

SYSTEMATIC REVIEW

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Interventions for adolescent school boys and young men to reduce gender-based violence in low- and middle-income countries: a systematic review

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Abstract

Background GBV is a widespread issue rooted in gender inequality that disproportionately affects women and girls worldwide. In low- and middle-income countries (LMICs), the problem is even more severe, with some regions reporting GBV rates as high as 50%. While most efforts to combat GBV focus on supporting women and girls, there is growing recognition that engaging boys and young men is essential for addressing the root causes of violence. This review examines interventions designed to reduce GBV perpetration among adolescent boys and young men in LMICs, aiming to identify effective strategies for fostering healthier attitudes and behaviors.

Methods We conducted a systematic review of studies published between 2000 and 2023, searching databases such as Embase, Global Health, MEDLINE, APA PsycInfo, and Africa Wide Information. Out of 2,728 records, 53 studies were assessed, and 12 met the criteria for inclusion. These studies included randomized control trials, quantitative and qualitative research, and interventions delivered in schools and communities. The focus was on programs targeting behavioral change, gender norms, and bystander intervention. The data were analyzed to evaluate their impact on GBV perpetration and victimization.

Results This review revealed that school- and community-based interventions can effectively reduce GBV perpetration and victimization among boys and young men. Most studies concluded that there was significant behavioral change and a reduction in the perpetration and experience of GBV postintervention. There was also a decrease in the perpetration and experience of forced sex, dating violence, and intimate partner violence. The influence of the bystander effect on young men's attitudes toward GBV was also reviewed; however, no statistically significant improvements were identified. Overall, the findings suggest that engaging boys and young men in GBV prevention can make a difference, but more work is needed to ensure a lasting impact.

Conclusions This review highlights the importance of including boys and young men in efforts to prevent GBV, particularly in LMICs. Effective interventions sometimes combine education, community engagement, and activities that challenge harmful gender norms. These findings can guide policymakers and practitioners in designing

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programs that promote gender equality and reduce violence. However, more research is needed to understand how to sustain these changes over time and how to adapt interventions for different cultural contexts. By addressing both perpetrators and victims, we can move closer to achieving global goals such as ending violence against women and girls.

Keywords LMICs, Intervention, School, Community, Behavior, Sexual, Violence, Gender, Men, Boys

Introduction

Gender Based Violence (GBV) is defined as any act that results in “physical, sexual, or psychological harm or suffering of women, including threats of such acts, coercion, or arbitrary deprivation of liberty, whether occurring in public or private life” [69]. GBV not only harms women at the individual level but also increases their susceptibility to depression, anxiety, HIV infection, and other sexually transmitted diseases [13, 16, 34, 48, 63, 68]. There is also an adverse impact on communities at a macroeconomic level, as severe socioeconomic costs are incurred, including a loss of GDP and earnings and reduced productivity [59].

According to the World Health Organization, 1 in 3 women (27%) of women across the world aged 15–49 years, have experienced physical or sexual violence by their partners or nonpartner sexual violence. Physical and sexual intimate partner violence (IPV) is disproportionately prevalent across the world, with higher rates in low- and middle-income countries; for example, 33% of women in sub-Saharan Africa and 35% in Southeast Asia. In contrast, lower rates are reported in regions such as southern Europe (16%), New Zealand, and Australia (23%). Sexual and GBV against girls and women is a global problem characterized by human rights violations and heavy consequences, including adverse health and economic impacts [65, 67, 70].

While these statistics offer a broad overview, looking more closely at age-specific data reveals a deeply concerning reality for adolescent girls. Nearly 1 in 4 girls aged 15–19 has already experienced physical and/or sexual violence at the hands of an intimate partner. A rate that is as high, if not higher, than that of women in older age brackets [66, 71]. In many low- and middle-income countries, these young girls also face early marriage, coercive relationships, and limited access to legal or health support, making them especially vulnerable to harm. For example, data from the Demographic and Health Surveys in sub-Saharan Africa show that girls aged 15–19 often report levels of intimate partner violence comparable to, or exceeding, those of women aged 20–24 [71]. These realities highlight adolescence as a pivotal stage, one that holds both the risk of entrenching harmful norms and the opportunity to transform them.

The United Nations Office on Drugs and Crimes Research in 2020 reported that a young girl was killed every 11 min at their home, and in almost 60% of all the

reported deaths, the victim was either a woman or a girl. This evidence has inspired multiple theoretical models that attempt to explain which elements contribute to the reasons for GBV and various interventions to eradicate it. Some of these exemplary theoretical models include Marital Dependency Theory [68], Status Inconsistency Theory [31], Bargaining and Signaling Models [1, 4, 21, 51, 52], the Male Backlash Model [9, 19, 49], and models where domestic violence is used as a means of extortion [10]. Most interventions have targeted women's financial situations and economic empowerment [5, 11, 21, 28, 44].

Research on women and girls exposed to intimate partner sexual violence (IPSV) has shown its serious and lasting impact. A review of 28 studies [8], mostly small observational ones, linked IPSV to posttraumatic stress, depression, substance use, physical and sexual health problems, and even homicide. Children of survivors were also more likely to experience anxiety, depression, and other emotional difficulties. The widespread prevalence of GBV and its health and social impact have also resulted in increased advocacy for incorporating men into interventions to take preventative action [12, 68]. This increased interest in reaching men and boys stems from the recognition of the role that rigid gender stereotypes, norms, and systems play in the prevalence of violence [37]. Studies have documented that the perpetration of IPV by men is linked with factors such as childhood trauma, lack of education, poverty, or being involved in gangs [23, 35, 38]. Hence, men's engagement in the prevention of GBV has resulted in the evolution of the *gender transformative approach*, which aims to shift young boys' and men's attitudes toward women, ultimately deconstructing the archetype of hegemonic masculinity to cultivate a culture of equitable relationships between the two sexes [3, 12]. Mounting evidence highlights the potential of these interventions directed at preventing risky health behaviors and GBV [36, 46].

