Cyber Dating Violence Prevention Programs in Universal Populations: A Systematic Review

Nuria Galende, Naiara Ozamiz-Etxebarria, Joana Jaureguizar, Iratxe Redondo

Department of Developmental and Educational Psychology, Faculty of Education of Bilbao, University of the Basque Country, Lejona, Spain

Abstract: Although the technological revolution of recent decades has produced undeniable advances, it has also generated problems derived from new forms of human communication, especially among the younger population. This is the case with cyber dating violence, a problem that affects between 12% and 56% of young couples, making the need for preventive intervention patently evident. This study attempts to fill a gap in the literature in this field, carrying out a systematic review of universal cyber dating violence prevention programs, analyzing their characteristics and the evidence provided of their effectiveness. Following the PRISMA method, only 3 programs met the inclusion criteria: the Darsi program, the Dat-e Adolescence program and the Brief Incremental Theory of Personality (ITP) adolescent dating violence prevention program. All were reported to be effective, based on different indicators. Given the small body of work published to date and the limitations of the aforementioned programs, future research should aim to design and validate a greater number of programs that serve as tools for addressing this problem in a timely manner, in order to avoid not only the serious consequences it has for victims, but also its escalation towards adulthood.

Keywords: cyber abuse, teenagers, youth, relationships, preventive interventions

Introduction

The technological revolution of recent decades has profoundly changed the way in which we communicate and interact in our society, especially for young people. Most of the adolescents use the Internet as a way for socializing and, as Romo-Tobón, Vázquez-Sánchez, Rojas-Solis and Alvidrez point out, virtual social networks have become essential tools for adolescents, who use them to form groups or initiate social relationships, maintain contact with their peers, experience love and partnership and even initiate romantic relationships.

Although the benefits of these technological advances are undeniable, the truth is that they also encourage the emergence of new forms of harassment, control and abuse, making individuals more accessible and vulnerable to personal intrusion, as well as to other types of violence, due to the connections between online and offline violence. One example of this is the context of dating, where so-called cyber violence can occur. Cyber dating violence has been defined as a set of repeated behaviors aimed at controlling, undermining, or causing harm to the partner or ex-partner, and includes behaviors such as frequently visiting his/her profile on social networks, sending insulting or threatening messages, spreading negative information about her/him, and stealing or misusing her/his passwords, etc.
This is a particularly worrying problem among teenage couples, not only because they are at a very vulnerable stage, but also because of the prevalence data reported by authors studying this phenomenon, who found that between 12% and 56% of teenagers who are or have been in a romantic relationship, claim to have suffered from this problem.15 More specifically, in a recent study with 919 Spanish adolescents (aged 12–18 years), “almost half of the adolescents (44.1%) indicated having occasionally displayed some cyber-control behavior toward their partners, and more than one tenth of them (11.7%) had done so more frequently”.16 However, prevalence data usually vary depending on if they refer to victimization or to perpetration. In this sense, in a relatively recent review including 12 studies, victimization rates ranging from 12% to 56% were observed in adolescents, and perpetration rates of between 12% and 54%.17 Furthermore, the percentages are nuanced when referring to specific types of cyber violence behaviors. Thus, in a study carried out by Borrajo et al18 in which direct aggressions were differentiated from control behaviors, it was found that 10.6% admitted having committed direct cyber-aggressions against their partner, and this percentage rose to 82% when referring to cyber-control behaviors. Similarly, the prevalence of victimization ranged from 14% to 75% depending on whether it referred to direct cyber-aggression or cyber-control. In any case, and even taking into account that data can differ depending on the type of cyber violence the focus is on, the truth is that it is a problem that needs attention, especially in adolescence.

Adolescence is usually the time when people begin to engage in romantic relationships,19 although it is true that on many occasions these beginnings are characterized by a misconception of what a healthy romantic relationship actually is. As Wolfe et al20 state, “…a considerable number of youths engage in acts with romantic partners that may be far from harmless and point to the need to provide guidance as adolescents navigate this important course”. (p. 280). Adolescents often have a biased perception of love, accepting or normalizing attitudes and behaviors that are, in fact, the first warning signs of the aforementioned problem. To give an example, they consider revealing their mobile phone or social network password to their partner to be proof of their love. These types of situation, which trigger alarm bells those involved are often not even aware of,21 demonstrate that this age group is especially vulnerable to the control and monitoring behaviors typical of cyber dating violence,22 since, far from considering them to be signs of an incipient problem, they interpret them as expressions of love and concern.23

All this may become consolidated and normalized, and may even provoke an escalation of violence on the path towards adulthood.24 Indeed, violence in adolescent couples is one of the strongest predictors of this same type of behavior in adulthood.25–27

Furthermore, this type of behavior during adolescence often has negative consequences for those involved, including psychological, social, academic and physical problems.28,29 Research has shown that cyber dating violence is associated with increased depression and anxiety for victims, greater uncertainty regarding relationships, more antisocial behaviors, higher levels of hostility and even higher perceived stress levels than that caused by traditional aggressions.30 Girls seem to feel differentially more upset when suffering this problem in their relationships.31 In the same line, a more recent study carried out with 604 Spanish adolescents, found positive correlations of cyber dating violence with depressive mood and cyber bullying victimization both in boys and girls, and with loneliness in girls.32

The need for early prevention is therefore evident30,33–36 and there is a broad consensus regarding the fact that said prevention should begin before adulthood.37–42 In this sense, numerous prevention programs have been developed over recent decades33–46 which can basically be divided into two types: specific and universal. The former focus on the specific needs of the at-risk population. These prevention programs may be effective (either instead of or in addition to universal ones) for young people who have experienced violence in the family and community and who perpetrate or experience abuse in their early relationships.20,47,48 Among them, the Expect Respect Program49 and the Youth Relationships Project20 can be mentioned. On the other hand, universal programs, of which the Fourth R Skills for Youth Relationships57 and the Safe Dates Project55 are perhaps the most rigorous, usually aim to educate the general adolescent population about healthy relationships.27,50–54

The prevention programs on dating violence are focused on working on aspects that have been identified as risk and protection factors within the "socio-ecological framework".56,57 Thus, among the risk factors for victimization and perpetration, four types of factors can be distinguished, namely, individual factors, peer influences, family characteristics and environmental factors. So far, most programs have focused on addressing individual
factors and peer influences, as they have mainly been conducted in the school context and as part of the curriculum for students. Nevertheless, in recent years, programs have begun to address family and environmental factors too.37

With regard to the specific contents they include, it seems clear that these are usually organized around three main and common content-blocks:56 (1) developing socio-emotional competencies (eg self-esteem, empathy, emotional intelligence), (2) working on gender stereotypes or sexist beliefs and attitudes (eg rigidity in the definitions of masculinity and femininity, gender inequality), and (3) addressing attitudes towards partner violence (eg beliefs that justify violence, types of abuse or roles in dating abuse).

