School-based interventions TO Prevent Dating and Relationship Violence and Gender-Based Violence: STOP-DRV-GBV systematic review

GJ Melendez-Torres,[1*] Noreen Orr,[1] Caroline Farmer,[1] Naomi Shaw,[1] Annah Chollet,[2] Andrew J Rizzo,[3] Fraizer Kiff,[1] Emma Rigby,[4] Ann Hagell,[4] Sidnei R Priolo Filho,[5] Bruce Taylor,[6] Honor Young,[7] Chris Bonell[8] and Vashti Berry[1]

[1]Faculty of Health and Life Sciences, University of Exeter, Exeter, UK
[2]Department of Social Policy and Intervention, University of Oxford, Oxford, UK
[3]College of Health and Human Performance, University of Florida, Gainesville, FL, USA
[4]Association for Young People's Health, London, UK
[5]Universidade Tuiuti do Paraná, Curitiba, Paraná, Brazil
[6]National Opinion Research Center, University of Chicago, Chicago, IL, USA
[7]Centre for Development, Evaluation, Complexity and Implementation in Public Health Improvement (DECIPHer), Cardiff University, Cardiff, UK
[8]Department of Public Health, Environments and Society, London School of Hygiene and Tropical Medicine, London, UK

[*]Corresponding author g.j.melendez-torres@exeter.ac.uk

Disclosure of interests

Full disclosure of interests: Completed ICMJE forms for all authors, including all related interests, are available in the toolkit on the NIHR Journals Library report publication page at https://doi.org/10.3310/KTWR6997.

Primary conflicts of interest: GJ Melendez-Torres reports part-support from NIHR PenARC; grant and salary support from several NIHR programmes (PHR, HS&DR, HTA, PRP, ESP); and membership of NIHR PGfAR sub-committee, and was co-investigator of one of the studies in this review (NIHR PHR 15/03/09). Ann Hagell reports a role as Trustee and Chair of the charity Habitats and Heritage. Honor Young was co-investigator of one of the studies in this review (NIHR PHR 15/03/09). Sidnei R Priolo Filho (Filho 2017) and Bruce Taylor (Taylor 2010, 2011, 2015) were lead authors of several studies included in this review. Chris Bonell reports membership of the NIHR PHR Research Funding Board (2013–19), grants from the NIHR PHR programme, and a current NIHR Senior Investigator Award; and was chief investigator of one of the studies in this review (NIHR PHR 15/03/09).

Published February 2024
DOI: 10.3310/KTWR6997

Scientific summary

School-based interventions TO Prevent Dating and Relationship Violence and Gender-Based Violence: STOP-DRV-GBV systematic review

Public Health Research 2024; Vol. 12: No. 3
DOI: 10.3310/KTWR6997

NIHR Journals Library www.journalslibrary.nihr.ac.uk

Scientific summary

Background and rationale

This systematic review focused on dating and relationship violence (DRV) and gender-based violence (GBV). The long-term impacts of both for young people are numerous and, consequently, addressing them is a public health priority. Adolescence is a crucial stage for focusing on the prevention of DRV and GBV and schools are an ideal location for this, as this is where young people are socialised into gender norms and where significant amounts of DRV and GBV occurs. Schools also offer an opportunity to reach many young people who may not otherwise be accessible for intervention. Previous reviews have evaluated the effectiveness of interventions for DRV or GBV for adolescents but do not specifically focus on interventions in schools or analyse outcomes jointly.

Aim and review questions

We systematically searched for and synthesised the evidence for the following research questions (RQs):

1. What are the theories of change and components of evaluated interventions?
2. What factors affect the implementation of evaluated interventions?
3. Are interventions effective and cost-effective in preventing DRV and GBV and reducing social inequalities in these outcomes?
4. Based on the findings of RQs 1–3, what factors are important for joint effectiveness on DRV and GBV outcomes?
5. What is the comparative effectiveness of different approaches to DRV and GBV prevention?
6. What do the different sources of evidence suggest about intervention mechanisms and how these are contingent on context?

