

## Systematic review of dating violence questionnaires in Ibero-America and evaluation of their measurement properties

Libia Yanelli Yanez-Peñúñuri (<https://orcid.org/0000-0003-4682-5123>)<sup>1</sup>

Carlos Alejandro Hidalgo-Rasmussen (<https://orcid.org/0000-0002-5287-2076>)<sup>2</sup>

Yolanda Viridiana Chávez-Flores (<https://orcid.org/0000-0003-0613-167X>)<sup>1</sup>

**Abstract** *Being a victim or perpetrator of dating violence has been associated with poor mental health, substance abuse, and sexual risk behaviors. The aim of this study was to carry out a systematic review and to evaluate the quality of the measurement properties of dating violence questionnaires, created or adapted in Ibero-America from 1981 to 2017, for a population aged 12 to 29 years and published in Spanish, English, Portuguese or French. The search was conducted in PubMed, ISI Web of Knowledge, EBSCO, ScienceDirect, SCOPUS, SciELO and included manual searches. Two independent researchers conducted both the systematic review and the evaluation of measurement properties. Of 5,812 articles identified, 22 studies involving 16 different questionnaires of dating violence were included. In general, the questionnaires showed evidence of internal consistency, content validity and construct validity, although no study presented evidence of criterion validity, reproducibility, sensitivity, or floor and ceiling effects. Among the cross-cultural adaptations, 42% of them included translation, back translation, committee of experts in translation and piloting. Two questionnaires created, CMN and VADRI/Spain-Mexico and two adaptations of the same questionnaire CTS/Brazil-Mexico received the highest scores.*

**Keywords** *Intimate partner violence, Adolescent, Young adult, Surveys and questionnaires, Review*

<sup>1</sup> Departamento de Psicología y Ciencias de la Comunicación. Universidad de Sonora. Hermosillo Sonora México.

<sup>2</sup> Centro de Investigación en Riesgos y Calidad de Vida, Departamento de Promoción, Preservación y Desarrollo de la Salud, Universidad de Guadalajara. Centro de Estudios Avanzados, Universidad de Playa Ancha. Av. Juárez 976, col Americana. 44160 Cd. Guzmán Jalisco México. [carlos.hidalgo@academicos.udg.mx](mailto:carlos.hidalgo@academicos.udg.mx)

## Introduction

The study of dating violence (DV) has expanded in the last three decades, as DV has increasingly been considered a public health problem by different experts<sup>1,2</sup>. Indeed, it has been associated with sexual risk behaviors, substance abuse, alcohol consumption, eating disorders, smoking, and suicidal behavior<sup>3-8</sup>.

The literature proposes different definitions of DV. One of them, defines DV as acts that hurt the other person in the context of a romantic relationship in which the two members of the pair are said to be going out together<sup>9</sup>. Lavoie et al.<sup>10</sup> define it as: «any behavior that is prejudicial to the partner's development or health by compromising his or her physical, psychological, or sexual integrity», while the Centers for Disease Control and Prevention (CDC)<sup>11</sup> characterizes DV as a type of intimate partner violence whose nature may be physical, psychological or sexual and may include harassment via electronic media. However, the lack of consensus in defining DV has generated variations in terms of classification and measurement and, therefore, in the prevalence obtained<sup>12-15</sup>.

Measurement is one of the pillars of scientific research<sup>16</sup>, so that one of the main challenges in the study of DV is to have valid and reliable questionnaires to obtain accurate and objective information in order to contribute to the development of educational programs and health promotion<sup>13,17,18</sup>. Thus, a systematic review of available questionnaires and the evaluation of their measurement properties may help identify the most appropriate ones by evaluating their scope and limitations and systematically and objectively synthesizing the evidence of empirical studies<sup>19,20</sup>. Such reviews are valuable methodological tools for researchers because they allow new questionnaires to be created or existing ones to be adapted based on the resulting recommendations.

We are aware of four reviews of DV measurement questionnaires, of which only one is a systematic review. In Spain, López-Cepero Borrego et al.<sup>21</sup> in a non-systematic international study identified a total of 54 questionnaires measuring partner violence (including domestic violence and DV) published between 1974 and 2012, among which only three questionnaires were specifically developed for DV in adolescents and/or young people: the *Conflict in Adolescent Dating Relationships Inventory (CADRI)*, the *Dating Questionnaire (CUVINO)* and *Violence faite aux*

*Filles dans les Fréquentations à l'Adolescence (VIF-FA)*. This work evidenced the incipient field of study with regard to the measurement of DV.

In a non-systematic review performed in the United States by Smith et al.<sup>22</sup>, 48 DV measures developed and used between 1976 and 2011 were identified. The most commonly used measures were the *Safe Dates Scale (SDS)*, the *Conflict in Adolescent Dating Relationships Inventory (CADRI)* and the *Conflict Tactics Scale (CTS)*. The authors also identified multiple conceptual definitions in the instruments and emphasized the need to obtain more information about the measurement properties of the questionnaires used.

In Caselman et al.<sup>16</sup> the authors performed a non-systematic review comparing five DV questionnaires frequently used in English-speaking countries. The five questionnaires analyzed were *Aggression in Dating Situations (AADS)*, the *Acceptance of Violence Questionnaire (AVQ)*, the *Conflict Tactics Scale (CTS)*, the *Conflict in Adolescent Dating Relationships Inventory (CADRI)* and the *Justification of Verbal/Coercive Tactics Scale (JVCT)*. The criteria of analysis and comparison included the usefulness of the questionnaire, the relevance for the study of DV and the reported measurement properties. Regarding the usefulness of the measures, it was found that the *CTS* and the *CADRI* were the most frequently used; these questionnaires are recommended by the authors as the most relevant for the study of DV. In relation to measurement properties, the authors suggest further investigation regarding the precision and sensitivity of the questionnaires evaluated in the article. However, this review was not exhaustive and was not conclusive with respect to the analysis of measurement properties.

In the systematic review by Exner-Cortners et al.<sup>23,24</sup> the measurement properties of 13 DV questionnaires developed between 2006 and 2016 for use with adolescents were analyzed. This work was a thorough evaluation of the measurement properties of the analyzed questionnaires, which included a classification of measurement types in terms of behaviors and attitudes, presented in two parts. They included four questionnaires (*CADRI*, *AADS*, *AMDV*, *AFDV*) adapted to Spanish-speaking countries (Spain and Mexico). The authors, similarly to Caselman et al.,<sup>16</sup> found that the most frequently used questionnaire was the *CTS* followed by the *CADRI*. However, it was concluded that the *CADRI* had greater reliability and validity with regard to measurement.

