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# Partner Violence Entrapment Scale: Development and Psychometric Testing

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**Abstract** This article describes the development and testing of the psychometric properties of the Partner Violence Entrapment Scale (PVES), an instrument that evaluates the women's perceived reasons for staying in violent partner relationships. After initial pilot testing, the scale was administered to 213 Spanish women who were victims of intimate partner violence (IPV). An exploratory factor analysis identified six factors: Socio-Economic Problems, Attachment and Fear of Loneliness, Blaming Oneself and Resignation, Impact on Children, Fear of Harm and Worry for the Partner, and Feelings of Confusion. Discriminant validity was established by demonstrating associations between PVES factors and socio-demographic, clinical and abuse variables. The scale appears to be a useful assessment tool for social and clinical settings. Its factor structure, reliability, and validity need to be replicated in other populations and samples.

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The stay/leave decision process among battered women has attracted a considerable amount of research attention. The stay/leave decision is the most important and difficult choice that women victims of intimate partner violence (IPV) may face (Lerner and Kennedy 2000). In fact, it has been estimated that women who experience IPV return an average of 3–4 times (Walker 1994), while the average relationship duration of women who seek help spans more than 12 years (Amor et al. 2002). The process of separation is a stressful life event regardless of partner violence, but it becomes qualitatively different in the context of victimization, with multiple barriers to leaving (Walker et al. 2004). At the same time, contrary to misconceptions about IPV, most women in violent relationships do leave, and violence is associated with increased likelihood of separation (Walker et al. 2004). Leaving an abusive partner is better understood as a process rather than a dichotomous decision (Khaw and Hardesty 2009). In this context, the Transtheoretical Model has been used to explain the stay/leave decision-making process in abusive relationships, applying specifically the stages and the process of change, as well as the intervening variables -self-efficacy and decisional balance- to IPV women (Eckstein 2011; Khaw and Hardesty 2009; Lerner and Kennedy 2000).

In light of the above, the more important concerns may be the internal and external barriers that make leaving the relationship more difficult; as well as the perceived reasons to stay/leave, since these reasons may affect the decisional balance. The perceived reasons to stay/leave are usually explored using a qualitative methodology approach thus hindering comparisons among studies. The goal of this study was to

assess IPV women's perceived reasons to stay in violent relationship in order to develop a standardized tool.

Several theories have been developed in an attempt to understand the factors that influence women's stay/leave decisions in violent relationships. Rhatigan et al. (2006) classified these theories into two groups: a) Theories that provides a general approach to decisional processes such as the investment model (Rusbult and Martz 1995), or the reasoned action/planned behavior (Ajzen 1985). These focus on common aspects to all people irrespective of violence exposure, and tend to be based on a rational evaluation of costs and benefits. b) Violence-specific theories such as learned helplessness (Walker 1979), or traumatic bonding (Dutton and Painter 1981), which focus more on individual variables, emphasizing the dynamics and negative consequences of partner violence on women's stay/leave decision-making behavior (Rhatigan et al. 2006). The general theories, and the investment model in particular, have shown considerable promise in predicting relationship termination decisions (Rhatigan et al. 2006). However, the individual variables considered by violence-specific theories (e.g., psychological distress) could also affect how abused women evaluate the benefits and costs of relationship termination. Thus, taking these individual variables into account might improve the predictive capacity of the investment model (Edwards et al. 2011). This suggests that integrating various and complementary stay/leave theories could maximize overall explanatory and predictive power (Strube 1988). Moreover, empirical evidence has shown that psychological and psychosocial variables are related to or predictive of women's stay/leave decisions in violent relationships, including the nature of the violence, woman's past abuse history, external resources, level of commitment and coping strategies (for a review, see Anderson and Saunders 2003; Rhatigan et al. 2006).