Methods

Inclusion criteria

We included randomised controlled trials and process evaluations of school-based interventions for DRV and/or GBV for children between 5 and 18 years. DRV was defined as physical, sexual and emotional violence (including coercive control) in relationships between young people. GBV was defined as violence rooted in gender equality and sexuality such as harassment or bullying on the basis of gender or sexuality, sexual violence, coercion and assault including rape, within or outside dating relationships.

Searching information sources

The search strategy included both free-text terms and subject headings (e.g. MeSH in MEDLINE) for the school setting and DRV/GBV outcomes. In order to identify outcome, process and economic evaluations, we did not apply publication type or study design limitations. In July 2020, we searched 21 bibliographic databases from inception and without limitation on date or language: MEDLINE, EMBASE, PsycINFO, Social Policy and Practice (Ovid); Cumulative Index to Nursing and Allied Health Literature, Education Resources Information Center, British Education Index, Education Research Complete, EconLit, Criminal Justice Abstracts (EBSCO*host*); Cochrane Database of Systematic Reviews and the Cochrane Central Register of Controlled Trials; NHS Economic Evaluation Database (via the Centre for Reviews and Dissemination); Social Science Citation Index and Conference Proceedings Citation Index (Web of Science, Clarivate Analytics); Australian Education Index, ProQuest Dissertations and Theses Global, Sociological Abstracts including Social Services Abstracts, Applied Social Sciences Index and Abstracts (ProQuest); Trials Register of Promoting Health Interventions and Bibliomap [Evidence for Policy and

Copyright © 2024 Melendez-Torres *et al*. This work was produced by Melendez-Torres *et al*. under the terms of a commissioning contract issued by the Secretary of State for Health and Social Care. This is an Open Access publication distributed under the terms of the Creative Commons Attribution CC BY 4.0 licence, which permits unrestricted use, distribution, reproduction and adaptation in any medium and for any purpose provided that it is properly attributed. See: https://creativecommons.org/licenses/by/4.0/. For attribution the title, original author(s), the publication source – NIHR Journals Library, and the DOI of the publication must be cited.

Practice Information (EPPI)-Centre]; Campbell Systematic Reviews (Campbell Collaboration). The bibliographic database searches were updated in June 2021 with a revised strategy developed to improve precision, and added further search terms for named interventions.

We completed forwards and backwards citation chasing on included studies in Scopus (Elsevier), Web of Science (Clarivate Analytics) and Google Scholar, and reviewed the reference lists of relevant systematic reviews and reports. To identify linked studies and further grey literature, we conducted targeted searches in Web of Science and Scopus and searched Google Scholar for specific intervention names. We also searched publication lists on key websites.

Information management and study selection

Studies were screened by the title and abstract by six reviewers. The reviewers screened a random sample of 100 records and then discussed disagreements before proceeding to screening by title and abstract, and then full-text, independently and in duplicate.

Data extraction and assessments of quality

Data were extracted into a data extraction tool that was developed and piloted a priori. Data extracted included details about the study design, study sample, intervention characteristics, analysis methods and outcome data. Studies were appraised using the Cochrane risk of bias tool or the EPPI-Centre tool.

Synthesis of theories and components

We synthesised theories of change for the interventions via a staged approach: (1) using line-by-line coding and developing a coding template; (2) synthesising programme theories of change for the interventions and (3) using a meta-ethnographic approach to develop a line-of-argument for an overarching theory of change.

We undertook an intervention components analysis to analyse intervention descriptions. We used an inductive approach (open coding initially and then axial coding) to comprehensively describe and categorise intervention components.

Synthesis of process data

Process evaluations reported qualitative data and were synthesised qualitatively using thematic synthesis methods.

Synthesis of effectiveness

Pairwise meta-analysis tested effectiveness on victimisation and perpetration outcomes, knowledge and attitudes, using robust variance estimation meta-analyses with random effects.

Synthesis of mediation and moderator data

We used harvest plots to examine how interventions impact health inequalities, focusing on ethnicity, socioeconomic position, gender, sexuality and age. We narratively synthesised findings relating to mediation.

Effectiveness of different approaches to dating and relationship violence and gender-based violence prevention

We used metaregression to test if components explained heterogeneity, and qualitative comparative analysis (QCA) to consider pathways to effectiveness in victimisation and perpetration. We used network meta-analysis to understand the comparative effectiveness of intervention types on DRV and GBV victimisation and perpetration.