All these contents may also be maintained as part of the cyber-dating prevention programs, although in the latter the “online form” of violence should specifically be addressed with particular modules and concrete activities, given that it involves certain distinct features (for example, it can happen constantly, it can be more difficult to escape from, humiliating information can spread very easily, and it can engender stronger feelings of helplessness and discomfort).15 Moreover, it is much more difficult for young people to identify it, because its signs are more subtle and they often do not interpret them as violence “per se”.

To date, some reviews and meta-analyses on teen dating violence programs have already been conducted. Fellmeth, Heffeman, Nurse, Habibula, and Sethi59 conducted a systematic review of educational skills-based interventions aimed to prevent the onset of and subsequent relationship violence among individuals between the ages of 12 and 25 years, and concluded that programs were effective in improving the knowledge of the participants. Another meta-analysis conducted by Edwards and Hinsz60 (2014), which included eight teen dating violence prevention programs implemented from Grades 8 through 12, found that participants had lower scores on dating violence outcomes after the intervention compared with control participants. Finally, De la Rue et al37 provided a quantitative synthesis of all the empirical evaluations of programs implemented in middle and high schools up to that point, and concluded that although programs were useful to improve knowledge, they did not affect behaviors to a significant extent.

Nevertheless, although reviews and meta-analyses of offline dating violence prevention programs exist, at the moment, there are no systematic reviews on cyber-dating violence prevention ones. Therefore, the present study aims to fill this gap, by presenting a systematic review on the topic, focused on those programs that are directed to universal populations, and analyzing both their characteristics and the evidence presented of their effectiveness.

**Materials and Methods**

**Type of Study**

We planned to review articles that included cyber dating violence prevention programs, specifically those focused on the universal population.

**Search Methods for Identifying Studies**

This review follows the PRISMA statement for reporting systematic reviews and meta-analyses.61 The PRISMA Statement consists of a checklist of 27 elements and a four-phase flowchart. The objective of the PRISMA Statement is to help authors improve the reporting of systematic reviews and meta-analyses.61 We used PubMed, PsycInfo, Cochrane, Scopus and Web of Science to identify relevant articles. The search was conducted in September 2020.

We imposed no limitations linked to language, date, document type or publication status when searching for studies.

To retrieve as many potentially eligible studies as possible, we used a sensitive specific search strategy: (((cyber dating) OR (digital dating)) AND (dating violence)) AND (prevention).

We complemented the electronic search by scanning references from included studies and conducting a snowball search for studies quoting key references on cyber dating violence prevention programs.33,62,63

**Data Collection**

To identify studies that met the eligibility criteria, the titles and abstracts of the retrieved articles were independently reviewed by three reviewers (J.J., N.G., I.R.). The full texts of all potentially eligible studies were then assessed by the same reviewers for inclusion in the review. Any disagreements about the eligibility of a particular study were resolved by discussion with a fourth reviewer (N.O.).

To be included, studies had to meet the following requirements: 1) they had to use a universal sample; 2) they had to include a prevention program; and 3) the prevention program must have as an explicit objective to reduce levels of cyber dating violence.

During our review we found many studies that included intervention programs, systematic reviews, meta-
analysis, empirical studies, test validation, clinical trials with no results or programs carried out in hospitals or with specific populations such as people who had suffered violence at home and which were not specifically targeted at the universal population.

We excluded all studies that did not specifically measure cyber dating violence prevention programs in universal populations.

Finally, we compiled a narrative synthesis of the findings reported by the studies included in the review.

Results

Figure 1 summarizes the PRISMA literature review procedure.

Out of 163 unique identified records, we retrieved 78 references after deduplication, of which 70 were considered irrelevant. Reasons for exclusion were: 1) intervention programs (3 references); 2) systematic reviews (15 references); 3) meta-analyses (1 reference); 4) empirical studies (45 references); 5) test validations (1 reference) and 6) clinical trials with no results (5 references).

We assessed eight full-text articles for eligibility. Of these, four were excluded because they were not conducted with a universal population. One of the excluded studies included a sample of adolescents with previous exposure to physical dating violence.64 and another was excluded because the sample comprised patients in a pediatric emergency department or ambulatory care services.65 Finally, two studies were excluded because they were about a dating abuse prevention program for teens exposed to domestic violence.66,67

Overview of Included Studies

The four studies included presented the effectiveness results of three programs. The three prevention programs that matched the established search criteria (DARSI program, Date-e Adolescence program and a Brief Incremental Theory of Personality (ITP) intervention) are described below:

Developing Healthy and Egalitarian Adolescent Relationships - DARSI.62 This universal program is designed to prevent peer and teen dating violence among secondary school students (aged 12 to 16 years), by raising their awareness of the consequences of violence, enhancing their critical thinking regarding sexist attitudes and the myths of romantic love, strengthening their personal and social resources and favoring the development of healthy and more egalitarian relationships with peers and first romantic partners. The program comprised 12 one-hour sessions and was carried out by the researchers, although the authors also recommend training teachers to apply it in their classrooms and evaluate its effectiveness. The methodology combines role-playing, paper and pencil activities, case studies and guided discussion, using audio-visual materials, songs, drawings and stories about adolescents. As shown in Table 1, results about the efficacy of the program showed that the participating adolescents reported a decrease in frequency of peer aggressive behaviors (overt aggression, relational aggression, and cyber-aggression), in sexist attitudes (hostile and benevolent) and in beliefs in romantic myths, after the program implementation. Nevertheless, the lowest effect size was found for the cyber-aggression ($\eta^2 = 0.093$).

