

## Quantitative Meta-Analysis of Interventions to Reduce Gender-Based Violence

Raúl Alberto Vazquez-Sotelo<sup>1</sup>, Carmen Patricia Jiménez-Terrazas<sup>2\*</sup>, Ulises Mendoza-Arviso<sup>3</sup>, Virginia Guadalupe López-Torres<sup>4</sup>

<sup>1</sup> *Departamento de Ciencias Administrativas, Universidad Autónoma de Ciudad Juárez, Ave. Universidad y Ave. Heróico Colegio Militar, s/n, CP 32300, Cd. Juárez, Chihuahua, México, Email: [raul.vazquez@uacj.mx](mailto:raul.vazquez@uacj.mx)*

<sup>2</sup> *Departamento de Ciencias Administrativas, Universidad Autónoma de Ciudad Juárez, Ave. Universidad y Ave. Heróico Colegio Militar, s/n, CP 32300, Cd. Juárez, Chihuahua, México, Email: [pjimenez@uacj.mx](mailto:pjimenez@uacj.mx)*

<sup>3</sup> *Departamento de Ciencias Administrativas, Universidad Autónoma de Ciudad Juárez, Ave. Universidad y Ave. Heróico Colegio Militar, s/n, CP 32300, Cd. Juárez, Chihuahua, México, Email: [ulises.mendoza@uacj.mx](mailto:ulises.mendoza@uacj.mx)*

<sup>4</sup> *Facultad de Ciencias Administrativas y Sociales, Universidad Autónoma de Baja California, Blvd. Gral. Juan Zertuche, Carlos Pacheco 7, 22890 Ensenada, Baja California, México, Email: [virginia.lopez@uabc.edu.mx](mailto:virginia.lopez@uabc.edu.mx)*

\*Corresponding Author: [pjimenez@uacj.mx](mailto:pjimenez@uacj.mx)

**Citation:** Vazquez-Sotelo, R. A., Jiménez-Terrazas, C. P., Mendoza-Arviso, U. and López-Torres, V. G. (2026). Quantitative Meta-Analysis of Interventions to Reduce Gender-Based Violence, *Journal of Cultural Analysis and Social Change*, 11(1), 2895-2911. <https://doi.org/10.64753/jcasc.v11i1.4597>

**Published:** February 28, 2026

### ABSTRACT

The objective is to determine the effects of quantitative and mixed interventions aimed at reducing gender-based violence, identify the associated variables, and describe the types of interventions carried out. Scientific articles from empirical studies registered in the Dimensions, Scielo, EBSCO, and Google Scholar databases are examined. The eligibility criteria are language (Spanish and English), period (January 1, 2010, to November 13, 2025), and quantitative or mixed interventions. Method of synthesis with effect size metrics: Standardized Mean Difference (SMD), Model: Random Effects, Heterogeneity Estimation: REML, Heterogeneity tests/Indices: Cochrane's Q and  $I^2$ , using JASP software. Of the 767 articles identified following the PRISMA 2020 model, 9 were finally included, with pooled effects reported: -0.323 (95% CI [-0.527, -0.118]). The interventions identified focus on gender attitudes and stereotypes, violence reduction, and skills development. Main conclusion: a negative and significant pooled effect (interpreted as a reduction in variables associated with Gender Based Violence). Key limitation: high heterogeneity (reported  $I^2=88.53$ ). Publication Bias: Trim and Fill suggested 1 study missing, adjusted effect = -0.309 (minimum change). Robustness: reported Fail-Safe N (Rosenthal): 293. These results support that interventions with a gender focus are effective tools to eliminate VG; therefore, it is recommended to replicate them and integrate them into school and community activities.

**Keywords:** Quantitative meta-analysis, gender-based violence (GBV), interventions to reduce GBV.

### INTRODUCTION

Violence is one of the most serious and widespread public health challenges worldwide. Abuse and neglect have multiple consequences for the immediate and future health of victims, such as an increased likelihood of developing mental disorders (Norman et al. 2012). The risks and experiences of violence differ by gender; in many settings, boys face a higher likelihood of physical violence, while girls are more likely to experience sexual violence (Devries et al. 2017).

Since 1970, gender-based violence (GBV) in Latin America has been recognized as a social and public health problem requiring urgent attention. Traditionally, prevention and care efforts have focused on women, the main victims of inequality, without including men, which is necessary to ensure the effectiveness and sustainability of

the strategies implemented (Castro and Riquer, 2003). The prevention of GBV and domestic violence requires the early implementation of equity measures, with education being a fundamental tool (Ollis et al., 2021).

Today, GBV is a pressing social challenge. Addressing it through prevention and psychological intervention in the family, community, and individual spheres is crucial and indispensable in the educational context (Gómez, 2007). Hence, gender interventions are strategic for achieving greater equity.

## **PROBLEM AND OBJECTIVE**

Studies on gender interventions are abundant in the literature, as illustrated by quantitative meta-analyses. For example, Nowrouzi-Kia et al. (2025) studied the prevalence, effects, and prevention of GBV in academic settings; Wong et al. (2023) focused on dating violence prevention programs among college students; Farmer et al. (2023) on school interventions for children and young people in violent relationships, victimization, and perpetration; Piolanti and Foran (2022) on psychological dating violence prevention programs; Lwamba et al. (2022) on transformative interventions for the empowerment of women in fragile and conflict-affected environments; Emezue (2022) on technology-based or digital interventions to improve the health and well-being of survivors of intimate partner violence; Eggers del Campo and Steinert (2022) on women's economic empowerment interventions on the risk of intimate partner violence; among others.

No meta-analyses of interventions with different approaches were identified that would allow their effectiveness to be determined independently of the intervention type. In this regard, the objective is to understand the effects of quantitative and mixed interventions aimed at reducing IPV, identify their associated variables, and determine the types of interventions carried out.

## **GENDER INTERVENTIONS LITERATURE REVIEW**

A gender intervention refers to planned, structured, and implemented actions to address GBV (Leiva et al., 2024; Gazta & Jadhav, 2022). There are different types, such as "Focus-on," which encompasses educational and participatory activities to improve knowledge about sexuality, preventive sexual behaviors, and promote gender equity. Navarro et al. (2024) developed the values intervention, a pedagogical strategy focused on gender identity, designed to strengthen adolescents' values, knowledge, and attitudes regarding issues such as gender identity, sexual orientation, and diversity. Dagadu et al. (2022) document an intervention that promotes gender equality by informing and actively transforming norms, beliefs, and gender roles that create inequality and affect participants' sexual and reproductive health.

Of the cognition-based interventions, Chung & Huang (2021) focus on training children in relational scripts, encouraging their cognitive flexibility to reexamine traditional roles and thereby reduce childhood gender stereotypes. Leiva et al. (2024) identify several types of interventions: abstinence, risk prevention, and comprehensive approaches. The first includes strategies to delay sexual initiation until marriage (religious approach), excluding pregnancy or risk prevention. The latter focuses on the biological aspects of safe sex: use of contraceptives and infection prophylaxis. The latter treat sexuality holistically according to age, providing children and adolescents with tools (knowledge, skills, values) for a positive view of their sexuality through the topics of abstinence, safe sex, prevention, mutual respect, self-esteem, gender equality, and responsibility.

## **METHOD**

Meta-analysis is a quantitative summary that allows the results obtained by individual studies to be studied (Arias, 2018; Kandany et al., 2025; Meca, 2010), using statistics (García-Perdomo, 2015). This methodology considers high-level scientific evidence, compiles, analyzes, and synthesizes it (Kandany et al., 2025; Sánchez-Meca & Botella, 2010), thereby increasing its validity and making the results generalizable (Arias, 2018; Thacker, 1988). A fundamental tool that brings together scientific evidence from different fields of study (Kandany et al., 2025; Sánchez-Meca & Botella, 2010), accumulates the available scientific evidence on the same problem (Sánchez-Meca & Botella, 2010), and identifies events or information that cannot be collected by individual researchers (Kandany et al., 2025; Walker et al., 2008).