Synthesis of evidence on intervention mechanisms contingent on context

To understand the links between contexts and mechanisms in generating outcomes, we followed a realist synthesis approach and used findings from the syntheses of the theories of change and process

evaluations as a framework to infer and induce mechanisms from studies. This allowed previously 'untheorised' findings to emerge as relevant from our synthesis.

Results

Included studies

Searches identified 40,160 records after deduplication, of which 793 were screened in full text. Of these, 247 reports were identified as eligible for inclusion, and these were coded into 68 outcome evaluations and 137 process evaluations. No economic evaluations were identified, but we examined seven cost and resource use studies.

What are the theories of change and components of evaluated interventions?

Most interventions focused on preventing victimisation and perpetration in DRV or GBV and fewer addressed bystander-intervention skills. Interventions had student components (e.g. group discussions, individual reflection), staff components (e.g. training, lesson plans), parent/family components (e.g. involvement in intervention) and school structures or physical environment (e.g. changes to school policies). Interventions were categorised as single-component interventions (usually short and focused on a novel technology or activity) and generally focused on a single change mechanism; curricular programmes integrated into the wider school curriculum, which generally focused on one or more change mechanisms at the student level; multicomponent programmes involving multiple modes of intervention and focusing on multiple change mechanisms operating at the student or staff level; and multilevel programmes, which were complex interventions involving multiple modes focused on change mechanisms within schools at multiple levels including the individual, classroom and school structural/environment context.

The interventions were theorised as aiming to trigger a complex set of mechanisms to promote students' school belonging, engagement with pro-social behaviours and avoidance of DRV/GBV behaviours. This was theorised to occur through interventions that 'weakened classification' and 'reframing'. 'Weakened classification' involved strengthening relationships between and among staff and students, between the classroom and the wider school, and between schools and their communities. 'Reframing' aimed to increase student involvement in decisions at the level of the classroom and the school. Both 'weakening classification' and 'reframing' were then theorised as increasing student belonging and a sense of safety in the school building which could encourage increased learning of prosocial skills and interactions. Not all interventions addressed all of these mechanisms; some multilevel interventions could trigger mechanisms at multiple levels of the school system; classroom-level interventions could trigger mechanisms at the level of staff–student relationships or could focus on mechanisms that sought, for example, to promote specific skills for preventing or reducing DRV/GBV. It was theorised that multilevel interventions triggering a complex set of mechanisms across multiple levels would achieve larger effects (e.g. at the school level) and be more sustainable than mechanisms at the individual and group level.

What factors affect the implementation of evaluated interventions?

Key factors influencing the implementation of interventions were school resources and infrastructure, space and supplies, school organisation and leadership, perceived importance of addressing DRV/GBV, intervention interactivity and development of positive relations among students, facilitator content knowledge and availability of external support, ease of delivery and modification of interventions to suit the particularities of settings. Significant barriers to implementation included time constraints and competing priorities. However, strong staff commitment to prevention of DRV/GBV could offset time and resource limitations. Interventions may be best delivered when they align with school organisational readiness which includes a receptive school climate, staff buy-in and/or strong school leadership.

Copyright © 2024 Melendez-Torres *et al*. This work was produced by Melendez-Torres *et al*. under the terms of a commissioning contract issued by the Secretary of State for Health and Social Care. This is an Open Access publication distributed under the terms of the Creative Commons Attribution CC BY 4.0 licence, which permits unrestricted use, distribution, reproduction and adaptation in any medium and for any purpose provided that it is properly attributed. See: https://creativecommons.org/licenses/by/4.0/. For attribution the title, original author(s), the publication source – NIHR Journals Library, and the DOI of the publication must be cited.

Are interventions effective in preventing dating and relationship violence and gender-based violence and reducing social inequalities in these outcomes?