The decision to stay in violent relationships should be considered a health-related problem because of the potential physical and psychological harm associated with it (Hendy et al. 2003). For example, longer duration of IPV is associated with poor psychological well-being (Bonomi et al. 2006; Escribà-Agüir et al. 2010). For this reason, when women disclose abuse to their health professional, the latter tends to encourage them to leave (Morse et al. 2012). However, IPV women prefer a supportive, empathetic, and nonjudgmental approach, which facilitates the women to progress at their own pace and not to be pressured to leave the relationship (Feder et al. 2006). Furthermore, ending the relationship does not necessarily end partner violence; in fact, many IPV women are subject to escalated violence after leaving. Additionally, it usually increases levels of psychological distress, and it is associated with secondary stressors involving multiple losses and altered responsibilities (Anderson and Saunders 2003). Therefore, simply encouragement to leave without targeting the unique needs of abused women is an unhelpful and

potentially unsafe practice. A possible potential way to address these unique needs may be to detect women's perceived reasons to stay in violent relationship.

The study of women's perceived reasons to stay/leave is an important area of study in relation to achieving more effective interventions for IPV. Indeed, the development of tools for assessing the specific concerns that women experience when deciding whether or not to leave of a violent partner relationship would have wide utility in terms of identifying personal and situational barriers that make it difficult for them to leave. Furthermore, the use of validated tools would standardize the women's stay/leave perceived reasons, therefore making it easier to compare findings across studies.

To date, however, very few studies have used comprehensive and validated tools to examine women's stay/leave perceived reasons. In fact, we found just one scale that examines concerns related to the stay/leave decision process, namely the Decision to Leave Scale (DLS; Hendy et al. 2003). This is a 30-item scale grouped into seven subscales: Fear of Loneliness, Child Care Needs, Financial Problems, Social Embarrassment, Poor Social Support, Fear of Harm, and Hopes Things Change. The scale was developed with a large sample of college women, as well as an additional sample of women in shelters. The seven-factor structure was confirmed in all samples, with the scale showing criterion validity between college and shelter women, as well as associations between subscale concerns and stay/leave decisions in violent relationships (Hendy et al. 2003). A limitation of the scale, however, is that its construction and the examination of its psychometric properties were conducted primarily with college women (92 % of the sample), 83 % of whom had no experience of violence and who presented low exposure to the factors measured by the scale. In other words, based on the investment model, college women showed low investment levels of cohabiting time, marriage or children (younger age, relationship duration no longer than 4 years, mostly unmarried and without children). Furthermore, in our opinion the DLS fails to include a number of relevant stay/leave perceived reasons that have been described in the literature and/or observed by therapists and professionals, for example, self-blame or the fear of change (O'Neill and Kerig 2000). It also lacks certain individual variables from violence-specific theories, such as affective and cognitive effects (e.g., cognitive deficits, depressive or post-traumatic symptoms), which affect investment model variables, and consequently the women's stay/leave decisions (Edwards et al. 2011; Rhatigan et al. 2011).

In light of the above the aims of the present study were: (a) to develop a validated and comprehensive tool to evaluate women's perceived reasons to stay in violent partner relationships: the Partner Violence Entrapment Scale; (b) to examine its psychometric properties; (c) to associate the factors identified in this scale with socio-demographic, clinical and abuse variables (construct validity); and (d) to explore the

association between factor scores and current relationship status ("known groups" validity).

## Method

### Participants

The participants were Spanish-speaking battered women aged 18 years or older, all of whom had been in an abusive relationship with a male within the previous year and involved in an abusive relationship for at least 1 year. Women were recruited on a consecutive basis from an outpatient battered women's service located in Spain, between July 2005 and May 2008. Leaving the abusive relationship was not required to be assisted in this outpatient battered women's service. A total of 234 women were initially contacted to participate in the study. Five of them did not meet the inclusion criteria and 16 refused to participate. Therefore, the final sample was comprised of 213 women.