Date-e Adolescence.63 A school-based, universal, multi-component prevention program for adolescents aged 11 to 19 years. This program is based on the Dynamic Developmental Systems Model,65 which considers violence not as an individual process but as the product of interaction within different systems, where the developmental
Table 1 Results of the Efficacy Evaluations of Prevention Programs Designed to Prevent Cyber Dating Violence

| Name of the Program | Sample n (Sex and Age) | Measures                                                                 | Outcome                                                                 | Assignment (Control Group) | Limitations                                                                 |
|---------------------|------------------------|--------------------------------------------------------------------------|------------------------------------------------------------------------|-----------------------------|-----------------------------------------------------------------------------|
| DARS, Developing    | 191 adolescents (88 boys, 103 girls), aged 12 to 17 years (M=14.13, SD=.305) from two schools (one public and another semiprivate) in Spain. | - Scale of Cyber-aggressions among peers -CybAG-R.72 <br> - Ambivalent Sexism Inventory for adolescents (ISA-A.34 adaptation).<br> - Adaptation of the Romantic Love Myth Scale.76 <br> - School Aggression Scale.77 | Mean scores for variables indicating overt aggression (relational aggression, and cyber aggression), sexist attitudes and beliefs in romantic love were significantly lower among participants in the EG than among those in the CG. Effect sizes (r2) between 0.228 (for hostile sexism) to 0.093 (for cyber-aggression). | Quasi-experimental design with repeated measures (pretest and posttest). Converse sampling. No randomized controlled trials (RCT). | No follow-up measurement (just pretest and following implementation). Small sample, small number of schools, which precludes the gender perspective being taken into consideration during the analysis of the program’s effectiveness. Only self-reports were used. Observational techniques, instruments completed by teachers and in-depth interviews or focus-groups should also be used. |
| Dat-e Adolescence   | 1764 adolescents (918 boys and, 846 girls), aged 11 to 19 years (M=14.73, SD=.34) from seven schools in Spain, of a medium economic, social and cultural level and public or partially funded by the Regional Government. | - Dating Questionnaire,78 <br> - Conflict Tactics Scale- CTS2.79 <br> - Psychological Dating Abuse Scale.51 <br> - Cyber Dating Abuse survey.80 <br> - An adapted version of the Myths of Romantic Love Scale.81 <br> - Network of Relationships Inventory: Behavioral Systems Version.82 <br> - Triangular Love Scale.83 <br> - Cyberdating Q-A.84 <br> - Emotional Quotient Inventory: Youth Version.85 <br> - Rosenberg Self-Esteem Scale.86 | No significant effects were found for physical, psychological and online aggression and victimization. No positive outcomes were found for couple quality. Significant changes were observed in beliefs towards violence, specifically regarding myths about romantic love (Cohen’s d from -0.56 to -0.94); along with enhanced self-esteem (d=0.15); and emotion regulation (d=-0.19). | RCT design with two waves (pretest and posttest) and two groups (an experimental group and a control group). | No completely randomized trials: although the schools were randomly assigned to the control and experimental groups, it was the school staff who decided which classes would take part. Experimental mortality of approximately 25%. Intervention fidelity was assessed only by the implementing researcher. |
| Dat-e Adolescence   | 1423 adolescents (734 boys and 689 girls), aged 11 to 19 years (M=14.98, SD=1.39), from seven schools in Spain, of a medium economic, social and cultural level | - Dating Questionnaire,78 <br> - Conflict Tactics Scale- CTS2.79 <br> - Adapted version of the sexual dating violence measure proposed by Foshee et al.87 <br> - European Bullying Intervention Project Questionnaire (EBIP-Q).81,88 | The results revealed significant (small to medium) victimization and perpetration effects at follow-up: d=0.21 for severe physical dating victimization; d=0.25 for severe physical dating aggression; d=0.24 for sexual dating victimization; d=0.38 for sexual dating aggression; and d=0.98 for bullying victimization. No significant differences were found between groups in moderate physical dating aggression and victimization.60 | RCT design with three waves (pretest, post-test and follow-up at six months) and two groups (an experimental group and a control group). | No specific instrument was used to measure cyber dating violence. Self-report measures were used, which may be subject to social desirability bias. Results are not representative of very low-risk or very high-risk schools. No assessment of the differential effect of the program on boys and girls. |

(Continued)
Table 1 (Continued).

| Name of the Program | Sample n (Sex and Age) | Measures | Outcome | Assignment (Control Group) | Limitations |
|---------------------|------------------------|----------|---------|-----------------------------|-------------|
| Brief Incremental Theory of Personality (ITP) adolescent dating violence prevention program – | 123 adolescents (57 boys and 66 girls), aged 13 to 17 (M= 15.20, SD= 0.99), from four schools in the Basque Country (Spain). 11.1% low, 23.2% low-medium, 12.1% medium, 32.3% high-medium, and 21.2% high socioeconomic class. | - Ad hoc scale which covers different types of traditional (physical, psychological, and sexual) and online aggressions. The scale was based on previous validated scales for the assessment of different types of dating violence: the Conflict in Adolescent Dating Relationships Inventory (CADRI)[58], the Psychological Abuse in Partner Relationships Inventory, the Subtle and Overt Psychological Abuse of Women Scale – SOPAS[59] and the Cyber Dating Abuse Questionnaire.[11] | No effect of the ITP intervention on victimization. Perpetration of aggressive dating behaviors toward the dating partner (both traditional and cyber aggressions) decreased from baseline to the 6-month follow-up, the effect sizes (Cohen’s d) were 0.37 [-0.15, 0.89] and 0.27 [-0.25, 0.80], respectively; and from baseline to the 1-year follow-up, the effect sizes were 0.74 [0.18, 1.31] and 0.54 [-0.02, 1.10], respectively. No moderator effect of participants’ sex on the effect of the intervention was found. | Double-blinded RCT with four waves (pretest, post-test, 6 month follow-up and 1-year follow-up) and two parallel groups (experimental vs control). | Small sample size. Only self-reports were used. Experimental mortality of 22.77% at the 6-month follow-up and 35.77% at the 1-year follow-up. |

Abbreviations: EG, experimental group; CG, control group.

characteristics of both partners converge in a specific context or situation that would lead to conflict escalating into violence. Thus, the authors defend that dating violence is mainly mutual or reciprocal, and that peers play a relevant function, so it is necessary to take them into account.

