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Myths about Intimate Partner Violence Against Women: The MIPVAW scale

Mitos de Violencia Contra las Mujeres en la Pareja: La escala MIPVAW

Mitos de Violência Contra as Mulheres no Casal: A escala MIPVAW

伴侣关系中针对女性暴力的迷思：MIPVAW 量表

أساطير العنف ضد المرأة في العلاقة الزوجية: مقياس MIPVAW

García-Pérez, Rafael, Rodríguez-López, Manuel, Rebollo-Catalán, Ángeles, Cubero-Pérez, Mercedes, Bascón-Díaz, Miguel J.

University of Seville, Spain

Abstract

Intimate partner violence against women (IPVAW) is occurring at increasingly younger ages, with young people labelling certain early warning signs of violence against women as "normal". This normalization of violence allows perpetrators to maintain their friendships and social reputation, while reducing victims' social support and increasing their vulnerability. Theoretical reviews suggest that the measures available to assess the acceptance of myths about IPVAW should be updated to incorporate the normalization of violence. The purpose of this study is to develop a new scale (MIPVAW) to assess the degree of acceptance of myths about intimate partner violence. To this end, 1,500 first-year spanish university students (age: M = 18.9; SD = 1.38) completed the MIPVAW scale and the Spanish adaptation of the Ambivalent Sexism Inventory. The EFA and CFA results support a four-factor structure, showing adequate reliability indices, which is achieved with only 15 items. This indicates that the scale is sensitive for assessing the acceptance of different myths about IPVAW: minimization of violence, victim-blaming, exoneration of the perpetrator, and normalization of violence. A high correlation is also demonstrated between MIPVAW scale scores and ambivalent sexism. This scale represents a novel contribution to the measurement of this construct. This scale represents a novel contribution to measuring this construct, since it includes the normalization of violence and improves its applicability because of the reduced number of indicators used for its measurement.

Keywords: Violence against women; intimate partner violence; beliefs; gender bias; measurement.

Resumen

La violencia contra las mujeres en la pareja (IPVAW) ocurre a edades cada vez más tempranas y la juventud percibe señales iniciales de violencia contra las mujeres como "normales". Esta normalización de la violencia permite a los agresores mantener sus relaciones y su reputación social, al tiempo que reduce el apoyo social de las víctimas y aumenta su vulnerabilidad. La revisión teórica sugiere actualizar las escalas disponibles incorporando la normalización de la violencia. El propósito de este estudio es desarrollar una nueva escala (MIPVAW) para evaluar el grado de aceptación de los mitos sobre la violencia íntima de pareja. Para ello, 1.500 estudiantes universitarios españoles de primer año (edad: M = 18.9; SD = 1.38) completan la nueva escala MIPVAW y la adaptación española del Inventario de Sexismo Ambivalente. Los resultados de EFA y CFA apoyan una estructura de cuatro factores, mostrando índices de fiabilidad adecuados, lo que se logra con solo 15 ítems. Esto indica que la escala es válida y fiable para evaluar la aceptación de diferentes mitos sobre IPVAW: minimización de la violencia, culpabilización de las víctimas, exoneración del agresor y normalización de la violencia. También se demuestra una alta correlación entre las puntuaciones de la escala MIPVAW con el sexismo ambivalente. Esta escala representa una contribución novedosa en la medición de este constructo al incorporar la normalización de la violencia y mejorar su aplicabilidad reduciendo los indicadores para su medida.

Palabras clave: Violencia contra las mujeres; violencia íntima de pareja; creencias; prejuicios sexistas; medición.

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Corresponding author / Autor de contacto: Rafael García Pérez. Faculty of Education (room 4.58), University of Seville, Pirotecnia Street, 41013 Seville, Spain; e-mail: rafaelgarcia@us.es

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Resumo

A violência contra as mulheres no casal (IPVAW) está a ocorrer em idades cada vez mais tenras e os jovens consideram "normais" os primeiros sinais de violência contra as mulheres. Esta normalização da violência permite aos agressores manter as suas relações e a sua reputação social, ao mesmo tempo que reduz o apoio social das vítimas e aumenta a sua vulnerabilidade. A revisão teórica sugere a atualização das escalas disponíveis, incorporando a normalização da violência. O propósito deste estudo é desenvolver uma nova escala (MIPVAW) para avaliar o grau de aceitação dos mitos sobre a violência íntima do parceiro. Para isso, 1500 estudantes universitários espanhóis do primeiro ano (idade: M = 18,9; SD = 1,38) completam a nova escala MIPVAW e a adaptação espanhola do Inventário de Sexismo Ambivalente. Os resultados da EFA e da CFA apoiam uma estrutura de quatro fatores, mostrando índices de fiabilidade adequados, o que se consegue com apenas 15 itens. Isto indica que a escala é válida e fiável para avaliar a aceitação de diferentes mitos sobre a IPVAW: minimização da violência, culpabilização das vítimas, exoneração do agressor e normalização da violência. É também demonstrada uma elevada correlação entre as pontuações da escala MIPVAW e o sexismo ambivalente. Esta escala representa um novo contributo para a medição deste construto, ao incorporar a normalização da violência e melhorar a sua aplicabilidade, reduzindo os indicadores para a sua medição.

Palavras-chave: Violência contra as mulheres; violência íntima no seio do parceiro; crenças; preconceitos sexistas; medição.

摘要

伴侣关系中的针对女性暴力（Intimate Partner Violence Against Women, IPVAW）正在越来越年轻的年龄阶段出现，而年轻人往往将最初的暴力信号视为"正常"。这种暴力的正常化使施害者得以维持其关系和社会声誉，同时削弱了对受害者的社会支持，增加了其脆弱性。理论研究表明，有必要更新现有的测量工具，以更好地捕捉暴力正常化的现象。

本研究的目标是开发一项新的量表（MIPVAW），用于评估对伴侣暴力迷思的接受程度。研究选取了 1,500 名西班牙大一大学生（平均年龄：M = 18.9；SD = 1.38）作为样本，参与者完成了新开发的 MIPVAW 量表和西班牙版的《两性歧视两难量表》（Ambivalent Sexism Inventory, ASI）。通过探索性因子分析（EFA）和验证性因子分析（CFA），支持了该量表的四因子结构，这些因子分别是：暴力的最小化、受害者责任归咎、施害者免责和暴力正常化。

MIPVAW 量表最终包括 15 个条目，展现了较高的信度和效度，同时与两性歧视的相关性较高。这一结果表明，该量表不仅有效测量了伴侣暴力迷思的接受程度，还通过引入暴力正常化的概念，优化了其适用性并简化了指标数量，从而提升了其实用价值。

关键词：女性暴力、伴侣暴力、信念、性别偏见、测量

ملخص

يحدث في أعمار أصغر بشكل متزايد، حيث يُنظر إلى الإشارات الأولية للعنف من قبل (IPVAW) العنف ضد المرأة في العلاقات الزوجية الشباب على أنها "طبيعية". هذه الظاهرة، المتمثلة في تطبيع العنف، تمكن المعتدين من الحفاظ على علاقاتهم وسمعتهم الاجتماعية، وفي الوقت نفسه تقلل الدعم الاجتماعي للضحايا وتزيد من ضعفهن. تشير المراجعة النظرية إلى ضرورة تحديث المقاييس المتاحة لتضمين مفهوم تطبيع لهذا الغرض، .لتقييم درجة قبول الأساطير المرتبطة بالعنف الزوجي الحميم (MIPVAW) العنف. يهدف هذا البحث إلى تطوير مقياس جديد MIPVAW أكمل 1500 طالب جامعي إسباني في السنة الأولى (العمر: متوسط = 18.9؛ الانحراف المعياري = 1.38) المقياس الجديد والتحليل العاملي (EFA) أظهرت نتائج التحليل العاملي الاستكشافي .Inventario de Sexismo Ambivalente والتكيف الإسباني لمقياس دعمًا لهيكل مكون من أربعة عوامل، مع مؤشرات موثوقية مناسبة، وذلك باستخدام 15 بندًا فقط. يشير ذلك إلى أن المقياس (CFA) التأكيدي ، والتي تشمل التقليل من أهمية (IPVAW) يتمتع بالصلاحية والموثوقية لتقييم قبول الأساطير المتعلقة بالعنف ضد المرأة في العلاقات الزوجية sexismo والـ MIPVAW كما تم إثبات وجود ارتباط قوي بين نتائج مقياس .العنف، لوم الضحايا، تبرئة المعتدي، وتطبيع العنف يمثل هذا المقياس إضافة جديدة في قياس هذا المفهوم من خلال دمج تطبيع العنف وتحسين قابليته للتطبيق عن طريق تقليل .ambivalente عدد المؤشرات المستخدمة في التقييم