### **Information Sources**

In a systematic review of the literature, meta-analysis is one of the most important steps, as it identifies information closely related to the research topic. An exhaustive search was conducted, following the PRISMA 2020 model. Figure 1 illustrates the steps. Inclusion and exclusion criteria were established for the search: type of document (primary studies with intervention), language (Spanish or English), publication period,

inclusion/exclusion of intervention focused on GV, and availability of the full text. The collected database was progressively filtered until the research documents were obtained.

The search was conducted in Dimensions, Google Scholar, Scielo, and EBSCO, which were chosen for their broad coverage of the social science literature. The search terms in Spanish were: “Gender violence” OR “Partner violence” OR “Domestic violence”; Intervention OR interventions OR program OR programs OR prevention OR treatment OR counseling; Evaluation OR effectiveness OR efficacy OR randomized OR random OR “clinical trial” OR experimental OR “quasi-experimental” OR “quasi-experimental” OR Quantitative OR “mixed methods” OR “mixed methods” - “systematic review” -meta-analysis -protocol.”; For the search in English: “gender violence” OR “intimate partner violence” OR “domestic violence.”; Intervention OR interventions OR program OR programs OR prevention OR treatment OR counseling; Evaluation OR effectiveness OR efficacy OR randomized OR random OR “clinical trial” OR experimental OR “quasi-experimental” OR “quasi-experimental” OR quantitative OR “mixed methods”; - “quantitative systematic review” – “systematic literature review” – “meta-analysis” – review -protocol”.

The search covered the period from January 1, 2010, to November 13, 2025. Dimensions identified 123 records, Google Scholar identified 496, Scielo identified 82, and EBSCO identified 66. A total of 767 records included the search terms in the title or abstract; all were combined into a common database. The first stage evaluated the thematic relevance and methodology in titles and abstracts. Some documents were filtered and excluded, leaving 162 articles that met the basic criteria and moved on to the second stage.

### Selection of Studies

The 162 selected articles were manually filtered, with full-text review to determine whether they described GV intervention programs in school settings or in communities with diverse populations. The studies were classified into two categories: interventions carried out in Latin America and those carried out in other countries. This resulted in 105 relevant articles. Fifty-seven were then excluded for one of the following reasons: they did not describe the intervention, were duplicates, did not address the intervention, the full text was not available, the language was different from the criteria, or they were qualitative interventions. This resulted in 34 articles that make up the final database for the systematic literature review and meta-analysis. These included 18 quantitative interventions and 16 mixed-method interventions. These were used to perform the systematic review of GV. The meta-analysis included nine studies that met the criterion of having control groups.

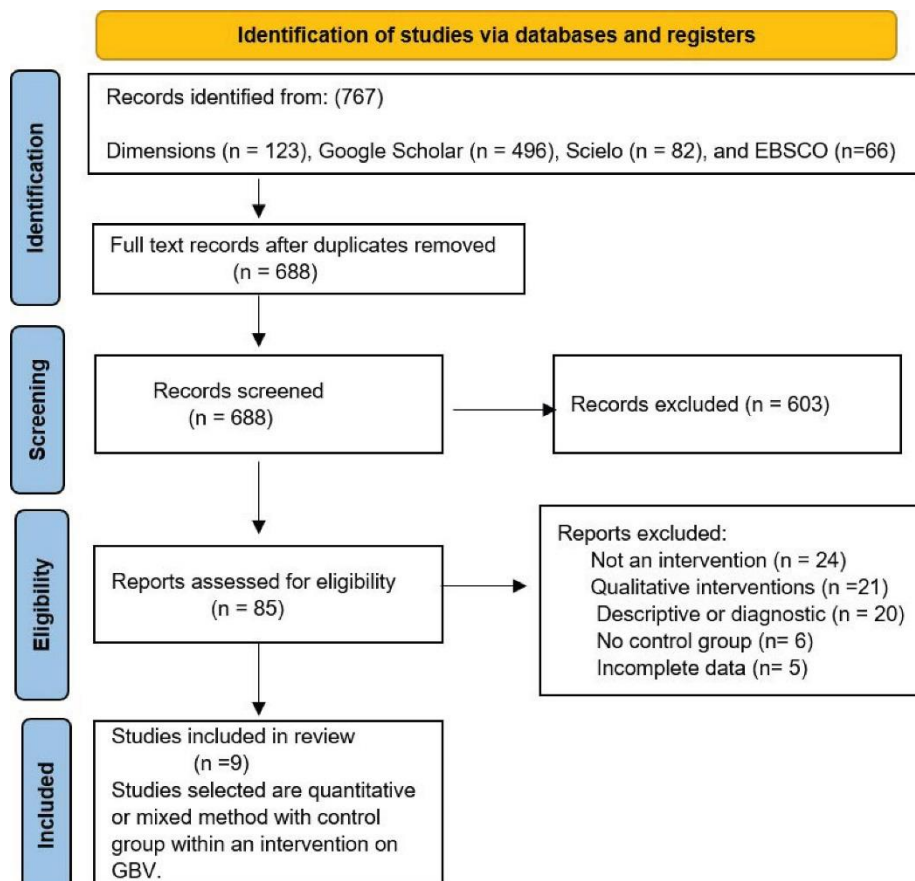


Figure 1. Description of the meta-analysis.

**Data Collection**

The process of collecting and organizing data includes preparing information extraction tables, supervising data collection and ensuring consistency, conducting subsequent reviews, and correcting missing information when it is detected. The final table includes the following elements: title, year of publication, authors, abstract, study objective or approach, description of the intervention, number of intervention sessions, duration of each session, and total implementation period. The main variables evaluated, the topics addressed during the intervention, the population served, the sample size, the location where the intervention took place, the methodological approach, and the study design were also recorded. The main results, the effect size estimator, the confidence interval, and the data needed to calculate effect sizes in the meta-analysis are included. This procedure enabled linking quantitative data to the characteristics and results of each study, ensuring the validity of the results and the functionality of the statistical analyses.

**Data items**

Outcomes for which data were sought. Table 1 lists and defines the main outcomes (measurable and relevant results sought in the studies) of the interventions. Given the diversity of designs (quantitative and mixed), the methods for collecting results varied significantly across studies (Table 2).

**Table 1. Defined Outcome**

Main Outcome (Domain)	Definition and Measurement	Representative Studies
Violence and Risk Reduction	It measures the frequency or presence of various forms of violence: physical, sexual, emotional, or intimate partner violence. It uses indicators such as the Adjusted Odds Ratio (aOR) (odds) or Incidence Rate Ratio (IRR) (incidence rates). It assesses risk reduction using standardized instruments such as CORE-OM scales.	Devries (2017), Taylor (2015), Kapiga (2019), Sarnquist et al. (2019), Vaca-Ferrer (2020).
Change in Attitudes, Beliefs, and Gender Stereotypes	It includes measurements of changes in sexist beliefs, justification of violence, stereotypes, and myths about romantic love. It is assessed using Likert scales or specific instruments such as Bem's Sex Role Inventory (BSRI) or questionnaires on gender violence.	Gómez (2007), Velasco et al. (2022), Dhar (2022), Martín (2024), Navarrete (2024).
Knowledge, Attitudes, and Practices (KAP) related to Equity/OSIG	It shows how much people know about diversity, sexual orientation, gender identity, and rights, as well as their attitudes and behaviors.	Navarro et al. (2024), Garzón (2020).
Internal and Organizational Capabilities/Re sources	Assess people's resilience or institutions' readiness to work on equity issues. Include internal skills, support received, and degree of willingness.	Silva (2016), Kim (2021)(Castillo & Jiménez, 2018)

**Table 2. Collection Methods and Selection Criteria**

Study	Exhaustive vs. Selective Search	Selection Criteria/Collection Methods
Devries et al. (2017), Kapiga et al. (2019), Taylor et al. (2015), Sarnquist et al. (2019)	Selective (Focus on Primary and Secondary Outcomes)	The information was selected selectively, focusing on the most important results. They measured the reduction of different forms of violence and analyzed results related to specific attitudes or types of aggression. They processed the data using statistics that allowed them to compare groups and observe differences between men and women. They used IIT and Per-Protocol analyses to improve the validity of the results.
Gómez (2007), Vaca-Ferrer (2020)	Focused Search (Pre-Post Changes)	They compared the data before and after the intervention. They reviewed the common parts between the initial and final questionnaires. Vaca-Ferrer evaluated the CORE-OM subscales to measure therapeutic change, except for the general functioning dimension.