The aims of the program are: (a) to raise awareness regarding concepts of love, myths about romantic love, and healthy behaviors in relationships; (b) to improve the recognition, expression, and regulation of emotions; (c) to enhance self-esteem; (d) to improve communication skills; (e) to raise awareness and promote coping and conflict-resolution strategies when aggression (both traditional and online forms of violence) occurs; and (f) to raise awareness of the influence of the peer group and bystanders in dating violence. The program is designed to reduce physical, psychological and online aggression and victimization.

It comprises seven one-hour long sessions carried out during school hours. The program is composed of a teacher sensitization module, a student curricular based module composed of seven lessons (1 hour per week), and a peer-led program. The program was implemented by the researchers (five sessions) and by previously trained peers (last two sessions). It combines classroom and web-based activities, the latter delivered over the program’s online platform. Activities include role-playing, watching videos, debates, decision-making games, displays and group dynamic exercises. The last activity is organized by the participating schools and covers the main contents and lessons learned during the intervention.

So far, two studies have explored the reliability of this program, as shown in Table 1. The first one[63] measured a wide range of variables related to dating violence (traditional and online) but did not include a follow-up measure. The second reliability study[69] included a reduced instrument-battery (in fact, no online dating violence instrument was administered) but added a follow-up measure. Results showed differences between post-test and follow-up results (lower aggression at follow-up), and authors emphasized the importance of measuring results at least 6 months after the interventions, because behavior modification requires time. It remains to be confirmed whether the program effectively reduces the levels of cyber-dating in the follow-up, since although the program includes the prevention of this type of violence as an objective, it has not been possible to evaluate whether there are changes in the follow-up in terms of cyber-dating violence.

With regard to generalizing the results, the studies have been carried out in high schools with a medium economic, social and cultural level, and the authors explain that the results are generalizable to a population bearing similar characteristics.[69]
Brief Incremental Theory of Personality (ITP) adolescent dating violence prevention program. Based on the experimental intervention by Yeager et al, this kind of intervention aims to replace entity theories of personality (ie, the belief that personal characteristics cannot be changed) with an incremental theory of personality (ie, the belief that people do have the potential to change). The intervention was administered by research assistants and comprises a single session lasting 50–60 minutes, divided into three main parts: (a) participants read neurological and behavioral studies that provide evidence that individuals have the potential to change. They are then asked to write two or three sentences explaining, in their own words, why scientific evidence shows that people have the potential to change; (b) participants read some normative quotes allegedly written by older children at their school who had previously read the same scientific information and endorsed the conclusions drawn; (c) participants are asked to describe a situation in which they felt withdrawn, rejected, or disappointed by another person at school. They are then asked whether they think any other classmates are feeling likewise due to the same situation, and are asked to write one to three paragraphs about what they would say to this person to help them understand that people and situations can be changed. Taking into account the previous positive results of ITP-based interventions in reducing externalizing problems in adolescents, this program aimed to prevent perpetration and victimization of dating aggressive behaviors (both online – cyberdating abuse – and traditional – face-to-face dating aggression) in adolescents.

The belief in the potential to change may modify how adolescents relate to their dating partners. For example, if adolescents interpret the dating partners’ behavior as a result of situational factors (for instance, having problems at school) her or his feelings of anger may be reduced, reducing perpetration of dating violence.

Table 1 summarizes the results of the validation studies of the three programs.

Discussion
Cyber dating violence is a highly prevalent phenomenon among adolescents and young people that needs to be addressed due to the significant adverse effects observed and the potential for these behaviors to continue into adult dating relationships. However, although the relevance of early prevention has been pointed out in different studies, prevention actions have mainly targeted “offline” rather than cyber dating violence. This same trend is repeated in relation to meta-analytic and review studies. Indeed, to date, no studies of this kind have focused on this specific issue.

The present review constitutes a first attempt to describe and analyze the effectiveness of universal cyber dating violence prevention programs.

One of the main findings of this review was the paucity of cyber dating violence prevention programs targeted at young and adolescent couples. We found only three programs (four articles) that met our search criteria.

The three programs described give great prominence in their interventions to the cognitive and/or attitudinal component of behavior. DARSI and Date-e programs include also a skill-building component to promote the behavioral change, in line with the results of previous studies.

As for the theoretical basis of the program, the Date-e and the Brief ITP program do include a theoretical explanation on which they base their intervention, but DARSI does not. It is important that the programs include a theoretical justification of their proposal, since it gives more meaning to the content of the program. Thus, based on the Dynamic Developmental Systems Model, the authors of the Date-e program suggest the need to undertake future analyses on the possible mediating effects of the variables they have studied on dating violence. Similarly, the Brief ITP program defends theoretically that the adolescents’ belief in the potential to change may modify how they relate to their dating partner.

All three had been validated and the results regarding their efficacy clearly outlined in respected scientific journals. Two of the programs (Date-e Adolescence and the Brief ITP program) used RCT designs. The limitations found during the validation process include small or barely representative sample sizes, exclusive use of self-reports in the evaluation, sample mortality, lack of follow-up evaluation and no differentiation by sex.

Regarding effectiveness, as with programs focusing exclusively on offline violence, it appears that the goal of changing beliefs and attitudes was achieved in the case of cyber violence prevention programs. Thus, it is important for cyber violence prevention programs to include activities that aim to modify potentially dangerous attitudes, such as those related to the myths of romantic love, sexist attitudes, self-esteem and cognitions linked to beliefs about the possibility of changing people and situations, etc.

The programs’ effectiveness in changing violent cyber dating behaviors is less clear. One of the key aspects to be
taken into account is the importance of carrying out evaluations beyond the post-test moment (i.e., follow-up evaluations). As observed in the e-Date Adolescence program, although no significant results were found for aggressive behaviors at post-test, this changed when a design with three waves was used. The same effect is also evident in the results reported by Fernandez-Gonzalez et al. (2020).33 De la Rue Joshua, Polanin, Espelage & Pigott (2014)44 stress the importance of time lapsed in behavior modification: changes in behaviors require time and the development of socio-emotional skills for coping with conflicts within the couple. It may be that students simply do not have the opportunity to put what they have learned into practice in the short time that elapses between the completion of the programs and the post-test evaluation. Thus, follow-up measurements are clearly advisable.

