Development of a Dating Violence Assessment Tool for Late Adolescence Across Three Countries: The Violence in Adolescents’ Dating Relationships Inventory (VADRI)

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Abstract
Accurate assessment of dating violence (DV) is crucial for evaluation and intervention planning. However, extant self-report measurement tools of DV do not adequately consider age-, generation-, and culture-specific issues, which are essential for its accurate conceptualization. To address these gaps, we developed the Violence in Adolescents’ Dating Relationships Inventory (VADRI) and evaluated its psychometric properties. The VADRI was

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developed based on a qualitative approach for item development through adolescents’ individual interviews, focus groups, and experts’ judgments, followed by a quantitative approach for tool assessment. Two aspects of DV were addressed: victimization and perpetration. After the necessary cultural and linguistic adaptation of items, the instrument was administered to 466 adolescents from three Spanish-speaking countries: Guatemala, Mexico, and Spain. The items were best represented by a one-factor solution in each country, which suggests that DV is a unidimensional construct combining victimization and perpetration. Analyses of item-level factor weights and differential item functioning were conducted aimed at obtaining information about items that best represented the construct, resulting in a 26-item final version that was cross-culturally equivalent. Convergent validity was supported by positive correlations with the Conflict in Adolescent Dating Relationships Inventory, and reliability analyses yielded favorable results (with all Cronbach’s $\alpha$ values above .90). We conclude that the VADRI is a valid and reliable instrument for the assessment of DV in various cultural contexts.

**Keywords**
dating violence, adolescence, cross-cultural psychology, assessment, test development

Adolescence is a period of transition from childhood to adulthood, characterized by certain developmental challenges (Fasick, 1994), among others the initiation of romantic relationships, which in the literature are commonly labeled as “dating relationships” (Wolfe, Scott, Reitzel-Jaffé, Wekerle, Grasley, & Straatman, 2001). These dating relationships are characterized by affectionate behaviors, of a distinct intensity as compared with relationships with other peers, and anticipated or actual sexual behavior (Collins, Welsh, & Furman, 2009). Many adolescent relationships are healthy and supportive, but coercive and violent behaviors also occur at this age (Straus, 2008). In fact, although dating violence (DV) among adolescents tends to come to the public’s attention only in rare and extreme cases, such as assault, homicide, and suicide, less extreme DV is common among teenagers and youth (O’Keefe, 1997; Rodríguez Franco, Antuña, López-Cepero, Rodríguez, & Bringas, 2012).

DV is not restricted to behavioral aspects. It implies a pattern of assaultive and coercive behaviors, emotional abuses, controlling, and isolation attempts against the dating partner (Knox, Lomonaco, & Alpert, 2009). Nevertheless,
studies of DV in adolescence may have not been very fruitful, among other reasons because of a lack of adequate assessment procedures (Rodríguez Franco et al., 2012). We believe that research on DV would greatly benefit from the use of assessment instruments that capture valid indicators of DV (that are specific to the teenage generation of the digital era) and are developed using advanced procedures developed in psychological assessment for creating items and testing the factorial structure. Although there are many useful tools that could be valid to assess intimate partner violence (e.g., Straus’ Conflict Tactics Scale [CTS], 1979; Hudson & McIntosh’s Index of Spouse Abuse, 1981; Tolman’s Psychological Maltreatment of Women Inventory, 2001; Shepard & Campbell’s Abusive Behavior Inventory, 1992), they do not consider two aspects (simultaneously) that are relevant to the measurement of DV in our study: (a) current adolescent developmental period sensitivity and (b) cultural appropriateness. To develop an adequate tool that incorporates these two relevant aspects, we considered instruments that came as close as possible to fulfilling the following two requirements: (a) instruments had to be appropriate, originated from or adapted to Spanish-speaking countries; and (b) instruments had to be created for or adapted to an adolescent population, with the participation of both genders. We identified the following four tools: (a) CTS2 (Straus, Hamby, Boney-McCoy, & Sugarman, 1996), (b) the Conflict in Adolescent Dating Relationships Inventory (CADRI; Wolfe et al., 2001), (c) the Cuestionario de Violencia entre Novios or Questionnaire of Violence Partners (CUVINO; Rodríguez Franco, López-Cepero, Rodríguez, Bringas, Antuña, & Estrada et al., 2010), and (d) the Psychological Dating Violence Questionnaire (PDV-Q; Ureña, Romera, Casas, Viejo, & Ortega-Ruiz, 2015).