Interventions for young males are believed to be influential because adolescence is a formative period when gender norms are formed and boys begin their socialization into ideologies and practices that can perpetuate male dominance and female submissiveness [7, 40, 45, 47]. Understanding these influences helps us understand the broader context of IPV and the need for support and intervention for this population. Despite the significance of this age group, there is a deficit in the literature regarding their effectiveness, particularly compared with

interventions focused on girls and women. By intervening during adolescence in young males, these programs can cultivate a generation of men who lead equitable relationships and reject harmful gender stereotypes, contributing to a shift against gender-based violence.

This systematic review seeks to bridge this gap by examining school-based and community-based interventions targeting adolescent boys and young men in low- and middle-income countries. This paper presents findings from a systematic review [29] of predominantly school-based and community-based interventions targeting adolescent boys and young men aged between 12 and 28 years to reduce gender-based violence. The results outline and recapitulate existing knowledge and synthesized evidence [32] on school-based and community-based interventions targeting adolescent boys and young men. The findings provide a better understanding of the impact of these interventions and the importance of including boys and men in the fight against GBV in an era where governmental bodies and civil societies search for innovative ways to alleviate the devastating effects of violence against women and girls.

Methods

Databases and selection criteria

The search was facilitated through Boolean operators, with a search strategy developed and applied to OVID via the following bibliographic databases: Embase, Global Health, MEDLINE(R) and In-Progress & Other Non-indexed Citations and Daily, APA PsyInfo, and Africa Wide Information. The studies selected were published between 1st January 2000 and 31st October 2023. Table 1 below summarizes the inclusion and exclusion criteria for the studies reviewed.

Table 1 Inclusion and exclusion criteria

Inclusion Criteria

- Interventions in Low- and Middle-Income Countries based on the World Bank's classification of an assigned country's economy
- Male adolescents (12–28 years old) only
- Intervention must address various forms of gender-based violence, including IPV, peer/dating violence, and SRGBV
- Study designs with interventions evaluated quantitatively or qualitatively
- Peer review studies only
- Studies between 2000 and 2023
- Studies in English

Exclusion Criteria

- Interventions in High-Income Countries based on the World Bank's classification of an assigned country's economy
- Studies with no separate analysis based on ages 12–28 years old and differentiation by gender
- Studies focused on only male

Table 1 below outlines the key criteria used to determine which studies were included or excluded from the review

Studies published between 2000 and 2023 were included in this review. This time frame allows us to capture key changes in how IPV and GBV have been addressed, especially in low- and middle-income countries. There is a growing global interest in addressing GBV, leading to significant developments in intervention strategies and research methods. The search terms for this systematic review were chosen to capture key relevance to the research questions, inclusion and exclusion criteria, contextual factors related to GBV, and intervention types, with a focus on boys and young men aged 12–28 years. They include different types of violence, intervention strategies, and relevant contextual factors to ensure a thorough search of the literature.

A total of 2,728 studies were screened across multiple databases, including Embase, Global Health, MEDLINE, APA PsyInfo, and Africa Wide Information, via a Boolean search strategy. After deduplication, 53 studies were included for full-text screening, with 12 identified for final review and synthesis. Four study types were identified: randomized control trials, quantitative descriptive designs, quantitative nonrandomized studies, and qualitative studies that used various intervention methods in school- and community-based settings. Interventions delivered in community-based settings are those that occur within local environments like community centers or public spaces, instead of formal institutions. The REAL Fathers Initiative aimed to build knowledge and skills to practice non-violent parenting and non-violent intimate partner relations through a combined community-based curriculum, including mentoring, awareness-raising activities, and community celebrations.

The target population were boys and young men aged 12–28 years, a group selected based on prior literature highlighting adolescence and young adulthood as critical periods for shaping gender attitudes and behaviors (e.g., WHO, 2011; UNFPA, 2015). This age range captures the transitional phase from early adolescence to young adulthood, during which social norms, identity, and relationship patterns are actively formed. Boys and young men at this stage are also at a pivotal point in the development of behaviors that can significantly influence societal outcomes, particularly in low- and middle-income countries (LMICs), where sexual and gender-based violence (SGBV) remains a pressing public health issue. Moreover, there is a notable gap in GBV research focusing on this demographic in LMICs, especially regarding how targeted interventions influence their involvement in the perpetration of SGBV [42].

For this systematic review, the World Health Organization's definition of sex was adopted. It views gender as the role and expectation that society assigns to individuals based on their perceived sex. (WHO, 2023). Table 1

below summarizes the inclusion and exclusion criteria for the studies reviewed.

Study selection

Rayyan software was employed for the study screenings in this review because of its responsiveness, accuracy, and predictability features [54]. The studies were downloaded into Endnote for deduplication and uploaded into Rayyan software, where each title and abstract were screened by two reviewers who were blinded to each other's inclusion/exclusion decisions. The data were extracted by one reviewer into Excel and were quality checked by a second reviewer.

