RESEARCH BRIEF:

Building safer digital spaces: Prevention and response interventions for technology-facilitated gender-based violence

Dabney P. Evans, Alexandria Ree Hadd, Abbie Shervinskie, Jack Cagney, Zarmeen Shakil, Irina Bergenfeld, Bisrat Dessalegn, Erin Reardon, Cari Jo Clark

Emory University

November 2025

SVRI sexual violence research initiative

german cooperation DEUTSCHE ZUSAMMENARBEIT

Implemented by: giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

BACKGROUND

"Technology-facilitated gender-based violence (TFGBV) is any act that is committed, assisted, aggravated, or amplified by the use of information communication technologies or other digital tools, that results in or is likely to result in physical, sexual, psychological, social, political, or economic harm, or other infringements of rights and freedoms."[1] TFGBV can extend existing forms of abuse, such as stalking, harassment, and hate speech, or it can introduce new forms unique to digital spaces, such as doxxing (sharing personal information online) and non-consensual sharing or threats to share intimate images (including sextortion).

While TFGBV has escalated because of the widespread growth of digital technologies, it is underpinned by entrenched patriarchal power structures present in the real world. As a result, TFGBV disproportionately affects women, girls, and other marginalised individuals. Although global data on TFGBV's prevalence and consequences are still emerging, existing evidence suggests that TFGBV is widespread globally and has profound impacts on survivor well-being and their equitable participation in online spaces.[2-13]

In response to the growing threats, researchers from disciplines such as criminal justice, public health, computer science, and political science have begun to develop and test interventions to prevent or respond to its occurrence. However, existing systematic reviews of interventions have only examined some facets of TFGBV, often limited by language scope and neglecting a gender-diverse lens. As a result, the field has a narrower perspective of what works to prevent and respond to TFGBV than is warranted by the scale and urgency of the problem. Furthermore, there is no visual, interactive synthesis of the evidence—such as an Evidence and Gap Map (EGM)— to help guide research and funding toward the most pressing gaps.

AIM

To address these gaps, we conducted a systematic review and produced an EGM to: 1) bring together existing evidence prevention and response interventions for TFGBV, and 2) identify the strength and shortcomings in this evidence-base. This will help us understand what approaches are working, where more research is needed, and how future interventions can be improved.

METHODS

1. Search strategy: In June 2025, we searched eight scholarly databases (CINAHL, Embase, Global Index Medicus, Legal Source, Ovid MEDLINE, PsycINFO, Scopus, Web of Science) without date or language restrictions. The search strategy consisted of three main parts: 1) the use of technology, 2) abusive or violent behaviors, and 3) eligible study designs.

   Eligible studies were randomised control trials (RCTs), quasi-experimental studies (QEDs), and systematic reviews focused on interventions that prevent or respond to TFGBV. Studies that did not allow for the quantitative evaluation of intervention impact were excluded. We also searched 13 gray literature websites, such as UN Women, and implemented citation tracking of included studies.

2. Protocol registration: Our review adhered to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines; our protocol is registered in PROSPERO.[14]

3. Screening: Figure 1 displays the number of records identified, screened at each phase, and exclusion reasons. All records were double screened, with a third reviewer resolving any conflicts.

The research team excluded studies focused exclusively on cyberbullying. This choice was justified by the tight deadline and the large number of existing systematic reviews and meta-analyses in that area. Additionally, evidence suggests that women and girls are not disproportionately affected by cyberbullying.[15]

4. **Extraction:** For each included study, we extracted characteristics related to the study design, sample, intervention, and TFGBV outcomes. To determine whether the intervention had a beneficial, adverse, or no effect on the outcome, we used the most-adjusted difference between the intervention and comparison groups at the most distal timepoint.