Regarding the developmental period sensitivity, it is worth mentioning that although adolescents and adult intimate relationships differ in many aspects (e.g., Knox, et al., 2009), most assessment tools of DV address intimate partner violence in adulthood—mostly cohabiting or married couples. Among these instruments, the most widely used are the CTS (Straus, 1979) and its modified version, the CTS2, that had been translated to Spanish (CTS2; Corral & Calvete, 2006; Straus et al., 1996). However, this CTS2 Spanish version cannot be expected to be sensitive cultural context and to the adolescence period because it was developed only for adults in an Anglo-Saxon context, had not been adapted for Spanish adolescents, and does not take into consideration the relational aspects of teenagers in the digital era. In the same line, some authors have pointed to the need to address DV among adolescents using the new relational ways of communication in teenage dating relationships, including violence perpetrated through online media (Hays & Emelianchick, 2009; Rodríguez Franco et al., 2012). The use of Internet in
general for communication and of cell phones and social networking sites in particular has become part and parcel of youth’s intimate relational style, ranging from getting in touch with the dating partner to perpetrating aggression in romantic partners (David-Ferdon & Hertz, 2007). Even if there are some assessment tools created for adolescence and youth population (i.e., CADRI by Wolfe et al., 2001; CUVINO by Rodríguez Franco et al., 2010; PDV-Q by Ureña et al., 2015), the latter types of relational violence have not been included yet in extant instruments. Several studies using adolescent and/or young community samples have shown that males and females report similar rates of violence, suggesting that both genders are both perpetrators and victims (e.g., Fernández-Fuertes, Fuertes & Pulido, 2006; Gidycz, Warkentin, & Orchowski, 2007; O’Leary & Slep, 2003). This feature highlights the need for including both victimization and perpetration experiences in DV assessment tools, an aspect that is absent in some of the existing DV-specific assessment instruments (e.g., CUVINO; Rodríguez Franco et al., 2010).

Finally, cultural appropriateness of a scale is a key element in psychological assessment (van de Vijver & Tanzer, 2004). In this line of thought, Hays and Emelitch (2009) stressed that existing assessment tools for intimate partner violence do not consider the impact of culture. These authors suggested that researchers should be aware that violent behaviors and attitudes toward the partner may vary across cultures. This also applies to DV in adolescence (Muñoz-Rivas, Andreu, Graña, O’Leary, & Gonzalez, 2007). Regrettably, most instruments used for assessment of DV (e.g., CTS2 by Straus et al., 1996; CADRI by Wolfe et al., 2001) have been developed in Anglo-Saxon contexts and the common strategy for adaptation has been the mere translation of contents (and subsequent analysis of the factor structure) without considering the applicability of items in the new culture. The issue of cultural appropriateness holds a fortiori if an instrument is developed for use in multiple cultures. In such a case, qualitative methods are to be combined with quantitative questionnaire methods to capture both the cross-cultural similarities and differences (van de Vijver & Tanzer, 2004). According to Karasz and Singelis (2009), cross-cultural psychology needs mixed-methods research, which requires more attention to concrete, local cultural processes that shape psychological outcomes in a combination of qualitative and quantitative procedures.

Taking into account the gaps described in the above review of the literature, we present a series of steps conducted to develop a culture-informed dating violence inventory for adolescents as well as to examine its validity and reliability. The development of such a measure would enhance research in this area, allowing the detection of DV in the general population. First, using qualitative methods, we created an initial pool of items based on
interviews that tap into violent behaviors and attitudes that may appear in adolescent dating relationships in three different countries (Spain, Guatemala, and Mexico). Then, using quantitative methods, we conducted several analyses to assess its psychometric properties. We expected that the inventory developed in the present study would show good psychometric properties in adolescents of the general population across the countries that took part.