Excluded studies were coded to record reasons for exclusion, such as studies with no separate analysis for 12–28-year-olds and studies that focused only on boys as survivors of sexual abuse (see Table 1). When the title and abstract did not provide enough information for exclusion, the full-text review stage was carried out. Systematic reviews were excluded but tagged for manual reference searches to ensure that no relevant studies were missed from the full-text search. The search terms used for the OVID platform are listed in Annex 1.

We adopted a narrative synthesis approach to analyze the findings from the studies included [57]. These studies were grouped according to their research designs, which included randomized controlled trials (RCTs), nonrandomized studies, and qualitative studies. This categorization allowed us to explore the effectiveness of different interventions and identify themes, including intervention effectiveness, school-based, and community education.

To ensure the reliability of our findings, we assessed the risk of bias in each study. This involved considering factors such as potential reporting bias, sample sizes, and the possible effects of interference in school settings. Our risk assessment was guided by the specific designs of the studies and the interactions reported with the research teams.

Quality appraisal

We employed the Mixed Methods Appraisal Tool (MMAT), version 2018, a critical appraisal tool designed for systematic mixed study reviews that assesses the quality of the sources. It was used to appraise the methodological quality of all included qualitative and quantitative studies [30], where the reviewed studies were scrutinized in terms of the research question's clarity and consistency with the research design. The MMAT was used because it provides a clear and consistent way to assess the quality of the study types included in the review, ensuring a reliable evaluation of the evidence [55]. The review protocol was registered on PROPERO No: CRD42021247769 [56].

Flowchart of study selection

The study selection process is presented in the following flowchart, which is adapted from PRISMA [62] showing the number of records identified, screened, excluded, and included in the review (Fig. 1).

Results

Overview of studies

The search identified 2,728 relevant studies, of which 1,782 remained after deduplication. Fifty-three studies were identified for full-text screening, and 12 studies were included in the review.

The study types used included observations [51], school-based activities [32, 62], classroom-based curricula [15, 64], and community-based activities [25]. Six [7] quantitative randomized control trials, four [4] quantitative descriptive designs, one [1] quantitative nonrandomized study, and one [1] qualitative study were included. These studies were conducted in sub-Saharan Africa (Uganda, Kenya, Ethiopia, and South Africa), North America (St. Lucia), South America (Mexico), and South Asia (India).

According to World Health Organization (WHO) reports, IPV disproportionately affects women in low- and lower-middle-income countries, particularly in regions such as Oceania, southern Asia, and sub-Saharan Africa. These areas present prevalence rates of IPV among women aged 15–49 years ranging from 33% to 51% [70]. As all the countries in the systematic review have low- or middle-income economies, there is a clear association between this observation and the ample evidence that suggests that violence and the formation of a masculinity norm are shaped by factors such as poverty [18, 36, 38]. There was an observed degree of heterogeneity between the studies regarding the measurement of gender attitudes [40].

As shown in Table 2, the studies targeted adolescents and young adults across various regions, including South Africa, Kenya, Mexico, Ethiopia, St. Lucia, Uganda, Mumbai, and Bihar, India. The findings revealed significant positive shifts in attitudes toward gender norms and notable reductions in GBV outcomes. Key observations included a decrease in intimate partner violence and forced sexual intercourse among young people, alongside improved attitudes toward women and an increased willingness to intervene in GBV situations, particularly among male participants.

The table summarizes the authors, countries, types of GBV addressed, intervention approaches, and main findings, offering insight into the effectiveness of these programs across diverse settings.