Carro-Olvera et al (2018)	Selective (by relevance and space)	The study identified 27 indicators, analyzed frequencies and averages, and shows the central effects of the intervention.
Dhar et al. (2022)	Selective (Pre-specified)	Looked for predefined effects, including differences in impact based on student gender and parental attitudes.
Pagani et al. (2023)	Active Exclusion (Missing Data)	Eliminates participants with incomplete data. Measurements are taken with participants in intervention activities.
Martín (2024)	Selective and Limited (Post-Test)	It compares the pre- and post-results in a small group of students (17) who completed both questionnaires. The small sample size allowed for analysis of the change in gender beliefs and attitudes.

Other Variables for Which Data Were Sought. Data were sought on study characteristics, including details of the population, intervention design, methodology, and quality aspects (Table 3).

**Table 3. Design Variables and Population**

Variable	Definition and Search Details	Representative Studies
Characteristics of Participants	Demographic information was collected from participants: age, gender, economic status, and parents' education level. For teachers, marital status was also considered. Other aspects such as whether they had been victims of violence, their position (teacher or administrator), and their interest in reading or literature were also considered.	Chung (2021), Martín (2024), Silva (2016).
Methodological Design	The design used was reviewed. Some used cluster trials, others used quasi-experimental methods or action research. The existence of a control group and its composition was considered, for example, whether it was a waiting list or a group with similar conditions.	Devries (2017), Kapiga (2019), Velasco et al (2022), Navarro et al (2024).
Characteristics of the Intervention	The main elements are reviewed: program sessions, duration of each session, and organization (number of stages: diagnosis, development, and evaluation). The activities carried out with participants are described, such as analyzing texts or films, personal reflection exercises, popular education workshops, working with interrelationship diagrams, and using SWOT analysis to analyze situations or problems.	Gómez (2007), Fernández (2021), Romo (2021).
Bias/Confounder Management	To increase reliability, strategies were used to reduce errors or biases. Considering variables such as the age and gender of participants, statistical methods were applied to adjust the data: difference models, fixed effects, or robust estimators. These techniques helped to better manage the information and prevent people from the same group from influencing each other too much in the analyses.	Garzón (2020), Yamauchi (2018), Taylor (2015).

### Method for assessing risk based on internal validity

Robins-I V2, a tool for non-randomized interventions, was used to assess the risk of bias in the interventions used in the systematic literature review. The model used is an update of Robins-I, which assesses the risk of bias in a single non-randomized study by reviewing the effect of an intervention and its outcome. This tool was used following the recommended steps to classify the interventions: 1) The definition of the intervention and control groups is identified at the beginning of the study, a crucial step that allows the information collected to be evaluated, the different situations that occur before or after to be distinguished, and the classification of the intervention and control groups to be determined. If the groups are not assigned in advance, there is a risk of incurring “immortal time bias,” which could distort the results. 2) Verify whether the members of the groups (control and intervention) were pre-assigned prior to the start of the intervention. Reliable information, such as files and records must be available, to ensure that the classification does not depend on situations or data obtained after the start of the study. 3) Look for errors in the classification of intervention participants. Identify the definition of the studies and whether the records were incomplete. The aim is to determine whether the members were correctly classified or whether there was significant confusion in assigning participants.

In order to correctly classify the research, questions such as the following are answered:

2.1 Did the assignment of participants to the intervention group or control group depend on events or information that occurred after the start of the intervention?

- 2.2 Did the participants included in the control group complete the entire intervention?
- 2.3 Was all the information used to classify the groups recorded prior to the start of the intervention?
- 2.4 Was the classification of the intervention status influenced by knowledge of the outcome?
- 2.5 Was the intervention status correctly classified by all or almost all participants?

The answers to these questions provide an indication and allow the risk of bias to be assessed as low, moderate, serious, or critical. With the tool's algorithm support, the classification of the selected studies is established.

**Summary of measurements**

A quantitative random-effects meta-analysis was performed, complementing the systematic and thematic synthesis to contextualize the studies and components of the interventions. Standardized information extraction includes sample characteristics, types of interventions, whether a control group was used, intervention duration, and reported outcomes.

In addition, the statistics necessary for calculating the effect size were collected, such as the number of participants (from the control and intervention groups). The means and standard deviations for the control and experimental groups are included. These metrics were used to create a table that was entered into JASP software (Team, 2018) to determine the effect size using SMD (standardized mean difference), which indicates and quantifies the magnitude of the effect between the different groups. When the study reported multiple means, those that indicated the effect of the intervention on GV were selected. In the meta-analysis, a combined overall effect was obtained under a random effects model using the REML maximum restricted likelihood method to estimate the variance between states. The Knappa-Hartung adjustment was calculated to refine the inferences in the presence of heterogeneity. The variability between studies was evaluated using Cochran's Q statistic, the index, and the estimate of.

The presence of publication bias was explored using funnel plots and complementary methods, such as sensitivity analyses and the trim-and-fill technique. Rosenthal's Fail-Safe N was calculated at 293, suggesting the need to incorporate a considerable number of studies with no effect to nullify the statistical significance of the combined effect.

A thematic synthesis was conducted based on a systematic reading of the results, discussion, and conclusions sections of the studies to identify patterns in how and under what conditions the interventions were carried out and the changes achieved. This integration allows for a more complete interpretation, combining the average magnitude of the effects and a solid explanation of the variation observed between contexts, populations, and intervention designs.

**Summary Measures**

In classic meta-analysis, the model establishes a heterogeneity of 88.53% with a  $p < 0.001$  (Table 4), which is common in social interventions when implemented in diverse cultural, institutional, and socioeconomic settings. This variability is explained by differences in the studies: target groups (infants, adolescents, and adults); duration; and objectives. Heterogeneity is therefore not a negative indicator; it suggests that the impact of interventions depends on their suitability to the context and approach.

**Table 4. Meta-analysis Study**

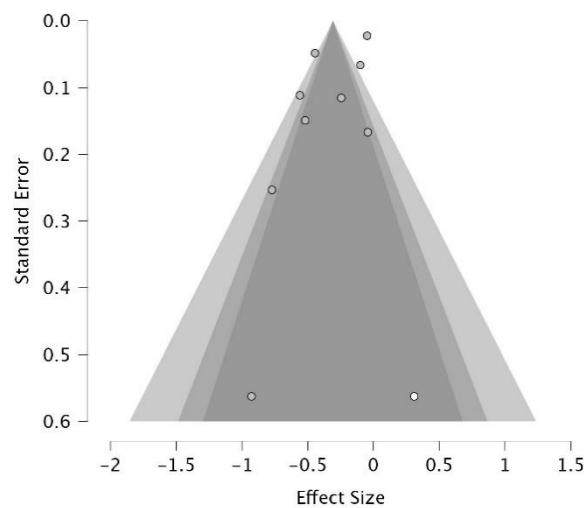
Model summary	Study	p
Heterogeneity	$Q_e (8) = 88.53$	$< .001$
Cluster effect	$t (8) = -3.64$	$.007$

The consolidation of the interventions reveals an Overall Effect Size of -0.323 with a 95% CI (Table 5). The negative effect sign indicates a significant reduction in the behaviors evidenced in the GV, its impact on the acceptance of stereotypes, and the psychosocial risk in the populations intervened;  $p=0.007$  indicates statistical significance, supporting the study's findings and indicating that the results cannot be attributed to chance. The Fail-Safe N test by Rosenthal suggests that 293 studies with no or adverse effects are needed to contradict the study's results.