الكلمات الدالة: العنف ضد المرأة؛ العنف الحميم في العلاقة الزوجية؛ المعتقدات؛ التحيزات الجنسية؛ القياس

Introduction

Violence against women is a global problem of epidemic proportions with dire consequences for women's health and well-being. According to the World Health Organisation (2021), violence inflicted by a spouse or male partner is the most widespread form of violence against women worldwide: one in five women aged 15 and over has experienced physical and/or sexual violence, and 43% have experienced psychological partner violence. In Spain, 46.4% of women aged 16-24 have experienced psychological intimate partner violence (DGVG, 2020). In this study, we consider intimate partner violence as any act of physical, sexual, psychological or economic violence that occurs between current or former spouses or partners, regardless of whether the aggressor shares or has shared the same residence as the victim' (EIGE, 2023).

Studies on intimate partner violence against women (IPVAW) myth acceptance have become an important focus of research (García-Pérez & Rodríguez-López, 2021; Bernal-Baldenebro et al., 2019; Borrajo et al., 2015; Erdem & Sahin, 2017). This is due to the negative consequences that its acceptance has on victims, increasing their vulnerability and lack of protection (Lim et al., 2015; Marcos et al., 2024; Paz-Rodríguez et al., 2022), but also because it increases men's propensity to perpetrate violence against women (Herrero et al., 2017; Martín-Fernández et al., 2018a).

We assume Peters' (2008) definition of myths. According to this author, myths are 'stereotypical beliefs about domestic violence that are generally false but are widely and persistently held and serve to minimise, deny or justify aggression against intimate partners' (p. 5). He considers three constituent aspects of the concept of 'myths': (a) false beliefs that are (b) widely shared and (c) used to explain and justify existing cultural arrangements, identifying four types of myths: (a) blaming the victim based on psychological characteristics; (b) blaming the victim for her behaviour; (c) minimizing the severity and impact of the abuse; and (d) exonerating the perpetrator. In their subsequent review of IPVAW myths in the Spanish context, other research (Bosch- Fiol & Ferrer-Pérez, 2012; Ferrer-Pérez et al., 2016) identifies myths about: (a) victim blaming; (b) exoneration of the aggressor; (c) minimization of violence; (d) marginalization of violence; and furthermore, warns of the emergence of *new denialist myths* about gender-based violence (Paz-Rodríguez et al., 2022). Their subtle and covert nature makes them particularly effective in challenging institutional resources, reducing victim support and protecting the aggressor (Rebollo-Catalán et al., 2022; Lim et al., 2015; McCarry & Lombard, 2016).

Previous research does not include the 'normalization of violence' as a type of false belief that seeks to justify it. However, recent reports (Del Moral, 2021; DeVault, 2019; Nardi-Rodriguez et al., 2017; Rodriguez et al., 2023) find that adolescents and young adults perceive early warning signs of violence against women as 'normal' and this cover-up allows male perpetrators to maintain their relationships and social reputation. Rodelli et al. (2022) define the normalization of gender-based violence against women as those cultural beliefs and values that support and justify the perpetration of gender-based violence by presenting it as a normal component of relationships between men and women. Some of these beliefs hold that an abuser can be a good friend (Sinko & Saint-Arnault, 2020) or a good father (Procentese, 2020). According to Bajo-Pérez (2020), this occurs because of the prevalence of psychological violence in young couples including the social acceptance of behaviours such as humiliation, control, social isolation or jealousy. Other research finds that one third of young people normalise gender-based intimate partner violence (Ballesteros et al., 2018; Del Moral et al., 2020).

Most research on intimate partner violence against women studies the relationship with sexist attitudes (Erdem & Sahin, 2017; Fernández-Antelo et al., 2020; Ferrer-Pérez et al., 2019), finding a closer link with hostile sexism (Dosil et al., 2020; Rodríguez-Castro et

al., 2021), but also with subtle forms of sexism associated with 'protective paternalism' (Fernández-Antelo et al., 2020; Rollero & De Picoli, 2020). The analysis of IPVAW myths cannot be separated from sexism, precisely because a characteristic of the latter is to deny the discrimination suffered by women and to question corrective measures (Bosch-Fiol & Ferrer-Pérez, 2012; Connor et al., 2018).

Previous measures of IPVAW myths

Detecting the acceptance of myths about violence against women requires reliable and valid measures of these myths for research and also for intervention purposes (Ferrer-Pérez et al., 2019; Martín-Fernández et al., 2018a). Several instruments have been published in this area and significant progress has been made. However, we detail below considerations and limitations that justify the validation of an updated measure of IPVAW myths.

Peters (2008) does not provide information on the goodness-of-fit indicators of the CFA, which makes it impossible to discuss its four-factor structure. Moreover, the differences he found in the factor structure according to gender cast doubt on its measurement. Megías et al. (2018) develop and validate a scale with samples of adults from Spain and the U.S. The confirmation of a single factor structure raises doubts about the sensitivity of this scale to measure the acceptance of different IPVAW myth typologies. Martín-Fernández et al. (2018b) develop a unidimensional instrument to assess victim-blaming attitudes in cases of violence against women and validate it in a sample of Spanish adults. However, it was only able to detect attitudes at medium and high levels of victim blaming. Recently, the Inventory of Distorted Thoughts about Women and the Use of Violence (IPDMUV) (Echeburúa and Fernández-Montalvo, 1998) has been revalidated to assess women's inferior gender roles and aggressors' legitimation of violence (Echeburúa et al., 2016; Ferrer-Pérez et al., 2019). It measures: (a) women's inferiority; (b) blaming women victims of abuse, (c) violence as a problem-solving strategy, (d) minimization of IPVAW as a problem and (e) exoneration of the abuser. The model contains only two dimensions assessing beliefs about IPVAW.

Despite the progress made in measuring IPVAW myth acceptance, we advocate the need for a new scale for the following reasons: 1) A scale is needed to assess IPVAW myth acceptance that includes the normalization of violence; none of the previous instruments include this dimension. 2) With the exception of Echeburúa and Fernández-Montalvo's (1998) IPDMUV, previous instruments assume a Likert-type response scale according to the degree of agreement. But the perspective of Gerger et al. (2007) considers a myth as a 'wrong' belief in an ethical sense (p. 423), which leads us to rethink the response scale from completely wrong to completely true. 3) In contrast to previous research, our study focuses on young, first-year university students so that the scale can be applied for intervention purposes in these groups. Universities today consider the concept of 'due diligence' in all professional fields linked to IPVAW (Mena-Rodriguez et al., 2024). This represents a comprehensive paradigmatic step towards the prevention of institutional violence (Espinoza, 2019; Peral-López, 2020) in an attempt to correct longstanding deficient and inadequate professional praxis due to gender bias (Jiménez García-Bóveda et al., 2021; Paz-Rodríguez et al., 2022). This legacy of professional errors due to 'gender blindness' has led to an institutionally assumed commitment which is directing universities towards a gender-sensitive curriculum to train professionals in IPVAW competencies (Rebollo-Catalán & García-Pérez, 2023).

In this context, our main objective is to develop a scale of myth acceptance of intimate partner violence against women (MIPVAW), which includes the normalization of violence dimension, evaluating the psychometric properties of the measures obtained with the scale and studying the relationship with ambivalent sexism.