In the four reviews mentioned, a common denominator is the lack of information on mea-

surement properties of questionnaires used to measure DV in adolescents and young people in Ibero-America. Taking into account the high prevalence of DV in Ibero-America<sup>25-29</sup>, it is necessary to pursue an approach that considers the current situation regarding the measurement properties of questionnaires used in the region to measure DV<sup>30</sup>.

Therefore, the present research aimed to perform a systematic review to evaluate the quality of measurement properties of DV questionnaires used in the literature in Ibero-America.

## Methods

To perform this systematic review, the guidelines established by the PRISMA statement<sup>31</sup> were followed. To identify and determine the eligibility of articles, six scientific databases were used – PubMed, ISI Web of Knowledge, ScienceDirect, SCOPUS, SciELO, and EBSCO – along with manual searches (understood as the identification of articles through the reference section of the selected articles).

The search was conducted using combinations of keywords referenced in the Health Science Descriptors (DeCS) and in the Medical Subject Headings (MeSH): child\* OR adolescent\* OR teenage\* OR pediatr\* AND dating violence\* OR intimate partner violence OR dating aggression OR dating abuse OR partner abuse OR date fight\* OR teen dating violence AND questionnaire OR survey\* OR scale\* OR assess\* OR measure\* OR instrument\*. All searches were performed in English, Spanish, Portuguese, and French, and filters were applied for each Ibero-American country.

### Inclusion and exclusion criteria

Original research articles and book chapters published and accepted for publication between 1 January 1981 and 5 March 2017 including information on the measurement properties of questionnaires created or adapted and used for measuring DV in a youth population aged 12 to 29 years<sup>32</sup> were considered.

Articles or questionnaires in which the participants were married were excluded. The lower limit of this search was 1981 because it was the year the first research article on dating violence was published<sup>33</sup>.

### Extraction and selection of articles

Two authors of the present study participated in the extraction and evaluation of the studies by performing the article search and holding consensus meetings between them to make a decision regarding the inclusion or exclusion of each selected article.

After the search, the articles were classified into four categories: 1) creation of a questionnaire, 2) validation and/or cultural adaptation of a measurement questionnaire 3) analysis of measurement properties, and 4) observational studies showing the measurement properties of validated or non-standardized DV questionnaires. The recommendation of Caselman et al.<sup>16</sup> to differentiate between questionnaires evaluating behaviors or attitudes in DV were incorporated because it is an essential difference in relation to the construct validity and reliability of the measuring questionnaires<sup>34,35</sup>.

### Evaluation of the measurement properties of questionnaires and quality of the articles

The measurement properties of questionnaires were evaluated using the criteria of Terwee et al.<sup>36</sup> These criteria evaluate quality and measurement properties in the following domains: content validity, internal consistency, criterion validity, construct validity, reproducibility (including agreement and reliability), responsiveness, floor and ceiling effects and interpretability. Each dimension is evaluated based on whether the measurement properties of the questionnaires meet methodological quality criteria using four rating categories: a) positive rating (+), b) indeterminate rating (?), c) negative rating (-) and d) no information available (0). Based on this tool, two authors independently assessed each of the studies. The agreement index was calculated using Cohen's kappa coefficient.

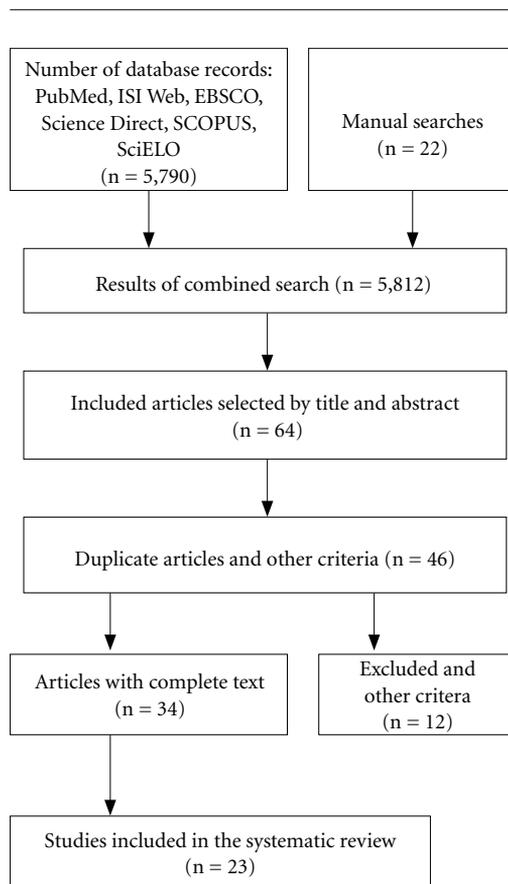
In addition, other characteristics of the studies were recorded for the analysis: questionnaire name, country of origin, role of violence (e.g., victimization, perpetration), number of items and dimensions, age range and mean age of the sample, type of population (e.g., students), sample size, measurement theory (e.g., classical test theory, item response theory) and the four classification categories identified above (creation, adaptation, review of measurement properties and observational study).

In reference to cross-cultural adaptation, four of fourteen points were considered in the

section on cross-cultural validation of the COSMIN checklist, namely, translation, retro-translation, piloting and inclusion of a committee of translation experts<sup>37</sup>. The selection of these four points is based on international guidelines for questionnaires cross-cultural adaptation<sup>38,39</sup>.

## Results

A total of 22 articles were included for the analysis (Figure 1): nine articles were from Spain, three from Brazil, three from Mexico, two from Chile, one from Colombia, one from Puerto Rico, while three studies included several countries (Brazil and Mexico; Spain, Mexico and Argentina; and Spain, Mexico and Guatemala). It should be noted that no articles were published between 1981 and 2003; the selected articles were published as of 2004.



**Figure 1.** Flow chart of the selection of articles on dating violence measurement questionnaires in Ibero-America.

A total of 16 questionnaires were identified: 12 of them measured violent dating behaviors, two measured attitudes, and two questionnaires measured attitudes and behaviors.