**Table 5. Meta-analytic estimates**

	Estimate	95% CI		95% PI	
		Lower	Superior	Lower	Superior
Cluster effect	-0.323	-0.527	-0.118	-0.865	0.220
$\tau$	0.218	0.118	0.539		
$\tau^2$	0.047	0.014	0.290		
$I^2$	89.672	71.904	98.150		

The publication bias analysis using the Trim and Fill test indicated a lack of a single study to achieve symmetry in the funnel. The model was adjusted to account for this possible bias, reducing the original effect from -0.323 to -0.309 and resulting in minimal variation (Figure 2). Inferring that the overall result of the study is not biased by the omission of studies with non-significant results, the stability, rigor, and conclusions of the meta-analysis are supported.



**Figure 2.** Publication Bias and Selective Reporting (Trim and Fill)

The robustness of the meta-analysis was evaluated using the Fail-Safe N test and Rosenthal's method, indicating that 293 studies with a null effect would be needed to nullify the combined effect's significance. Rosenberg's method estimated 128 studies, and Orwin's method suggested that nine additional studies could significantly reduce the effect size to the point of being considered insignificant (Tables 6 and 7).

**Table 6. Estimates of clipping and filling parameters**

Estimates	Trim and Fill Missing estimates	Settings Estimates $\mu$				Settings Estimates $\tau$			
		Estimates	Lower 95% CI	Upper 95% CI	p	Estimates	Lower 95% CI	Upper 95% CI	p
9	1	-0.309	-0.477	-0.142	< .001	0.216	0.116	0.565	< .001

**Table 7. Safe N summary table - Failure**

Estimates	Safety number		
	Rosenthal	Orwin	Rosenberg
9	293	9	128

**RESULTS****Results of Individual Studies**

This section presents the individual findings according to the PRISMA methodology. To facilitate understanding, analysis, and comparison, they are grouped by topic based on each study's main result. A summary of the key findings is presented, offering a structured overview of the research (Table 8).

**Table 8. Characteristics de study**

Study	N	Population	Location	Intervention	Unit of measurement	Variable	Research design
Devries, et al. (2017)	3,820	Boys and Girls	Uganda	The Good Schools Toolkit	Quantitative, Odds Ratios (OR) Adjusted Y LR Test.	Violence	Cluster Randomized Controlled Trial (CRCT)
Banyard, et al. (2019)	340	Middle School Students	Norte de Nueva Inglaterra, EE. UU.	RSVP (Relationships, Safety, Violence Prevention) Workshops.	Quantitative. Wilcoxon Sing Rank Tests. Uso De (PSM).	Composite Scores of Attitudes	Quasi-Experimental Pre-Post With matched control group
Velasco, et al. (2022)	243	Firs year of high school	Pinto, Madrid, España	PRO-Mueve Program (9 Sesions).	Quantitativ ANOVA Mixta. Esta Partial Eta Squared	Hostile Sexism, Benevolent Sexism	Quasi-Experimental Pre-Post With quasi/control/group
Dhar, et al. (2022)	14,809	Age 11.8 years	India	Currículo de Género (Breakthrough Curriculum).	Quantitative, ols regression with clustered standard errors, coefficient	Gender attitudes index. Girls' aspirations index	Cluster randomized controlled trial, stratified
Navarro García et al (2024)	586	Students	Catatumbo, Colombia.	Pedagogical strategy of intervention in values with differential approach	Quantitative, mixed. Partial eta squared	Knowledge attitudes and practices about gender identity	Quasi-experimental design with pre post measurements
Kapiga et al. (2019)	919	Los socioeconomic status	Mwanza, Tanzania	MAISHA	Conglomerate	Physical violence	Controlled trial
Garzón Segura et al. (2020)	344	Primary education	Colombia	Prevención De Violencia En Pareja	Primary school groups	Gender stereotypes	Quasi-experimental with control group
Chávez-Valdez et al. (2021)	67	17 -21 years	Chihuahua, Chih., México	Programa De Intervención Colectivo (66 Horas/11 Semanas) Para Fomentar Empoderamiento Y Cultura Ciudadana	Affirmative scale, social fear scale, civic culture scale	Social fear, confrontation, civic culture	Quasi-Experimental Pre-Post With control/group

Tirado-Muñoz et al. (2015)	14	Women with substance use	Barcelona, España	Intervención Ipavit-Cbt (10 Sesiones Grupales) Vs. Treatment Habitual	Pmwi	Psychological maltreatment or isolation, dominance	Randomized pilot clinical trial with control group
----------------------------	----	--------------------------	-------------------	---	------	--	--

### Interventions focused on gender attitudes and stereotypes

This set of studies measures changes in gender attitudes, beliefs, and stereotypes resulting from interventions, suggesting that educational programs may be effective in promoting more equitable gender perspectives. Dhar et al. (2022) report a 0.18 standard deviation increase in the gender attitudes index for the intervention group compared to the control group. Chung and Huang (2021) report on the Gender Equality Curriculum intervention in kindergartens in Taiwan, showing a minimal but significant decrease in gender-stereotyped choices.

In Mexico, the masculinity workshop analyzed by Zellner and Horta (2024) reports no significant differences in quantitative indicators, but they note qualitative changes when addressing prejudices about male sexual behavior. These studies show clear quantitative effects in controlled trials and early changes from interventions in young populations.

The interventions by Dhar et al. (2022), Dagadu et al. (2022), and Chung and Huang (2021) suggest that school-based interventions can have positive effects on attitudes toward gender. These interventions succeeded in reducing young people's tendency to continue using stereotypes and fostering more equitable attitudes among participants, resulting in statistically significant effects across different school, cultural, and age-group contexts.

### Interventions focused on reducing violence.

The database analyzed allowed us to find interventions aimed at reducing violence in school settings or in intimate partner relationships. Their results were significant and effective. The Good School Toolkit intervention in Uganda, studied by Devries et al. (2017), reported a significant reduction in the likelihood of physical violence by school staff toward students, with an aOR of 0.41. In Tanzania, the MAISHA intervention with women in microfinance groups studied by Kapiga et al. (2019) reports a 32% reduction in the adjusted risk of physical violence in couples. Taylor et al. (2015) applied the Shifting Boundaries intervention in the United States and succeeded in reducing the frequency of dating violence among high school students. It also reports reductions in victimization and perpetration, with an approximate 50% decrease in the incidence of violent behavior.

Not all interventions showed relevant results. Mentors in Violence Prevention in Scotland, conducted by Pagani et al. (2023), reports no significant effects after 12 months of operation. There is a contrast between the success of multifaceted and empowerment interventions and those with no results, suggesting that effectiveness in reducing violence depends on the environment and empowerment provided by the training.

### Mixed-approach interventions and skills development

The mixed interventions reviewed have more diverse objectives, such as the development of social-emotional and critical thinking skills. These provide a deep understanding of the processes involved in changing thinking. Callejas (2016) demonstrated, through a workshop using cooperative games, that promoting communication and solidarity among secondary school students is essential for achieving peaceful coexistence. Gómez Martínez and Martín Hernández (2024) implemented workshops on gender equality in Colombia, seeking to develop students' critical thinking skills to enable them to take a reasoned stance against gender stereotypes. As a result, students showed a significant change in their beliefs about girls needing more protection than boys, with the average decrease from 3.55 to 2.36 across pre- and post-intervention assessments. Mixed approaches promote transformation in different areas.

Hernández (2012) reports on a study conducted in Ciudad Juárez, Mexico, which found complex perceptions of violence among adolescents, who consider school an unsafe space, and they perceive corruption and political aggression as permanent and significant forms of violence, perpetrated by organized crime and commonplace in the region's narratives.

