%)	4 (20%)	2·28	0·19	6 (12%)
Modification to community environment, policies, or services	1 (3%)	2 (10%)	1·07	0·55	3 (6%)

All data are number of studies (n), unless otherwise indicated. HIC=high-income country. LMIC=low-income or middle-income country. NGO=non-governmental organisation.

[*] School *vs* other.

[†] Not available or applicable for 11 programmes (three in HICs, eight in LMICs).

[‡] Not available or applicable for 14 programmes (six in HICs, eight in LMICs).

[§] Mixed groups of boys and girls received the same content in 32 programmes (25 in HICs, seven in LMICs); individual boys and girls received the same content in two programmes (both in HICs); sex-stratified groups of boys and girls received the same content in three programmes (one in a HIC, two in LMICs); and sex-stratified groups of boys and girls received different programmes in one LMIC programme.

[¶] Categories are not mutually exclusive; see appendix 4 for more detailed information.

Table 3:

Programme effects by study characteristic

	Overall effect classification*			p value†
	Positive	Marginal	Null	
All evaluations (n=52)	26 (50%)	3 (6%)	23 (44%)	··
Country income classification				
HIC (n=32)	17 (53%)	1 (3%)	14 (44%)	0·57
LMIC (n=20)	9 (45%)	2 (10%)	9 (45%)	··
Study design				
RCT or CRCT (n=43)	23 (53%)	2 (5%)	18 (42%)	0·47
QES (n=9)	3 (33%)	1 (11%)	5 (56%)	··
Months to last follow-up				
≥12 (n=ll)	6 (55%)	0 (0%)	5 (45%)	0·93
6–11 (n=19)	9 (47%)	1 (5%)	9 (47%)	··
≤5 (n=22)	11 (50%)	2 (9%)	9 (41%)	··
Programme implementation setting				
School (n=39)	18 (46%)	1 (3%)	20 (51%)	0·34
Other (n=13)	8 (62%)	2 (15%)	3 (23%)	··
Exposure time, h‡				
≥10 (n=22)	14 (64%)	1 (5%)	7 (32%)	0·14
5–9 (n=5)	2 (40%)	1 (20%)	2 (40%)	··
<5 (n=11)	3 (27%)	0 (0%)	8 (73%)	··

All data are number of studies (n), unless otherwise indicated. HIC=high-income country. LMIC=low-income or middle-income country. CRCT=cluster randomised controlled trial. RCT=randomised controlled trial. QES=quasi-experimental study.

*To determine overall effect, studies were classified as having a positive, marginal, or null effect, collapsing across all dating violence outcomes, time points, and study sample subgroups.

†χ^2 or Fisher's exact test p value for comparison between evaluations for which effects were classified as positive versus not positive.

‡Not available or applicable for 14 programmes (six in HICs, eight in LMICs).

Table 4:

Programme effects by outcome type

	Positive	Marginal	Null
Victimisation outcomes			
Any (n=45)*	23 (51%)	1 (2%)	21 (47%)
Composite (n=17)	5 (29%)	0 (0%)	12 (71%)
Physical (n=l8)	9 (50%)	1 (6%)	8 (44%)
Sexual (n=27)	10 (37%)	1 (4%)	16 (59%)
Psychological (n=l8)	8 (44%)	0 (0%)	10 (56%)
Perpetration outcomes			
Any (n=37)†	14 (38%)	4 (11%)	19 (51%)
Composite (n=17)	5 (29%)	2 (12%)	10 (59%)
Physical (n=l8)	6 (33%)	0 (0%)	12 (67%)
Sexual (n=17)	4 (24%)	1 (6%)	12 (71%)
Psychological (n=l6)	8 (50%)	2 (13%)	6 (38%)

All data are number of studies (n), unless otherwise indicated. To determine effect for each outcome type, studies were classified as having a positive ($p<0{\cdot}05$), marginal ($0{\cdot}05\leq p<0{\cdot}10$), or null ($p\geq 0{\cdot}10$) effect, collapsing across time points and study sample subgroups. Effects by outcome type were not mutually exclusive; many evaluations included outcome measures in more than one category.

*Effects collapsed across all measures of victimisation in adolescent dating violence.

†Effects collapsed across all measures of perpetration in adolescent dating violence.