Significant long-term, but not short-term, impacts on DRV victimisation [odds ratio (OR) = 0.82, 95% confidence interval (CI) (0.68 to 0.99)] and DRV perpetration [OR = 0.78, 95% CI (0.64 to 0.94)] were found. Although there was no overall effect for GBV victimisation [long-term OR = 0.93, 95% CI (0.80 to 1.08)] or perpetration [long-term OR = 0.90, 95% CI (0.73 to 1.12)], there was some evidence that interventions in high-income countries could be effective for reducing victimisation and perpetration of GBV in the long-term, and that the proportion of girls in the trial sample moderated the effect of the interventions for DRV and GBV victimisation, but not DRV or GBV perpetration. This may be where a critical mass of female students might have encouraged greater overall student engagement with the intervention. There was evidence for gender moderating programme effects on DRV perpetration with greater benefits for boys, particularly for emotional and physical DRV perpetration. Interventions improved DRV violence acceptance, knowledge and attitudes to personal help-seeking in the short term only. Interventions improved GBV violence acceptance, knowledge and individual self-efficacy in the short term, and violence acceptance in the long-term.

What factors are important for joint effectiveness on dating and relationship violence and gender-based violence outcomes?

Metaregression of intervention components did not explain heterogeneity in intervention effectiveness. We were able to estimate QCA models for short-term and long-term DRV victimisation, long-term DRV perpetration and short-term GBV victimisation and perpetration. A key finding from the QCA models for victimisation is that a central causal condition for reduction of victimisation is reduction of perpetration. There were a number of other pathways to the reduction of victimisation, namely the inclusion of single-gender components or a critical mass of girls. A critical mass of girls was especially important where interventions went beyond single components. There was also some evidence that components that were absent, for example, the absence of parental involvement was central to achieving effectiveness for long-term DRV victimisation. Perhaps the absence of such a component reduces opportunities to minimise GBV and DRV, or to receive conflicting messages about their importance. For long-term DRV perpetration and short-term GBV perpetration, interventions that were most effective incorporated a range of opportunities for guided practice of skills and attitudes, and interpersonal components focusing on student relationships. The implementation of social structural components was central to effectiveness for short-term GBV perpetration, but not for DRV perpetration.

What is the comparative effectiveness of different approaches to dating and relationship violence and gender-based violence prevention?

Network meta-analysis was consistent for DRV but not for GBV outcomes. No one intervention type was clearly more effective than any other, but single-component interventions may have been useful for reducing short-term and long-term DRV victimisation and perpetration, and short-term GBV victimisation. Multilevel interventions showed some effectiveness for DRV outcomes compared to other intervention formulations. For GBV outcomes, there was strong evidence for the role of curriculum interventions which were more successful than any other types at short-term follow-up victimisation outcomes, and short-term and long-term perpetration.

What do the different sources of evidence suggest about intervention mechanisms and how these are contingent on context?

There is evidence that the interventions in this review worked not by complex mechanisms (e.g. increasing school commitment), as initially hypothesised, but by the 'basic safety' mechanism which aimed to disrupt violent behaviours by communicating to students the unacceptability of violence. This simpler mechanism may have involved reductions in DRV perpetration among males. That simpler interventions if delivered well may be effective in reducing DRV would be a significant finding, especially for resource-poor settings. We argue that destabilising harmful practices is foundational whereas establishing prosocial behaviours will take more time and investment, so schools may focus on foundational mechanisms initially. Simpler interventions were easier to implement and receive so it may

be more important to deliver simpler programmes achieving basic levels of school safety with fidelity than attempt more complex, multicomponent or multilevel programmes. It may be particularly important to prioritise such programmes in resource-poor settings.

We also theorise that the individual-level basic safety mechanisms are more likely to effect change in DRV than in GBV perpetration because of the more dyadic, private nature of DRV. The more public nature of GBV means that it might be influenced by social norms that programmes do not seem to successfully address. We found that programmes could be effective in preventing GBV but that this was only likely in high-income settings. It may be that the transformation of school organisation and culture required to reduce GBV is beyond the reach of many schools in low- and middle-income settings because of low school organisational capacity and higher levels of inequality and GBV.

Conclusions

The evidence suggests that a well-delivered single-component intervention may be as effective as a complex, multicomponent or multilevel intervention. Such an intervention may be more acceptable within the school environment and receive greater staff buy-in. Preventing GBV may require normative and social structural change which may not be sufficiently triggered by current interventions. Overall, the evidence is more conclusive for DRV than GBV. It is possible that differential mechanisms will need to be activated for DRV than for GBV and that existing theories of change do not adequately account for differences between DRV and GBV in terms of intervention functioning.