5. **Quality appraisal:** We assessed quality using an adapted version of the National Institutes of Health study quality assessment tools.[16]

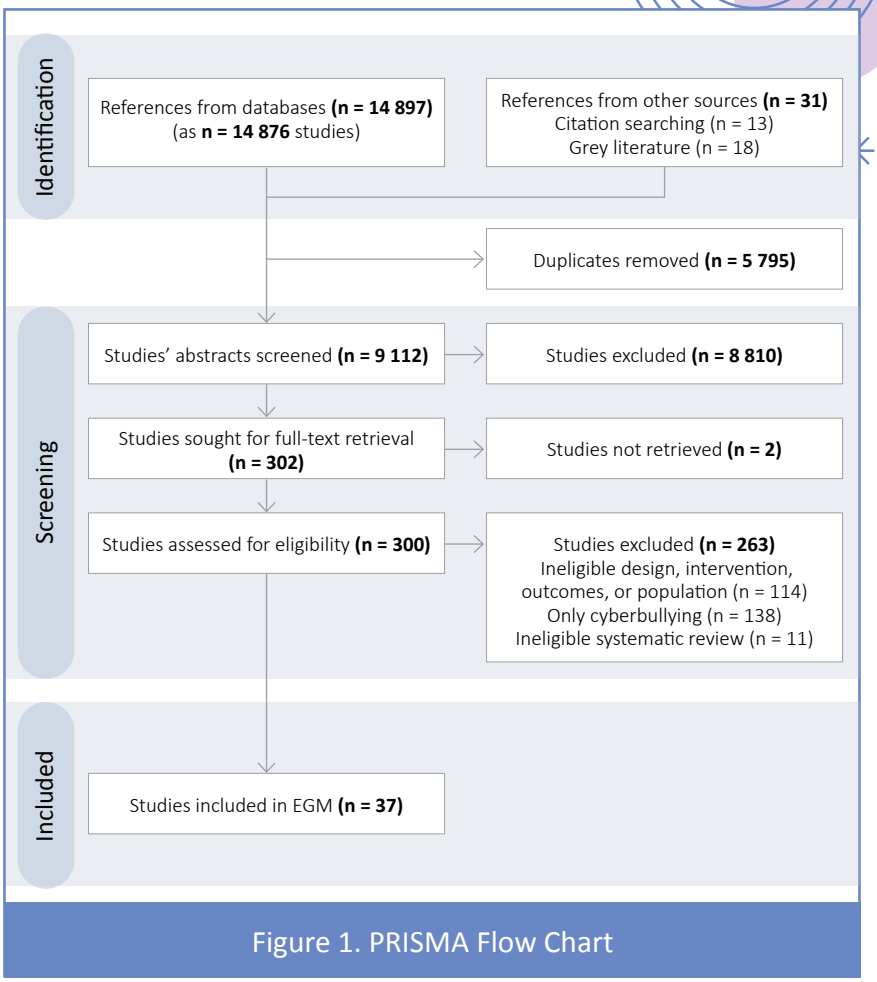


Figure 1. PRISMA Flow Chart

RESULTS

Study characteristics: We found 37 studies that met our eligibility criteria. Of these, 27 studies were RCTs, eight were QEDs, and two were systematic reviews. Figure 2 maps included individual studies, except for eight studies conducted solely online and therefore geographically unbounded. Only two were conducted in a low- or middle-income country (LMIC). Youth were the most common population (n=22), followed by perpetrators (n=8), at-risk persons (n=5), the general public (n=3), and adult men (n=3). Most studies (n=29) used "treatment as usual" or "standard control" comparison groups.