The mean age of participants was 39.8 years (SD=11.1), and almost all of them were of Spanish origin (86.4 %). Twenty-six percent were married and 54.4 % were divorced or in the process of divorce from the perpetrator. The majority of the women had completed only primary education (45.5 %), with 17.8 % having attended university. Just over half of them were employed (57.3 %), but 54 % reported a monthly household income of less than 1300 Euros. The majority of them had one or more children (85.9 %). With regard to the type of intimate partner violence (IPV), all of the women suffered from psychological IPV, 56.8 % suffered from physical IPV, and 20.7 % suffered from sexual IPV. Furthermore, 97.7 % reported having cohabited with their abusive partner, and 28.6 % were living with him at the time of assessment. The average duration of abusive relationships was 12.9 years (SD=10.8), and ranged from 12 months to 48 years. All of the women had experienced violence by their partner at some point during the 12 months prior to their participation in the study. At the time of the assessment, 29.8 % of them were still with their abusive partner (1.2 % in a non-cohabiting relationship).

### Measures

**Partner Violence Entrapment Scale (PVES)** This self-report scale comprising 44 dichotomous (true/false) items, plus a final open response question, was designed for the purposes of this study. The PVES assesses the woman's perceived reasons for becoming entrapped in violent partner relationships. The original scale was developed in Spanish. An English version was obtained after a translation and back-translation process (see Table 1). The items assess both situational and psychological concerns. The situational concerns include: five items about financial difficulties, three about informal social support, three about professional social support, two about legal resources, four about children's needs, four about fear of harm, and two items about age and health status. The psychological concerns include: 15 items about the victim's beliefs and feelings, such as self-blame, fear of change, fear of loneliness, religious convictions, embarrassment, or hope that the aggressor would change, and five items about cognitive/dissociative symptoms, such as feelings of unreality, feelings of confusion or problem-solving impairment. Finally, we added an item about drug/alcohol consumption.

**Index of Spouse Abuse (ISA; Hudson and McIntosh 1981)** The ISA is a 30-item self-report inventory rated on a 5-point scale ranging from 1=*never* to 5=*very frequently*. It has three subscales: ISA-P (physical abuse), ISA-NP (non-physical abuse: emotional and sexual abuse), and ISA total score. The Spanish validation used here has been shown to have optimal psychometric properties in IPV women (Torres et al. 2010), as well as high concordance with other measures of IPV (Garcia-Esteve et al. 2011). Alpha coefficients ranged from 0.83 to 0.94 in the present study.

**Psychological Maltreatment of Women Inventory – Short form (PMWI-SF; Tolman 1999)** The PMWI-SF is a 14-item self-report inventory that measures the severity of psychological abuse in an intimate relationship. It is rated on a 5-point Likert scale ranging from 1=*never* to 5=*very frequently*. It has two subscales: 'dominance/isolation' (D/I) and 'emotional/verbal abuse' (E/V). The Spanish validation of the PMWI-SF has shown excellent psychometric properties (Navarro et al. 2015, Spanish external validation of the Psychological Maltreatment of Women Inventory Short Form (PMWI-SF), unpublished). In the present study both subscales showed good internal reliability (Cronbach's alpha: D/I=0.86 and E/V=0.87).

**Beck Depression Inventory – Second Edition (BDI-II; Beck et al. 1996)** The BDI-II is a 21-item self-report measure of depressive symptoms. Items are rated on a 4-point severity scale. The Spanish validation has shown adequate psychometric properties (Sanz et al. 2003)). The alpha coefficient for this scale in the present study was 0.85.

**Semi-structured Interview** A semi-structured interview was conducted in order to collect detailed information about abuse variables, including the different types of IPV (physical, psychological, and sexual) and the duration of IPV. Socio-demographic data were also gathered, including age, immigration status (where appropriate), educational level, marital status, number of children, employment status, and monthly household income.

### Procedure

The 44 items of the PVES were developed for Spanish women based on a previously published scale (DLS; Hendy et al.