Method

Participants

The study was conducted in a large public university in the south of Spain, with a population of more than 11,000 first-year undergraduates each year. For the selection of the sample, we applied a stratified proportional random sampling by clusters, where the stratum was determined by the branch or field of studies and the cluster by the classroom. Data were collected in a total of 33 classrooms from 18 university degrees. The sample consisted of 1500 students aged 18 to 24 (M = 18.9; SD = 1.38), 56% of whom were female. The sample was distributed as follows: 18.6% Health Sciences, 47.4% Social and Legal Sciences, 16.9% Natural Sciences and Mathematics, and 17.1% Engineering. All participating students were in the second semester of the first year of their degree.

This sample size enabled us to work with a sampling error of ±3% for a 95.5% confidence level. Participants with more than 20% missing data (20 participants) were excluded. The amount of missing data for the MIPVAW scale was minimal (69 missing for a data set of 22588) and had a random character as shown by Little's MCAR test, $\chi 2(234) = 217.92$, $p = .767$. Therefore, we did not apply any data replacement (AERA et al., 2014; Cuesta et al., 2013).

Instruments

Two measurement scales were used: MIPVAW as the object of study; and ASI as an established measurement criterion in the scientific field of sexist mentality.

MIPVAW: Myths about Intimate Partner Violence Against Women (based on Bosch-Fiol & Ferrer-Pérez, 2012; Peters, 2008). This scale is a self-report instrument designed to assess the acceptability of a set of statements reflecting misconceptions (myths) about intimate partner violence (Appendix 1). It consists of 15 Likert-type items (1 = completely false; 2 = false; 3 = neither false nor true; 4 = true; 5 = completely true). This scale includes items about myths of: (a) Minimization of Violence - expressing ideas that minimise the seriousness of IPVAW and even deny its existence, questioning institutional victim support policies; (b) Victim-blaming - expressing ideas that hold women responsible for what happens to them, shifting the blame from the aggressor to the victim (c) Exoneration of the Perpetrator - emphasizing ideas about the existence of personal 'justifying' factors associated with a man assaulting his partner, thereby removing the blame for the violence; and, (d) Normalization of Violence - myths expressing ideas of normality that a man who abuses his partner can be a good friend, a good co-worker or a good father. The metric properties are presented in the study results.

ASI: *The Ambivalent Sexism Inventory* (Glick & Fiske; 1996; in the Spanish version by Expósito, Moya & Glick, 1998) assesses two dimensions: hostile sexism and benevolent sexism, with 11 items for each subscale. All items are answered on a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree), with higher scores reflecting higher levels of sexism. The Spanish version of Expósito, Moya & Glick (1998) showed good psychometric properties in this study, with a Cronbach's alpha coefficient of .89 for hostile sexism, .86 for benevolent sexism and .90 for the whole ambivalent sexism scale.

Procedure

This study was approved by the Ethics Committee of the University of Seville (0339-N-17) prior to the start of data collection. We arranged appointments with the lecturers in the classrooms selected in the sampling process and handed out a printed version of the questionnaire to all students attending class that day. Students gave their informed consent to participate voluntarily, anonymously and without compensation of any kind.

Data Analysis

We started with an item purging process, using the following psychometric criteria for item elimination: a) discrimination indexes below .30; b) factor loadings below .30; and c) cross-factor loadings above .30. In addition,

following the recommendations of Lloret-Segura et al. (2014), we removed some redundant items due to their content.

The sample was randomly divided into two halves; the first subsample ($n_{1/2}$), comprising 750 students (424 female and 326 male), was used to develop the exploratory factor analysis (EFA). We used the second subsample ($n_{2/2}$), comprising 750 students (416 female and 334 male), to develop the confirmatory factor analysis (CFA). For the cross-validation process, we performed several exploratory factor analyses (EFA) with the first subsample, starting with approximations with the maximum likelihood (ML) method with Oblimin rotation (Delta = 0), revealing a 4-factor structure with low intercorrelations that is better explained with the principal components (PC) method with Varimax rotation. The coincidence of the tetra factorial result obtained with various methods offered greater reliability for determining the factor structure of the MIPVAW scale. We assessed the suitability of the data for factor analysis using Bartlett's test of sphericity and the Kaiser-Meyer-Olkin measures of sampling adequacy (Tabachnick & Fidell, 2007). Tucker's congruence coefficient was used as an index of factor equivalence by gender, indicating good factor congruence for values above .94 (Lorenzo-Seva & Ten-Berge, 2006).

We used the second subsample to apply confirmatory factor analysis (CFA) using maximum likelihood estimation to examine the fit of the four-factor model to our data. Following the recommendations of Hu & Bentler (1999), the goodness of fit of the model was assessed by the Tucker-Lewis index (TLI), the comparative fit index (CFI) with values of .95 or higher reflecting good goodness of fit; the root mean square error of approximation (RMSEA) and the standardised root mean square residual (SRMR) with values below .06 also indicated an acceptable fit. We also calculated the Satorra-Bentler $\chi 2$ index (S-Bχ^2/df ratio less than 3 indicates fit) (Kline, 2016). In addition, we ran the model with the data disaggregated by gender; and, finally, we assessed the structural invariance of the CFA model (configural, metric and scalar) by applying MG-CFA (multigroup) with AMOS$_{26}$ according to the two halves at random and by gender.

We analysed the discrimination ability and basic psychometric properties of the items (mean, standard deviation, skewness, kurtosis and discrimination index). Cronbach's alpha coefficient and McDonald's omega coefficient were also calculated to estimate reliability. In addition, following the recommendations of Elosua and Zumbo (2008), we calculated Cronbach's alpha coefficient by applying nonlinear optimal scaling (CATPCA). Finally, we studied the validity of the MIPVAW scale scores based on the relationship with a common criterion in the field of study - hostile sexism (HS), benevolent sexism (BS) and ambivalent sexism (ASI) - using Spearman's *Rho* coefficient. We used SPSS$_{26}$, AMOS$_{26}$ y *R*$_{(JAMOVI\ 2.3.17)}$ analysis software.

Results

Development of the MIPVAW scale

The MIPVAW scale was developed following international guidelines for test construction and validation (AERA et al., 2014).

Based on the aforementioned definition and classification of IPVAW myths, we generated a representative set of items, taking into account that a brief instrument was expected. Content validity was ensured by reviewing previous scales with similar themes, as well as mistaken beliefs present in the narratives of adolescents and young adults (Lim et al., 2015; McCarry & Lombard, 2016).

In addition, a team of 10 experts assessed how representative the items were of the construct and whether they were clearly understood. The resulting 27-item version was administered to the total study sample (n = 1500), applying analyses on this scale until it was reduced to the final 15-item version. For this reduction, we applied the recommendations of Ferrando and Lorenzo-Seva (2014). First, we conducted an EFA using the maximum likelihood extraction method with oblimin

rotation (delta = 0), finding four factors explaining 34.4% of the variance. The KMO index was equal to .89 and Bartlett's test of sphericity was statistically significant, $\chi^2(351) = 10117.48$, $p < .001$. The distribution of the items in the factors seemed adequate in general, but with room for improvement, with five items with cross-loadings over .30 that were eliminated. Three items were also eliminated due to redundant content. We then conducted a second EFA, using maximum likelihood extraction with varimax rotation with the remaining 19 items, which also showed the same four-factor structure with good sampling adequacy (KMO = .83) and Bartlett's test of sphericity was statistically significant, $\chi2\ (171) = 5059.7$, $p < .001$. Four items were discarded due to factor loadings below .30. The final version of the MIPVAW scale consisted of 15 items (Table 1) which we used for the cross-validation (random halves $n_{1/2}/n_{2/2}$).

Table 1. MIPVAW Scale: Myths about violence against women in relationships

1.	Men hit their partners because they are suffering (PE)
2.	Intimate partner violence is a private matter and it is best not to get involved (VB)
3.	A man who abuses his partner is sick (PE)
4.	Every couple is a world unto itself and it is best not to get involved even when you suspect that intimate partner violence may be taking place (VB)
5.	A woman who loves a man does not leave him even if he is violent (VB)
6.	Men abuse their partners because they themselves were abused as children (PE)
7.	Nowadays, everything seems to be intimate partner violence; it is greatly exaggerated (MV)
8.	It is better for a woman to put up with some violence from her partner than to end up alone (VB)
9.	Men and women are equally violent in a couple (MV)
10.	Being violent with his partner does not mean that a man can't be a good neighbour, a good co-worker or a good friend (NV)
11.	A man may be violent with one woman and not with another (NV)
12.	A man who abuses his partner may be a good father (NV)
13.	Many reports of intimate partner violence are false (MV)
14.	Laws benefit women while penalizing men (MV)
15.	Men who are violent with their partners have had a very hard life which has made them as they are (PE)

NOTE: 5-point Likert scale: 1 (completely false); 2 (false); 3 (neither true nor false); 4 (true); 5 (completely true). Subscales: MV (Minimization of Violence), VB (Victim Blaming), PE (Perpetrator Exoneration) and NV (Normalization of Violence).