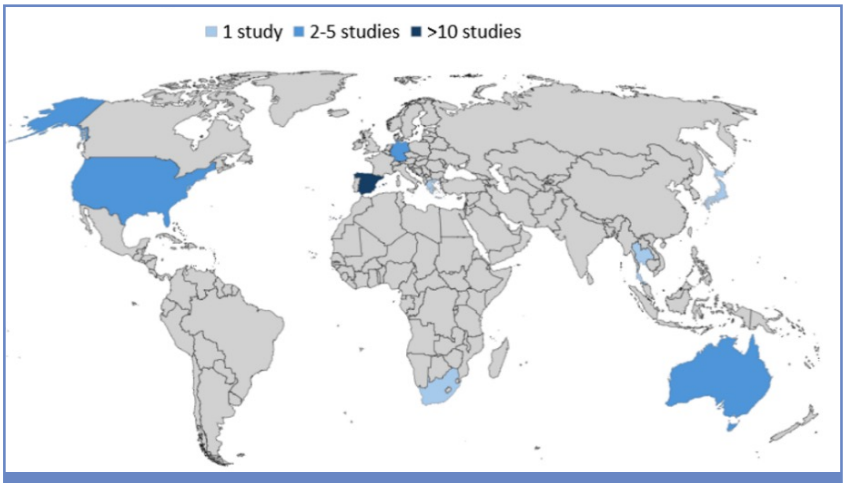


Figure 2: Location of included studies

Interventions: Of the 37 included studies, 28 studies focused on TFGBV prevention interventions, while nine focused on response interventions. Most studies used in-person (n=15) or online (n=14) delivery modalities. Of the studies with in-person interventions, most (80%) were delivered within educational settings.

The length of interventions ranged from a single message or tweet to weekly, three-hour sessions over almost a year.

Outcomes: The most common forms of TFGBV investigated were cyber dating or partner abuse (n=11), hate speech or slurs (n=9), grooming (n=9), child sexual abuse material (CSAM)-related behaviors (n=5), and online sexual harassment (n=3). One study each examined sexism or misogyny, unwanted sexting, non-partner cyberaggression or cyber abuse, and cyber sexual abuse.

Despite search terms that specifically targeted research on sextortion, doxxing, and stalking, no eligible studies included these outcomes. For included TFGBV outcomes, perpetration was assessed more often (n=30) than victimisation (n=20). Only four studies assessed whether intervention effects differed by gender. Follow-up lengths differed substantially, with the most common follow-up length either immediately (n=10) or one-month post-intervention (n=9), and the longest follow-up occurring 12 months post-intervention.

Table 1. Intervention Effects by TFGBV and Outcome Type

TFGBV Type	Perpetration	Victimization
Child sexual abuse material behaviors	5 studies 3 beneficial, 1 mixed, 1 null	No studies
Cyber dating or partner abuse	8 studies 1 beneficial, 6 null, 1 adverse	10 studies 1 beneficial, 8 null, 1 adverse
Non-partner cyber abuse	1 study Beneficial effect	No studies
Online sexual harassment	1 study Null effect	3 studies 2 beneficial, 1 null
Child grooming	3 studies 1 beneficial, 2 null	7 studies 2 beneficial, 5 null
Hate speech or slurs	8 studies 5 beneficial, 1 mixed, 1 null, 1 adverse	1 study Beneficial effect
Online sexism/misogyny	1 study Null effect	No studies
Unwanted sexting	1 study Beneficial effect	1 study Beneficial effect
Cyber sexual abuse	1 study Adverse effect	No studies

Note. Total studies listed are greater than the total individual studies included (n=35), as studies measured multiple outcomes.

Intervention effectiveness: Intervention effects differed substantially across TFGBV type, as shown in Table 1. Interventions on CSAM and hate speech perpetration tended to show beneficial effects, whereas interventions on cyber dating abuse and grooming (perpetration or victimisation) tended to show null effects. Few studies showed adverse effects — consistent with publication bias towards hypothesis-confirming results.[17] Intervention types also differed substantially across outcomes; cyber dating abuse and online sexual harassment interventions, for example, tended to be longer and delivered in-person or hybrid, whereas interventions for hate speech or slurs tended to be one-off and web-based. Grooming and CSAM interventions were particularly heterogeneous — from short warning messages before entering a site to psychosocial interventions delivered over several months.