**Table 1** Factor loadings derived from a six-factor solution with promax rotation of the 36-item partner violence entrapment scale

| Items | S | FL | BO | IC | FH | FC |
|---|---|---|---|---|---|---|
| **Socio-Economic Problems** | | | | | | |
| I don't have the economic means to live independently | **.96** | −.01 | .06 | .07 | −.06 | −.16 |
| I won't have any protection or economic help from my family or friends if I separate from my partner | **.84** | .04 | −.08 | −.06 | .02 | .12 |
| I won't be able to get a job to support myself | **.84** | −.07 | .03 | .01 | −.02 | −.12 |
| I won't have anywhere to go if I leave home | **.82** | −.04 | .11 | −.08 | .05 | .02 |
| I'd have a lot of economic problems although I'd be able to support myself | **.66** | **.41** | −.10 | .23 | −.10 | −.18 |
| My family is putting pressure on me not to separate from my partner | **.58** | .14 | −.10 | −.15 | .20 | −.12 |
| **Attachment and Fear of Loneliness** | | | | | | |
| I'm afraid I'll feel lonely and won't be able to cope | .22 | **.85** | −.03 | .13 | −.26 | .13 |
| I'm afraid of the changes that separation involves | .29 | **.69** | .02 | .30 | −.10 | −.11 |
| I don't think I'll find another partner, or the partner I find will be worse | −.09 | **.65** | −.06 | .07 | −.12 | .15 |
| I feel that I've failed as a person if I separate | .12 | **.55** | .25 | .06 | −.12 | .05 |
| I know that I still love him | −.22 | **.53** | .14 | −.16 | −.02 | .04 |
| I think that he still loves me in spite of everything | −.21 | **.53** | .30 | −.18 | .29 | −.22 |
| I thought my partner was going through a bad time but would eventually get over it | −.33 | **.49** | .30 | .09 | .10 | .05 |
| **Blaming Oneself and Resignation** | | | | | | |
| I blame myself as well | .01 | .29 | **.88** | .02 | −.31 | −.04 |
| I think I may have exaggerated things | −.06 | .21 | **.84** | .04 | −.09 | −.08 |
| I think that putting up with your partner's bad moods is part of living together | −.13 | .14 | **.63** | .11 | .07 | .18 |
| **Impact on Children** | | | | | | |
| I fear that my partner will manipulate or trick my children and make them will reject me | −.08 | .06 | .04 | **.87** | .28 | .04 |
| I fear I'll lose custody of my children | −.02 | .09 | .08 | **.85** | .06 | .11 |
| I'm afraid my children will be harmed by the separation or by the absence of their father | .11 | .18 | .01 | **.79** | .08 | −.18 |
| **Fear of Harm and Worry for the Partner** | | | | | | |
| I fear physical violence if I leave him | −.11 | −.27 | −.21 | .13 | **.93** | .09 |
| He'll make my life impossible if I leave him | .17 | −.20 | −.17 | .25 | **.87** | −.01 |
| I fear my partner will harm other family members or people I love | −.07 | −.24 | .08 | .20 | **.71** | −.08 |
| I feel embarrassed or afraid I won't be believed when I explain what's happening to me | −.04 | .22 | −.01 | .01 | **.63** | .03 |
| I was convinced by my partner's remorse and pleading and thought his behaviour would improve | −.14 | .28 | −.09 | −.10 | **.63** | .03 |
| I fear my partner will carry out his threats to kill himself | .05 | −.03 | −.06 | −.11 | **.59** | −.14 |
| I fear my partner will harm my children | −.07 | −.25 | .11 | **.43** | **.56** | .00 |
| I think if I report him he'll just get more angry | .13 | −.04 | .13 | .27 | **.48** | .26 |
| I feel sorry for my partner. who is a victim of an unjust society that has led him to behave violently | .05 | .22 | .12 | −.04 | **.48** | −.17 |
| I feel sorry for my partner because he's incapable of living alone | .13 | .21 | .10 | −.19 | **.43** | −.02 |
| Reporting him to the police is pointless | .20 | −.23 | .15 | .17 | **.42** | .16 |
| **Feelings of Confusion** | | | | | | |
| I see the world through a fog that makes people and objects seem distant and confusing to me | −.12 | −.05 | .02 | −.05 | −.10 | **.98** |
| I have the feeling that the situation is not entirely real, or is like a dream | −.29 | .22 | .11 | .13 | .10 | **.77** |
| I fear I'll think back to previous experiences of abuse with an intensity that will make me freeze and unable to react | .04 | .12 | −.24 | .03 | **.40** | **.57** |
| I feel unable to take decisions | .16 | .24 | .16 | −.08 | .00 | **.49** |
| I don't know if I'll be able to cope with my health as it is | .23 | .05 | −.06 | −.01 | −.04 | **.46** |
| I'm unable to think clearly | .08 | .32 | .29 | −.04 | .16 | **.46** |