**Method**

**Qualitative Stage: Development of the Violence in Adolescents’ Dating Relationships Inventory (VADRI)**

In the first stage, we used a qualitative approach, in which individual interviews and focus groups were carried out. Education centers were informed about the aim of the study and they were responsible for informing the students and recruiting participants. Adolescents who wanted to participate were enrolled in a list and a timetable was prepared for the individual interviews (45 min) and focus groups (1 hr and 30 min). Before starting the interviews, each adolescent signed a consent form. To avoid gender bias, all participants were interviewed by a same-gendered interviewer. All researchers (Spanish, Guatemalan, and Mexican collaborators) were instructed by the principal researcher and they were given a semistructured interview as a guideline. A total of 134 participants (16-20 years old) were interviewed individually or in groups. In the individual interviews, 104 adolescents—secondary, high school, and university students—took part, 52% boys (30 in Mexico, 15 in Guatemala, and 59 in Spain, from which 30 were adolescents of Latin American origin1). Furthermore, focus groups were held in Spain with 30 students (3 focus groups of girls, with a total of 16 participants; and 2 focus groups of boys with a total of 14 participants). All these interviews were aimed to provide a list of as many violent and conflictive situations as possible that appeared in dating relationships at this age. These interviews were conducted based on a semistructured protocol that prompted about causes of an argument, reactions in the context of an argument, and different behaviors and/or attitudes that harm romantic partners. To maximize the amount of information provided, the respondents were requested to provide information about all types of situations that they knew had happened or they have seen in dating romantic relationships in people of their age (classmates, close friends, family members, etc.).

In the second stage, two research experts on violence, aggressiveness, and adolescence analyzed the content of the interviews in depth. First, they
identified all different violent behaviors and attitudes that adolescents and youth mentioned in the interviews in the three countries. Second, each expert wrote a large pool of items which tapped into DV. These items/indicators were written using two criteria: (a) simplicity of the statements and (b) familiarity of concepts language for the target population. A pool of 74 items (37 for victimization and 37 for perpetration, in equivalent forms) was initially set up.

Finally, cognitive interviews with 10 adolescents (ages ranging from 16 to 18 years old) were carried out to analyze clarity and familiarity of the statements. As a result, 1 item was discarded because it was not well understood, and 2 others were reformulated, obtaining a version of 72 items (36 for each of the victimization and perpetration forms). In the final questionnaire, a 10-point Likert-type format was used (1 = “never” to 10 = “always”), aimed at reducing the extreme response style of Spanish-speaking countries notably in Central and South America (He, Bartram, Inceoglu, & van de Vijver, 2014; He, Dominguez Espinosa, Poortinga, & van de Vijver, 2014; Hui & Triandis, 1989).

First, the Spanish version was made and sent to Mexican and Guatemalan collaborators for cultural and linguistic adaptation. Therefore, the Spanish version was slightly different from the Mexican and Guatemalan versions (to avoid language bias). Specifically three terms (Spanish translations of “mobile phone,” “slap,” and “grab”) and two expressions (“going out partying” and “underestimating”) were modified for use in Guatemala and Mexico. The act of “grabbing” deserves a special mention. The word used in Spain for the act of grabbing somebody in a coercive way is agarrar. In Guatemala and Mexico, this verb has a positive connotation (more similar to hugging or embracing), therefore the word used in Guatemala and Mexican version was sujetar.

We found some qualitative differences in the information provided by Spanish and Latin American adolescents in the interviews. In both Latin American countries, adolescents commonly reported behaviors such as forbidding (e.g., “forbid to go out with friends”) and forcing (e.g., “force to have sex”), whereas in Spain such extremely coercive behaviors were absent in the interviews. Spanish adolescents used expressions like “insist on not going out with friends” or “continue touching private parts.” In sum, three equivalent VADRI versions were developed (Spanish, Mexican, and Guatemalan versions). These initial VADRI versions were composed of 72 items, from which 36 items (see the online appendix, Items 1-36 items) refers to victimization, and the other 36 items (see the online appendix, Items 37-72) refer to perpetration, being both forms (victimization and perpetration) also equivalent among them.
Quantitative Stage: Validation of the Violence in Adolescents’ Dating Relationships Inventory (VADRI)