Of the 22 studies identified, seven studies reported on seven questionnaires creations in Ibero-America: *Experiences of Violence in Partner and Family Relationships in University Students (CEV-RPF)*<sup>40</sup>; *Dating Abuse Questionnaire (CMN)*<sup>41</sup>; *Questionnaire on Psychological Violence in Courtship (PDV-Q)*<sup>42</sup>; *Revised Dating Violence Questionnaire (CUVINO-R)*<sup>30</sup>; *Violence in Adolescents' Dating Relationships Inventory (VADRI)*<sup>43</sup>; *VEC Scale*<sup>44</sup> and *VGP Scale*<sup>45</sup>. In 10 studies, seven cross-culturally adapted questionnaires as well as validations were analyzed: *AADS*<sup>46,47</sup>; *CADRI*<sup>46,48-50</sup>; *CTS2*<sup>51</sup>; *CUVINO*<sup>52,53</sup>; *JVCT*<sup>47</sup>; *M-CTS*<sup>54</sup> and *PAJ*<sup>55</sup>. Three articles analyzed the measurement properties of three questionnaires, *CADRI*, *CMN* and *VEC Scale*<sup>56-58</sup>, and two observational studies refer to the measurement properties of two questionnaires, *CVPU* and *Checklist of Experiences of Partner Abuse*<sup>59,60</sup>.

The first work in the scientific literature to measure DV in Ibero-America was published in 2004 and refers to the cross-cultural adaptation and validation of the *CTS* scale. The study was conducted simultaneously in 17 countries, including two Ibero-American countries: Brazil and Mexico. The first questionnaire created in Ibero-America was the *Checklist of Experiences of Partner Abuse*. It was implemented in Colombia in 2008, and its measurement properties were reported in 2010. This questionnaire evaluated the frequency of physical, verbal, emotional, psychological, sexual, and economic abuse and negligence towards the partner.

Spain accounted for the greatest number of studies: four transcultural adaptations, five questionnaires creations and two articles analyzing the measurement properties of two questionnaires. Similarly, between 2009 and 2017, six questionnaires were created in Ibero-America.

Regarding the role of DV, of the fourteen questionnaires measuring behaviors, six questionnaires considered the victim and perpetrator roles in DV: *CADRI*, *CEV-RPF*, *CTS2*, *M-CTS*, *PDV-Q* and *VADRI*; and eight questionnaires measured victimization in DV: *CMN*, *CUVINO*, *CUVINO-R*, *CVPU*, *LCMP*, *PAJ*, *VEC*, and *VGP*.

One of the behavioral questionnaires, *CADRI*<sup>48</sup>, evaluated street adolescents; students (secondary, high school and/or university) comprised the sample set in the other studies. The number of participants in the reviewed studies

ranged from 36 to 5,596. The number of items in the measurement questionnaires ranged from 10 to 95. The measurement items reported by the scales ranged from one to eight factors (Table 1).

In relation to measurement theory, only the *VADRI* questionnaire<sup>43</sup> considers item response theory; the rest of the questionnaires use classical test theory.

Regarding cross-cultural adaptation, four aspects of validation were considered: translation, back translation, piloting and committee of translation experts<sup>37</sup>. Five of twelve measures, *AADS Mexico*, *CADRI Mexico*<sup>46</sup>, *CTS2-Brazil*, *CTS2-Mexico*<sup>51</sup> and *PAJ*<sup>55</sup>, reported the process including all four points. Three questionnaires, *AADS Spain*, *JVCT*<sup>47</sup> and *M-CTS*<sup>54</sup>, fulfilled three aspects: translation, committee of experts and piloting. The *CADRI* inventory<sup>48</sup> reported two aspects: back translation and expert committee, while the same questionnaires validated in the same country (Brazil) by Minayo et al.<sup>50</sup> only included back translation. Three questionnaires, *CADRI Spain*, *CUVINO Chile* and *CUVINO Argentina-Mexico-Spain*, did not report information on cross-cultural adaptation. From the above, it is observed that most of the processes of cross-cultural adaptation and validation were not performed according to the aspects evaluated, except for five measures (Table 1).

### Results of the evaluation of measurement properties

The evaluation of the measurement properties was performed considering the criteria of Terwee et al.<sup>36</sup> This review was performed by two of the authors independently, and to evaluate mutual agreement Cohen's kappa coefficient was used, whose result was .905, considered very good.

### Content validity

According to the criteria of Terwee et al.<sup>36</sup> a positive (+) rating is given to questionnaires that provide a clear description of the questionnaire's objective, the population and the selection of the items. In the present review, six of seven scales describing the construction and validation of questionnaires, *CEV-RPF*<sup>40</sup>, *CMN*<sup>41</sup>, *PDV-Q*<sup>42</sup>, *VADRI*<sup>43</sup>, *VEC*<sup>44</sup> and *VGP Scale*<sup>45</sup>, obtained a positive (+) rating. The *CUVINO-R* questionnaire<sup>30</sup> did not provide information about content validity so it was scored with (0) (no information). This section does not apply to adaptations and/

or validations or observational studies because content validity is only pertinent to the creation of questionnaires<sup>61</sup>.

### Internal consistency

For the evaluation of internal consistency, Terwee et al.<sup>36</sup> propose assigning a positive (+) rating to studies that perform factor analysis and Cronbach's alpha calculated per dimension ranging from .70 to .95.

It was found that five questionnaires, *CMN*<sup>41</sup>, *PDV-Q*<sup>42</sup>, *VADRI Spain-Mexico*<sup>43</sup>, *VEC*<sup>44</sup> and *VGP Scale*<sup>45</sup>, reported an adequate consistency, for which they received a positive (+) rating.

In relation to the intermediate rating (?) Terwee et al.<sup>36</sup> apply this rating to questionnaires that do not report factor analysis. Such was the case of *CADRI Brasil*<sup>48</sup>, *CTS*<sup>51</sup>, *CEV-RPF*<sup>40</sup> and *CVPU*<sup>59</sup>.

A negative (-) rating was given when Cronbach's alpha was <.70 or >.95. This was the case of eight questionnaires: *CADRI Spain, Mexico and Brazil*<sup>46,50,56,62</sup>, *CVPU*<sup>59</sup>, *M-CTS*<sup>54</sup>, *AADS Spain and Mexico*, *JVCT*<sup>46,47</sup>, *Checklist of Experiences of Partner Abuse*<sup>60</sup>, *CUVINO revised Spanish, Chilean version*<sup>30,52,53</sup> and *VADRI Guatemala*<sup>43</sup>.

In one inventory, no internal consistency information was found, *PAJ*<sup>50</sup>, and it was scored (0) (no information available) (Table 2).