Items in English translation. In bold factor loadings ≥.40

*S* socio-economic problems, *FL* attachment and fear of loneliness, *BO* blaming oneself and resignation, *IC* impact on children, *FH* fear of harm and worry for the partner, *FC* feelings of confusion

2003) and on relevant factors reported in the literature (Anderson and Saunders 2003; Rhatigan et al. 2006). The scale was subsequently enlarged and improved using the expert opinions of professionals and consultants who work with

battered women, as well as through open interviews with victims of IPV. Researchers, professionals, and consultants (psychologists, psychiatrists, and social workers) met several times over a period of 3 months in order to reach an agreement on the final item content. Both experts and victims of IPV identified cognitive and emotional problems as barriers to leaving the abusive relationship, and items related to such reasons were therefore included. The questionnaire was administered to a pilot sample of ten women to test its viability and comprehensibility.

The study protocol followed the ethics and safety recommendations required by the World Health Organization (2001) for research on IPV, and it was approved by the local Institutional Review Board. All participants gave their written informed consent prior to entering the study. Two trained female clinical psychologists conducted face-to-face semi-structured interviews with the women in order to collect socio-demographic data, details of their partner relationship and its impact on their health. The psychologists also administered the ISA (Hudson and McIntosh 1981), the PMWI-SF (Tolman 1999), the BDI-II (Beck et al. 1996), and the PVES. Regarding the latter, women were asked to indicate retrospectively the presence/absence of each factor in relation to their reasons for not leaving the relationship. The study was conducted in Spanish.

**Data Analysis**

Data were analyzed using SPSS (version 18.0) and M-Plus 3.0 (Muthen and Muthen 1998). The latter was used to conduct exploratory factor analyses for dichotomous variables. The matrix of tetrachoric correlations was subjected to mean- and variance-adjusted weighted least squares (WLSMV) factor analysis. Varimax (orthogonal) and promax (oblique) rotation methods were applied because the correlations between emerging factors were unknown, although the researchers hypothesized that the factors were related. The number of factors was determined by inspecting the scree plot and by considering the criteria of interpretability. Items with a cross-loading on multiple factors were assigned to the factor with the highest loading. Items with a factor pattern loading lower than 0.40 were dropped. Items that showed the highest factor pattern loadings for a particular factor were considered items that measure the underlying reason for staying in the relationship that is associated with that factor. The *KR20* index and corrected point biserial correlations were calculated to assess internal consistency. Subscale scores were also derived by summing the number of endorsed items. Because the PVES subscale scores showed a non-normal distribution, intercorrelations between subscale scores were analyzed by means of Spearman's correlations.

Since PVES scores were not normally distributed, the relationship between PVES scores and socio-demographic, clinical, and abuse variables were analyzed using non-parametric tests. Associations between categorical variables and the PVES scores were analyzed using non-parametric analysis of variance models (Kruskal–Wallis test), applying a *p* value of .01. Based on significant differences, post hoc comparisons were then performed using the Mann–Whitney *U* test with the Bonferroni correction. Associations between continuous variables and the PVES scores were analyzed using Spearman's correlations. Due to the large number of analyses performed the *p* value was set at <.01.