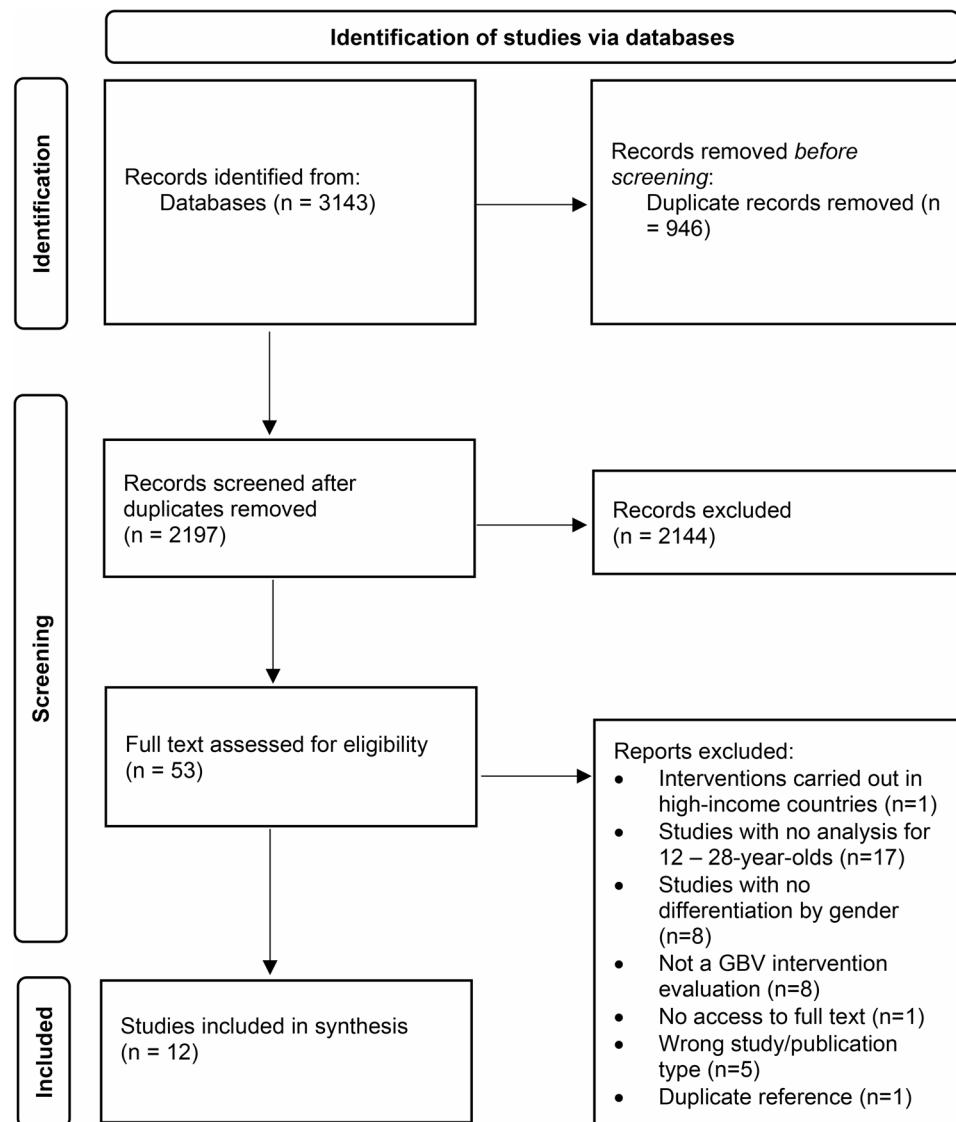


Fig. 1 Flowchart of study selection

Individual study results

This section presents the results of six randomized controlled trials (RCTs) and six non-RCT studies, including descriptive, nonrandomized, and qualitative designs. The findings are organized into two categories: school-based interventions and community-based interventions, both of which evaluated strategies aimed at reducing intimate partner violence (IPV) and other forms of gender-based violence among adolescents and young men.

School-based interventions

In assessing the results of postintervention outcomes, one of the highlighted RCTs, the Let Us Protect Our Future study carried out in 18 schools in Eastern Cape Province with young South African adolescents by Jemmot et al. (2018). The study applied theory-based culturally

adapted modules, including interactive activities, games, brainstorming, role-playing, comic workbooks, and small-group discussions. This intervention reported a reduction in self-reported forced sex perpetration over a postintervention period ($p < 0.001$) [32]. This reduction was reported at 3-month intervals (52 of 561 [9%] through 54 months [68 of 491 [14%]; RR, 0.964]). The reviewed school-based RCTs were highlighted as they represent strong evidence of effectiveness in reducing the perpetration of IPV and related abusive behaviors.

Similar to Jemmot et al. (2018), the Mumbai “Coaching Boys into Men” study conducted a cluster-randomized controlled trial through an athletic coach-delivered violence prevention program that also addressed the bystander effect (Miller et al., 2014). The bystander effect refers to individuals’ reluctance to act when someone is

Table 2 Summary of selected interventions targeting gender-based violence among adolescents and young adults in Sub-Saharan Africa

Authors	Country	GBV Form	Main Results
Gibbs et al., 2015 [24]	South Africa	IPV and HIV	Reduction of IPV and HIV risk.
Jemmott et al., 2018 [33]	South Africa	Forced sexual intercourse and risky sexual behavior	Reduced rates of perpetrating and experiencing forced sex
Jewkes et al., 2019 [39]	South Africa	Dating and sexual violence	Statistically insignificant but beneficial trends in reducing violence.
Keller et al., 2017 [43]	Kenya	Male's attitudes toward and women & bystander effect	Improved attitudes toward women and higher likelihood of intervening when witnessing GBV.
Makleff et al., 2020 [50]	Mexico	IPV prevention	Enhanced prevention and response to partner violence.
Sosa-Rubi et al., 2017 [64]	Mexico	Dating violence	Enhanced prevention and response to psychological dating violence among male participants. and reduced acceptance of sexist norms.
Pulerwitz et al., 2015 [58]	Ethiopia	Gender Equitable Norms & Violence Prevention	Increased support for gender equity and reduced IPV.
Alexander et al., 2014 [2]	St. Lucia	Dating Violence	Intervention was more effective in higher-performing schools, with boys showing healthier relationship attitudes than girls.
Ashburn et al., 2017 [6]	Uganda	IPV & attitudes regarding gender roles and expectations	Reduced IPV and improved parenting and partner communication but no shift in gender norm and attitudes.
Miller et al., 2012 [53]	Mumbai	Bystander effect to promote gender equitable attitudes and behaviors	Enhanced attitudes toward gender equality & marginal improvement of the bystander effect
Gupta & Santhya, 2020 [26]	Bihar	Gender egalitarian norms and practices	The intervention was more effective among younger boys, who demonstrated greater adherence to gender-equitable norms and stronger rejection of violence compared to older boys.
Kalichman et al., 2009 [41]	Cape Town	Gender Based Violence & HIV Reduction	Reduced GBV-related behaviors at post intervention follow-ups.

in need, often due to the presence of others. The study revealed that the coach-led dating violence prevention program for high school-aged male athletes was associated with increased intentions to intervene in peer abuse situations, positive bystander behaviors, and improved recognition of abusive behaviors. Compared with the control group, athletes who participated in the program showed positive changes in intentions to intervene, with an estimated intervention effect of 0.12 (95% CI: 0.003, 0.24) and improved bystander intervention behavior (0.25, 95% CI: 0.13, 0.38). However, there were no statistically significant differences in the incidence of the bystander effect or the perpetration of sexually abusive behaviors. While fewer negative behaviors were observed in the treatment group, the difference was only marginally significant ($p = 0.07$).