### Construct validity

A score (+) was given when the questionnaires had convergent and/or divergent validity using known or relevant questionnaires and when at least 75% of the results were found in the expected direction and size<sup>36</sup>. Five scales, *VADRI*<sup>43</sup>, *CTS*<sup>51</sup>, *CMN*<sup>41</sup>, *AADS* and *JVCT*<sup>47</sup> demonstrated adequate construct validity (+). In the rest of the questionnaires no construct validity information was found, so a value of (0) was assigned (without information) (Table 3).

### Validity of criterion, reproducibility: agreement and reliability, responsiveness and floor and ceiling effects

In the questionnaires that were included in the analysis, no information was found on the extent to which questionnaires scores conformed to a "gold standard", reproducibility, measurement error, responsiveness and floor and ceiling effects so that the questionnaires received a score of (0) in these sections.

Table 1. Description of measurement questionnaires created or adapted for dating violence in Ibero-America.

Questionnaire	Country of origin	Year	Violence role	Items	Dimensions	Type of study	N	Population	% of women	Mean age (SD)	Theory of measurement	Cross-cultural adaptation
AAADS <sup>b</sup>	Mx	2006	n/a	10	Justification of female, male, and peer aggression.	B	307	EB	62.5	- (-)	TCT	TRT, P, CE
CADRI <sup>a</sup>	Es	2011	n/a	10	"	B	2,856	EB	54.8	17.1 (1.1)	"	T, P, CE
	Mx	2006	V,P	34	Sexual, physical, relational, verbal-emotional violence, threats.	B	307	EB	62.5	- (-)	"	TRT, P, CE
	Es	2006	"	34	"	B	572	ES, EB	58.4	M. 16.7 (1.0), H.16.7 (1.0)	"	-
CEV-RPF <sup>a</sup>	Br	2011	"	22	"	B	440	EB	-	- (-)	"	TRT
	Br	2012	"	24	"	B	43	ASC	26.0	15.3 (1.1)	"	TRT, CE
	PR	2012	V,P	41	Violence of the partner toward the student, violence of the student towards the partner, violence observed between the parents and violence of the parents towards the student.	A	267	U	74.0	-	"	n/a
	Es	2013	"	35	Physical, verbal, relational violence and conflict resolution.	C	571	U	70.1	18.7 (1.)	"	-
CMN <sup>a</sup>	Mx	2012	V	62	Psychological, physical, sexual, economic abuse and sociocultural influence.	A	1,092	U	100.0	20.9 (2.6)	"	n/a
CTS2 <sup>a</sup>	Mx	2014	V	57	"	C	2,157	EB, U	100.0	18.9 (2.6)	"	n/a
	Br	2004	V,P	39	Physical assault, physical harm, psychological aggression, sexual coercion and negotiation.	B	322	U	66.8	21.5 (-)	"	TRT, P, CE
	Mx	2004	"	39	"	B	308	U	83.7	20.7 (-)	"	TRT, P, CE
	Cl	2014	"	78	Negotiation, psychological aggression, physical aggression, sexual violence and physical harm.	D	470	U	51.3	21.3 (2.1)	"	-

it continues

**Table 1.** Description of measurement questionnaires created or adapted for dating violence in Ibero-America.

Questionnaire	Country of origin	Year	Violence role	Items	Dimensions	Type of study	N	Population	% of women	Mean age (SD)	Theory of measurement	Cross-cultural adaptation
CUVINO <sup>a</sup>	Ar, Es y Mx	2010	V	42	Emotional punishment, coercion, detachment, physical, gender, humiliation, instrumental and sexual.	B	5,170	EB, U	66.3	19.1 (2.4)	“	-
		2014	V	43	“	B	150	ES	55.3	-	“	-
CUVINO-R <sup>a</sup>	Es	2017	V	20	Detachment, humiliation, coercion, physical and sexual violence.	C	1,138	EB, U	60.4	18.5 (2.1)	“	n/a
CVPU <sup>ab</sup>	Cl	2011	V	43	Violencia psicológica, violencia física y actitudes hacia la violencia íntima.	D	427	U	49.0	16.2 (1.0)	“	n/a
JVCT <sup>b</sup>	Es	2011	n/a	10	Justificación de agresión verbal femenina, masculina, de tácticas de control femeninas, tácticas de control masculinas, de tácticas de celos femenina, de tácticas de celos masculina.	B	2,856	EB	54.8	17.1 (1.1)	“	T, P, CE
LCMP <sup>a</sup>	Co	2010	P	95	Maltrato físico, verbal, emocional, psicológico, sexual, económico y negligente.	D	562	U	53.9	18.3 (1.1)	TCT	n/a
M-CTS <sup>a</sup>	Es	2007	V <sub>1</sub> P	18	Argumentación, agresión psicológica/verbal, agresión física leve y agresión física grave.	B	5,596	EB, U	36.7	19.7 (2.8)	“	T, P, CE
PAJ <sup>ab</sup>	Br	2015	V	64	Relaciones afectivas y de amor, experiencias difíciles, comportamientos sexuales, familia, sentimientos y estilos de vida, sentimientos y emociones.	B	36	EB, U	55.5	-	“	TRI, CE, P
PDV-Q <sup>a</sup>	Es	2015	V <sub>1</sub> P	26	Agresión y victimización de la violencia psicológica.	A	670	U	62.8	22.0 (1.8)	TCT	n/a
VADRI <sup>a</sup>	Es	2015	V <sub>1</sub> P	52	Violencia física, verbal-emocional, sexual, relacional, amenazas.	A	162	EB, U	-	18.5 (1.2)	TRI	n/a
	Gt	2015	V <sub>1</sub> P	52	“	A	91	EB, U	-	19.8 (.04)	“	n/a
	Mx	2015	V <sub>1</sub> P	52	“	A	213	EB, U	-	18.3 (1.1)	“	n/a

it continues

**Table 1.** Description of measurement questionnaires created or adapted for dating violence in Ibero-America.

Questionnaire	Country of origin	Year	Violence role	Items	Dimensions	Type of study	N	Population	% of women	Mean age (SD)	Theory of measurement	Cross-cultural adaptation
VEC <sup>a</sup>	Es	2009	V	23	Unidimensional	A	133	U	100.0	21 (-)	"	n/a
	Es	2011	V	25	"	C	289	ES	60.8	M.16.1 (1.3), H.15.6 (1.15)	"	n/a
VGP <sup>a</sup>	Es	2014	V	22	Hostile domination and possessive-control domination.	A	1338	U	60.0	20.3 (2.9)	"	n/a