**Results**

**Factor Structure and Internal Reliability of the PVES**

The exploratory factor analysis for dichotomous variables of the 44 items revealed 13 factors with eigenvalues higher than 1. Inspection of the scree plot suggested the extraction of five or six factors. Solutions with a higher number of factors were examined but considered unsuitable. The six-factor solution, which accounted for 60.6 % of common variability, was selected by means of psychological interpretability. Factor 1 accounted for 24.6 % of the variance, while the other five factors accounted for 11.4, 8.9, 6.7, 4.6 and 4.3 %, respectively. Promax and varimax rotations revealed nearly identical factor solutions, with correlations between factors ranging from 0.97 to 0.98, and congruence coefficients ranging from 0.92 to 0.99. Promax rotation was chosen because we hypothesized that the factors were correlated. Furthermore, promax rotation usually produces a more realistic and simpler structure than varimax rotation (Fabrigar et al. 1999). Eight items failed to meet the above loading criteria and were therefore removed. These items included drug/alcohol consumption, situational concerns such as professional and informal social support, and psychological concerns related to beliefs or religious convictions. Thus, the final version included 36 items. Factor loadings obtained using promax rotation, arranged in decreasing order within factors, are shown in Table 1.

The first factor (6 items) was labeled *Socio-Economic Problems* and included items regarding financial difficulties and poor social support. The second factor (7 items), labeled *Attachment and Fear of Loneliness*, included items referring to a fear of loneliness, still loving their partner, and to a fear of change. The third factor (3 items), labeled *Blaming Oneself and Resignation,* included items about self-blame. The fourth factor (3 items), labeled *Impact on Children*, included items referring to the woman's fear of losing custody of her children, or the fear that her partner would seek to turn the children against her. The fifth factor (11 items), labeled *Fear of Harm and Worry for the Partner*, included items related to the woman's fear of harming herself, her children and others, although it also included items about embarrassment and

feeling sorry for her partner. Finally, the sixth factor (6 items) was labeled *Feelings of Confusion* and included items regarding women's emotional/cognitive problems.

Reliability results are shown in Table 2. KR20 coefficients ranged from 0.70 to 0.78, and all corrected item-scale correlations were ≥0.30. Table 3 shows all pairs of associations among the six factors. *Feelings of Confusion* showed moderate-to-high correlations with all the other factors except *Impact on Children*. *Socio-Economic Problems* correlated moderately with *Impact on Children* and *Fear of Harm and Worry for the Partner*. There was a strong correlation between *Attachment and Fear of Loneliness* and *Blaming Oneself and Resignation*.

### Relationship Between PVES Factors and Socio-demographic, Clinical and Abuse Variables

The *Socio-Economic Problems* factor was associated with educational level (Kruskal-Wallis $\chi^2$ [2, $N=213$]=10.45, $p=.005$), marital status (Kruskal-Wallis $\chi^2$ [2, $N=211$]= 12.78, $p=.002$) and employment (Kruskal-Wallis $\chi^2$ [1, $N=182$]=16.57, $p<.001$). Post hoc analyses revealed that women who had only attended primary school (*Mdn*=3, interquartile range [*IQR*]=4) scored higher on *Socio-Economic Problems* than did women with a university education (*Mdn*=1, *IQR*= 4). In addition, single women (*Mdn*=1, *IQR*=3) scored lower on *Socio-Economic Problems* than did women who were married (*Mdn*=4, *IQR*=3.75) or separated (*Mdn*=3, *IQR*=3). Unemployed women (*Mdn*=4, *IQR*=3) scored higher on *Socio-Economic Problems* than did those in employment (*Mdn*=2, *IQR*=4). As expected, women with children (*Mdn*=2, *IQR*= 2) scored higher on the *Impact on Children* factor than did women without children (*Mdn*=0, *IQR*=0; Kruskal-Wallis $\chi^2$ [1, $N=212$]=38.86, $p<.001$), but mothers with two or more children did not score higher than mothers with one child (*U*= 3885, $p=.89$, $r=.01$).