Quality assessment: Included studies varied substantially in quality. Less than half of RCTs provided randomisation details, and less than half of QEDs statistically adjusted for relevant covariates in analyses. Over three-quarters of studies omitted details about blinding and masking or reported that blinding was infeasible. Other quality items infrequently endorsed were discussion of background interventions (17%) and power analyses (37%). Studies generally provided sufficient detail on the validity and reliability of outcome measures, often including relevant citations for scales used. Other commonly reported quality measures included specifying that analyses were intent-to-treat and prespecifying outcomes and/or subgroup analyses (either in a separate protocol or in study hypotheses).

IMPLICATIONS FOR RESEARCH, POLICY, AND PRACTICE

Current research on TFGBV remains narrow in scope and predominantly focused on forms that are extensions of offline GBV. The small number and diversity of studies make it difficult to combine results through meta-analysis or broader synthesis. However, it is clear that the evidence base is growing and merits investment to identify effective interventions more quickly.

For research:

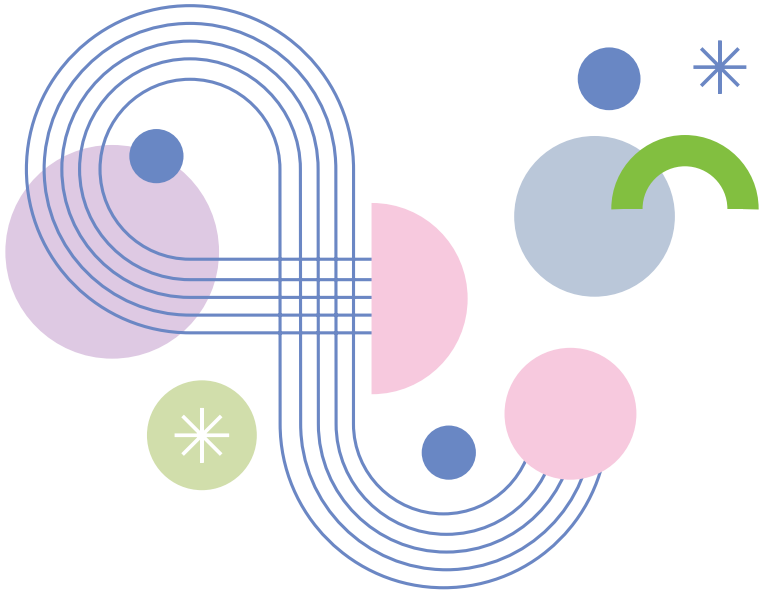
- Expand focus beyond traditional GBV forms: Greater testing of interventions across the range of TFGBV forms, especially new forms of TFGBV in the digital space, such as doxxing and sextortion, is urgently needed.
- Broaden geographic representation: Persons residing in LMICs were the least represented among current studies. As these countries have the largest share of the global population, much more investment in interventions from these settings is warranted.
- Include high-risk and marginalised groups: The vast majority of studies did not target high-risk populations, and none specifically targeted people with a disability or included enough LGBTQIA individuals for sub-group analysis. Intentional research among these high-risk populations and among people with multiple marginalised statuses is needed.
- Investigate gender differences: Despite examining TFGBV outcomes, most studies did not examine potential differences in intervention effectiveness across sex and/or gender. Sex/gender differences in effectiveness should be routinely tested and reported.
- Assess long-term and intensive interventions: The length of interventions varied considerably, and many studies assessed outcomes immediately following brief interventions. Intervention length and intensity are generally associated with improved chance of and maintenance of behavioral change. More studies need to examine longer-term impacts as well as considering intervention intensity when assessing effectiveness.

For policy:

- Invest in under-researched contexts: Policymakers and funders should prioritise investment in intervention research in LMICs and among underrepresented groups.
- Support policy-focused evaluations: Very few studies investigated policy changes, despite the potential widespread impact of such interventions. Policy interventions are worthy of greater investment for large-scale impact.
- Engage digital platforms: Addressing TFGBV requires meaningful collaboration between researchers, governments, and major social media companies to design and evaluate platform-level safety mechanisms.