Participants. Mainstream adolescents from three different countries took part: 213 Mexicans (M = 18.32 years, SD = 1.07), 91 Guatemalans (M = 19.77, SD = 0.45), and 162 Spanish (M = 18.54, SD = 1.20). Students from secondary schools (from both academic and vocational tracks) and from universities took part in the study (54.7% being boys), ages ranging between 16 and 20 years (M = 18.53, SD = 1.21): 31.6% were university students, 52.1% were high school students, and the rest were vocational training center students (16.3%). Regarding their dating experiences, 51.0% were currently dating someone and the 48.9% had been dating in the past. The average relationship duration was 7.37 months (SD = 11.62).

Instruments

VADRI. The initial version of the questionnaire of 72 items (36 items in each form, victimization and perpetration) developed and described in the previous section was used (see the online appendix). Items are statements referring to several violent behaviors and attitudes of a physical, sexual, or psychological nature, which were mentioned by adolescents in the interviews (e.g., “My boyfriend/girlfriend reads my private messages (mobile phone, social networks)”; “My boyfriend/girlfriend forces me to have sex”; “My boyfriend/girlfriend shouts at me”; “My boyfriend/girlfriend insists on my not talking or sending messages to others (mobile phone, social networks, or face to face)”; “My boyfriend/girlfriend grabs me”; or “My boyfriend/girlfriend insults me”). Respondents were asked to what extent the situations mentioned occur or occurred in their personal dating romantic relationships, indicating their frequency in a 10-point Likert-type scale, that goes from 1 = “never” to 10 = “always.” If the adolescents were dating someone, they were requested to answer the statements based on the current girlfriend/boyfriend. If this was not the case, they were asked about the existence of a dating romantic relationship they had in the past, and they were requested to answer the statements thinking about that past relationship. If they had no experience with dating, their data were not further considered.

CADRI (Spanish version). This self-report instrument (Wolfe et al., 2001; Spanish version, Fernández-Fuertes et al., 2006) is made up of 50 items (25 items referring to violence committed and 25 items referring to violence victimization) to be rated on a 4-point Likert-type scale.
(1 = “never” to 4 = “frequently”). This questionnaire has five subscales: Sexual Violence (SV), Relational Violence (RV), Verbal-Emotional Violence (VV), Threatens (T), and Physical Violence (PV). In this study only three subscales were used: Verbal-Emotional Violence (e.g., “I ridiculed or made fun of him or her in front of others”), Physical Violence (e.g., “I threw something at him or her”), and Sexual Violence (e.g., “I force him or her to have sex when he or she did not want to”). The values of Cronbach’s alpha of the three dimensions were acceptable for victimization in all countries (VV: .84, .81, and .86; PV: 59, .54; and .69; and SV: .77, .84, and .60, for Spain, Mexico, and Guatemala, respectively) and for perpetration (VV: .82, .71, and .84; PV: 74, .69; and .62; and SV: .86, .50, and .88).

Procedure. Education centers were informed about the aim of the study. In the centers in which the participation was accepted, students filled in the questionnaires in the classroom (which took up 1 hr). Students were informed about the aim of the study and their freedom to participate. No personal data were asked for; students could stop filling in the instrument at any time.

Data analysis. Some researchers in this field, such as Wolfe et al. (2001), and statisticians, such as Bernstein and Teng (1989), and O’Connor (2000), have argued that Minimum Average Partial (MAP) analysis (Velicer, 1976) should be used when data are nonnormally distributed and large differences in the endorsement of the items exist, which are common in questionnaires of violence. MAP analyses may avoid overfactoring. Therefore, for the validation of the VADRI, we first analyzed the factorial structure of the questionnaire using MAP, whose results were predominantly taken into consideration. Then, exploratory factor analysis (EFA) was conducted aimed at obtaining information about two relevant aspects: (a) whether the number of the factors coincides with the ones that MAP showed and (b) to examine the factor loadings of the items. The next analysis was aimed at analyzing the structural equivalence of the VADRI across countries, addressing the question to what extent the instrument assesses the same construct in exactly the same way across all groups. Third, differential item functioning (DIF) across cultures was analyzed, with the use of multiple regression analysis. Fourth, we examined the internal consistency of victimization and perpetration forms considering Cronbach’s alpha, with a .80 cutoff for acceptable reliability (Nunnally & Bernstein, 1994). Finally, we analyzed the convergent validity through correlations with the general scores and the subscales of the CADRI (Wolfe et al., 2001).
Results