Table 4 shows the correlations between the six PVES factors and the clinical and abuse variables. Higher scores on *Impact on Children* were associated with higher ISA-NP and PMWI-SF emotional/verbal scores (Table 4). Higher scores on *Fear of Harm and Worry for the Partner* and *Feelings of Confusion* were associated with higher scores on all measures of abuse (Table 4). The *Feelings of Confusion* factor was also positively associated with BDI-II scores (Table 4).

The total scale was positively associated with all abuse variables and with BDI-II scores (Table 4). Furthermore, unemployed women (*Mdn*=21.5, *IQR*=8.7) scored higher than employed women (*Mdn*=19, *IQR*=10) on the total PVES scale (*U*=2973.5, $p=.04$, $r=.15$). The total scale was unrelated with the remaining sociodemographic variables.

Women who remained in the abusive relationship scored lower on the factors *Fear of Harm and Worry for the Partner* (*U*=3574, $p=.03$, $r=.15$), *Feelings of Confusion* (*U*=3588, $p=.04$, $r=.15$), and on the total scale (*U*=3408, $p=.01$, $r=.17$) than did women who had left the relationship.

### Discussion

The principal aim of the present study was to design a specific scale to evaluate women's perceived reasons for staying in violent partner relationships. The Partner Violence Entrapment Scale (PVES) showed good psychometric properties in a sample of Spanish women who were victims of IPV.

The underlying empirical structure of the PVES comprised six factors: *Socio-Economic Problems*, *Attachment and Fear of Loneliness*, *Blaming Oneself and Resignation*, *Impact on Children*, *Fear of Harm and Worry for the Partner*, and *Feelings of Confusion*. Four of these factors, namely Financial Problems, Attachment and Fear of Loneliness, Impact on Children, and Fear of Harm and Worry for the Partner, are also measured by a previously published scale (the DLS; Hendy et al. 2003), thereby suggesting the consistency of these factors when assessing perceived reasons for staying in violent relationships. By contrast, the measurement of Blaming Oneself and Feelings of Confusion is specific to the PVES, while the assessment of social embarrassment, poor social support, and hopes that things might change is specific

**Table 2** Means, standard deviations and reliability of the PVES

| Factors | Items | $M$ (SD) | KR20 | Corrected $r_{pb}$ Mdn (min-max) | KR20 - item |
|---|---|---|---|---|---|
| Socio-economic problems | 6 | 2.57 (1.99) | .78 | .56 (.33–.62) | .72–.79 |
| Attachment and fear of loneliness | 7 | 4.20 (1.98) | .70 | .39 (.36–.55) | .62–.67 |
| Blaming oneself and resignation | 3 | 1.81 (1.16) | .70 | .54 (.45–.55) | .54–.70 |
| Impact on children | 3 | 1.51 (1.22) | .76 | .59 (.56–.62) | .63–.73 |
| Fear of harm and worry for the partner | 11 | 5.48 (2.94) | .78 | .44 (.30–.59) | .74–.78 |
| Feelings of confusion | 6 | 3.17 (1.92) | .75 | .51 (.34–.54) | .69–.75 |
| Total scale | 36 | 18.75 (6.61) | .83 | .32 (.09–.56) | .82–.84 |

*PVES* partner violence entrapment scale, *KR20* Kuder-Richardson reliability index, $r_{pb}$ point biserial correlation, *Mdn* median