Exploratory Factor Analysis (EFA)

The exploratory factor analysis, using the Principal Component method with varimax rotation, yields a Kaiser-Meyer-Olkin (KMO) value of .81, and the hypothesis of sphericity is rejected with Bartlett's test, $\chi2(105) = 3809.64$, $p < .001$.

Examination of the eigenvalues and the sedimentation plot indicated that a four-factor solution was the best fit to the data, explaining 51.5 % of the variance - 15.2 % Factor 1(MV); 12.4 % Factor 2(VB); 12 % Factor 3 (EP); and 11.8 % Factor 4(NV). These factors showed eigenvalues greater than 1 and the loadings of each item on its corresponding factor were greater than .50 (Table 2).

This 4-factor solution varied very little when compared by gender, applying AFE (PC-Varimax) to the disaggregated data. As an indicator, we calculated the Tucker Congruence Coefficients and obtained values between .96 and .98, presenting a good factorial equivalence between both groups.

Confirmatory Factor Analysis (CFA)

The CFA revealed that the 4-factor solution fitted the data adequately, $\chi2\ (79) = 99.3$, S-B$\chi2/df = 1.26$; $p = .06$, CFI = .99, TLI = .99,

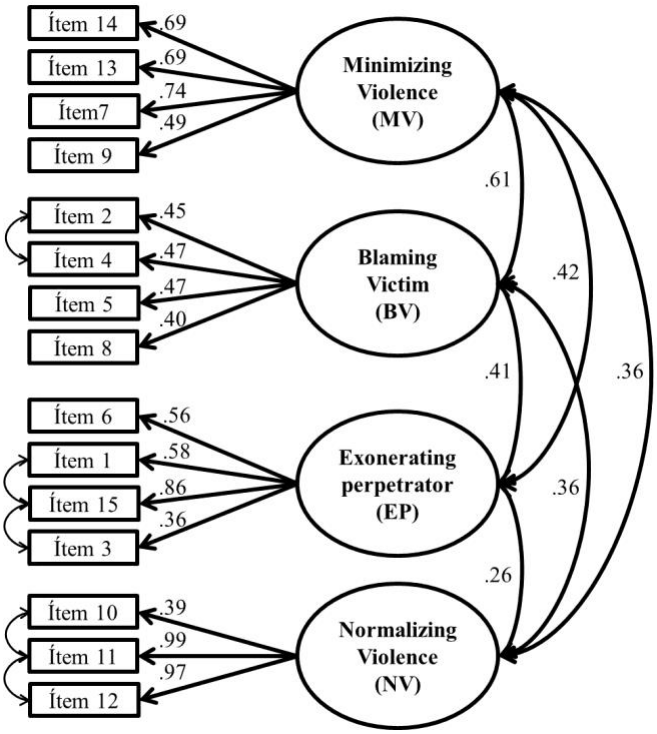
SRMR = .026, RMSEA = .018, 90% CI [.00, .029] (Figure 1). The loadings for the items on their corresponding factors were above .30 and all were statistically significant

Table 2. Loadings in the PC-Varimax tetra-factor model ($n_{1/2}$ = 750)

Item	**F1**	**F2**	**F3**	**F4**
14	.77			
13	.75			
7	.72			
9	.61			
2		.76		
4		.71		
5		.53		
8		.52		
6			.72	
1			.69	
15			.63	
3			.56	
10				.80
11				.73
12				.67
Eigenvalue	2.28	1.87	1.80	1.78

Note: Loadings on the rotated matrix (PC-varimax). Loadings below .30 have been omitted, items ordered on their factor. F1: Minimization of Violence (14, 13, 7, 9); F2: Victim Blaming (2, 4, 5, 8); F3 Perpetrator Exoneration (6, 1, 15, 3); F4: Normalization of Violence (10, 11, 12).

Figure 1. Factor loadings in the CFA (n2/2 = 750)



Post-hoc inspection of the modification indexes suggested allowing the error variances between five pairs of items to covary in order to achieve a significant increase in model fit. Thus, we allowed residuals to correlate between items #4 and #2 in the Victim Blaming factor, between items #3 and #15 and also between items #15 and #1 in the Perpetrator Exoneration factor, between items #12 and #11 and also between items #11 and #10 in the Normalization of Violence factor. These items are more closely interrelated with each other than with the other items within their factors. As they occur within the factor and not between factors, estimating a correlation between each of these pairs of residuals does not alter the meaning or interpretation of the structural model.

Applying the model to gender-disaggregated data provides an initial indication of configural invariance by gender. Goodness-of-fit indexes were found to be adequate and similar for the models specified individually for female and male participants (Table 3).

Table 3. Overall comparison of the configural model by gender for the MIPVAW scale

	Configural invariance			**DIFF test**			**Model Fit**			
Gender	**χ2**	**df**	**p**	**χ2 (df)**	**χ2 /df**	**p**	**CFI**	**TLI**	**RMSEA[95% CI]**	**SRMR**
	93.3	79	.061							
Female				107 (78)	1.37	.017	.98	.98	.021 [.009, .030]	.029
Male				120 (78)	1.54	.002	.98	.97	.028 [.018, .038]	.033

Note: Sample size (n = 1500), 840 women and 660 men. CFI = comparative fit index; TLI = Tucker-Lewis index; RMSEA = root mean square error of approximation; SRMR = standardised root mean square residual.

However, in addition to this 'basic' approach, there may also be scope for a more rigorous examination of the structural invariance of the model by gender, but also initially as a function of the two random halves. This would provide us with a more accurate picture of the configural, metric, scalar and residual invariance, as a function of both grouping criteria.

Structural Invariance

We applied MG-CFA with AMOS26, considering two objectives based on the results. These reported, respectively, the comparative metric properties and the stability of the measurement model with MIPVAW: 1) to confirm the consistency and stability of the structural invariance (under conditions of weak, strong and strict restriction); and 2) to assess the levels of structural invariance depending on gender.

First, we confirmed that structural invariance was met and was consistent, by randomly comparing the two sample halves ($n_{1/2}$ = 750/ $n_{2/2}$ = 750) to assess the hypotheses of configural, metric, scalar and residual invariance.

Second, we assessed the invariance hypotheses for the four models, but comparing the male and female student samples (n_f = 840 / n_m = 660), which enabled us to evaluate the possible use of this measurement scale according to gender and the possibilities of interpretation.

We also present the most indicative results for the multi-group CFA models (χ^2 (df), CFI and RMSEA (90% CI) and SRMR, both for the Base Model and the invariance models (M1-Configurational, M2-Metric, M3-Scalar and M4-Residual).

We analysed significant Chi-square differences (Δχ2), but as this indicator is sensitive to sample size, we also assessed differences in other indicators (Putnick & Bornstein, 2016), considering the recommendations of Chen (2007): ΔCFI (≤ .010), ΔRMSEA (≤ .015) and ΔSRMR, respectively, (≤ .030 metric/.015 scalar).

Table 4. Structural invariance tests with random sample splitting (2 halves).