Moreover, with the aim of encouraging changes in behavior, programs should include skill-building components such as emotion regulation, communication skills, and coping and conflict-resolution strategies.69 Nevertheless, although the effectiveness of these programs is evident, it should be noted that none of them seem to address cyber-violence in a specific way and with concrete activities. In this sense, it should be advisable that these programs not only help participants recognizing the signs and expressions of this type of violence, but also provide ways to protect against it, for example, by teaching adolescents and young people how to navigate safely, raising their awareness about the importance of not sharing certain private information on the Internet, and/or explaining how to select and use passwords appropriately, etc.92 In fact, these are common to other programs that prevent online violence, even if not in the context of dating.93

In terms of program duration, the three programs analyzed varied in length from one (Brief ITP program), to seven (Dat-e Adolescence) to 12 sessions (DARSI). Although the single-session program was successful, it is clearly much more limited in terms of the objectives it sets. The duration of the other two programs is very similar to that of dating violence prevention programs, and is also in line with what some authors claim is the format that delivers the best results (10–12 sessions).94

As for the implementation of the programs, the three programs were implemented by researchers, but it would be advisable to train school-staff to apply the programs in their classrooms and to test the program’s efficacy under more natural implementation conditions.

The advantages of universal prevention programs are important, such as being able to reach a greater number of subjects and focus on the problem before it appears, but it is not without drawbacks. When considering universal programs to prevent violent behavior, the “floor effect” may occur, because this effect could attenuate the detection of intervention effects of universal programs, as reported in other studies about school violence.95 The low baseline exposure to dating violence in the scholar population makes it more difficult to find differences related to the implementation of the program. Future studies should also test the program efficacy on participants with higher levels of exposure to violence, or high-risk populations.63 Moreover, we might think that the earlier the intervention, the better we can prevent the problem behavior, but analyzing the effectiveness of interventions on early adolescents have to deal with the difficulty that a number of adolescents have not begun dating relationships, which is an obstacle to obtain large samples.33

In sum, in light of the above, future studies should aim to recruit larger validation samples, analyze sex-related differences in results and try to replicate the findings in samples from other countries. Moreover, in order to improve the evaluation of the programs’ effectiveness, self-reports should be complemented by observational measures, qualitative information and/or instruments completed by teachers.92 The specific effects of the programs at a behavioral level should also be closely examined, as they are often focused on changes in attitudes or on topic-relevant knowledge gain,96 but this alone is not sufficient to guarantee changes in actual behavior.97 Finally, given the importance and scope of the phenomenon, it is vital to develop a greater number of specific prevention programs, or to validate some existing proposals98 which, despite being of great interest, have not yet been evaluated.

One of the strengths of this revision is the use of the PRISMA method, which provides good scientific evidence and has been supported by numerous high impact biomedical journals and prestigious institutions (eg Cochrane Collaboration).

With respect to limitations of this review is the small number of studies included, which limits the applicability and generalizability of the review’s conclusions. Given this limitation, we were unable to compare and draw conclusions about specific components of the programs, such as age sub-groups possible differential effectiveness or the
efficacy of the concrete contents included in each intervention.

Nevertheless, this work has shown that there is a scarcity of studies on cyber-dating violence prevention programs in universal populations and opens a field of research for the creation of new programs.