### Synthesis Results

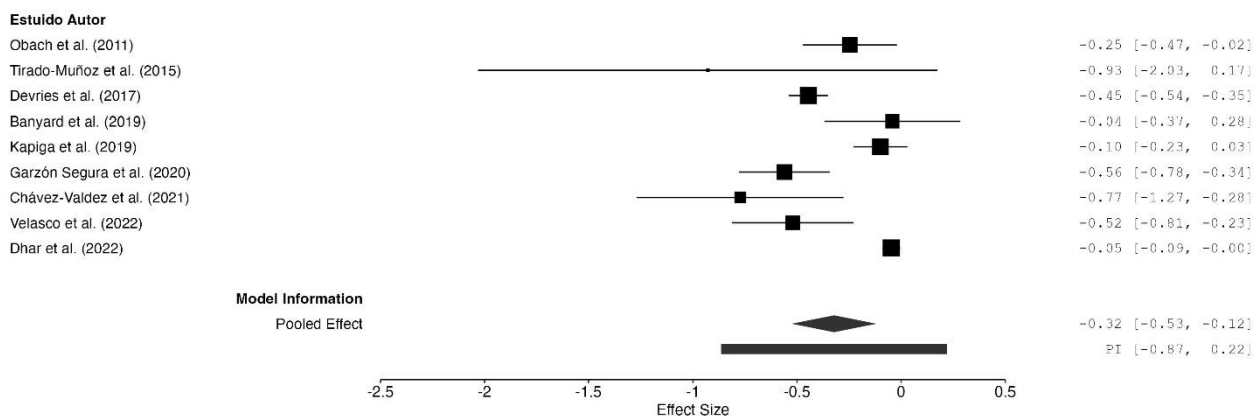
This study consolidates the interventions and reveals an Overall Effect Size of -0.323 with a 95% CI (Table 9). The negative sign indicates a significant reduction in behaviors that evidence GV, its impact on the acceptance of stereotypes, and psychosocial risk in the populations intervened. With a  $p=0.007$ , statistical significance supports

the study's findings; the results cannot be attributed to chance. The Fail-Safe N test by Rosenthal suggests that 293 studies with no or adverse effects would be required to contradict the results.

**Table 9. Meta-analytic estimates**

	Estimate	95% CI		95% PI	
		Lower	Superior	L	Superior
Grouped effect	-0.323	-0.527	-0.118	-0.865	0.220
$\tau$	0.218	0.118	0.539		
$\tau^2$	0.047	0.014	0.290		
$I^2$	89.672	71.904	98.150		

The model shows heterogeneity of 85.53% ( $p < 0.001$ ), which is common in social interventions implemented across diverse cultural, institutional, and socioeconomic settings. Differences in the studies, such as target groups, duration, and objectives can explain this variability. Heterogeneity suggests that the impact of interventions depends on their suitability to the context and approach.



**Figure 3.** Forest plot

In figure 3, we can see the contrast of the effect between studies and their impact on the reduction of GBV variables. Studies with adults show significant effect sizes. Tirado-Muñoz et al. (2015) found the most relevant effect (-0.93), indicating that focused cognitive behavioral intervention can achieve significant reductions in psychological abuse and isolation among women. Kapiga et al. (2019) demonstrated that incorporating social empowerment components into microfinance groups is associated with significant reductions in physical violence, suggesting that a combination of economic, relational, and normative interpretation strategies is effective. Chávez Valdez (2021) reported an effect of -0.77 that supports group interventions to reduce diffuse fear and negative cognitive coping, variables that are often related to psychosocial dynamics that reinforce the impact of violence and the failure to seek support in cases of violence.

Interventions in school settings (primary and secondary) are an important tool in preventing gender attitudes and norms at an early age. Garzón Segura and Carcedo González (2020) reported a reduction of -0.56 in the justification of violence and in the relaxation of traditional stereotypes. Ollis et al. (2022) document improvements in gender biases (occupations and roles), confirming that school is an ideal space for interventions in social norms and modifying gender expectations before they become entrenched. Both Devries et al. (2017) and Dhar et al. (2022) agree that results are more visible in boys, while girls face external barriers, such as social control and the risk of reprisals, which limit the expression of change even when internal changes are achieved.

A relevant finding is the permanence of the effect over time. Dhar et al. (2022) report a small effect size in a sample of more than 14,000 students, showing that changes across different areas of GV can be sustained even 2 years after the intervention ended, suggesting a preventive effect. In the control group, indicators of sexism tend to increase over time, while the intervention group shows stability and even a reduction in dimensions such as benevolent sexism. These results are clear and important for prevention, with the intervention's success observed in both the short and long term.

Table 10 presents the statistical results resume. These results support that interventions with a gender focus are effective tools to eliminate VG; therefore, it is recommended to replicate them and integrate them into school and community activities.

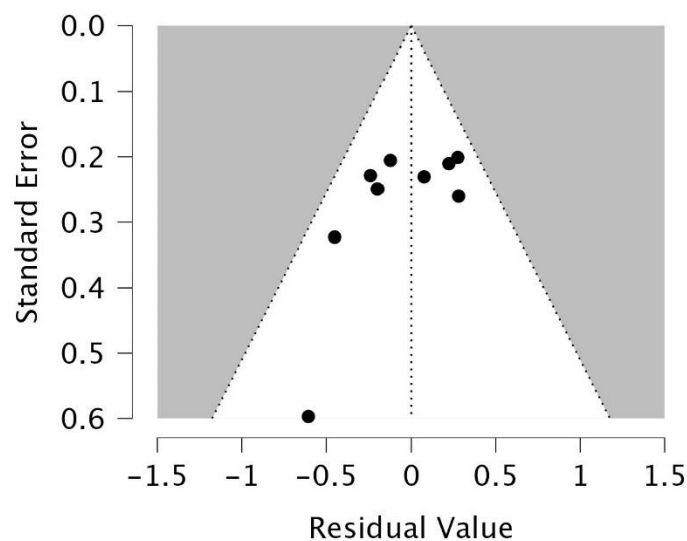
**Table 10. Statistic resume**

Label	SR	DF	CD	CR	Leave One Out			H	W
					$\tau$	$\tau^2$	$Q_e$		
Obach et al. (2011)	0.322	0.178	0.036	1.322	0.241	0.058	87.66	0.124	12.398
Tirado-Muñoz et al. (2015)	-0.991	-0.147	0.022	1.021	0.216	0.047	86.56	0.021	2.071
Devries et al. (2017)	-0.536	-0.187	0.040	1.311	0.232	0.054	41.39	0.151	15.130
Banyard et al. (2019)	1.072	0.372	0.136	1.098	0.222	0.049	88.18	0.100	10.013
Kapiga et al. (2019)	1.042	0.438	0.191	1.162	0.222	0.049	88.12	0.145	14.532
Garzón Segura et al. (2020)	-1.047	-0.428	0.179	1.115	0.207	0.043	73.84	0.126	12.584
Chávez-Valdez et al. (2021)	-1.442	-0.412	0.155	0.923	0.203	0.041	82.26	0.068	6.750
Velasco et al. (2022)	-0.754	-0.255	0.069	1.191	0.221	0.049	81.92	0.108	10.813
Dhar et al. (2022)	1.461	0.589	0.283	1.018	0.196	0.038	31.26	0.157	15.708

Note: SR: Stand. Residual; DF: DFFITS; CD: Cook's Distance; CR: Covar. Ratio; H: Hat; W: Weight

### Internal Validity Assessment

The assessment of the internal validity of individual studies examines potential biases and estimates the overall effect (figure 4 and 5). It highlights social desirability bias based on self-reporting, low motivation, and reduced commitment when participation in the intervention is mandatory. Several studies have short-term follow-up, which limits the ability to infer the medium- or long-term effect. The adequacy and adaptation of contexts influence the implementation of interventions and their effectiveness when generalizing findings to other contexts.