MODEL (MG-CFA)	$\chi^2(df)$	p	$\chi2$ /df	CFI	RMSEA (90% CI)	SRMR	$\Delta\chi2$ (Δdf)	ΔCFI	ΔRMSEA	ΔSRMR
Base Model	402.30 (168)	.000	2.40	.938	.031 (.027-.034)	.0449	-	-	-	-
M1: I. Configural	415.41 (179)	.000	3.32	.938	.030 (.026-.033)	.0446	13.12 (11)	.000	.001	.003
M2: I. Metric	435,03 (194)	.000	2.24	.937	.029 (.025-.032)	.0446	19.62 (15)	.001	.001	.000
M3: I. Scalar	452,24 (204)	.000	2.22	.935	.029 (.025-.032)	.0446	17.21 (10)	.002	.000	.000
M4: I. Residual	517.77 (219)	,000	2.36	.921	.030 (.027-.034)	.0449	65.53 (15)	.014	.001	.003

Note. Results allow acceptance of the configural, metric and scalar invariance hypotheses for the Short-MIPVAW scale. n = 1500; Groups (random halves) $n_{1/2} = 750$; $n_{2/2} = 750$. *Significance* $_{[\Delta\chi2\ (\Delta df)]}$ = [* $p \leq .05$; ** $p \leq .01$]/ ($p > .05$, *nothing indicated).*

The progressive assessment of invariance (MG-CFA) started from the application of the unrestricted (no post-hoc adjustments) multigroup base model to its successive restriction of invariance in the pattern of factor loadings (configural), invariance of the inter-factor correlations (metric), invariance in the intercepts (scalar) and invariance of the error coefficients (residual).

Table 4 summarises the multigroup comparison of the random halves and shows that the strong invariance hypothesis was accepted by not ruling out the hypothesis in any of the first 3 models. ΔCFI = .014 in Model 4 suggested a statistical deterioration of the model, and the hypothesis of invariance in the residuals was not acceptable.

Table 5. Tests of structural invariance with the sample split by gender (male/female).

MODEL (MG-CFA)	$\chi^2(df)$	p	$\chi2$ /df	CFI	RMSEA (90% CI)	SRMR	$\Delta\chi2$ (Δdf)	ΔCFI	ΔRMSEA	ΔSRMR
Base Model	386.22 (168)	.000	2.30	.933	.029 (.026-.033)	.050	-	-	-	-
M1: I. Configural	428.31 (179)	.000	2.29	.924	.030 (.027-.034)	.051	42.09* (11)	.009	-.001	-.001
M2: I. Metric	738.78(194)	.000	3.81	.834	.043 (.040-.047)	.057	310.47*(15)	.090	-.013	-.006
M3: I. Scalar	-	-	-	-	-	-	-	-	-	-
M4: I. Residual	-	-	-	-	-	-	-	-	-	-

Note. For comparison by gender with Short-MIPVAW, configural and metric invariance hypotheses were accepted, but scalar invariance was not. n = 1500; Gender groups (male/female) $n_f = 840$; $n_m = 660$. $p_{[\Delta\chi2\ (\Delta df)]}$ = [* $p \leq .05$; ** $p \leq .01$]/ ($p > .05$, *not indicated).*

Finally, the structural invariance of the measurement model was assessed as weak according to the gender (female/male) of the university students (Table 5). The results indicated that MIPVAW was not completely invariant between genders, although the hypothesis of configural invariance was maintained, the metric invariance was called into question due to the deterioration of the model. It was also clear that the scalar and residual invariance between male and female genders had to be rejected due to the indefinition of the model. This must be addressed by incorporating data segregation for both groups.

Descriptive statistics

The descriptive statistics of the MIPVAW scale items are presented in Table 6. All the skewness and kurtosis values for the items were within an acceptable range, except for Item 3, which we decided to keep in order to preserve content validity as it represents a myth that is widespread in social discourse.

Table 6. Descriptive statistics of the MIPVAW items

Ítem	M	SD	SK	K	DI
1	1.60	1.00	1.66	0.90	.32
2	1.12	0.41	4.13	21.18	.30
3	3.43	1.49	-.48	-1.22	.16
4	1.29	0.60	2.34	6.38	.34
5	1.37	0.80	2.26	4.57	.29
6	2.21	0.99	0.16	-0.93	.32
7	2.01	1.15	0.93	-0.14	.50
8	1.44	0.89	2.04	3.25	.27
9	2.17	1.02	0.53	-0.32	.38
10	3.29	1.20	-0.42	-0.68	.28
11	2.69	1.22	0.08	-1.06	.42
12	1.91	1.03	0.92	-0.01	.41
13	2.14	1.03	0.57	-0.42	.47
14	2.18	1.16	0.64	-0.54	.49
15	1.81	0.89	0.75	-0.35	.44

Note: Sample (n = 1500). M: Mean; SD: Typical/Standard Deviation; SK: Symmetry; K: Kurtosis; and, if the item is removed, DI: Discrimination Index.

Reliability

Cronbach's alpha coefficient for the MIPVAW scale as a whole was α = .74, with McDonald's omega coefficient, ω = .77. After applying an optimal scaling model for ordinal data (*CATPCA*), the reliability for the overall scale rose to α = .94 (α = .94 for men; α = .93 for women). The coefficient for the Minimization of Violence dimension was α = .71, for the Victim Blaming dimension it was α = .64, for the Perpetrator Exoneration dimension it was α = .61 and for the Normalization of Violence dimension α = .60. Values above .60 and up to .70 are acceptable according to the scientific standard (Lloret-Segura et al., 2014).

Evidence of validity based on the relationship with the ASI variable

The MIPVAW scores correlated positively and significantly with ambivalent sexism (*rho* = .64; *p* < .01), hostile sexism (*rho* = .68; p < .01) and benevolent sexism (*rho* = .46; p < .01) (Table 7).

Table 7. Spearman's Rho: Correlations of MIPVAW scores with Ambivalent Sexism

Ranges - ASI				Rho – MIPVAW				
	Min	Max	M (SD)	MV_{F1}	VB_{F2}	PE_{F3}	NV_{F4}	Total MIPVAW
Hostile	11	55	21 (9.2)	.73***	.40***	.34***	.33***	.68***
Benev.	11	51	20 (7.4)	.40***	.35***	.37***	.16***	.46***
ASI	22	101	42 (14.8)	.65***	.41***	.39***	.27***	.64***

*Note: Sample size (n = 1500). Hostile: Hostile sexism; Benev: Benevolent sexism; ASI: Ambivalent sexism; MV: Minimization of violence; VB: Victim Blaming; PE: Perpetrator exoneration; NV: Normalization of violence. All with significance level *** p < .001. M = median.*

All MIPVAW dimensions showed higher correlation coefficients with hostile sexism, apart from the Perpetrator Exoneration dimension, which correlated more strongly with benevolent sexism (rho = .37). Minimization of violence revealed moderate to high associations with benevolent sexism (rho = .40) and hostile sexism (rho = .73).

Discussion

The goal of the study was to develop a new MIPVAW measurement scale, including the normalization of violence. Although other authors (Echeburúa & Montalvo, 1998; Martin-Fernández et al., 2018b; Megías et al., 2018; Peters, 2008) have made significant progress in this field, we believe that this new measure has the potential to overcome some of the limitations inherent in the previous ones.

Some previous measures are modelled (CFA) as unifactor measures but our study suggests that the MIPVAW scale is sensitive for measuring the level of acceptance of the variety of IPVAW myths by confirming a four-factor structure, including minimization of violence, victim blaming, perpetrator exoneration and normalization of violence. While this last factor was not considered in previous scales, it is now clearly visible in Spain, especially among adolescents and young people (Bajo-Pérez, 2020; Ballesteros et al., 2018; Del Moral et al., 2020). The review and update of the map of myths about gender-based violence in Spain (Bosh-Fiol & Ferrer-Pérez, 2012; Ferrer-Pérez et al., 2016; Paz-Rodríguez et al., 2022) pointed to the emergence of denialist myths that seek to normalise violence and question policies and services for victims. Our results confirm a factor structure that includes this fourth dimension, making our scale sensitive to detecting the degree of acceptance of these beliefs based on the normalization of violence. The results of the confirmatory factor analysis also provide important additional evidence of validity based on both internal structure and item content. The optimal values of factor equivalence and configural invariance by gender obtained with this new MIPVAW measure also represented a progress with respect to previous measures in which this equivalence was not reached (Peters, 2008).