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References
1. Reed LA, Tolman RM, Ward LM. Snooping and sexting: digital media as a context for dating aggression and abuse among college students. Violence Against Women. 2016;22(13):1556–1576. doi:10.1177/1077801216630143
2. Del Prete A, Redon S. Las redes sociales virtuales: espacios de socialización y definición de identidad. Psicoperspectivas. Individuo y Sociedad. 2020;19(1):86–96. doi:10.5027/psicoperspectivas-Vol19-Issue1-fulltext-1834
3. Romo-Tobón RJ, Vázquez-Sánchez V, Rojas-Solís JL, Alvidrez S. Cyberbullying and cyberviolence of pareja in alumnado de una universidad privada mexicana. Propós. Represent. 2020;8(2):303.
4. Martínez-Ferrer B, Ruiz DM. Dependencia de las redes sociales virtuales y violencia escolar en adolescentes. Int J Dev Ed Psychol. 2017;2(1):105–114.
5. Espinar E, González MJ. Jóvenes en las redes sociales virtuales: un análisis exploratorio de las diferencias de género. Feminismo/s. 2009;14:87–106.
6. Rodríguez T, Rodríguez Z. El amor y las nuevas tecnologías: experiencias de comunicación y conflicto. Comun Soc. 2016;25:15–41.
7. Lykens J, Pilloton M, Silva C, Schlamm E, Wilburn K, Pence E. Google for sexual relationships: mixed-methods study on digital flirting and online dating among adolescent youth and young adults. JMIHR Public Health Surveill. 2019;5(2):e10695.
8. Zweig JM, Dank M, Yahner J, Lachman P. The rate of cyber dating abuse among teens and how it relates to other forms of teen dating violence. J Youth Adolesc. 2013;42(7):1063–1077.
9. Burke SC, Wallen M, Vail-Smith K, Knox D. Using technology to control intimate partners: an exploratory study of college undergraduates. Comput Hum Behav. 2011;27(3):1162–1167.
10. Ojukwu TT, Boommongkon P, Sarangkheeoram R, Samoh N, Cholratanan M, Guadamuz TE. Connections between online harassment and offline violence among youth in Central Thailand. Child Abuse Negl. 2015;44:159–169. doi:10.1016/j.chiabu.2015.04.001
11. Borrajo E, Gámez-Guadix M, Calvet e. Cyber dating abuse: prevalence, context, and relationship with offline dating aggression. Psychological Reports. 2015;116(2):565–585. doi:10.2466/21.16.PR0.116222w4
12. Lyndon A, Bonds-Raacke J, Cratty AD. College Students’ Facebook Stalking of Ex-Partners. Cyberpsychology, Behavior, and Social Networking. 2011;14(12):711–716. doi:10.1089/cyb.2010.0588
13. Darvell MJ, Walsh SP, White KM. Facebook tells me so: applying the theory of planned behavior to understand partner-monitoring behavior on Facebook. Cyberpsychology, Behavior, and Social Networking. 2011;14(12):717–722. doi:10.1089/cyb.2011.0055
14. Borrajo E, Gamez-Guadix M. Cyber dating abuse: its link to depression, anxiety and dyadic adjustment. Psicol Conduct. 2016;24(2):221–235.
15. Cava M, Buela s, Carrascosa L, Ortega-Barón J. Relations among romantic myths, offline dating violence victimization and cyber dating violence victimization in adolescents. J Environ Res Public Health. 2020;17(5):1551. doi:10.3390/jerph17051551
16. Cava M-J, Martinez-Ferrer B, Buela s, Carrascosa L. Sexist attitudes, romantic myths, and offline dating violence as predictors of cyber dating violence perpetration in adolescents. Comput Human Behav. 2020;111:106449. doi:10.1016/j.chb.2020.106449
17. Stonard KE, Bowen E, Walker K, Price SA. (2017). “They’ll always find a way to get to you”: technology use in adolescent romantic relationships and its role in dating violence and abuse. Journal of Interpersonal Violence. 2017;32(14):2083–2117. doi:10.1177/0886260515590787
18. Borrajo E, Gámez-Guadix M, Pereda N, Calvet e. The development and validation of the cyber dating abuse questionnaire among young couples. Comput Human Behav. 2015;48:358–365. doi:10.1016/j.chb.2015.01.063
19. Connolly J, Furman W, Konarski R. The role of peers in the emergence of heterosexual romantic relationships in adolescence. Child Development. 2000;71(3):1395–1408. doi:10.1111/1467-8624.00235
20. Wolfe DA, Wekerle C, Scott K, Straatman A, Grasley C, Reitzel-Jaffe D. Dating violence prevention with at-risk youth: a controlled outcome evaluation.. J Consult Clin Psychol. 2003;71(2):279–291. doi:10.1037/0022-006X.71.2.279
21. Lozano G, Zavala J, Solis B. Violencia en el noviazgo: una realidad en las adolescentes. Revista de investigación en la salud mental. 2015;3(1):14–25.
22. Van Ouytsel S, Walrave M, Ponnet K, Temple JR. Digital forms of dating violence: what school nurses need to know. NASN School Nurse. 2016;31(6):348–353. doi:10.1177/1942602X16659907
23. Hernando A. La prevención de la violencia de género en adolescentes: una experiencia en el ámbito educativo. Apunt Psicol. 2007;25(3):325–340.
24. Cornelius TL, Ressegue N. Primary and secondary prevention programs for dating violence: A review of the literature. Aggression and Violent Behavior. 2007;12(3):364–375. doi:10.1016/j.avb.2006.09.006
25. Ramiro-Sánchez T, Ramiro MT, Bermúdez MP, Buela-Casal G. Sexism in adolescent relationships: A systematic review. Psychosocial Intervention. 2018;27(3):123–132. doi:10.5093/pi2018a19
26. Sunday S, Kline M, Labruna V, Pelcovitz D, Salzinger S, Kaplan S. The role of adolescent physical abuse in adult intimate partner violence. Journal of Interpersonal Violence. 2011;26(18):3773–3789. doi:10.1177/0886260511403760
27. Wolfe DA, Crooks C, Jaffe P, et al. A school-based program to prevent adolescent dating violence: A cluster randomized trial. Arch Pediatr Adolesc Med. 2009;163(8):692–699. doi:10.1001/archpediatrics.2009.69
28. Chiodo D, Crooks CV, Wolfe DA, McIsaac C, Hughes R, Jaffe PG. Longitudinal prediction and concurrent functioning of adolescent girls demonstrating various profiles of dating violence and victimization. Prev Sci. 2012;13(4):350–359. doi:10.1007/s11121-011-0236-3
29. O’Leary KD, Slep AMS, Avery-Leef S, Cascardi M. Gender differences in dating aggression among multietnic high school students. J Adolesc Health. 2008;42(5):473–479. doi:10.1016/j.jadohealth.2007.09.012
30. Hinduja S, Patchin J Electronic dating violence: A brief guide for educators and parents. Cyberbullying Research Center; 2011. Available from: https://cyberbullying.org/electronic_dating_violence_fact_sheet.pdf. Accessed October 06, 2020.
31. Reed L, Tolman R, Ward L. Gender matters: experiences and consequences of digital dating abuse victimization in adolescent dating relationships. Journal of Adolescence. 2017;59:79–98. doi:10.1016/j.adolescence.2017.05.015

32. Cava MJ, Tomás I, Buelga S, Carrascos CG. Loneliness, Depressive Mood and Cyberbullying Victimization in Adolescent Victims of Cyber Dating Violence. Int J Environ Res Public Health. 2015;44(12):4269. doi:10.3390/ijerph17122469

33. Fernández-González L, Calvete E, Sánchez-Alvarez N. Efficacy of a brief intervention based on an incremental theory of personality in the prevention of adolescent dating violence: A randomized controlled trial. Psychosocial Intervention. 2011;14(12):9–18. doi:10.5937/pst2011r14

34. Leen E, Sorbring E, Mawer M, Holdsworth E, Helsing B, Bowen E. Prevalence, dynamic risk factors and the efficacy of primary interventions for adolescent dating violence: an international review. Aggress Violent Behav. 2013;18(1):159–174. doi:10.1016/j.avb.2012.11.015

35. Muñoz B, Ortega-Rivera FJ. Jiménez vs. the DaViPoP: a programa de prevención de violencia en el cortejo y las parejas adolescentes. A punt Psicol. 2013;31(2):215–224.

36. O’Leary KD, Slep AMS. Prevention of partner violence by focusing on behaviors of both young males and females. Prev Sci. 2012;13(4):329–339.

37. Alonso Varea JM, Castellanos Delgado JL. Por un enfoque integral de la violencia familiar. Interven Psicosocial. 2006;15(3):253–274.

38. Fernández M, Aytllón R. Machismo no es destino. Manual de Prevención de Violencia Contra las Mujeres Para Niños y Niñas de Primaria. México; GENDES, AC; 2014.