Note: AADS, Attitudes Towards Dating Violence Scales; CADRI, Conflict in Adolescent Dating Relationships Inventory; CMIN, Dating Abuse Questionnaire; CTS2, Revised Conflict Tactics Scale; CUVINO, Dating Violence Questionnaire; CUVINO-R, Revised Dating Violence Questionnaire. Ar = Argentina, Br = Brazil, Cl = Chile, Co = Colombia, Sp = Spain, Gt = Guatemala, Mx = Mexico, PR = Puerto Rico. The hyphen (-) means that no information was provided. n/a = not applicable. " = The information in the cell above is repeated. V = Victimization, P = Perpetration. A = Creation of a questionnaire, B = Validation and/or cross-cultural adaptation of a questionnaire, C = Psychometric properties analysis, D = Observational studies that refer to psychometric properties of a validated or non-standardized questionnaires measuring dating violence. SS = Secondary students, HS = High school students, U = University students, ASC = Street adolescents, SD = Standard deviation. W = Women, M = Men. TCT = The classical test theory was used. TRI = Item response theory was used. T = Translation only; TRT = Translation retro-translation, CE = Translation expert committee was involved, P = Piloting (e.g., cognitive interviews).

<sup>a</sup> Questionnaire that measures behaviors of violence in dating. <sup>b</sup> Questionnaire that measures attitudes of violence in dating.

**Table 2.** Quality analysis of the measurement properties of dating violence questionnaires created in Ibero-America.

Questionnaire	Country of origin	Year	Content validity	Internal Consistency	Criterion validity	Construct validity	Reproducibility		Responsiveness		Floor and ceiling effects	Interpretability
							Agreement	Reliability	Agreement	Reliability		
CEV-RPF	PR	2012	+	?	0	0	0	0	0	0	0	0
CMN	Mx	2012	+	+	0	+	0	0	0	0	0	0
CUVINO-R	Es	2017	0	-	0	+	0	0	0	0	0	0
CVPU	Cl	2011	+	?	0	0	0	0	0	0	0	0
LCMP	Co	2010	+	-	0	0	0	0	0	0	0	0
PDV-Q	Es	2015	+	+	0	0	0	0	0	0	0	0
VADRI	Es	2015	+	+	0	+	0	0	0	0	0	0
	Gt	2015	+	-	0	+	0	0	0	0	0	0
	Mx	2015	+	+	0	+	0	0	0	0	0	0
VEC	Es	2009	+	+	0	0	0	0	0	0	0	0
VGP	Es	2014	+	+	0	0	0	0	0	0	0	0

Note: CMN, Dating Abuse Questionnaire; CEV-RPF, Questionnaire of Experiences of Violence in Partner and Family Relationships in University Students; CUVINO-R, Revised Dating Violence Questionnaire; CVPU, Questionnaire on partner violence in university students; LCMP, Checklist of Experiences of Partner Abuse; PDV-Q, Psychological Dating Violence Questionnaire; VADRI, Violence in Adolescents' Dating Relationships Inventory; VGP Scale, Gender Violence Perception; Cl = Chile, Co = Colombia, Sp = Spain, Gt = Guatemala, Mx = Mexico, PR = Puerto Rico. Scoring: + Positive, ? indeterminate, - negative, 0 no information available.

## Interpretability

According to the criteria of Terwee et al.<sup>36</sup> a questionnaire receives an intermediate score (?) if it has less than four comparative categories for the study sample (means and standard deviation). In the three questionnaires *CTS2 in Brazil, Mexico*<sup>51</sup>, *VEC*<sup>58</sup> and *CUVINO*<sup>52</sup> information on means and standard deviations by gender was included as a category of analysis. In the other questionnaires, no information was found (0).

## Discussion

In this systematic review, 22 articles were analyzed that reported on 16 questionnaires of DV measurement used in Ibero-America and were published as of 2004. Fourteen of them measured DV behaviors, while only two of them measured behaviors and attitudes and two measured attitudes. Because attitudes have been linked to violent dating behaviors<sup>63</sup>, in recent years the study of attitudes in DV has been emphasized as a fundamental aspect in its prevention.

It should be noted that most of the studies involved young people attending school, thus generating the opportunity for the creation or adaptation of questionnaires aimed at young populations not attending school who may have different social roles, which could influence how they relate to their partner.

In terms of the cross-cultural adaptation of DV questionnaires in Ibero-America, only five of twelve questionnaires reported the complete adaptation process according to the international guidelines for the adaptation of questionnaires<sup>38,39</sup>. The process of cross-cultural adaptation of questionnaires must guarantee semantic and linguistic equivalence to the original version<sup>64</sup>, which highlights the need for more methodological rigor in the adaptation process of the questionnaires analyzed. Borsa et al.<sup>65</sup> suggests that most research on cross-cultural adaptation is invalid when inadequate or incomplete procedures are performed in the adaptation of instruments.

Considering the criteria of Terwee et al.<sup>36</sup> for the evaluation of the quality of properties measured in scale creation it was found that two questionnaires, *CMN* and *VADRI/Spain-Mexico*, received the highest scores in content validity, construct validity and adequate internal consistency. It is important to note that the *CMN* and *VADRI/Spain-Mexico* questionnaires had not been evaluated in previous reviews.

Table 3. Quality analysis of the measurement properties of dating violence questionnaires adapted in Ibero-America.

Questionnaire	Country of adaptation	Year	Internal Consistency	Criterion validity	Construct validity	Reproducibility		Responsiveness	Floor and ceiling effects	Interpretability
						Agreement	Reliability			
AADS	Mx	2006	-	0	0	0	0	0	0	0
CADRI	Es	2011	-	0	+	0	0	0	0	0
	Es	2006	-	0	0	0	0	0	0	0
	Mx	2006	-	0	0	0	0	0	0	0
	Br	2011	-	0	0	0	0	0	0	0
CTS2	Br	2012	?	0	0	0	0	0	0	0
	Es	2014	-	0	0	0	0	0	0	0
	Mx	2004	?	0	+	0	0	0	0	?
	Br	2004	?	0	+	0	0	0	0	?
CUVINO	Cl	2014	-	0	0	0	0	0	0	?
	Ar, Es, Mx	2010	-	0	0	0	0	0	0	?
	Cl	2014	-	0	0	0	0	0	0	0
	Es	2011	-	0	+	0	0	0	0	0
M-CTS	Es	2004	-	0	0	0	0	0	0	0
	Br	2015	0	0	0	0	0	0	0	0

Note: AADS, Attitudes Towards Dating Violence Scales; CADRI, Conflict in Adolescent Dating Relationships Inventory; CTS2, Revised Conflict Tactics Scale; CUVINO, Dating Violence Questionnaire; JVCT, Justification of verbal/coercive Tactics Scale; M-CTS, Modified Conflict Tactics Scale; PAJ, Parcours Amoureux des Jeunes. Ar = Argentina, Br = Brazil, Cl = Chile, Sp = Spain, Mx = Mexico. Score: + Positive, ? indeterminate, - negative, 0 no information available.