Several analyses were carried out to analyze the psychometric appropriateness of VADRI. We first analyzed the factor structure of the questionnaire in each country separately (Guatemala, Mexico, and Spain), using MAP and EFA. In the next step, we analyzed the factor loadings to further refine the data set and select the most representative items. Then, we examined whether the factor structure of the three versions was equivalent (through Tucker’s phi indexes); finally, DIF analyses were conducted aimed at detecting items that were culturally biased. The two last analyses were aimed to obtain a version of the VADRI that allowed cross-cultural comparability. Finally, we analyzed the internal consistency and convergent validity of the last versions (Guatemalan, Mexican, and Spanish versions) in each country.

Factor Structure: Dimensionality and Item Analysis

MAP analyses showed that the VADRI has a one-factor structure in all countries. Moreover, the scree-plot (examining a sharp drop in slope of the graph of eigenvalues) and the number of eigenvalues greater than 1.0 also suggested the extraction of a single factor, thereby replicating the MAP results. In the next step, we carried out an EFA per country to retain only items with optimal psychometric properties and to obtain optimized scale versions that were comparable across countries. We retained all contents that were theoretically relevant for the construct (DV expressed as sexual, physical, and psychological behaviors and attitudes) as they appeared in the qualitative phase in the study. For the item reduction, we took into account three criteria: (a) the deletion of items with loadings (absolute value) were below .32 (recommended by Tabachnick & Fidell, 2007); (b) deletion would take place in all country’ versions; and (c) deletion would take place in both victimization and perpetration. Considering these criteria, a total of eight items were eliminated in each form of the scale (victimization and perpetration). The items that were below .32 factor loading in any of the forms (victimization or perpetration) or any of the versions (countries) were deleted following an iterative process: #7/#43, #8/#44, #11/#47, #12/#48, #18/#54, #21/#57, #27/#63, and #34/#70 (item numbers refer to the victimization and perpetration, respectively; factors loadings are shown in Table 1). The questionnaire was reduced from initially 72 to 56 items (28 items with equal items for victimization and perpetration).

Structural Equivalence and DIF

With the aim of obtaining a cross-culturally comparable scale, two types of analyses were conducted to address: (a) whether the factors were invariant
Table 1. Factor Loadings of the Items Deleted of the VADRI.

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Note. Factor loadings below .30 are indicated in italics. First number is the victimization item, and the second is the perpetration item, being both equivalents. VADRI = Violence in Adolescents’ Dating Relationships Inventory; SP = Spain; GU = Guatemala; MX = Mexico.
across the countries by calculating Tucker’s phi indexes (structural equivalence) and (b) DIF across cultures. All Tucker’s phi indexes were above .90, which is considered to be adequate (van de Vijver & Poortinga, 2002), confirming the structural equivalence across countries (see Table 2).

DIF was examined through a linear regression analysis, using a forward stepwise method. We took each item score as dependent variable, and entered the independent variables in three steps: (a) total score in VADRI (Model 1), (b) culture (Model 2), and (c) the interaction among them (Model 3). For each item, we considered the differences in $R^2$ from one model to the other, interpreting significant differences in $R^2$ in terms of uniform—the main effect of culture is significant—or nonuniform item bias—the interaction between the total score and culture is significant. To decide whether an item was culturally biased, we took into account two criteria: (a) the main effect of culture, or the interaction effect, or both of them should be significant; and (b) the magnitude of the effect size should be medium or large (larger than .15). Results showed that #13 and #23 perpetration items were culturally biased. Both items deal with sexual coercion (#13: “I ask my boyfriend/girlfriend continuously to have sex although he or she has said ‘no’” and #23: “I ask my boyfriend/girlfriend to have sex continuously even if I know that he or she does not feel like having it”). These items showed uniform bias. All effect sizes referring to uniform bias as can be seen in Table 2 (no information about nonuniform bias is shown, as all of the $R^2$ differences referring to the interaction were nonsignificant). These results led us to delete these 2 items of the perpetration form (#13 and #23) and their equivalents of the victimization form (#49 and #59) and keep a final 26-double item version (with a total of 52 items).