Study registration

This study is registered as PROSPERO CRD42020190463.

Funding

This award was funded by the National Institute for Health and Care Research (NIHR) Public Health Research programme (NIHR award ref: NIHR130144) and is published in full in *Public Health Research*; Vol. 12, No. 3. See the NIHR Funding and Awards website for further award information.

Copyright © 2024 Melendez-Torres *et al*. This work was produced by Melendez-Torres *et al*. under the terms of a commissioning contract issued by the Secretary of State for Health and Social Care. This is an Open Access publication distributed under the terms of the Creative Commons Attribution CC BY 4.0 licence, which permits unrestricted use, distribution, reproduction and adaptation in any medium and for any purpose provided that it is properly attributed. See: https://creativecommons.org/licenses/by/4.0/. For attribution the title, original author(s), the publication source – NIHR Journals Library, and the DOI of the publication must be cited.

Public Health Research

ISSN 2050-4381 (Print)

ISSN 2050-439X (Online)

A list of Journals Library editors can be found on the NIHR Journals Library website

Public Health Research (PHR) was launched in 2013 and is indexed by Europe PMC, NCBI Bookshelf, DOAJ, INAHTA, Ulrichsweb™ (ProQuest LLC, Ann Arbor, MI, USA) and MEDLINE.

This journal is a member of and subscribes to the principles of the Committee on Publication Ethics (COPE) (www.publicationethics.org/).

Editorial contact: journals.library@nihr.ac.uk

The full PHR archive is freely available to view online at www.journalslibrary.nihr.ac.uk/phr.

Criteria for inclusion in the *Public Health Research* journal
Manuscripts are published in *Public Health Research* (PHR) if (1) they have resulted from work for the PHR programme and (2) they are of a sufficiently high scientific quality as assessed by the reviewers and editors.

Reviews in *Public Health Research* are termed 'systematic' when the account of the search appraisal and synthesis methods (to minimise biases and random errors) would, in theory, permit the replication of the review by others.

PHR programme

The Public Health Research (PHR) programme, part of the National Institute for Health and Care Research (NIHR), is the leading UK funder of public health research, evaluating public health interventions, providing new knowledge on the benefits, costs, acceptability and wider impacts of non-NHS interventions intended to improve the health of the public and reduce inequalities in health. The scope of the programme is multi-disciplinary and broad, covering a range of interventions that improve public health.

For more information about the PHR programme please visit the website: https://www.nihr.ac.uk/explore-nihr/funding-programmes/public-health-research.htm

This manuscript

The research reported in this issue of the journal was funded by the PHR programme as project number NIHR130144. The contractual start date was in July 2020. The final report began editorial review in May 2022 and was accepted for publication in April 2023. The authors have been wholly responsible for all data collection, analysis and interpretation, and for writing up their work. The PHR editors and production house have tried to ensure the accuracy of the authors' manuscript and would like to thank the reviewers for their constructive comments on the final manuscript document. However, they do not accept liability for damages or losses arising from material published in this manuscript.

This manuscript presents independent research funded by the National Institute for Health and Care Research (NIHR). The views and opinions expressed by authors in this publication are those of the authors and do not necessarily reflect those of the NHS, the NIHR, the PHR programme or the Department of Health and Social Care. If there are verbatim quotations included in this publication the views and opinions expressed by the interviewees are those of the interviewees and do not necessarily reflect those of the authors, those of the NHS, the NIHR, the PHR programme or the Department of Health and Social Care.

Copyright © 2024 Melendez-Torres *et al.* This work was produced by Melendez-Torres *et al.* under the terms of a commissioning contract issued by the Secretary of State for Health and Social Care. This is an Open Access publication distributed under the terms of the Creative Commons Attribution CC BY 4.0 licence, which permits unrestricted use, distribution, reproduction and adaptation in any medium and for any purpose provided that it is properly attributed. See: https://creativecommons.org/licenses/by/4.0/. For attribution the title, original author(s), the publication source – NIHR Journals Library, and the DOI of the publication must be cited.

Published by the NIHR Journals Library (www.journalslibrary.nihr.ac.uk), produced by Newgen Digitalworks Pvt Ltd, Chennai, India (www.newgen.co).