39. Gorrotxategi M, de Haro IM. Materiales didácticos para la prevención de la violencia de género. Unidad didáctica para educación secundaria. Málaga: Consejería de Educación y Ciencia. Junta de Andalucía; 1999.

40. Mulford CF, Blachman-Demner DR. Teen dating violence: building a research program through collaborative insights. Violence Against Women. 2013;19(6):756–770.

41. Segato R. Las estructuras elementales de la violencia. Bernal: Universidad Nacional de Quilmes; 2003.

42. Valle JE. Educar para prevenir la violencia de género desde las aulas: el caso de los centros de educación infantil y primaria (CEIPS) gallegos. Innov Educ. 2015;25:327–342.

43. Calvillo RN Latino teens at risk: the effectiveness of dating violence prevention programs. (Master’s thesis). Claremont McKenna College, Claremont, CA; 2010. Available from: https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.667.5656&rep=rep1&type=pdf. Accessed October 06, 2020.

44. De La Rue L, Polaní JR, Espelage DL, Pigott TD. School-based interventions to reduce dating and sexual violence: A systematic review. Campbell Syst Rev. 2014;10(1):110.

45. De La Rue L, Polaní JR, Espelage DL, Pigott TD. A meta-analysis of school-based interventions aimed to prevent or reduce violence in teen dating relationships. Rev Educ Res. 2017;87(1):7–34.

46. Whitaker DJ, Morrison S, Lindquist C, et al. A critical review of interventions for the primary prevention of perpetration of partner violence. Agress Violent Behav. 2006;11(2):151–166.

47. Pepler DJ, Craig WM, Connolly JA, Yuile A, McMaster L, Jiang D. A developmental perspective on bullying. Agress Behav. Official J Int Soc Res Aggr. 2006;32(4):376–384.

48. Williams TS, Connolly J, Pepler D, Craig W, Laporte L. Risk models of dating aggression across different adolescent relationships: A developmental psychopathology approach. J Consult Clin Psychol. 2008;76(4):622–632.

49. Ball B, Kerig PK, Rosenbluth B. Like a family but better because you can actually trust each other. Health Promot Pract. 2009;10(Suppl 1): S45–S58.

50. Avery-Leaf S, Cascardi M, O’leary KD, Cano A. Efficacy of a dating violence prevention program on attitudes justifying aggression. J Adolesc Health. 1997;21(1):11–17.

51. Foshee VA. Gender differences in adolescent dating abuse prevalence, types and injuries. Health Educ Res. 1996;11(3):275–286.

52. Foshee VA, Bauman KE, Arriaga XB, Helms RW, Koch GG, Linder GF. An evaluation of safe dates, an adolescent dating violence prevention program. Am J Public Health. 1998;88(1):45–50.

53. Jaffe PG, Sudermann R, Reitzel D, Killip SM. An evaluation of a secondary school primary prevention program on violence in intimate relationships. Violence Vict. 1992;7(2):129–146.

54. Schewe PA. Interventions across the life span. In: Schewe PA, editor. Guidelines for Developing Rape Prevention and Risk Reduction Interventions. Preventing Violence in Relationships. American Psychological Association; 2002:107–136.

55. Foshee VA, Bauman KE, Ennett ST, Suchindran C, Benefield T, Linder GF. Assessing the effects of the dating violence prevention program “Safe dates” using random coefficient regression modeling. Prev Sci. 2005;6(3):245–258.

56. Espelage DL, Low SM. Prevention of bullying, dating violence, and sexual violence among children and adolescents. In: Vera EM, editor. Oxford Handbook of Prevention in Counseling Psychology. New York: Oxford University Press; 2013:163–183.

57. Foshee VA, Matthew RA. Adolescent dating abuse perpetration: A review of findings, methodological limitations, and suggestions for future research. In: Flannery DJ, Vazsonyi AT, Waldman ID, editors. The Cambridge Handbook of Violent Behavior and Aggression. New York: Cambridge University Press; 2007:431–449.

58. Gafón AM, Carcedo RJ. Efficacy of a prevention program for gender-based intimate partner violence at a Colombian Primary School. Front Psychol. 2020;10:3012.

59. Fellmuth GLT, Heffernan C, Nurse J, Habibula S, Sethi D. Educational and skills-based interventions for preventing relationship and dating violence in adolescents and young adults. In: Cochrane Database of Systematic Reviews. 2013:6.

60. Edwards SR, Hinsz VB. A meta-analysis of empirically tested school-based dating violence prevention programs. SAGE Open. 2014;4(2):1–7.

61. Moher D, Liberati A, Tetzlaff J, Altman DG. Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. PLoS Med. 2009;6(7):e1000097.

62. Carrascos L, Cava Caballero MJ, Buelga Vásquez S, Jesús S. Reduction of sexist attitudes, romantic myths, and aggressive behaviors in adolescents: efficacy of the DARSII program. Psicothema. 2019;31(2):121–127.

63. Sánchez-Jiménez V, Muñoz-Fernández N, Ortega-Rivera J. Efficacy evaluation of “dat-e adolescence”: A dating violence prevention program in Spain. PLoS One. 2018;13(10):e0205802.

64. Rizzo CJ, Joppa M, Parker D, Collibee C, Zlotnick C, Brown LK. Project date SMART: A dating violence (DV) and sexual risk prevention program for adolescent girls with prior DV exposure. Prev Sci. 2018;19(4):416–426.

65. Rothman EF, Stuart GL, Heeren T, Paruk J, Bair-Merritt M. The effects of a health Care-Based brief intervention on dating abuse perpetration: results of a randomized controlled trial. Prev Sci. 2020;21(3):366–376.

66. Foshee VA, Benefield T, Dixon KS, et al. The effects of moms and teens for safe dates: A dating abuse prevention program for adolescents exposed to domestic violence. J Youth Adolesc. 2015;44(5):995–1010.

67. Foshee VA, Benefield T, Chen MS, et al. The effects of the moms and teens for safe dates program on dating abuse: A conditional process analysis. Prev Sci. 2016;17(3):357–366.