Also, Jewkes et al. (2019) [39] evaluated a three-arm cluster RCT of the Skhokho intervention, a holistic school program. Although the primary outcomes between the intervention and control groups were not statistically significant, the intervention demonstrated protective effects against violence and improvements in several secondary outcomes. For girls, the incidence of IPV was reduced, with an adjusted incidence rate ratio of 0.84 (95% CI: 0.66, 1.07; $p = 0.159$).

A nonrandomized study by Sosa-Rubi et al. (2017) [64] on the effectiveness of a school-based program to reduce dating violence among adolescent students in Mexico City reported a 58% ($p < 0.05$) reduction in the prevalence of perpetrated psychological violence and a 55% ($p < 0.05$) reduction in the prevalence of psychological violence among school students exposed to an individual-level classroom-based curriculum compared with the control group of students. There was also a significant reduction in the beliefs and attitudes regarding violence in dating relationships among this group of female students (6%; $p < 0.05$) and male students (7%; $p < 0.05$) [18].

Qualitative findings from Markleff et al. (2020) on a comprehensive school-based sexuality education program in Mexico for the prevention of IPV supported the importance of school-based programs for the prevention of IPV and encouraged changes in the perceptions, beliefs, and behaviors of the participants as they related to gender violence and sexuality. This school-based educational intervention also contributed to increasing self-respect and self-confidence in making the right relationship choices [50]. The findings emphasized the importance of schools in preventing violence and the implications of educational policy in sex education [27].

An evaluation of the choice with respect to the dating violence prevention program with secondary school students at St. Lucia, reported by Alexander et al. [2], was based on a curriculum that increased participants' knowledge and awareness and caused a positive change

in their beliefs and attitudes about dating violence. A pre-test with respect to attitudes toward relationship violence survey was administered before and after the curriculum. The choice of intervention was reported to be effective, with schools ranked higher academically and reporting healthier relationship attitudes than lower-ranked schools did. The attitudes of boys toward relationships were also noted to be healthier than those of girls [2].

The Do Kadam study conducted by Gupta & Santhya [26] adds a layer of complexity. The study evaluated the effect of exposing boys to a gender-transformative life-skills education and sports-coaching program that modifies traditional gender norms in adolescents with rural boys in Bihar, India. The data were disaggregated on the basis of the ages of the boys (13–14 years and 15–19 years) who participated, and targeted intervention was proven to be more impactful for young boys than for older boys. Highlighted areas included when cultivating gender equality ($\beta = 0.669$; $p < 0.001$ vs. $\beta = 0.344$; $p < 0.001$), rejecting practices such as male controlling behavior ($\beta = 0.973$; $p < 0.003$ vs. $\beta = 0.453$; $p < 0.088$), violence against female spouses ($\beta = 0.423$; $p < 0.002$ vs. $\beta = 0.282$; $p < 0.035$), and violence against unmarried girls ($\beta = 0.332$; $p < 0.038$ vs. $\beta = 0.306$; $p < 0.045$). Interestingly, even though young boys reported feeling more respected by their peers for being gender-equal, they were less likely ($OR = 2.17$; $p < 0.03$ vs. $OR = 2.56$; $p < 0.002$) to intervene when witnessing an incidence of violence.

Community-based interventions

This section includes four community-based intervention studies, based on evidence from randomized controlled trials and quasi-experimental designs. These studies evaluated efforts to reduce gender-based violence through strategies such as transforming harmful gender norms, promoting gender-equitable attitudes, and strengthening livelihoods. The findings highlight the role of community engagement in addressing risk factors and preventing violence.

Findings from the evaluation of Ashburn et al., REAL Fathers Initiative, revealed significant reductions in both IPV and physical child punishment among men exposed to the intervention. At the end of the study, the odds of IPV were significantly lower among participants than among the control group ($aOR = 0.48$, CI 0.31, 0.76, $p < 0.001$), and this reduction was sustained at long-term follow-up.

The Stepping Stones and Creating Futures interventions in urban informal settlements in South Africa aimed to address intimate partner violence (IPV) and HIV risk by engaging men in gender-transformative and livelihood-strengthening programs [16]. The findings indicate that rather than a complete reconstruction of

masculinity, participants demonstrated a gradual shift away from harmful youth masculinities toward roles emphasizing economic provision and household stability. Interestingly, economic empowerment played a critical role in intervention outcomes. Improved livelihoods encouraged participation and gave men tangible ways to demonstrate these social and behavioral shifts [25].

Findings from the Changing Gender Norms and Reducing Intimate Partner Violence Intervention Study with Young Men in Ethiopia similarly showed positive changes. Compared with those in the comparison group, participants in the intervention groups were twice as likely ($P < 0.01$) to show increased support for gender-equitable norms. The IPV rates also significantly declined in both intervention groups. The percentage of men reporting IPV decreased from 53% to 38% and from 60% to 37% across both intervention groups. In contrast, the comparison group showed no meaningful change in IPV rates, highlighting the effectiveness of combining community engagement with educational interventions in promoting gender equity and reducing IPV among young men in Ethiopia.

Cross-study themes

This section presents the key findings beginning with interventions that focus on transforming gender norms and addressing violence within dating relationships, then studies examining the role of bystander interventions in preventing violence.

Most studies showed positive changes, with many helping boys and young men reduce violent behavior and communicate better. Interventions shifted attitudes about gender and relationships, though results varied by context and region.