**Figure 4.** Residual Funnel Plot

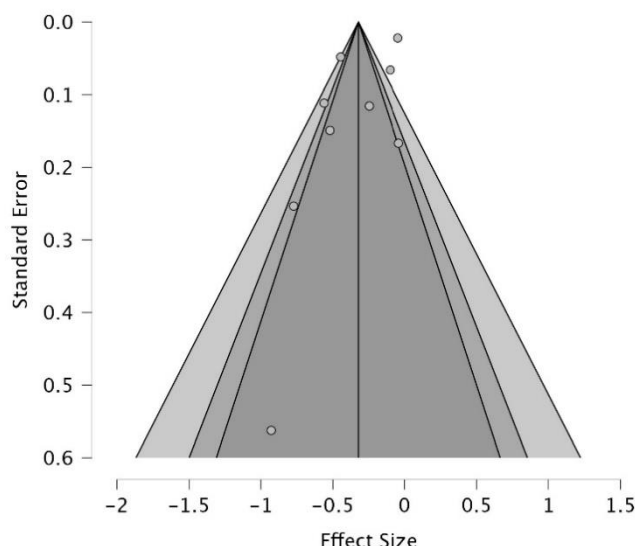


Figure 5. Pattern Plot

**Publication and reporting bias**

A sensitivity analysis was performed using the Trim and Fill test, which estimated the absence of a study to achieve symmetry in the funnel plot (see table 11 and 12). The model was adjusted to incorporate the missing study, with the combined effect changing from -0.323 to -0.309, suggesting that publication bias would have a limited impact on the overall meta-analysis conclusion. The robustness test was performed using the Fail-Safe N test, which indicated that 293 studies with a null effect would be required to change the significance of the combined effect. The Rosemberg and Orwin methods are presented. Taken together, these findings support the stability of the estimated effect, although its interpretation should be cautious given the heterogeneity and limitations.

**Table 11. Funnel Plot Asymmetry test. Meta-Regression test for funnel plot asymmetry**

Estimation	Limit Estimation		Asimetry Test $\mu$		
	z	p	Estimation	Lower 95% CI	Upper 95% CI
9	-1.814	.070	-0.141	-0.383	0.101

**Table 12. Weighted regression test for funnel diagram asymmetry**

Estimates	Asymmetry Test			Limit Estimation $\mu$		
	t	df	p	Estimate	Lower 95% CI	Upper 95% CI
9	-2.065	7	.078	-0.031	-0.206	0.144

**DISCUSSION AND CONCLUSIONS**

Rigorous evaluation of the evidence: the effectiveness and impact of interventions against GV form the basis for the design of public policies and for allocating resources to this type of program across different communities. Whether in schools, community centers, or other settings where these interventions are carried out, this study analyzed the findings of several researchers to provide an understanding of GBV interventions across different populations.

The studies present an in-depth view that allows understanding of the research results and their positive effects in mitigating GBV across communities, following effective implementation within different social groups and age groups. Despite the heterogeneity, the findings can be generalized.

**Limitations**

Recognizing the study's limitations lends validity to the findings, provides insight into its weaknesses, and promotes continuous improvement.

The strength of this document lies in its support for meaningful, positive, and beneficial programs for the community. Pointing out opportunities for bias or data distortion is relevant. Boria et al. (2013) indicate that

participants sometimes lie when program compliance is mandatory and when they need to present a favorable image to those implementing the intervention. Dhar et al. (2022) note that this type of social desirability bias occurs when participants seek to enhance their reputations, thereby distorting the true effects of interventions.

Some studies are conducted in the short term, leading researchers to conclude about long-term changes in attitudes and behaviors. Yamauchi and Liu (2018) note that interventions in infants yield promising results but also point out that prolonged follow-up would confirm their impact in adulthood. Tirado-Muñoz et al. (2015) report that some studies lack support and are considered pilot programs. Even with positive results, they are not applied to other populations, and replicating them on other scales would not yield the same results.

Methodological factors can influence intervention outcomes, as noted by Obach et al. (2011) and Vaca Ferrer et al. (2020). The context and culture in which the intervention is applied must be specified, such as in the case of Uganda (Devries et al., 2017), urban cities (Velasco et al., 2022), and indigenous communities (Trujillo et al., 2022); its transfer and generalization require careful adaptation.

### Process Limitations

The limitations of the process allow us to identify obstacles in interventions, whether practical, structural, or logistical. These obstacles may arise at the outset and alter both the results and effectiveness of the intervention. Boira et al. (2013) note that mandatory interventions are affected by low intrinsic motivation, resistance, and reduced commitment among participants, which can reduce participation or lead to superficial participation and false responses.

Merma Molina and Diez Ros (2021) describe the risk that programs function on the goodwill of individuals or teams rather than on the integration of formal policies and structures. In schools, the lack of institutional protocols weakens their long-term continuity (Carro-Olvera et al., 2018; Merma Molina & Diez Ros, 2021).

Another limitation is the lack of resources, making it difficult to implement the program as designed (Carro-Olvera et al., 2018). Trujillo et al. (2022) note that in some universities, these programs are integrated into course schedules, leading to accidental or disinterested attendance in the subject. Even with these barriers, the results are consistent enough to support the conclusion that the interventions have useful practices and to guide or influence future actions.

### Practical Implications

Research on GBV should lead to action. The findings reviewed should guide concrete decisions to improve the design and implementation of new interventions in institutions and different communities.

Evidence shows that prevention must begin before gender norms are consolidated, so it is advisable to integrate mandatory content into formal education, moving from pilot or isolated programs to a curricular reform (Garzón Segura & Carcedo González, 2020; Taylor et al., 2015).

Interventions are multifaceted and must be culturally adapted to the environment. There are no single solutions, but the most robust and promising programs combine methods according to the target population: women, children, youth, or adults (Boira et al., 2013; Dhar et al., 2022; Gómez, 2007).

Acosta et al. (2025) and Carro-Olvera et al. (2018) agree that this is achieved through formal policies, planning, leadership, and the continuous provision of resources to establish monitoring and accountability mechanisms that enable long-term results.

The entire community must be involved as agents of change. Effective prevention involves all community members sharing the responsibility to challenge harmful norms and promote equity. Mobilize community networks to amplify impact through social and community accountability and empowerment initiatives (Banyard et al., 2019; Kapiga et al., 2019; Obach et al., 2011).

### Future Studies

Future research should address the weaknesses identified in interventions on gender-based violence. Boira et al. (2013) suggest innovating evaluation strategies to reduce dependence on self-report questionnaires and to incorporate mixed methods approaches that allow for in-depth measurement of impact among populations less motivated to change, such as perpetrators.

Trujillo et al. (2022) invite exploration of new forms of violence, such as that perpetrated in digital environments. They highlight the urgency of diagnosing digital gender-based violence and identifying practices and indicators to develop preventive programs. Yamauchi and Liu (2018) suggest that interventions should be longitudinal, applied over several years to evaluate the permanence of changes in attitudes and behaviors. This would provide evidence to assess the long-term impact of interventions.

Sarnquist et al. (2019) emphasize the need to study highly vulnerable populations. These are groups at greater risk, such as adolescents in rural communities or populations living in poverty and insecurity, some of whom are more exposed to DV.

## CONCLUSIONS

This meta-analysis provides a comprehensive overview of current knowledge on interventions in GV. The evidence examined spans a variety of contexts, including educational settings from primary school to university, as well as community programs that address emerging phenomena such as digital violence. They demonstrate the ability to measurably and significantly modify attitudes, beliefs, and behaviors associated with GV through structured, evidence-based programs.

One of the main findings is the proven effectiveness of attitude and belief modification. This change is a strong pillar for long-term violence prevention. Changing social norms and stereotypes that perpetuate and justify violence is essential for achieving lasting cultural transformation. The evidence consistently shows that targeted interventions can have a positive and statistically significant impact on this fundamental dimension.

Results were identified in other key areas, such as reducing myths, increasing awareness and knowledge, and improving empathy; the programs proved highly effective at challenging and deconstructing preconceived ideas that underpin violence. In addition, interventions improve participants' ability to identify, name, and reject violence in its various forms. This is possible by fostering empathy as a crucial element for prevention (Garzón Segura & Carcedo González, 2020; Gómez, 2007; Velasco et al., 2022).