Explained Variance and Internal Consistency

At this point, a new principal components analysis forced to extract one factor was carried out, using the 26-item final versions of both forms (perpetration and victimization) in all countries. The percentages of explained variances ranged between 31.9% and 45.4%, and factor loadings of all items were above .32 (see Table 2).

Finally, internal consistency was evaluated through Cronbach’s alpha coefficients. Values ranged between .91 and .95 (all above .80 as recommended by Nunnally & Bernstein, 1994), indicating a very good internal consistency of both forms (perpetration and victimization) in all countries (all values are displayed in Table 2).
### Table 2. Factor Loadings of the One-Dimensional Structure and Effect Sizes of DIF ($f^2$) of the VADRI.

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**Variance explained (%)**

- VADRI—Victimization Form: 44.3, 41.3, 31.9
- VADRI—Perpetration Form: 45.4, 41.4, 38.3

**Cronbach’s $\alpha$**

- VADRI—Victimization Form: .93, .94, .91
- VADRI—Perpetration Form: .94, .95, .92

*Note.* Cohen’s $f^2$ indexes are the effect sizes referring to the effect of culture (uniform bias): between .02 and .15 are small, between .15 and .35 are medium, and above .35 are large. Biased items (with effect sizes higher than .15) are in italics; these items were not considered for the variance explained, Tucker’s phi, and Cronbach’s alpha analysis. DIF = differential item functioning; VADRI = Violence in Adolescents’ Dating Relationships Inventory; SP = Spain; GU = Guatemala; MX = Mexico.
Convergent Validity

Additional analyses were conducted for each country to analyze the convergent validity of the victimization and perpetration forms. This was examined through Pearson correlations between the general scores and subscales of the CADRI (Wolfe et al., 2001). As expected, the correlations between the VADRI and CADRI general perpetration scores, as well as the correlations between the VADRI and CADRI general victimization scores, were positive and strong for all countries (ranging between .58 and .79). In a more in-depth analysis, moderate to high positive correlations between the three subscales of the CADRI (VV, SV, and PV), on one hand, and the scales of the VADRI, victimization and perpetration, on the other hand, were observed (see Table 3).

Furthermore, following previous results on the literature regarding bidirectionality of violence, we expected high correlations between perpetration and victimization dimensions of the VADRI, as well as with the CADRI general scores. Our results corroborated the expectation. High correlations between victimization and perpetration were observed in all countries—In the case of the VADRI, correlations ranged between .69 and .80.

Discussion

Our main objective was to contribute to the body of DV literature by developing a questionnaire for the assessment of DV, focused on late adolescence.
features and relationship dynamics, from a cross-cultural perspective. The instrument needed to address two relevant aspects: (a) it should take into consideration the special characteristics of the initial dating romantic relationships (age-development period specificity); and (b) it should be culturally appropriate (i.e., tapping relevant and equivalent contents across the three countries involved in the study). The simultaneous assessment of victimization and perpetration, a relevant aspect to take into consideration at this age and in general population, was also important in the development of the instrument.

There are many tools for the assessment of intimate partner violence compiled in useful compendia (e.g., Thompson, Basile, Hertz, & Sitterle, 2006). Our instrument adds to this set by a combination of three features, not present in extant instruments. First, although there are a few instruments with a somewhat comparable conceptualization, such as the CADRI, CUVINO, and PDV-Q, these instruments do not include items referring to specific and new relational ways for perpetrating abuse, linked to the use of new technologies. Second, the behaviors and attitudes in our instrument were derived from interviews with adolescents so as to maximize the relevance of the item contents in each cultural context. Given that the items generated were culture-informed, the context sensitivity of our measure is high. This cross-cultural approach makes the VADRI a cross-culturally comparable scale with high content validity. Third, we included students of different educational tracks—that is, high school, vocational training centers, and university—which was not done in the development of PDV-Q (only involving university students) and CADRI (only involving secondary school students).

