Randomized Controlled Trials Aimed at Reducing Adolescent Dating Violence: A Brief Review of Russell et al. (2021)

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Background

Youth experience high rates of adolescent dating violence (ADV) both from victimization, as well as perpetration [1,2]. Among those who have experienced ADV, a higher proportion of individuals are prone to engage in maladaptive behaviors, such as substance use and suicidality [3,4], eating disorders [5], sexual risk behaviors [3], and bullying [6], and exhibit adverse mental health outcomes like depression [7]. Furthermore, individuals who have experienced ADV are more likely to experience intimate partner violence (IPV) in adulthood, a pattern that holds with both males and females [8].

A series of systematic reviews and meta-analyses were conducted to synthesize studies evaluating the effectiveness of current ADV prevention programs. However, these reviews either exclusively focus on interventions within educational or healthcare settings [9,10] or incorporate diverse research methods, including surveys, quasi-experimental designs, and RCTs, which may hinder the synthesis of rigorous and valid conclusions [11]. Moreover, some reviews chose attitudes toward ADV or knowledge of ADV as outcome measures, while omitting the actual occurrence of ADV as the primary outcome variable [12-14]. To address the deficiencies in existing research, Russell et al. (2021) conducted a meta-analysis concentrating on studies of ADV programs using a randomized controlled trial design with a control group and assessing the prevalence or severity rates of ADV perpetration and/or victimization as the outcome of interest.
This brief review aims to provide a summary of the Russell et al. (2021) article, including methods, key results, and implications, in order to increase the visibility of the study's findings and encourage practitioners to consider the implications in the development and implementation of ADV prevention and intervention programming.

Review of Methods

Articles published before the end of April 2019 were searched across ten electronic databases (SocINDEX, Academic Search Complete, Psychology and Behavioral Sciences Collection, CINAHL, MEDLINE, ERIC, PsychINFO, Humanities International Complete, Social Work Abstracts, and Cochrane CENTRAL). Previous systematic reviews and meta-analyses were also explored to identify potentially relevant references [15]. The results were imported to Mendeley bibliographic software.

Studies were included if they simultaneously met the following criteria: (a) evaluated ADV prevention programs and measured ADV perpetration and/or victimization as a study outcome; (b) employed a randomized controlled trial design with at least one treatment group and one control group; (c) participants were younger than 18 years of age at the time of baseline assessment. Additionally, studies were excluded if they met any of the following criteria: (a) focused on any other type of prevention, such as general violence, sexual assault, or bullying; (b) were not peer-reviewed; (c) full-text access were not available; (d) were not written in English [15].

The data extraction form collected information for each included study, covering study design, setting, sample characteristics, ADV prevention program name, program characteristics, outcome measurement tools, and study results [15]. The Cochrane Collaboration's tool was used to assess the risk of bias [16]. Follow-up data on ADV perpetration and/or victimization were collected for the treatment and control groups, including means and standard deviations or number of events and sample sizes. Effect sizes were calculated using RevMan, with mean differences for continuous outcomes and risk ratios for categorical outcomes. Fixed effects and random effects were used based on the number of outcome data. Heterogeneity was assessed by estimating $tau2$ and $I2$ for each outcome with data from more than one study. The evidence from each included article was graded by GRADEpro, considering bias, consistency, directness, imprecision, and rigor [15].

Summary of Results

All 10 included studies evaluated an intervention group receiving the ADV programming and one control group (no intervention [n = 8] or wait-list [n = 2]; [15]). Five programs were conducted at high schools, three at middle schools, one at a teen pregnancy health center, and one at a child protective services organization. One study was included for preliminary data synthesis but was then excluded due to missing sample and effect size data [15]. The most common risks of bias for the included studies were lack of blinding (participant and/or staff; n =5) and incomplete data (n = 4), with incomplete data attributed to high study attrition rates and lack of blinding attributed to the setting requiring it (e.g., schools; [15]).