Regarding the adapted questionnaires, the *CTS-Brazil and Mexico* obtained the highest score, receiving an intermediate score in internal consistency and a positive score in construct validity.

On the findings of psychometric properties in previous reviews, Exner-Cortners et al.<sup>23,24</sup> concluded that the questionnaire with greatest statistical support was the *CADRI*. However, in the present review according to the criteria of Terwee et al.<sup>36</sup> only information about internal consistency was found, and in terms of transcultural adaptation only the *CADRI version Mexico*<sup>46</sup> considered the four aspects of validation evaluated. López-Cepero Borrego et al.<sup>21</sup>, in their review of questionnaires measuring intimate partner violence, recommended the use of the *CADRI* and *CUVINO* in adolescents and young people because of their superior structural stability compared to the *M-CTS*.

The questionnaires most used in this review were the *CADRI*, *CTS* and *CUVINO*, as reported in previous reviews of DV measures<sup>16,21-24</sup>.

It is important to note that three questionnaires adaptations received an intermediate rating with respect to interpretability. Neither created nor adapted measures included information about criterion validity, reproducibility, responsiveness and floor ceiling effects. Therefore, in conducting research on the creation and adaptation of DV questionnaires, greater effort must be made to report these properties.

However, it is important to clarify that the questionnaires without high scores included in the analysis are not necessarily invalid or unreliable questionnaires but rather that no available evidence demonstrating such properties was found.

It is necessary to have standardized tools and criteria to evaluate the measurement properties of evaluation questionnaires<sup>37</sup>. For this review there was no tool available in the field of

psychology to evaluate the quality of properties measured, so the criteria of Terwee et al.<sup>36</sup> were used. However, some of these criteria are more responsive to clinical measures. It is important to note that the authors of this review were aware of the latest version of the criteria by Terwee et al.<sup>37</sup> However, the version by Terwee et al.<sup>36</sup> was used instead due to its feasibility and clear interpretation of results.

The findings of this study demonstrate that research on DV measurement in young Ibero-Americans has recently been increasing<sup>27</sup>, as reflected by the fact that previous reviews of DV questionnaires were published only since 2015.

Furthermore, a high prevalence of DV has been demonstrated in Ibero-America<sup>26-29</sup>. Many studies are focused on women,<sup>6,18,29</sup> the results of which show a violation of women's human rights<sup>66</sup>, as in the case of Mexico, specifically in Ciudad Juarez, where attacks against women and the number of femicides has increased<sup>67</sup>. Similarly, Ramos-Lira et al.<sup>68</sup> report that organized crime in Mexico has led to violence against women, as seen by the decrease in denunciations for fear of identifying victims with drug trafficking and the pressure on women to become involved with criminals.

Increased attacks and femicides demonstrate the importance of preventing violent dating relationships at an early age and the relationship between organized crime or intrafamily violence.

For future research, it is recommended that the following measurement properties of questionnaires be reported: agreement, reliability, responsiveness and floor and ceiling effects. Similarly, we suggest improving the measurement properties of existing DV questionnaires and following standardized guidelines for cross-cultural adaptation, which would allow for international comparisons of DV prevalence, behaviors and attitudes, facilitating the establishment of objectives and goals in DV interventions.

### **Collaborations**

LY Yanez-Peñúñuri and CA Hidalgo-Rasmussen participated in the conception and design of the study, the search and selection of articles, the evaluation of psychometric properties, and the writing and final revision of the article; YV Chávez-Flores participated in the evaluation of the studies and revision of the final version of the article.

### **Acknowledgements**

This research was conducted thanks to the support of CONACYT scholarship. The authors wish to thank Dr. Karina Franco-Paredes for her methodological support and Dr. Soraya Santana Cárdenas for her support in correcting the draft of the manuscript.