Gender transformative approach: gender norms, violence, and dating relationships

Most of the studies revealed a positive and healthier change in behavior outcomes, with a greater effect on adolescent boys or young men. A reduction in violent behavior and improved communication postintervention were also reported. Key findings include shift in attitudes toward gender norms and violence [33, 41], attitudes in dating relationships [64], violence from staff and/or peers [15], social norms, attitudes, and knowledge about violence and gender and communication about relationships and sexuality [39], reduced forced sexual intercourse perpetration among adolescents [15] and reduced dating and sexual violence [15].

The REAL Fathers Initiative in Uganda (Ashburn et al., 2017) significantly reduced intimate partner violence (IPV) and improved parenting behaviors. Similarly, the “Let Us Protect Our Future” intervention in South Africa [32] led to a reduction in forced sexual intercourse

perpetration over follow-up periods. Most studies reported positive changes in behavior and attitudes, particularly among adolescent boys and young men. There was a reduction in violent behaviors and improved communication between genders following these interventions. Programs such as the “REAL Fathers Initiative” and “Do Kadam” (Gupta & Santhya, 2020) [26] in India successfully shifted norms around masculinity and reduced violence in relationships.

Despite these successes, intervention outcomes are sometimes inconsistent. For example, Miller et al. [53] reported marginal effects in reducing sexually abusive behaviors among athletes in Mumbai, suggesting that interventions promoting gender-equitable attitudes do not always lead to significant behavioral changes. Similarly, Jewkes et al. (2019) [39] reported that while a holistic school-based program in South Africa improved gender attitudes, it did not result in a statistically significant reduction in IPV.

Effectiveness varied across regions. In Sub-Saharan Africa, interventions such as those of Skhokho [39] have produced positive, although sometimes statistically insignificant, results in a reduction in dating and sexual violence. In St. Lucia, the “choose respect” program [2] resulted in improvements in relationship attitudes, especially among boys attending higher-ranked schools. In Mexico, the “True Love” program [64] achieved a marked reduction in psychological violence among adolescents, demonstrating the effectiveness of classroom-based curricula in reducing dating violence. Additionally, in Ethiopia [58], community engagement and interactive group education promoted gender-equitable norms and decreased IPV. Community-based interventions that involve men in gender-transformative and livelihood-strengthening programs have demonstrated positive outcomes in reducing intimate partner violence (IPV) and promoting gender-equitable norms.

Bystander effect on violence prevention interventions

The Do Kadam study and the Coaching Boys into Men program highlight the complexity of addressing the bystander effect in preventing violence. While both studies revealed that participants were more likely to express intentions to intervene in abusive situations, the actual behavior change was less clear. In the Do Kadam study, although younger boys reported feeling respected for advocating for gender equality, they were less likely to step in when witnessing violence. Similarly, the Coaching Boys into Men program improved the participants’ ability to recognize abusive behavior and their intentions to intervene. Nevertheless, it did not result in significant reductions in sexually abusive behaviors.

Risk of bias in included studies

All the outcomes collected in the studies were reported; as a result, there was a low risk of reporting bias. There is also a low risk of reporting bias based on repeated interactions with the research team [50], and the short time of observation changes behavior [2, 15, 39, 50, 64]. However, most of the included studies were school-based, and there may be a high risk of bias arising from interference with the school environment. It is also unclear if there was any risk of bias from sample sizes.

Discussion

This systematic review summarizes twelve interventions targeting adolescent boys and young men in low- and middle-income countries (LMICs), implemented in both school-based and community-based settings. In total, 12 studies were included in the review. Most interventions focused on changing GBV-related behaviors, with fewer addressing bystander responses. School-based programs provided an ideal platform to reach this population [39], offering valuable opportunities to GBV by fostering early changes in beliefs and attitudes toward women and reducing the risk of violent behavior and revictimization [22]. Community-based interventions that work with men to challenge harmful gender norms and strengthen their economic opportunities are effective in reducing intimate partner violence and supporting more equal relationships between men and women. While the target populations were similar, some studies explored differences between younger and older boys, revealing variations in behavior change and violence prevention.

Despite methodological differences, the studies assessed comparable outcomes related to attitudes, behaviors, and violence reduction. Nine of the twelve studies demonstrated improvements in boys’ attitudes toward women and girls, alongside reductions in stereotypic beliefs and dating violence. However, evidence of long-term decreases in the perpetration of violent behavior, particularly sexual violence, remains limited. For example, four studies, Jemmott et al. (2018), Alexander et al. [2], Sosa-Rubi et al. [64], and Makleff et al. [50] reported decreases in forced sex and dating violence among adolescent boys through school-based interventions. These findings underscore the importance of designing future interventions that directly measure behavioral outcomes, particularly concerning sexual violence. While school-based interventions show promise in initiating positive behavioral changes, sustained efforts and follow-up are essential to ensure that these changes persist over time.

Additionally, community-based interventions, Gibbs et al. [24], Ashburn et al. [6], Kalichman et al. [41], and Pulterwitz et al. [58], demonstrated reductions in violence, highlighting the potential of community involvement

in reinforcing school-based learning. This aligns with findings from Kalichman et al. [41] which indicated that GBV/HIV intervention reduced negative attitudes toward women in the short term and reduced violence against women in the longer term [40]. These interventions highlight the potential of community-driven, gender-transformative interventions to break the cycle of intergenerational violence. They underscore the importance of integrating economic and social empowerment strategies into violence prevention programs to increase their long-term impact.