Overall, the meta-analysis indicated significant reductions for the intervention groups when compared with the control groups for emotional ($p < 0.001$), physical ($p < 0.05$), and sexual ADV perpetration ($p < 0.05$; [15]). No intervention effect was indicated for threatening perpetration nor for overall

ADV perpetration, which was measured as an overall continuous scale rather than individual ADV types. Russell et al. (2021) noted that the evidence grade, according to GRADEpro, was high for all perpetration outcomes, with little to no issues pertaining to the data (e.g., inconsistency, imprecision, risk of bias, study design, indirectness, or other sources of bias).

As for victimization, the meta-analysis indicated significant intervention effects for physical (p < 0.001) and emotional (p < 0.001) ADV [15]. No intervention effects were identified for sexual ADV, threatening, or overall ADV victimization. Again, Russell et al. (2021) indicated no major issues with the data, thus noting a high GRADEpro evidence grade. More information specific to the meta-analysis statistics and extracted data for the included studies can be found in Russell et al. (2021).

Discussion and Implications

To the authors' knowledge, Russell et al. (2021) was the first meta-analysis to identify ADV intervention effects on ADV perpetration and/or victimization focusing solely on randomized controlled trials, thus increasing the rigor of the study comparisons and evaluation. Additionally, previous meta-analyses typically only include one setting (e.g., school), and therefore fewer programs in the comparison, which Russell et al. also suggested could be the reason behind the lack of intervention effects (2021). Therefore, the Russell et al. (2021) study filled important gaps in the literature by providing a comprehensive synthesis of the most rigorous evaluations of ADV prevention programs, thus identifying potential programs and programmatic features that are effective in reducing the prevalence and/or severity of ADV.

As noted, the results of the Russell et al. (2021) study indicated significant intervention effects for emotional, physical, and sexual ADV perpetration, as well as physical and emotional ADV victimization. Of the included ADV prevention programs, Russell et al. (2021) noted that Teen Choices [17] had the most comprehensive effect on ADV, including physical and emotional ADV victimization as well as physical and emotional ADV perpetration. Among all included programs, Teen Choices incorporated a unique module related to staying safe in relationships [17], which Russell et al. (2021) suggests could have contributed to its effectiveness. The other programs that had intervention effects on ADV, though on fewer forms of ADV than Teen Choices, included It's Your Game… Keep It Real [18], Safe Dates [19], Building a Lasting Love [20] Fourth R [21], and the Youth Relationships Project [22].

Limitations

Several limitations were reported by Russell et al. (2021). The first limitation noted was the narrowed study scope by including only RCTs with a control group comparison, as well as excluding one study due to lack of data, which compared multiple interventions. Though these methodological choices may be seen as a limitation, they also improved the rigor of the study and uncovered intervention effects. Second, the authors [15] also noted the small number of studies included; however, this limitation is representative of the available literature and existing RCTs with ADV programs. Finally, Russell et al. (2021) did not include mediators or moderators of the intervention effects, nor did they include information regarding later follow-up timepoints for studies that had them, in order to maintain consistency across studies for the meta-analysis.

Implications

The results of Russell et al. (2021) have multiple implications, both for practice and research. Given the multiple intervention effects found by the meta-analysis on ADV perpetration and victimization, Russell et al. (2021) note the promise of ADV programming and suggest that existing and developing programs model these effective programs, such as including modules about staying safe in relationships and education on what a healthy relationship looks like. Additionally, given the effectiveness of programs implemented in schools, particularly with at least six sessions and at least a day between sessions, Russell et al. (2021) suggest that schools and policymakers consider adding ADV prevention programming to their curriculum. For future research, Russell et al. (2021) suggest that studies compare the key ingredients from the studies demonstrating intervention effects to identify the most impactful components with various populations. Furthermore, the authors recommend that future meta-analyses consider mechanisms and conditions affecting program effectiveness (e.g., other environmental factors; Russell et al., 2021). Finally, given that intervention effects were not found for composite ADV scores despite intervention effects being found on ADV sub-types in the same studies, Russell et al. (2021) recommend that studies measure ADV sub-types separately rather than only using a summed score.

Competing interests

The authors declare that they have no competing interests.

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