## References

- Exner-Cortens D, Eckenrode J, Bunge J, Rothman E. Revictimization After adolescent dating violence in a matched, national sample of youth. *J Adolesc Heal* 2017; 60(2):176-183.
- Reidy DE, Smith-Darden JP, Cortina KS, Kernsmith RM, Kernsmith P. Masculine discrepancy stress, teen dating violence, and sexual violence perpetration among adolescent boys. *J Adolesc Heal* 2015; 56(6):619-624.
- Alleyne B, Coleman-Cowger VH, Crown L, Gibbons MA, Vines LN. The effects of dating violence, substance use and risky sexual behavior among a diverse sample of Illinois youth. *J Adolesc* 2011; 34(1):11-18.
- Holmes K, Sher L. Dating violence and suicidal behavior in adolescents. *Int J Adolesc Med Health* 2013; 25(3):257-261.
- Howard DE, Debnam KJ, Wang MQ, Gilchrist B. 10-Year Trends in physical dating violence victimization among U.S. Adolescent Males. *Int Q Community Health Educ* 2012; 32(4):283-305.
- Rivera-Rivera L, Allen B, Rodríguez-Ortega G, Chávez-Ayala R, Lazcano-Ponce E. Violencia durante el noviazgo, depresión y conductas de riesgo en estudiantes femeninas (12-24 años). *Salud Publica Mex* 2006; 48(Supl. 2):s288-s296.
- Silverman JG, Raj A, Lorelei AM, Hathaway JE. Dating violence against adolescent girls and associated substance use, unhealthy weight control, sexual risk behavior, pregnancy, and suicidality. *JAMA* 2001; 286(5):572-579.
- Shorey RC, Stuart GL, Cornelius TL. Dating violence and substance use in college students: A review of the literature. *Aggress Violent Behav* 2011; 16(6):541-550.
- Close SM. Dating violence prevention in middle school and high school youth. *J Child Adolesc Psychiatr Nurs* 2005; 18(1):2-9.
- Lavoie F, Robitaille L, Hébert M. Teen dating relationships and aggression: an exploratory study. *Violence Against Women* 2000; 6(1):6-36.
- Centers for Disease Control and Prevention. Understanding teen dating violence. *Fact Sheet* 2016;1-2.
- Barter C. In the name of love: Partner abuse and violence in teenage relationships. *Br J Soc Work* 2009; 39(2):211-233.
- Lewis SF, Fremouw W. Dating violence: A critical review of the literature. *Clin Psychol Rev* 2001; 21(1):105-127.
- Shorey RC, Cornelius TL, Bell KM. A critical review of theoretical frameworks for dating violence: Comparing the dating and marital fields. *Aggress Violent Behav* 2008; 13(3):185-194.
- Wekerle C, Wolfe DA. Dating violence in mid-adolescence: Theory, significance, and emerging prevention initiatives. *Clin Psychol Rev* 1999; 19(4):435-456.
- Caselman T, Dubriwny N, Curzon EL. Teen Dating Violence: A comparison of self-report measures. *Sch Soc Work J* 2014; 38(2):32-48.
- Cascardi M. From violence in the home to physical dating violence victimization: The mediating role of psychological distress in a prospective study of female adolescents. *J Youth Adolesc* 2016; 45(4):777-792.
- Guzmán MO, Ortega GR. Nivel de maltrato en el noviazgo y su relación con la autoestima. *Uaricha* 2011; 8(17):34-48.
- Perestelo-Pérez L. Standards on how to develop and report systematic reviews in psychology and health. *Int J Clin Health Psychol* 2013; 13(1):49-57.
- Sánchez-Meca J, Botella J. Revisiones sistemáticas y meta-análisis: Herramientas para la práctica profesional. *Pap Psicol* 2010; 31(1):7-17.
- Borrego JLC, Rodríguez-Franco L, Rodríguez-Díaz FJ. Evaluación de la violencia de pareja. Una revisión de instrumentos de evaluación conductual. *Rev Iberoam Diagnostico y Eval Psicol* 2015; 1(40):37-50.
- Smith J, Mulford C, Latzman NE, Teten A, Holditch P, Blachman-Demner D. Taking stock of behavioral measures of adolescent dating violence. *J Aggress Maltreat Trauma* 2015; 24(5):674-692.
- Exner-Cortens D, Gill L, Eckenrode J. Measurement of adolescent dating violence: A comprehensive review (Part 1, behaviors). *Aggress Violent Behav* 2016; 27:64-78.
- Exner-Cortens D, Gill L, Eckenrode J. Measurement of adolescent dating violence: A comprehensive review (Part 2, attitudes). *Aggress Violent Behav* 2016; 27:93-106.
- Bezerra MA, Leitão MC, Amaro de Oliveira ASJ, Coelho MA, Figueira CM, Carvalho M. Prevalence and characteristics of dating violence among school-aged adolescents in Portugal. *Esc Anna Nery* 2016; 20(1):183-191.
- Fernández-Fuertes AA, Fuertes A. Physical and psychological aggression in dating relationships of Spanish adolescents: Motives and consequences. *Child Abuse Negl* 2010; 34(3):183-191.
- Gómez JA, Gutiérrez V, Gómez N. Relación entre la violencia en el noviazgo y observación de modelos parentales de maltrato. *Psychol* 2016; 10(1):101-112.
- Muñoz-Rivas MJ, Graña JL, O'Leary KD, González MP. Aggression in adolescent dating relationships: Prevalence, justification, and health consequences. *J Adolesc Health* 2007; 40(4):298-304.
- Rivera-Rivera L, Allen-Leigh B, Rodríguez-Ortega G, Chávez-Ayala R, Lazcano-Ponce E. Prevalence and correlates of adolescent dating violence: Baseline study of a cohort of 7960 male and female Mexican public school students. *Prev Med* 2007; 44(6):477-484.
- Rodríguez-Díaz FJ, Herrero J, Rodríguez-Franco L, Bringas-Molleda C, Paíno-Quesada SG, Pérez B. Validation of Dating Violence Questionnaire-R (DVQ-R). *Int J Clin Heal Psychol* 2016; 17(1):77-84.
- Liberati A, Altman DG, Tetzlaff J, Mulrow C, Ioannidis JB, Clarke M, Devereaux PJ, Kleijnen J, Moher D. The PRISMA Statement for reporting systematic reviews and meta-analyses of studies that evaluate health care interventions : explanation and elaboration. *J Clin Epidemiol* 2009; 62(10):e1-24.
- Instituto Mexicano de la Juventud. *Programa Nacional de Juventud 2014-2018*. 2014;39-41. [cited 2017 May 15]. Available from: [http://planipolis.iiep.unesco.org/upload/Youth/Mexico/Mexico\\_Programa\\_Nacional\\_de\\_Juventud.pdf](http://planipolis.iiep.unesco.org/upload/Youth/Mexico/Mexico_Programa_Nacional_de_Juventud.pdf)