It can also be established that the educational context serves as a strategic space for social transformation, with educational institutions from primary to higher education constituting a crucial and highly effective environment for implementing programs to address gender-based violence. Evidence suggests that interventions at different stages of education create a cumulative effect, with early awareness-raising producing a receptive base that enhances the impact of programs in adolescence and adulthood. These spaces allow younger generations to be educated and to question social norms and gender roles.

The meta-analysis findings support the other studies. This statistical analysis combines results from different studies to obtain an accurate, generalizable estimate of the interventions' effect, confirming the positive trend observed in the individual cases. Although the effects vary in magnitude due to methodological differences, the meta-analysis's aggregate trend confirms the interventions' positive, measurable impact. This quantitative support strengthens the assertion that, taken together, the programs are effective tools for driving change, giving greater certainty to the conclusions and recommendations derived from this analysis.

In conclusion, the impact of interventions is measurable and significant. Consolidated evidence shows that programs reduce GBV in its various dimensions. It also underscores the importance of educational institutions as settings for these interventions, achieving favorable results. The need for a systematic approach involving the entire ecosystem is also established, so that solutions or impacts will be far-reaching and lasting.

Finally, curricular integration is essential; new and innovative ways of intervening against GBV must be introduced, and these strategies must continue to be evaluated. The evidence consolidated here is a scientific and ethical product that supports interventions to prevent GBV, and it promotes their urgent implementation as an equitable solution for building a better society.

## REFERENCES

- Acosta, C. E. H., Jaramillo, M. R. B., Bayas, J. A. H., & Moyano, G. S. M. (2025). Estrategias pedagógicas para erradicar la violencia de género en las instituciones de educación superior: una propuesta de intervención integral desde la perspectiva de docentes y estudiantes. *Revista ASCE Magazine*, 4(3), 543–577. <https://doi.org/10.70577/ASCE/543.577/2025>
- Arias, M. M. (2018). Aspectos metodológicos del metaanálisis (1). *Pediatría Atención Primaria*, 20(79), 297–302. <https://www.redalyc.org/articulo.oa?id=366657835020>
- Banyard, V. L., Edwards, K. M., Rizzob, A. J., Theodoresc, M., Tardiff, R., Leed, K., Greenberge. (2019). Evaluating a gender transformative violence prevention program for middle school boys: A pilot study. *Children and Youth Services Review*, 101, 165–173. <https://doi.org/10.1016/j.childyouth.2019.03.052>
- Boira, S., López, Y., Tomás-Aragonés, L., & Gaspar, A. R. (2013). Intervención psicológica comunitaria en hombres condenados por violencia de género. *Anales de Psicología*, 29(1), 19–28. <https://doi.org/10.6018/analesps.29.1.130631>
- Callejas, L. O. (2016). Juegos cooperativos como proyecto de intervención para promover la mejora de la convivencia escolar, la paz y la armonía: descripción de una experiencia en una escuela telesecundaria de Aculco. *Revista Ra Ximhai*, 12(3), 415–431. <https://www.redalyc.org/articulo.oa?id=46146811029>

- Carro-Olvera, A., Lima, J. A., & Carrasco, M. E. E. (2018). Los consejos técnicos escolares para la inclusión y equidad educativa en la educación básica de Tlaxcala, México. *Revista Electrónica Educare*, 22(1), 146-175. <http://dx.doi.org/10.15359/ree.22-1.8>.
- Castillo, S. M. G., & Jiménez, M. E. H. (2018). Aproximación a una intervención formativa con enfoque de equidad de género para aminorar la violencia contra la mujer en la Universidad Pedagógica Experimental Libertador. *Areté, Revista Digital del Doctorado en Educación*, 4(7), 55-78. <https://dialnet.unirioja.es/servlet/articulo?codigo=6833695>
- Castro, R. Riquer, F. (2003) La investigación sobre violencia contra la mujer en América Latina. Entre el empirismo ciego y la teoría sin datos, *Cadernos de Saúde Pública*, 19(1), 135-146. <https://doi.org/10.1590/S0102-311X2003000100015>
- Chávez-Valdez, S. M., Ríos-Velasco, L., Esparza-Del-Villar, O. A., y Quiroz-Chagoya, M. A. (2021). Afrontamiento socioemocional positivo, detección y atención de violencia de género en mujeres de contextos violentos. *Enseñanza e Investigación en Psicología*, 3(3), 290-304. <https://doi.org/10.62364/zdrvty12>
- Chung, Y.; Huang, H.-H. (2021) Cognitive-Based Interventions Break Gender Stereotypes in Kindergarten Children. *Int. J. Environ. Res. Public Health*, 18. <https://doi.org/10.3390/ijerph182413052>
- Dagadu, N. A., Barker, K. M., Okello, S. B., Kerner, B., Simon, C., Nabembezi, D., & Lundgren, R. I. (2022). Fostering gender equality and reproductive and sexual health among adolescents: results from a quasi-experimental study in Northern Uganda. *BMJ open*, 12(3), e053203. <https://doi.org/10.1136/bmjopen-2021-053203>
- Devries, K.M., Knight, L., Allen, E. et al. Does the Good Schools Toolkit Reduce Physical, Sexual and Emotional Violence, and Injuries, in Girls and Boys equally? A Cluster-Randomised Controlled Trial. *Prevention Science*, 18, 839–853. <https://doi.org/10.1007/s1121-017-0775-3>
- Dhar, D., Jain, T., & Jayachandran, S. (2022). Reshaping Adolescents' Gender Attitudes. In: Evidence from a School-Based Experiment in India. *American Economic Review*, 112(3), 889-927. <https://doi.org/10.1257/aer.20201112>
- Emezue, C., Chase, J.-A. D., Udmuangpia, T. & Bloom, T. L. (2022). Technology - based and digital interventions for intimate partner violence: A meta - analysis and systematic review. *Campbell Systematic Reviews*, 18(3), e1271. <https://doi.org/10.1002/cl2.1271>
- Farmer, C., Shaw, N., Rizzo, A. J., Orr, N., Chollet, A., Hagell, A., Rigby, E., Young, H., Berry, V., Bonell, C., & Melendez-Torres, G. J. (2023). School-Based Interventions to Prevent Dating and Relationship Violence and Gender-Based Violence: Systematic Review and Network Meta-Analysis. *American Journal of Public Health*, 113(3), 320-330. <https://doi.org/10.2105/ajph.2022.307153>
- García-Perdomo, H. A. (2015). Conceptos fundamentales de las revisiones sistemáticas/metaanálisis. *Colombian Urology*, 24(1), 28-34. <https://doi.org/10.1016/j.uroco.2015.03.005>
- Garzón Segura, A. M., & Carcedo González, R. J. (2020). Effectiveness of a prevention program for gender-based intimate partner violence at a Colombian primary school. *Frontiers in Psychology*, 10, 3012. <https://doi.org/10.3389/fpsyg.2019.03012>
- Gómez, Á. H. (2007). La prevención de la violencia de género en adolescentes. Una experiencia en el ámbito educativo. *Apuntes de psicología*, 325-340. <https://doi.org/10.55414/9c6xje97>
- Gómez, M. T., & Martín, P. (2024). Promoción de la equidad de género: una propuesta de intervención educativa en Colombia [Tesis de doctorado]. <https://zagan.unizar.es/record/136224/>
- Hernández, A. L. (2012). Violencia social y climas escolares en Juárez Brechas para la equidad de género y la intervención educativa. *Diálogos sobre educación. Temas actuales en investigación educativa*, 3(4), 1-12. <https://doi.org/10.32870/dse.v0i4.360>
- Hernando, A. (2007). La prevención de la violencia de género en adolescentes. Una experiencia en el ámbito educativo. *Apuntes de Psicología*, 25(3), 325-340. <https://doi.org/10.55414/9c6xje97>
- Kandany, V. N., Muñoz, H. M. G., & Marte, M. I. (2025). Metanálisis, una revisión sistemática cuantitativa: conceptos básicos. *Revista Argentina de Medicina*, 13(2), 113-120. <https://doi.org/10.61222/2cj0by11>
- Kapiga, S. Harvey, S. Mshana, G, Holm, C. Mtolela, G. J. Madaha, F. Hashim, R. Kapinga, I. Moshia, N. Abramsky, T. Lees, S. Watts, C. (2019). A social empowerment intervention to prevent intimate partner violence against women in a microfinance scheme in Tanzania: findings from the MAISHA cluster randomised controlled trial. *The Lancet Global Health*, 7: e1423–34. [https://doi.org/10.1016/S2214-109X\(19\)30316-X](https://doi.org/10.1016/S2214-109X(19)30316-X)
- Kim, M. E. (2021). Shifting the Lens: An Implementation Study of a Community-Based and Social Network Intervention to Gender-Based Violence. *Violence Against Women*, 27(2), 222–254. <https://doi.org/10.1177/1077801219889176>.
- Leiva, L. Torres, B. Antivilo, A. Zavala, G. (2021) Gender-transformative school-based sexual health intervention: study protocol for a randomized controlled trial. *Trials*, 25:360, 1-10. <https://doi.org/10.1186/s13063-024-08191-w>