Despite these positive outcomes, variations in interventions effectiveness were observed. For example, Jewkes et al. [39] reported no significant reduction in GBV among adolescent students in South Africa, which contrasts with the positive results reported in other studies. This discrepancy underscores the importance of intervention design, cultural relevance, and community involvement in achieving success. Community-based strategies were found to be equally effective, supporting the argument for multisectoral approaches that combine school and community efforts. These findings align with limitations identified in similar studies, particularly the lack of direct measurement of behavior change related to sexual violence. While education appears to influence attitudes and behaviors, this link has yet to be fully confirmed [7]. Additional limitations, summarized in Table 3, highlight the need for more rigorous evaluation of intervention outcomes.

Two studies, Gupta & Santhya [26] and Keller et al. [43], explored the influence of bystander interventions on young men's attitudes toward GBV, reporting positive outcomes. These findings suggest that teaching young men to intervene when witnessing violence can contribute to healthier gender attitudes. However, Miller et al. [53] did not find statistically significant improvements in bystander intervention or the prevention of sexually abusive behaviors suggesting that while awareness and intentions can improve, turning them into action in real-life situations is a challenge and stressing the need to refine bystander interventions and ensure that they are culturally relevant and engaging for participants. This review presents evidence on the efficacy of interventions targeting adolescent boys and young men exclusively, with other studies providing disaggregated data on males and females [25, 61]. The format of interventions, such as single-gender versus mixed-gender programming, also affects outcomes, underscoring the importance of careful design and implementation [7].

Unlike previous systematic reviews that included evidence from low-, middle-, and high-income countries [40, 60], this review focused exclusively on LMICs in sub-Saharan Africa and South Asia, with the highest prevalence rates of intimate partner violence among women

aged 15–49 years [68]. This focus highlights the urgent need for context-specific interventions in these high-prevalence areas. The review also identified critical gaps for future research, including the need for longer time-frames to evaluate intervention effectiveness [17] and the recognition that violence and masculinity norms may be shaped by factors such as poverty, which are prevalent in LMICs [18, 38]. Future programs should incorporate these elements into their design and analysis to better address the root causes of GBV.

In conclusion, this systematic review provides promising evidence for the effectiveness of school-based and community-based interventions in reducing GBV among adolescent boys and young men in LMICs. The takeaways from this synthesis highlight that school-based programs provide a critical entry point to reach boys early, foster gender equitable attitudes, and prevent violent behaviors before they become rooted. Community-based interventions build on these gains by challenging harmful norms, addressing structural drivers such as poverty, and reinforcing positive behaviors through broader social engagement. At the same time, evidence of sustained reductions in the perpetration of sexual violence remains limited, underscoring the need for long-term, culturally relevant, and methodologically rigorous evaluations. Together, these insights emphasize that multisectoral strategies integrating schools, communities [20], and structural supports are essential to achieve durable reductions in GBV among adolescent boys and young men in LMICs.

Table 3 Provides a summary of the study designs, intervention approaches, and key limitations reported or observed across the included studies. Limitations in these findings were extracted from the original publications. Where no limitation was reported, limitations were noted as 'Not mentioned'

In considering risks, it is also important to acknowledge the potential for unintended consequences, particularly in community-based approaches. While none of the included studies explicitly reported adverse effects, interventions that aim to shift gender norms may encounter resistance or create tension within communities. recent evidence from a randomized study in Rwanda suggests that community-based IPV prevention programs may carry unintended consequences if not carefully managed. Cullen et al. (2025) found that a well-intentioned intervention led to increased reports of IPV among women, including in both treatment and control communities, raising concerns about potential backlash or diffusion of harm [14]. Moreover, subgroup analyses such as the age-related differences identified in the Do Kadam intervention [26] were not always pre-specified, raising the possibility of selective reporting. These issues underscore the importance of strong implementation frameworks, pre-specified analysis plans, and mechanisms to detect

Table 3 Overview of study methods, interventions, and identified limitations in findings