33. Makepeace JM. Courtship violence among college students. *Fam Relat* 1981; 30(1):97-102.
34. De Puy J, Hamby S, Lindemuth C. Teen dating violence in French-speaking Switzerland: Attitudes and experiences. *Int J Conf Violence* 2015; 8(2):305-315.
35. McNaughton L, Foshee VA, Holditch P, Reidy D, Hall J. Perpetration: Normative beliefs as moderators. *J Youth Adolesc* 2017; 45(2):350-360.
36. Terwee CB, Bot SDM, de Boer MR, der Windt DAWM, Knol DL, Dekker J, Bouter LM, de Vet HCW. Quality criteria were proposed for measurement properties of health status questionnaires. *J Clin Epidemiol* 2007; 60(1):34-42.
37. Terwee CB, Mokkink LB, Knol DL, Ostelo RWJG, Bouter LM, De Vet HCW. Rating the methodological quality in systematic reviews of studies on measurement properties: A scoring system for the COSMIN checklist. *Qual Life Res* 2012. 21(4):651-657.
38. Beaton DE., Bombardier C, Guillemin F, Bosi M. Guidelines for the process of cross-cultural adaption of self-report measures. *Spine (Phila Pa 1976)* 2000; 25(24):3186-3191.
39. Muñoz J, Elosua P, Hambleton RK. Directrices para la traducción y adaptación de los tests: Segunda edición. *Psicothema* 2013; 25(2):151-157.
40. Villafañe ÁA, Jiménez MI, De Jesús D, Vázquez RA. Construcción y validación del Cuestionario de Experiencias de Violencia en las Relaciones de Pareja y Familia en Estudiantes Universitarios. (Spanish). *Univ Psychol* 2012; 11(1):207-215.
41. Osorio-Guzmán M, Tani F, Bazán GE, Bonechi A, Menna P. Cuestionario de Maltrato en el Noviazgo (CMN):Instrumento Binacional (Italia-México). *Rev Psicol* 2012; 14(1):47-60.
42. Ureña J, Romera EM, Casas JA, Viejo C, Ortega-Ruiz R. Psychometrics properties of psychological dating violence questionnaire: A study with young couples. *Int J Clin Heal Psychol* 2015; 15(1):52-60.
43. Aizpitarte A, Alonso-Arbiol I, Van de Vijver FJR, Perdomo MC, Galvez-Sobral JA, Garcia-Lopez E. Development of a Dating Violence Assessment Tool for Late Adolescence Across Three Countries: The Violence in Adolescents' Dating Relationships Inventory (VADRI). *J Interpers Violence* 2015; 32(17):1-21.
44. Cantera I, Estébanez I, Vázquez N. *Violencia contra las mujeres jóvenes: La violencia psicológica en las relaciones de noviazgo*. Bilbao: Bbk, Emakunde, Eusko Jaurlaritzza Gobierno; 2009.
45. Delgado CD. What do the dating violence scales measure? *Procedia Soc Behav Sci* 2014; 161:18-23.
46. Hokoda A, Ramos-Lira L, Vilhauer K, Angeles M, Ruíz S, Malcarne VM, Duque M. Reliability of translated measures assessing dating violence among Mexican adolescents. *Violence Vict* 2006; 21(1):117-127.
47. Muñoz-Rivas MJ, Gámez-Guadix M, Fernández-González L, Lozano MPG. Validation of the Attitudes About Aggression in Dating Situations (AADS) and the Justification of Verbal/Coercive Tactics Scale (JVCT) in Spanish Adolescents. *J Fam Violence* 2011; 26(8):575-584.
48. Antônio T, Koller SH, Hokoda A. Peer influences on the dating aggression process among Brazilian street youth: A brief report. *J Interpers Violence* 2012; 27(8):1579-1592.
49. Fernández-Fuertes AA, Fuertes Martín JA, Fernández Pulido R. Evaluación de la violencia en las relaciones de pareja en adolescentes. Validación del Conflict in Adolescent Dating Relationships Inventory. *Int J Clin Heal Psychol* 2006; 6(2):339-358.
50. Minayo MCS, Assis SG, Njaine K. *Amor e violência: um paradoxo das relações de namoro e do "ficar" entre jovens brasileiros*. Rio de Janeiro: Fiocruz; 2011.
51. Straus MA. Prevalence of violence against dating partners by male and female university students worldwide. *Violence Against Women* 2004; 10(7):790-811.
52. Rodríguez-Franco L, Borrego JL, Javier F, Díaz R, Molleda CB, Bellerín MAA, Pineda CE. Validation of the Dating Violence Questionnaire, DVQ (Cuestionario de Violencia entre Novios, CUVINO) among Spanish-speaking youth : Analysis of results in Spain, Mexico and Argentina. *Anu Psicol Clínica y la Salud* 2010; 6:43-50.
53. Zullig C, Zitko P, Castaño C, Lepe P, Borgeaud K, Salinas J. Violencia en relaciones de pareja en adolescentes. Propiedades del Cuestionario de Violencia entre Novios (CUVINO). *Rev Chil Psiquiatr y Neurol la Infanc y Adolesc* 2014; 25(3):10-19.
54. Muñoz-Rivas MJ, Rodríguez JMA, Gómez JLG, O'Leary DK, Del Pilar González M. Validación de la versión modificada de la Conflicts Tactics Scale (M-CTS) en población juvenil española. *Psicothema* 2007; 19(4):693-698.
55. Nascimento O, Oliveira MC, Santana K, Hébert M, Moreau C. Cross-cultural adaptation of the Par cours Amoureux des Jeunes - PAJ inventory of Canadian origin to the Brazilian context. *Cien Saude Colet* 2015; 20(11):3417-3426.
56. Benítez JL, Muñoz JF. Análisis factorial de las puntuaciones del CADRI en adolescentes universitarios españoles. *Univ Psychol* 2014; 13(1):175-186.
57. Osorio-Guzmán M. Propiedades psicométricas del cuestionario maltrato en el noviazgo en una muestra de mujeres estudiantes Mexicanas de nivel medio superior y superior. *Salud Publica Mex* 2014; 56(1):40-47.
58. Álvarez C, Márquez E. Evaluación psicométrica de la percepción de la violencia de género en la adolescencia. *Infad Psicol Infanc Adolesc* 2011; 1(2):197-206.
59. Vizcarra MB, Poo AM. Violencia de pareja en estudiantes universitarios del sur de Chile. *Univ Psychol* 2011; 10(1):89-98.
60. Rey CA, Mateus-Cubides AM, Bayona-Arévalo PA. Malos tratos ejercidos por adolescentes durante el noviazgo. *Rev Mex Psicol* 2010; 27(2):169-181.
61. Nunnally JC. *Teoría Psicométrica*. Mexico: Trillas; 2013.
62. García Díaz V, Fernández Feito A, Rodríguez Díaz FJ, López González ML, Mosteiro Díaz MDP, Lana Pérez A. Gender violence in nursing students during their dating relationships. *Aten Primaria* 2013; 45(6):290-296.

63. Anderson JR, Chen WC, Johnson MD, Lyon SE, Lee C-YS, Zheng F, Ratcliffe GC, Peterson FR. Attitudes toward dating violence among college students in Mainland China: An exploratory study. *Violence Vict* 2011; 26(5):631-647.
64. Gjersing L, Caplehorn JRM, Clausen T. Cross-cultural adaptation of research instruments: language, setting, time and statistical considerations. *BMC Med Res Methodol* 2010; 10(13):2-10.
65. Borsa JC, Damásio BF, Bandeira DR. Adaptação e validação de instrumentos psicológicos entre culturas: algumas considerações. *Paidéia* 2012; 22(53):423-432.
66. Organización Mundial de la Salud (OMS). *Estudio multipaís de la OMS sobre salud de la mujer y la violencia doméstica: primeros resultados sobre prevalencia, eventos relativos a la salud y respuestas de las mujeres a dicha violencia: resumen del informe*. Ginebra: OMS; 2005.
67. Organización Panamericana de la Salud (OPS). *Prevenición de la violencia basada en el género en Ciudad Juárez, México: resultados y lecciones aprendidas*. El Paso: OPS; 2013.
68. Ramos-Lira L, Saucedo I, Saltijeral MT. Crimen organizado y violencia contra las mujeres: discurso oficial y percepción ciudadana. *Revista Mexicana de Sociología* 2016; 78(4):655-684.

---

Artigo apresentado em 22/05/2017

Aprovado em 18/09/2017

Versão final apresentada em 20/09/2017