- Lwamba, E., Shisler, S., Ridlehoover, W., Kupfer, M., Tshabalala, N., Nduku, P., Langer, L., Grant, S., Sonnenfeld, A., Anda, D., Eyers, J., & Snilstveit, B. (2022). Strengthening women's empowerment and gender equality in fragile contexts towards peaceful and inclusive societies: A systematic review and meta - analysis. *Campbell Systematic Reviews*, 18(1), e1214. <https://doi.org/10.1002/cl2.1214>
- Meca, J. S. (2010). Cómo realizar una revisión sistemática y un meta-análisis. *Aula abierta*, 38(2), 53-64. <https://dialnet.unirioja.es/servlet/articulo?codigo=3316651>
- Merma-Molina, G., & Diez-Ros, R. (2021). Programa de prevención eco-constructivista para prevenir la violencia de género: experiencias en la formación inicial del profesorado. *Revista de Currículum y Formación del Profesorado*, 25(2), 237-261. <https://doi.org/1030827/PROFESORADO.V25I2.9381>
- Navarro, G. T., Ríos P, E. F. & Páez, H.A. (2024). Intervención en Valores con enfoque diferencial: Identidad de género y sexualidad para adolescentes en el Catatumbo. *Revista Academia & Derecho*, 15(Especial), 1-18. <https://doi.org/10.18041/2215-8944/academia.12667>
- Norman, R. E., Byambaa, M., De, R., Butchart, A., Scott, J., & Vos, T. (2012). The long-term health consequences of child physical abuse, emotional abuse, and neglect: A systematic review and meta-analysis. *PLoS Medicine*, 9(11), e1001349. <https://doi.org/10.1371/journal.pmed.1001349>.
- Nowrouzi-Kia, B., Chan, H. Y., Zhu, S., Nandan, S., Bani-Fatemi, A., Howe, A., Gross, D. P., Gohar, B., Yazdani, A., & Chattu, V. K. (2025). Examining the Prevalence and Effects of Gender-based Violence in Academic Settings: A Systematic Review and Meta-analyses. *Trauma, Violence, & Abuse*, 26(4), 755-768. <https://doi.org/10.1177/15248380241289436>
- Obach, A., Sadler, M., & Aguayo, F. (2011). Involucrando hombres jóvenes en el fin de la violencia de género. Intervención multipaís con evaluación de impacto: Caso chileno. *CulturaSaluda/EME*. <https://tinyurl.com/37jajx2u>
- Ollis, D. Lannucci, C. Keddie, A. Holland, E. Delaney, M. Kearney, Sa. (2021). ‘Bulldozers aren’t just for boys’: respectful relationships education challenges gender bias in early primary students, *International Journal of Health Promotion and Education*, 60(4), 29-242. <https://doi.org/10.1080/14635240.2021.1875020>
- Pagani, S., Hunter, S. C., & Elliott, M. A. (2023). Evaluating the Mentors in Violence Prevention Program: A Process Examination of How Implementation Can Affect Gender-Based Violence Outcomes. *Journal of Interpersonal Violence*, 38(3-4), 4390-4415. <https://doi.org/10.1177/08862605221115117>
- Pagani, S. Hunter, S. C. Lawrence, D. Elliott, M. A. (2023). Evaluating Mentors in Violence Prevention: A Longitudinal, Multilevel Assessment of Outcome Changes. *Journal of Youth and Adolescence*, 52, 1390–1404. <https://doi.org/10.1007/s10964-023-01781-y>
- Piolanti, A., & Foran, H. M. (2022). Psychological violence in dating relationships among adolescents: A systematic review and meta-analysis of prevention programs. *Preventive Medicine*, 159, 107053. <https://doi.org/10.1016/j.ypmed.2022.107053>
- Sánchez-Meca, J., & Botella, J. (2010). Revisión sistemática y meta-análisis: Herramientas para la práctica profesional. *Papeles del psicólogo*, 31(1), 7-17. <https://dialnet.unirioja.es/servlet/articulo?codigo=3150797>
- Sarnquist C, Kang J. L., Amuyunzu M., Oguda G., Otieno D., Mboya B., Omondi N., Kipkirui D., and Baiocchi, M. (2019). A protocol for a cluster-randomized controlled trial testing an empowerment intervention to prevent sexual assault in upper primary school adolescents in the informal settlements of Nairobi, Kenya. *BMC Public Health*, 19, 834. <https://doi.org/10.1186/s12889-019-7154-x>
- Taylor, B. G., Mumford, E. A., & Stein, N. D. (2015). Effectiveness of “shifting boundaries” teen dating violence prevention program for subgroups of middle school students. *Journal of Adolescent Health*, 56(2), S20-S26. <https://doi.org/10.1016/j.jadohealth.2014.07.004>.
- Team, J. (2018). JASP (version 0.9) [computer software]. Google Scholar.
- Thacker, S. B. (1988). Meta-analysis. A Quantitative Approach to Research Integration. *JAMA*; 259;(11), 1685-1689. <https://doi.org/10.1001/jama.259.11.1685>
- Tirado-Muñoz, J., Gilchrist, G., Lligoña, E., Gilbert, L., & Torrens, M. (2015). Intervención grupal para reducir la violencia de género entre consumidoras de drogas. Resultados de un estudio piloto en un centro comunitario de tratamiento de adicciones. *Adicciones*, 27(3), 168-178. <https://doi.org/10.20882/adicciones.703>
- Vaca, R. Ferro, R. Valero, L. (2020). Efficacy of a group intervention program with women victims of gender violence in the framework of contextual therapies. *Annals of psychology*, 36(2), 189 -199. <https://dx.doi.org/10.6018/analesps.36.2.396901>.
- Velasco L, Thomas-Currás H, Pastor-Ruiz Y and Arcos-Rodríguez A. (2022). PRO-Mueve Relaciones Sanas—A gender-based violence prevention program for adolescents: Assessment of its efficacy in the first year of intervention. *Frontiers in Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.744591>.
- Walker, E., Hernandez, A. V., & Kattan, M. W. (2008). Meta-analysis: Its strengths and limitations. *Cleveland Clinic journal of medicine*, 75(6), 431. <https://doi.org/10.3949/ccjm.75.6.431>

- Wong, J. S., Bouchard, J., & Lee, C. (2023). The effectiveness of college dating violence prevention programs: A meta-analysis. *Trauma, violence, abuse*, 24(2), 684-701. <https://doi.org/10.1177/15248380211036058>
- Yamauchi, F., & Liu, Y. (2018). Gender asymmetries: impacts of an early - stage school intervention in the Philippines. *Review of Development Economics*, 22(1), 220-241. <https://doi.org/10.1111/rode.12337>