68. Capaldi D, Kim H. Typological Approaches to Violence in Couples: A Critique and Alternative Conceptual Approach. Clin Psychol Rev. 2007;27(3):253–265.
69. Muñoz-Fernández N, Ortega-Rivera J, Nocentini A, Menesini E, Sánchez-Jiménez V. The efficacy of the “dat-e adolescence” prevention program in the reduction of dating violence and bullying. Int J Environ Res Public Health. 2019;16(3):408.

70. Yeager DS, Trzesniewski KH, Dweck CS. An implicit theories of personality intervention reduces adolescent aggression in response to victimization and exclusion. Child Dev. 2013;84(3):970–988.

71. Yeager DS, Johnson R, Spitzer BJ, Trzesniewski KH, Powers J, Dweck CS. The far-reaching effects of believing people can change: implicit theories of personality shape stress, health, and achievement during adolescence. J Pers Soc Psychol. 2014;106(6):867.

72. Yeager DS, Trzesniewski KH, Tirri K, Nokelainen P, Dweck CS. Adolescents’ implicit theories predict desire for vengeance after peer conflicts: correlational and experimental evidence. Dev Psychol. 2011;47(4):1090.

73. Buega S, Ortega-Barón J, Torralba E. Psychometric Properties of the Revised Cyberbullying Scales: CybVic R, CybAG R. Poster Presented At: International Congress of the Spanish Scientific Society of Social Psychology. Elche, España. 2016.

74. Glick P, Fiske ST. The ambivalent sexism inventory: differentiating hostile and benevolent sexism. J Pers Soc Psychol. 1996;70(3):491–512.

75. Lemus S, Castillo M, Moya M, Padilla JL, Ryan E. Elaboración y validación del inventario de sexismo ambivalente para adolescentes. Int J Clin Health Psychol. 2008;8(2):537–562.

76. Rodríguez-Castro Y, Lameiras-Fernández M, Carrera-Fernández M, Vallejo-Medina P. La fiabilidad y validación de la escala de mitos hacia el amor: las creencias de los y las adolescentes. Rev Psicol Soc. 2013;28(2):157–168.

77. Little TD, Henrich CC, Jones SM, Hawley PH. Disentangling the “whys” from the “whats” of aggressive behaviour. Int J Behav Dev. 2003;27(2):122–133.

78. Connolly J, Craig W, Goldberg A, Pepler D. Mixed-gender groups, dating, and romantic relationships in early adolescence. J Res Adolesc. 2004;14(2):185–207.

79. Straus MA. Measuring intrafamily conflict and violence: the conflict tactics (CT) scales. J Marriage Fam. 1979;41(1):75–88.

80. Zweig JM, Lachman P, Yahner J, Dank M. Correlates of cyber dating abuse among teens. J Youth Adolesc. 2014;43(8):1306–1321.

81. Ferrer VA, Bosch E, Navarro C. Los mitos románticos en españa. Bol Psicol. 2010;99:7–31.

82. Furman W, Buhrmester D. Methods and measures: the network of relationships inventory: behavioral systems version. Int J Behav Dev. 2009;33(5):470–478.

83. Overbeck G, Ha T, Scholte R, de Kemp R, Engels RC. Brief report: intimacy, passion, and commitment in romantic relationships—Validation of a ‘triangular love scale’ for adolescents. J Adolesc. 2007;30(3):523–528.

84. Sánchez V, Muñoz-Fernández N, Ortega-Ruiz R. “Cyberdating Q_A”: an instrument to assess the quality of adolescent dating relationships in social networks. Comput Hum Behav. 2015;48:78–86.

85. Bar-On R, Parker J. The bar-on EQ-I: YV: Technical Manual. Toronto: Multi-Health Systems; 2000.

86. Rosenberg M. Society and the Adolescent Self-Image. Princeton university press; 2015.

87. Fishbein VA, Benefield TS, Ennett ST, Baume KA, Suchindran C. Longitudinal predictors of serious physical and sexual dating violence victimization during adolescence. Prev Med. 2004;39(5):1007–1016.

88. Ortega-Ruiz R, Del Rey R, Casas JA. Evaluating the bullying and the cyberbullying validation española del EBIP-Q y del ECIP-Q. Psicol Educ. 2016;22(1):71–79.

89. Wolfe DA, Scott K, Reitzel-Jaffe D, Wekerle C, Grasley C, Straatman AL. Development and validation of the conflict in adolescent dating relationships inventory. Psychol Assess. 2001;13(2):277–293.

90. Calvete E, Corral S. Desarrollo de un inventario para evaluar el abuso psicológico en las relaciones de pareja. Clin Health. 2005;16(3):203–221.

91. Marshall L. Development of the Severity of Violence Against Women Scales. J Fam Violence. 1992;7(2):163–172.

92. Elias-Lambert N, Black B. Love is not abuse (LINA). J Technol Hum Serv. 2012;30(1):49–56.

93. Williford A, Elledge LC, Boulton AJ, DePaolis KJ, Little TD, Salmivalli C. Effects of the KiVa antibullying program on cyberbullying and cybervictimization frequency among Finnish youth. J Clin Child Adolesc Psychol. 2013;42(6):820–833.

94. Genovés VG, Tello MC. La prevención de la violencia en la relación amorosa entre adolescentes a través del taller «La máscara del amor»: the prevention of dating violence in youth: the «Mask of love» workshop. Rev Educ. 2009;349:335–360.

95. Lester S, Lawrence C, Ward CL. What do we know about preventing school violence? A systematic review of systematic reviews. Psychol Heal Med. 2017;22:187–223.

96. Fellmeth G, Heffernan C, Nurse J, Habibula S, Sethi D. Educational and skills-based interventions to prevent relationship violence in young people. Res Soc Work Pract. 2015;25(1):90–102.

97. World Health Organization. Preventing intimate partner violence and sexual violence against women: taking action and generating evidence; 2010. Available from: http://apps.who.int/iris/bitstream/10665/44350/1/9789241564007_eng.pdf. Accessed October 06, 2020.

98. Fifth & Pacific Companies. Love is not abuse. A teen dating abuse prevention curriculum high school edition; 2013. Available from: https://www.breakthecycle.org/sites/default/files/LINA%20High%20School%20Edition_Approved%202.12.14.pdf. Accessed October 06, 2020.