The reliability study of the MIPVAW scores showed very good internal consistency on the global scale and acceptable values in all four of its dimensions. In relation to the evidence of validity based on the relationship with sexism, the MIPVAW global scale scores correlated positively with sexism, being stronger with hostile sexism, which was consistent with previous research results (Dosil et al., 2020; Rodríguez-Castro et al., 2021). The dimensions of the MIPVAW scale showed moderate correlation coefficients with sexism, except for the violence minimization dimension which showed a strong association with hostile sexism. Perpetrator exoneration was associated more with benevolent sexism than with hostile sexism, revealing the need for further exploration of the relationship between benevolent sexism and justification of IPVAW (Fernandez-Antelo et al., 2020; Rollero & De Picoli, 2020).

Limitations and future research

This study had certain limitations that need to be addressed. Firstly, the students came from one single region in southern Spain. Secondly, the results were based on self-report questionnaires only. We hope in the future to link up with mixed feminist studies that analyse in greater detail how thinking is distorted by these myths. Furthermore, while the reliability values of the MIPVAW sub-dimensions were acceptable, they should be taken with caution until further replication studies have corroborated their reliability in other samples.

Practical implications

The MIPVAW scale brings with it some implications for practice. While other scales exist to measure acceptance of myths about intimate partner violence against women, this scale includes the normalization of violence, which is rapidly gaining ground in the discourse of young people and adolescents (Bajo-Pérez, 2020; Del Moral, 2021; Nardi-Rodríguez et al., 2017; Rodríguez et al., 2023).

Our study therefore contributes to this field with an evidence-based measure that could be of great use. The normalization of violence allows perpetrators to maintain their friendships and social reputation, while reducing victims' social support and increasing their vulnerability (Rebollo-Catalán et al., 2022; Donoso-Vázquez, 2021). The knowledge that can be gained from this scale about the normalization of violence is useful for developing guidelines for designing and implementing evidence-based interventions to counteract gender-based violence. As the European Commission (2020) has stated, effective prevention of violence requires early education in gender equality and support for the development of non-violent relationships.

The MIPVAW scale could become a useful intervention tool, as it is capable of determining the level of acceptance of different types of myths with a view towards intervention with young people and adolescents. With this knowledge, professionals such as therapists, mediators, teachers, lawyers and policy makers could obtain information about erroneous beliefs about IPVAW. They could then establish more appropriate intervention programmes, and improve protocols and strategies to prevent and combat gender-based violence.

Conclusions

This study provides evidence supporting the validity, reliability and structural invariance of a four-factor model for measuring myth acceptance about intimate partner violence against women. In short, the MIPVAW scale (15 items) has proven itself to be a valid and reliable instrument for future research. Disaggregation of data by gender, which is common in this field of study, should be considered. Given the ongoing nature of the validation process of psychometric instruments, future studies should test whether the stability of the four-factor model obtained in this study holds with samples from other cultures, contexts and regions.

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References

American Educational Research Association, American Psychological Association, & National Council on Measurement in Education (2014). *Standards for Educational and Psychological Testing*. American Educational Research Association.

Bajo-Pérez, I. (2020). La normalización de la violencia de género en la adultez emergente a través del mito del amor romántico [the normalization of gender violence in emerging adulthood through the myth of romantic love]. *Cuestiones de Género: de la igualdad y la diferencia*, 15, 253-268. https://doi.org/10.18002/cg.v0i15.6045

Ballesteros, J.C., Sanmartín, A. & Tudela, P. (2018). *Barómetro Juventud y Género 2017 [Young and Gender Barometer 2017]*. Centro Reina Sofía sobre Adolescencia y Juventud. https://bit.ly/3vXyK8V

Bernal-Baldenebro, B., Viñas-Velázquez, B. M. & Mejía-Ramírez, M. A. (2019). Mitos sobre la Agresión Sexual: Validación de una Escala en Universitarios en México [Myths about sexual aggression: validation of a scale in university students in Mexico]. *Acta de investigación psicológica*, *9*(1), 98-107.https://doi.org/10.22201/fpsi.20074719e.2019.1.09

Borrajo, E. Gamez-Guadix, M. & Calvete, E. (2015). Justification beliefs of violence, myths about love and cyber dating abuse. *Psicothema*, *27*(4), 327-333. https://doi.org/10.7334/psicothema2015.59

Bosch-Fiol, E., & Ferrer-Pérez, V. A. (2012). Nuevo mapa de los mitos sobre la violencia de género en el siglo XXI [New map of the myths about gender violence in XXI century]. *Psicothema*, *24*(4), 548–554. http://www.psicothema.es/pdf/4052.pdf

Connor, R.A., Glick, P. & Fiske, S.T. (2018). Ambivalent Sexism in the Twenty-First Century. In F.K. Barlow, & C.G. Sibley (Eds.). *The Cambridge Handbook of the psychology of prejudice* (pp. 295-320). Cambridge University Press. https://doi.org/10.1017/9781316161579.013

Chen, F.F. (2007) Sensitivity of Goodness of Fit Indexes to Lack of Measurement Invariance. *Structural Equation Modeling: A Multidisciplinary Journal*, *14*(3), 464-504.https://doi.org/10.1080/10705510701301834

Cuesta, M., Fonseca-Pedrero, E., Vallejo, G., & Muñiz, J. (2013). Datos perdidos y propiedades psicométricas en los tests de personalidad [Missing data and psychometric properties of personality tests]. *Anales de Psicología / Annals of Psychology*, *29*(1), 285–292. https://doi.org/10.6018/analesps.29.1.137901

Delegación del Gobierno para la Violencia de Género (DGVG). (2020). *Macroencuesta de violencia contra la mujer 2019* [Macro-survey of violence against women 2019]. Ministerio de Igualdad de España. https://bit.ly/379RYyh

Del Moral, G., Franco, C., Cenizo, M., Canestrani, C., Suárez-Relinque, C., Muzi, M. & Fermani, A. (2020). Myth Acceptance Regarding Male-To-Female Intimate Partner Violence amongst Spanish Adolescents and Emerging Adults. *International Journal of Environmental Research and Public Health*, *17*(21), e8145, 1-13. https://doi.org/10.3390/ijerph17218145

Del Moral, C. (2021). *No es amor. Un análisis sobre la violencia de género en adolescentes*. Save The Children. https://www.savethechildren.es/noesamor

DeVault, A. (2019). *Normalizing Violence Against Women: What Motivates People to Justify the Gender System?* [Dissertation, University of Nevada]. Reno ScholarWorks Repository.https://scholarworks.unr.edu/handle/11714/5730

Donoso-Vázquez, T. (2021). *Superar las secuelas de la violencia machista: voces de las mujeres y de sus hijos e hijas* [Overcoming the consequences of sexist violence: voices of women and their sons and daughters]. Egregius Ediciones.

Dosil, M.,Jaureguizar, J. &Bermaras, E. (2020) Variables Related to Victimization and Perpetration of Dating Violence in Adolescents in Residential Care Settings. *The Spanish Journal of Psychology*, 22,

e36, 1-10. https://doi.org/10.1017/sjp.2019.35

Echeburúa, E., & Fernández-Montalvo, J. (1998). Hombres maltratadores. Aspectos teóricos [Male abusers. Theoretical aspects]. In E. Echeburúa & P. Corral (Eds.), *Manual de violencia familiar* (pp. 73-90). Siglo XXI.