For practice:

- Promote cross-disciplinary implementation: TFGBV is a deeply multi-disciplinary issue. Practitioners should collaborate across sectors, including health, education, technology, and justice to design prevention and response interventions to accelerate progress.
- Use evidence to guide implementation: As the evidence base expands, practitioners should draw on emerging findings to strengthen intervention design, delivery, and evaluation.



Suggested citation: Evans, D. P., Hadd, A. R., Shervinskie, A., Cagney, J., Shakil, Z., Bergenfeld, I., Dessalegn, B., Reardon, E., & Clark, C. J. (2025). *Building safer digital spaces: Prevention and response interventions for technology-facilitated gender-based violence.* Sexual Violence Research Initiative.

REFERENCES

1. UN Women. Technology-facilitated Violence against Women: Towards a common definition. 2021.
2. Bansal V, Rezwan M, Iyer M, et al. A scoping review of technology-facilitated gender-based violence in low-and middle-income countries across Asia. Trauma, Violence, & Abuse. 2024;25(1):463-475.
3. Benitez-Hidalgo V, Henares-Montiel J, Ruiz-Pérez I, Pastor-Moreno G. International prevalence of technology-facilitated sexual violence against women: A systematic review and meta-analysis of observational studies. Trauma, Violence, & Abuse. 2025;26(4):668-681.
4. Henry N, Flynn A, Powell A. Technology-facilitated domestic and sexual violence: A review. Violence Against Women. 2020;26(15-16):1828-1854. doi:10.1177/1077801219875821
5. Koch L, Russo Riva MP, Steinert JI. Technology-Facilitated Gender-Based Violence Against Politically Active Women: A Systematic Review of Psychological and Political Consequences and Women's Coping Behaviors. Trauma, Violence, & Abuse. 2025:15248380251343185.
6. Patel U, Roesch R. The prevalence of technology-facilitated sexual violence: A meta-analysis and systematic review. Trauma, Violence, & Abuse. 2022;23(2):428-443.
7. Plan International. Free to be online? Girs› and young women›s experiences of online harassment. 2020. https://plan-international.org/uploads/2023/06/SOTWGR2020-CommsReport-edition2023-EN.pdf
8. Quilty E, Flynn A. Technology-Facilitated Violence in the Indo-Pacific: A Scoping Review. Trauma, Violence, & Abuse. 2025:15248380251323217.
9. Sheikh MMR, Rogers MM. Technology-facilitated sexual violence and abuse in low and middle-income countries: A scoping review. Trauma, Violence, & Abuse. 2024;25(2):1614-1629.
10. Sorochinski M, Varvaro J. Technology facilitated sexual violence and abuse: Exploring the what, who, where, why, when, and how of the 21st century interpersonal crime. Contemporary Justice Review. 2023;26(1):111-121.
11. UN Women, World Health Organization. Technology-facilitated violence against women: Taking stock of evidence and data collection. UN Women. 2023;
12. Economist Intelligence Unit. Measuring the prevalence of online violence against women. EIU Also available at https://onlineviolencewomen.eiu.com/ Accessed. 2021;5:2024.
13. Filice E, Abeywickrama KD, Parry DC, Johnson CW. Sexual violence and abuse in online dating: A scoping review. Aggression and violent behavior. 2022;67:101781.
14. Clark CJ, Hadd A, Reardon E, et al. Systematic review and evidence and gap map of prevention and response interventions for technology-facilitated gender-based violence. 2025.
15. de Araújo AVM, do Bonfim CV, Bushatsky M, Furtado BMA. Technology-facilitated sexual violence: a review of virtual violence against women. Research, Society and Development. 2022;11(2):e57811225757-e57811225757.
16. National Health Lung and Blood Institute. Study quality assessment tools. NHLBI. Updated July 2021. Accessed October 27, 2025. https://www.nhlbi.nih.gov/health-topics/study-quality-assessment-tools
17. Curry S, Mercado-Lara E, Arechavala-Gomeza V, et al. Ending publication bias: A values-based approach to surface null and negative results. PLoS Biology. 2025;23(9):e3003368.