Regarding VADRI’s factor structure, our results showed that DV may be taken as a one-dimensional construct. The findings about the existence of a single-factor-structure point to the need of treating DV as a unitary construct that includes several behaviors and attitudes (sexual, verbal, social, physical, and psychological). The huge majority of the behaviors/attitudes mentioned by adolescents revolve around psychological violence, suggesting that DV is mostly characterized by this kind of violence. In our opinion, this preponderance of psychological violence may be the base of the unidimensional factor structure. This one-factor structure of the VADRI was indeed supported in all the countries that took part (Guatemala, Mexico, and Spain), which gives strong evidence for the unitary structure of DV in different countries. Given the unidimensional nature of the VADRI, it will often not be needed or even desirable to focus on the differentiation of subtypes of violence when using the instrument as a first screening tool; still, there may be cases where it is relevant to evaluate the two global scores of DV (one for victimization and another one for perpetration) in particular when the discrepancy between the
scores is large, which would identify the adolescent as primarily a victim or perpetrator. The one-factorial structure had been already observed in the original version of CADRI (Wolfe et al., 2001) and authors initially named this dimension the “abusiveness construct.” However, subsequent versions of CADRI have shown a multidimensional structure. For example, the Spanish adaptation of CADRI (Fernández-Fuertes et al., 2006) revealed five subscales, but some of them had poor psychometric properties (e.g., “relational aggression”), and another subscale did not turn out to be valid for the Spanish sociocultural context (e.g., “threatens”). These latter results of the CADRI, along with the results of the present study with the VADRI, may be an indication of the need of reevaluating models of high dimensionality of DV.

Our method to develop an instrument for multiple cultural contexts by considering qualitative data from each context is considered good practice in cross-cultural research (van de Vijver & Leung, 1997), as the procedure makes it unlikely that strongly biased items will be generated. In addition to this culture-informed design, we used statistical procedures to establish whether the expected small influence of cultural bias could be confirmed. The combined usage of a culture-informed questionnaire development and up-to-date statistical procedures is a strong feature of our study.

Although previous instruments that assess DV have been adapted into Spanish and cross-cultural comparisons carried out (e.g., Rodríguez Franco et al., 2010), the aforementioned cultural approach had not been undertaken. For example, DIF has never been examined to ensure the comparability of items. Our results showed that two sexual content items were culturally biased, indicating that students from different cultures who have the same level on DV tend to respond to these two items differently. This bias may be due to the differences in response styles across cultures, notably social desirability. It could well be that the use of coercive power in discussions between dating partners about sexuality is more taboo in Spain than in the other countries. The response style can be probably more triggered by items with a sexual content, because the norms allowing the expression of sexual behaviors and attitudes across cultures will vary. However, DIF was only observed in the perpetration form of the scale. It may be tentatively concluded that social desirability may contribute to individual responses, as well as country differences (van de Vijver & Leung, 2000).