Echeburúa, E., Amor, P.J., Sarasua, B., Zubirzarreta, I. & Holgado-Tello, F.P. (2016). Inventory of Distorted Thoughts about Women and the Use of Violence-Revised (IPDMUV-R): Psychometric properties. *Anales de Psicología*, *32*(3), 837-846. http://dx.doi.org/10.6018/analesps.32.3.231901

Elosua, P. & Zumbo, B.D. (2008). Coeficientes de fiabilidad para escalas de respuesta categórica ordenada [Reliability coefficients for ordinal response scales]. *Psicothema*, *20*(4), 896-901. http://www.psicothema.com/pdf/3572.pdf

Erdem, A., & Sahin, R. (2017). Undergraduates' Attitudes Toward Dating Violence: Its Relationship with Sexism and Narcissism. *International Journal of Higher Education*, *6*(6), 91-105. https://doi.org/10.5430/ijhe.v6n6p91

Espinoza, J. (2019). Dimensión jurídica de la violencia institucional de género. Profundizando en su contenido. *REMCA: Revista Metropolitana de Ciencias Aplicadas*, *2*(3), 183-191. https://doi.org/10.62452/dwp82n85

European Commission (2020). *A Union of Equality: Gender Equality Strategy 2020-2025*. https://bit.ly/3SpUtRY

European Institute for Gender Equality (EIGE) (2019). *Understanding intimate partner violence in the EU. The role of data*. Publications Office of the European Union. https://doi.org/10.2839/482468

European Institute for Gender Equality (EIGE) (2023). *Understanding intimate partner violence in the European Union*. Publications Office of the European Union. https://doi.org/10.2839/345884

Expósito, F., Moya, M. & Glick, P. (1998). Sexismo ambivalente: medición y correlatos [Ambivalent sexism: measurement and correlates]. *Revista de Psicología Social*, *13*(2), 159-169. https://doi.org/10.1174/021347498760350641

Fernández-Antelo, I., Cuadrado-Gordillo, I. & Martín-Mora Parra, G. (2020). Synergy between Acceptance of Violence and Sexist Attitudes as a Dating Violence Risk Factor. *International Journal of Environmental Research and Public Health*, *17*(14), e5209, 1-12. https://doi.org/10.3390/ijerph17145209

Ferrando, P. J., & Lorenzo-Seva, U. (2014). Exploratory item factor analysis: Additional considerations. *Anales de Psicología*, *30*(3), 1170-1175. https://doi.org/10.6018/analesps.30.3.199991

Ferrer-Pérez, V. A., López-Prats, L., Navarro-Guzmán, C., & Bosch-Fiol, E. (2016). La vigencia de los mitos sobre la violencia contra las mujeres en la pareja [The current acceptance of gender violence myths]. *Información psicológica*, 111, 2–17. https://doi.org/10.14635/IPSIC.2016.111.1

Ferrer-Pérez, V. A., Bosch-Fiol, E., Sánchez-Prada, A., & Delgado-Álvarez, C. (2019). Beliefs and attitudes about intimate partner violence against women in Spain. *Psicothema*, *31*(1), 38-45. https://doi.org/10.7334/psicothema2018.206

García-Pérez, R. & Rodríguez-López, M. (2021). Orientación del alumnado universitario masculino a la violencia contra las mujeres: Diagnóstico y propuestas para la Universidad. En A.

Rebollo-Catalán & A. Arias-Rodríguez (Coords.). *Hacia una docencia sensible al género en la Educación Superior* (pp. 393-415). Dykinson.

Gerger, H., Kley, H., Bohner, G., & Siebler, F. (2007). The acceptance of modern myths about sexual aggression scale: Development and validation in German and English. *Aggressive Behavior*, *33*(5), 422-440. https://doi.org/10.1002/ab.20195

Glick, P. & Fiske, S. T. (1996). The Ambivalent Sexism Inventory: Differentiating hostile and benevolent sexism. *Journal of Personality and Social Psychology*, *70*(3), 491-512. https://doi.org/10.1037/0022-3514.70.3.491

Herrero, J., Torres, A., Rodríguez, F.J., & Juarros-Basterretxea, J. (2017). Intimate Partner Violence against Women in the European Union: The Influence of Male Partners' Traditional Gender Roles and General Violence. *Psychology of Violence*, *7*(3), 385-395. https://doi.org/10.1037/vio0000099

Hu, L., & Bentler, P. M. (1999). Cut off criteria for fi t indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, *6*(1), 1-55. http://doi.org/10.1080/10705519909540118

Jiménez García-Bóveda, R., Luque Budía, A., Delgado Ríos, P., Perona Garcelán, S., Moya Morales, M., & Vázquez-Morejón, R. (2021). El sexismo en las y los profesionales de salud mental: un factor de riesgo psicosocial para la detección de la desigualdad de género [Sexism in mental health professionals: a psychosocial risk factor for detecting gender inequality]. *Apuntes De Psicología*, *39*(2), 55-64. https://doi.org/10.55414/ap.v39i2.900

Kline, R. B. (2016). *Principles and Practice of Structural Equation Modeling* [4th ed.]. The Guilford Press.

Lim, B. H., Valdéz, C. E., & Lilly, M. M. (2015). Making meaning out of interpersonal victimization: the narratives of IPV survivors. *Violence Against Women*, *29*(2), 1065-1086. https://doi.org/10.1177/1077801215590670

Lorenzo-Seva, U., & Ten Berge, J. M. F. (2006). Tucker's congruence coefficient as a meaningful index of factor similarity. *Methodology: European Journal of Research Methods for the Behavioral and Social Sciences*, *2*(2), 57–64. https://doi.org/10.1027/1614-2241.2.2.57

Lloret-Segura, S., Ferreres-Traver, A., Hernández-Baeza, A. & Tomás-Marco, I. (2014). The exploratory factor analysis of the items: a practical guide, revised and updated. *Anales de Psicología*, *30*(3), 1151-1169. https://doi.org/10.6018/analesps.30.3.199361

Marcos, V., Miranda, L. & Pouso, M. (2024). Mitos y atribución de responsabilidad hacia la víctima de violencia sexual en población universitaria [Myths and attribution of responsibility towards the victim of sexual violence in the university population]. *Revista Iberoamericana de Justicia Terapéutica*, 8, e4.

McCarry, M., & Lombard, N. (2016). Same old story? Children and young people's continued normalization of men's violence against women, *Feminist Review, 112*, 128–143. https://doi.org/10.1057/fr.2015.50

Martin-Fernández, M., Gracia, E., Marco, M., Vargas, V., Santirso, F.A. & Lila, M. (2018a). Measuring Acceptability of Intimate Partner Violence Against Women: Development and Validation of the A-IPVAW Scale. *The European Journal of Psychology Applied to Legal*

Context, *10*(1), 26-34. https://dx.doi.org/10.5093/ejpalc2018a3

Martín-Fernández, M., Gracia, E. & Lila, M. (2018b). Assessing Victim-Blaming Attitudes in Cases of Intimate Partner Violence against Women: Development and Validation of the VB-IPVAW Scale. *Psychosocial Intervention*, *27*(3), 133-143. https://doi.org/10.5093/pi2018a18

Megias, J.L., Toro-Garcia, V. & Carretero-Dios, H. (2018). The Acceptance of Myths About Intimate Partner Violence Against Women (AMIVAW) Scale: Development and Validation in Spanish and English. *Psychology of Women Quarterly*, *42*(1), 44-61. https://doi.org/10.1177/0361684317742638

Mena Rodríguez, E., García Pérez, R., & Gómez Carrillo, V. del R. (2024). Dark Triad en la Educación Superior y prevención de la violencia de género. *Revista de Investigación Educativa*, *42*(2). https://doi.org/10.6018/rie.562571

Nardi-Rodríguez, A., Pastor-Mira, M.A., López-Roig, S., & Ferrer-Pérez, V.A. (2017). What are the most representative warning signs of intimate partner violence against adolescent girls? *Anales de Psicología*, *33*(2), 376-382. https://doi.org/10.6018/analesps.33.2.256971

Paz-Rodríguez, J.I., Martínez-Perza, Rosa; Marrero-Gómez, Juan Luis; Alconada-de los Santos, Mercedes; Gila-Ordónez, María del Pilar; Pérez-Gómez, Nazaret y Tirado-González, Rocío (2022). *Violencia contra las mujeres: Conceptos básicos, Marco normativo e Intervención Profesional e Institucional. Manuales para el abordaje profesional integral de la violencia contra las mujeres*. Junta de Andalucía. https://n9.cl/pjmrp

Peral-López, M.C. (2020). Responsabilidad pública en materia de violencia de género. *Femeris: Revista Multidisciplinar de Estudios de Género*, *5*(2), 166-182. https://doi.org/10.20318/femeris.2020.5389

Peters, J. (2008). Measuring Myths about Domestic Violence: Development and Initial Validation of the Domestic Violence Myth Acceptance Scale. *Journal of Aggression, Maltreatment & Trauma*, *16*(1), 1-21. https://doi.org/10.1080/10926770801917780

Procentese, F., Fasanelli, R., Carnevale, S., Esposito, C., Pisapia, N., Arcidiacono, C., Napoli, I.D (2020). Downside: The Perpetrator of Violence in the Representations of Social and Health Professionals. *International Journal of Environmental Research and Public Health*, *17*(19), e7061. https://doi.org/10.3390/ijerph17197061

Putnick, D.L., & Bornstein, M.H. (2016). Measurement invariance conventions and reporting: The state of the art and future directions for psychological research. *Developmental Review*, *41*, 71–90. https://doi.org/10.1016/j.dr.2016.06.004

Rebollo-Catalán, A., De los Santos-Martínez, P., & Jiménez-Cortés, R. (2022). Recursos que ayudan a las adolescentes a recuperarse de una experiencia de violencia de género en el noviazgo. *Revista de Investigación Educativa*,*40*(1), 203–218. https://doi.org/10.6018/rie.463081

Rebollo-Catalán, A. & García-Pérez, R. (2023). Enseñar con perspectiva de género. En A. Porto-Castro & J.M. Muñoz-Cantero, (Eds.). *Educación inclusiva y equitativa de calidad* (pp. 15-34). Peter Lang.