Authors	Method	Description of Intervention	Limitation in Findings
Jemmott et al., 2018 [33]	Cluster Randomized Clinical Trial	<ul style="list-style-type: none"> ● 12 one-hour modules including activities such as games, brainstorming, role-playing, group discussions, comic workbooks ● Long Walk Home: identification of risky situations on the way back from school ● Stop, Think and Act: reinforcement of refusal skills and control beliefs ● What Is a Relationship: reinforcement of feeling proud of being in a relationship ● Understanding Risky Situations: increase of awareness around risky situations and how to avoid them ● Knowing and Setting Sexual Limits: how to identify and vocalize their limits to avoid risky situations ● Practice of sex refusal ● 6 sessions promoting health control (physical activity, fruit and vegetable consumption, chronic diseases) 	Self-reporting, lack of external validity
Jewkes et al., 2019 [39]	Three-arm cluster Randomized Control Trial (Questionnaire)	<p>Arm 1: No intervention</p> <p>Arm 2: A Life Orientation curriculum workbook</p> <p>Arm 3: Arm 1 & a workshop for caregivers and teenagers</p>	Underpowered, randomization took place before the recruitment, sample size, possibility of infidelity, lack of external validity, arm 3, end-line was conducted 10–12 months post the study, no control arm
Makleff et al., 2020 [50]	Longitudinal quasiexperimental study (observation, case studies)	Comprehensive Sexuality Education course, in-depth interviews, focus groups (students, teachers and health providers)	Social desirability (regarding negative feedback about the Mexfam's course), voluntary participation, lack of direct measurement of violence, inability to quantify the intervention's effectiveness, follow-up was not long-term
Sosa-Rubi et al., 2017 [64]	Quasiexperimental	<p>Intervention 1: Improved and more informative school climate about dating violence (workshop & schoolyard activities) [School-level]</p> <p>Intervention 2: Classroom-based curriculum & School-yard activities [Individual-level]</p>	Nonrandomization, underestimated impact of the intervention, statistical power, drop-out rates, differential attrition
Gibbs et al., 2015 [24]	Qualitative study	Behavioral Intervention using dialog and reflection to commence imagining and acting in different ways.	Not mentioned.
Keller et al., 2017 [43]	Quantitative nonrandomized study	Development of the Your Moment of Truth GBV curriculum; key components included among others the promotion of gender equality, the development of positive masculinity and the teaching of boys regarding how to intervene in GBV in an effective way.	Inability to determine the within-subject change over time & unequal sample distribution among the groups.
Pulewitz et al., 2015	Quasi Experimental	Community engagement activities coupled with interactive group education	The sample might not be representative, lack of random selection of the three communities involved, social desirability bias and performance bias.
Ashburn et al., 2017 [6]	Randomized Control Trial	Mentoring program & community poster campaign	Inability to detect a cause-and-effect relationship due to cross-sectional data, confidentiality concerns, self-reported bias, referral system
Miller et al., 2012 [53]	Clustered Randomized Trial	The overall program targets standing up against any form of GBV, promotion of gender equity, bystander effect through 3-day workshop for the coaches (introduction to the Parivartan program), discussion of the coaches with the athletes for four months,	Selection bias, high drop-out rate, too small final sample size, infidelity
Gupta & Santhy, 2020 [26]	Cluster Randomized Trial (survey data, interviews)	Gender transformative life skills curriculum, cricket coaching, capacity building, transaction of life skills curriculum, community events (case studies, role play, coaching, group discussions)	Ambiguity regarding the program's effectiveness if held separately, lack of generalizability

Table 3 (continued)

Authors	Method	Description of Intervention	Limitation in Findings
Kalichman et al, 2009 [41]	Quasi-Experimental Field Trial (skills building, personal goal setting)	Five-session integrated intervention targeting both GBV and HIV risky behaviors, one 3-hour session addressing HIV and Alcohol reduction	Nonrandomization of participants in the two communities, weak design to explore individual outcomes, sample's generalizability, differential attrition, measures were limited to few constructs, self-reporting bias, high degree of the measures' variability, sample was drawn only from one south African cultural groups
Alexander et al, 2014 [2]	Randomized Controlled Trial	<p>The intervention was curriculum-based. The following modules were included:</p> <p>Module 1: Reflections on Respect (video intervention, where personal stories of teenagers who have undergone abusive and violent relationships were shown)</p> <p>Module 2: OK or No Way (interactive game where dating scenarios were shown)</p> <p>Module 3: Dream Date (encouraged students to reflect upon which traits they look for in a boy or girl that they would intend to date)</p> <p>Module 4: Choose Respect Trivia Night game (questions that focus on what is and what is not a healthy relationship)</p>	<p>No control group was included, lack of internal validity, unclarity regarding the adequate exposure to the intervention</p>

and address any adverse or unintended effects during and after program delivery.

Strengths and limitations

To the best of our knowledge, no other systematic review has been conducted assessing GBV among adolescent schoolboys only or with a separate age analysis between the ages of 12–28 years in LMICs, as carried out by this independently funded review. Although the contributing authors declare no competing interests and despite our best attempts to present the systematic review with as little bias as possible, the following limitations regarding the content of the selected studies and the procedures followed became apparent. First, only a few articles were selected ($n = 12$) because few studies on the prevention of GBV in LMICs are available. There have been few studies on interventions designed for these target groups to indicate how these interventions might be best delivered to prevent GBV in LMICs. This was also impacted by the exclusion and inclusion criteria applied in the selection process. In addition, this review included only studies published in peer-reviewed journals, which may mean that studies described in governmental reports or by well-established organizations, such as the World Bank, were excluded.

Conclusion

When considering interventions to reduce GBV among adolescent boys and young men in low- and middle-income countries, the results suggest that interventions for boys seem to result in a positive change in equitable behavior. Our findings strongly suggest that further research on interventions for adolescent boys is needed to generate strong models that are effective and based

on rigorously produced evaluations in low- and middle-income settings.

This review is an important step in exploring GBV among adolescent schoolboys in LMICs, addressing an important gap in existing research. By highlighting this important but often overlooked group, the findings highlight how crucial early intervention and education of adolescent school boys and young males are in shaping positive attitudes toward gender equality and preventing future violence.

Abbreviations

CI	Confidence interval
GDP	Gross domestic product
GBV	Gender based violence
HIV	Human immunodeficiency virus
IPSV	Intimate partner sexual violence
IPV	intimate partner violence
LMICs	Low- and middle-income countries
MMAT	Mixed methods appraisal tool
P	Probability value
PRISMA	Preferred reporting items for systematic reviews and meta-analyses
RCT	Randomized controlled trial
SGBV	Sexual and gender-based violence
UNFPA	United Nations Fund for Population Activities
WHO	World Health Organization

Supplementary Information

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Supplementary Material 1.

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AKD contributed to conceptualization, data analysis, and manuscript preparation. HS provided methodological guidance and contributed to manuscript revisions. IP contributed to data collection and drafting. CZ helped interpret findings and contributed to the manuscript. All authors contributed to the research, analysis, and manuscript.

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Data availability

Data is provided within the manuscript.

Declarations**Ethics approval and consent to participate**

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Consent for publication

Not Applicable.

Competing interests

The authors declare no competing interests.

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