The VADRI demonstrated good psychometric properties, including high internal consistency. As for convergent validity, as expected, moderate to high correlations between our newly developed scale and the CADRI general scores were confirmed. Some CADRI subscales showed rather low internal consistencies. We confirmed that some of the CADRI subscales showed poor psychometric properties, which may stem from the debatable view about the
multidimensionality of the CADRI. It is remarkable that high correlations were observed between victimization and perpetration in all countries (all of them being from moderate to high magnitude), pointing to the possibility of the existence of mutual violence dynamics at this age, and not only in clinical or at-risk populations, rather than only unidirectional violence. The high correlations are in agreement with the results of previous studies, in which DV is frequently defined by mutual acts in which the victim is also often the perpetrator (Fernández-Fuertes et al., 2006; O’Leary & Slep, 2003; Próspero & Kim, 2009). In other words, these adolescent and young dating relationships may reveal a pattern of what may be categorized as abusive dynamics in partner relationships, with both partners being more violent, rather than a scheme of unidirectional violent relationships in which there is a clear victim and a perpetrator. But this is an issue that requires further research into the topic. The detection of these different patterns (unidirectional or bidirectional) of violence is crucial to design prevention programs and interventions, as well as to intervene with the dating partners from a therapeutic approach. The strong correlation between the two VADRI scales should not be taken as signifying that unidirectional violence does not occur. Notably, from a therapeutic perspective, it is crucial to understand whether the violence is unidirectional or bidirectional. The VADRI may serve in three settings: two applied—that is, school and clinical—settings, and in research. The two global scores of VADRI would facilitate the detection of groups in which DV is salient, and therefore, prevention needed. Thus, this type of information could become important, especially in school settings, as it would allow school agents to make decisions about implementing prevention programs in high-risk groups. Another use of our VADRI assessment tool would be to help practitioners and therapists when dealing with DV, because it gives information about each item’s prevalence and frequency of occurrence. This information would be of interest for both individual and couple therapy intervention. Our instrument does not capture the intent to use of violence, nor does it capture the degree of injury or the use of violence as self-defense. It is possible that in a more applied setting, once the therapist or the practitioner in a risk assessment program has detected DV risk, he or she may use a supplementary sheet to obtain this kind of information. Finally, researchers may use the VADRI to examine the relationship of DV with some variables, taking into account its two global scores (victimization and perpetration).

Some limitations of our study should be mentioned. One limitation is the lack of a social desirability measure in our study which could be affecting individual responses, and its inclusion may be considered in future research. In fact, self-report measures may reduce the validity of the conclusions of the study because social desirability is likely to exert an effect on respondents’
scores. A second limitation is the exclusive reliance on self-reports. Future research should consider combining self-report measures with other methodologies that offer information about empirical or criterion-related validity and that are less susceptible to social desirability. Specifically, observational methods are important sources of data-gathering to gain more precise and unbiased information about the way in which young dating partners establish and maintain dynamics based on conflict. A third limitation involves the external validity. As we worked with convenience samples of limited size, we do not claim that the prevalence rates we observed would be replicated in large-scale epidemiological studies using probability sampling. Finally, it would be interesting to examine the temporal stability of the VADRI, for example, obtaining information about test–retest reliability.

In conclusion, the newly designed VADRI allows the valid and reliable assessment of DV perpetration and victimization in adolescents and youth from various cultural contexts. It taps not only overtly violent acts but also more subtle acts that more often occur in dating relationships, including those taking place with the aid of new technologies. We hope that new possibilities for research and intervention will derive from the existence of this assessment tool.

Declaration of Conflicting Interests

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Notes

1. In the qualitative stage, the following participants took part: 30 were native Mexican, 15 native Guatemalan, 29 native Spaniards, and 30 Latin American origin adolescents residing in Spain. This last group was included because of the large Latin American population living in Spain, so that we could ensure that the assessment tool would also be useful to the Latin American immigrant population in Spain.

2. Categorizing has some arbitrariness even if the decisions were discussed extensively among the first two authors. For example, we did not make a distinction between behaviors that were committed in private versus public, where other
researchers might have found this distinction relevant for the categorization. To be transparent about the categorization, the full transcripts of the interviews are available from the first author upon request.

3. We did not use frequencies in the response scale because at this age dating romantic relationships often tend to be short, and the frequency may largely depend on the length of the relationship. The aim of Violence in Adolescents’ Dating Relationships Inventory (VADRI) was to know whether some behaviors happen or not, and, specifically, how often those behaviors took place, regardless of the length of the relationship. There are three forms of VADRI: Mexican, Guatemalan, and Spanish versions. All versions were shown to be equivalent and valid.

4. The Conflict in Adolescent Dating Relationships Inventory (CADRI) is used to analyze the convergent validity of our instrument. Only three out of five CADRI subscales were considered appropriate. “Relational Aggression” was excluded because of its poor psychometric properties and “Threatens” because it was not considered valid for the Spanish sociocultural context. The low alpha values of the CADRI question the use of different dimensions of the CADRI, instead of solely using the general scores.

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