Rodríguez, E., Kuric, S., Sanmartín, A. & Gómez, A. (2023). *Barómetro Juventud y Género 2023. Avance de resultados: violencia de género*. Centro Reina Sofía de Fad Juventud. https://doi.org/10.5281/zenodo.5205628

Rodríguez-Castro, Y., Martinez-Roman, R., Alonso-Ruido, P., Adá-Lameiras, A. & Carrera-Fernández, M.V. (2021). Intimate partner cyberstalking, sexism, pornography and sexting in adolescents: New challenges for sex education. *International Journal of Environmental Research and Public Health*, *18*(4), e2181. https://doi.org/10.3390/ijerph18042181

Rodelli, M., Koutra, K., Thorvaldsdottir, K.B., Bilgin, H., Ratsika, N., Testoni, I. & Saint-Arnault, D.M. (2022).Conceptual Development and Content Validation of a Multicultural Instrument to Assess the Normalization of Gender-Based Violence against Women.*Sexuality & Culture*, *26*(26–47). https://doi.org/10.1007/s12119-021-09877-y

Rollero, C. & De Picolli, N. (2020). Myths about Intimate Partner Violence and Moral Disengagement: An Analysis of Sociocultural Dimensions Sustaining Violence against Women. *International Journal of Environmental Research and Public Health*, *17*(21), e8139. https://doi.org/10.3390/ijerph17218139

Sinko, L., & Saint Arnault, D. (2020). Finding the Strength to Heal: Understanding Recovery After Gender-Based Violence. *Violence Against Women*, *26*(12-13), 1616-1635. https://doi.org/10.1177/1077801219885185

Tabachnick, B. G., & Fidell, L. S. (2007). Multivariate analysis of variance and covariance. In B. G. Tabachnik & L. S. Fidell (Eds.). *Using multivariate statistics* (pp. 243–310) [5th Ed]. Pearson.

WHO (2021). *Violence against women prevalence estimates, 2018: Executive summary*. World Health Organization. https://www.who.int/publications/i/item/9789240026681

Appendix

MIPVAW: A Myths about Intimate Partner Violence Against Women Scale

Below is a series of statements describing certain ideas and beliefs. Please read each one carefully and then say honestly to what extent you believe it to be true or false. Mark the answer that best reflects your opinion with an "X")

1. Men hit their partners because they are suffering
2. Intimate partner violence is a private matter and it is best not to get involved
3. A man who abuses his partner is sick
4. Every couple is a world unto itself and it is best not to get involved even when you suspect that intimate partner violence may be taking place
5. A woman who loves a man does not leave him even if he is violent
6. Men abuse their partners because they themselves were abused as children
7. Nowadays, everything seems to be intimate partner violence; it is greatly exaggerated
8. It is better for a woman to put up with some violence from her partner than to end up alone
9. Men and women are equally violent in a couple
10. Being violent with his partner does not mean a man can't be a good friend, a good neighbour or a good co-worker
11. A man may be violent with one woman and not with another
12. A man who abuses his partner may be a good father
13. Many reports of intimate partner violence are false
14. Laws benefit women while penalizing men
15. Men who are violent with their partners have had a very hard life which has made them as they are

Scoring system:

Scaling: 1 (completely false); 2 (false); 3 (neither true nor false); 4 (true); 5 (completely true).
Total Score: average of responses to all 15 items.
Subscale Minimizing Violence: average responses to items 7, 9, 13 and 14.
Subscale Blaming Victim: average responses to items 2, 4, 5 and 8.
Subscale Exonerating Perpetrator: average responses to items 1, 3, 6 and 15.
Subscale Normalizing Violence: average responses to items 10, 11 and 12.

Authors / Autores

García-Pérez, Rafael (rafaelgarcia@us.es) 0000-0002-2492-2486

Doctor in Education, he has been a full professor in the Department of Research Methods and Diagnosis in Education since 2004 and a member of the research group Development and Innovation of Educational Models (HUM-833), of the Inter-University Association for Educational Research (AIDIPE) and of the European Educational Research Association (EERA). As a senior researcher at the Faculty of Education Sciences of the University of Seville, his main line of research focuses on diagnosis in education from a gender perspective, specifically linked to the prevention of violence based on sexism and homophobia.

Author contribution: RGP co-designed the study, conducted the data analysis and interpretation. Co-wrote the first draft. Co-wrote the final draft. All authors reviewed and approved the final manuscript.

Competing of interests: RGP expresses that there is no conflict of interest in writing the article.

Rodríguez-López, Manuel (rodri@us.es) 0000-0003-4028-6974

Doctor in Education, he has been a contracted doctoral lecturer in the Department of Educational Research Methods at the University of Seville since 2007. He has been interested in the evaluation of educational policies and the role of women in public management by applying quantitative methodology and multivariate statistical analysis.

Author contribution: MRL Participated in the data collection and analysis, played a major role in the confirmatory analysis and contributed to the first draft. All authors reviewed and approved the final manuscript.

Competing of interests: MRL expresses that there is no conflict of interest in writing the article.

Rebollo-Catalán, Ángeles (rebollo@us.es) 0000-0003-3523-0714

Doctor in Education and full professor at the University of Seville in the Department of Educational Research Methods and Diagnostic. She oversees the Gender and Education thematic network of the Inter-University Association for Educational Research (AIDIPE) and of the Women and Gender Studies in Education line of the Andalusian Inter-University Institute for Educational Research (IEdu). As a senior researcher at the Faculty of Education of the University of Seville (Spain), her main interests lie in women's studies, co-education and the prevention of gender-based violence.

Author contribution: ARC co-designed the research study, collected the data and co-wrote the final draft. Played an important role in the design and content validation of the scale. All authors reviewed and approved the final manuscript.

Competing of interests: ARC expresses that there is no conflict of interest in writing the article.

Cubero-Pérez, Mercedes (cubero@us.es) 0000-0003-0417-4246

Doctor in Psychology, she is a full professor in the Department of Experimental Psychology at the University of Seville and a member of the Human Activity Laboratory research group. Her most recent research has focused on the cultural (re)construction of identity in situations of vulnerability, including women who have been able to reconstruct their identity after gender violence.

Author contribution: MCP responsible for the development of the theoretical framework, particularly the conceptualisation of myths and their measurement. Participated in data collection and co-wrote the first draft. All authors reviewed and approved the final manuscript.

Competing of interests: MCP expresses that there is no conflict of interest in writing the article.

Bascón-Díaz, Miguel J. (mjbascon@us.es) 0000-0003-0226-8943

Doctor in Psychology, he is a contracted doctoral lecturer in the Department of Experimental Psychology at the University of Seville (Spain) and a member of the Human Activity Laboratory research group. He has studied the psychological processes involved in adolescent conflicts from a gender perspective.

Author Contribution: MJBD Participated in the elaboration of the theoretical framework and, in particular, with regard to ambivalent sexism, as well as in the contribution of this variable to the design and development of the research. Revision of APA 7Ed format for Bibliographical References.

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