**Table 3** Spearman correlations among factors of the PVES

|  | S | FL | BO | IC | FH | FC |
|---|---|---|---|---|---|---|
| Socio-Economic Problems | – |  |  |  |  |  |
| Attachment and Fear of Loneliness | .12 | – |  |  |  |  |
| Blaming Oneself and Resignation | −.03 | .41*** | – |  |  |  |
| Impact on Children | .22** | .11 | .11 | – |  |  |
| Fear of Harm and Worry for the Partner | .25*** | .19** | .25*** | .30*** | – |  |
| Feelings of Confusion | .26*** | .36*** | .32*** | .14* | .39*** | – |

*PVES* partner violence entrapment scale, *S* socio-economic problems, *FL* attachment and fear of loneliness, *BO* blaming oneself and resignation, *IC* impact on children, *FH* fear of harm and worry for the partner, *FC* feelings of confusion

* $p<.05$. ** $p<.01$. *** $p<.001$

to the DLS. The PVES does, however, include items that refer to these latter reasons. Specifically, the *Socio-Economic Problems* factor of the PVES included not only financial problems, but also poor social support. Moreover, items regarding social embarrassment and hopes that things might change did not load on separate factors, but rather, on two other PVES factors (*Fear of Harm and Worry for the Partner* and *Attachment and Fear of Loneliness*).

The levels of internal consistency were adequate for all factors, with reliability indices above 0.70 (George and Mallery 2003). The inter-correlation between factors showed that psychological factors (*Attachment and Fear of Loneliness* and *Blaming Oneself and Resignation*) correlated highly, whereas situational factors (*Socio-Economic Problems and Impact on Children*) showed a moderate-to-high correlation.

Regarding discriminant validity, PVES factors showed a number of associations with demographic, clinical, and abuse variables. Specifically, women who were married, unemployed, and had a lower educational level were more likely to report *Socio-Economic Problems* as the reason for not leaving their violent relationship. The relevance of socio-economic problems has been previously reported by research on the factors associated with the decision to leave abusive relationships. Specifically, studies have shown that women with greater economic needs (Griffing et al. 2002) and a lower educational level (Frisch and MacKenzie 1991) are more reluctant to leave violent relationships.

In the present study, women who scored higher on physical and psychological abuse were more likely to report concerns related to *Fear of Harm and Worry for the Partner* and *Feelings of Confusion* as the reason for not leaving their violent relationship. Women with higher scores on psychological abuse, specifically verbal abuse, reported more concerns related to the *Impact on Children* as the reason for not leaving, i.e., they expressed more fears about losing custody or that their children would turn against them. By contrast, controlling behavior was more related than was verbal abuse to concerns about *Fear of Harm and Worry for the Partner* as the reason for not leaving. Supporting these findings, previous

studies have shown the importance of abuse severity for the stay/leave decision process (Rhatigan and Axsom 2006; Rhatigan and Street 2005).

Finally, women with depressive symptoms were more likely to report *Feelings of Confusion* as the reason for not leaving the relationship. The *Feelings of Confusion* factor could also be related to psychological symptoms other than those of depression, for example, anxiety or post-traumatic symptoms. However, due to the characteristics of the present study (development and testing of the psychometric properties of a questionnaire) we only included one measure of psychological symptoms. Supporting the relevance of this factor, recent studies have found an association between psychological symptoms and stay or leave decisions (Edwards et al. 2011; Rhatigan et al. 2011).

In comparison with women who remained in the abusive relationship, women who left the relationship were more likely to report concerns related to *Fear of Harm and Worry for the Partner* and *Feelings of Confusion*. In the validation study of DLS (Hendy et al. 2003), the Fear of Harm factor was also

**Table 4** Spearman correlations between PVES factors and abuse and clinical measures

|  | S | FL | BO | IC | FH | FC | Total |
|---|---|---|---|---|---|---|---|
| BDI-II | .08 | .15 | .14 | .08 | .11 | .23** | .23** |
| ISA – P | .13 | .02 | .03 | −.02 | .47*** | .30*** | .29*** |
| ISA – NP | .16 | −.09 | .06 | .23** | .44*** | .33*** | .34*** |
| PMWI- SF (E/V) | .11 | −.10 | .07 | .22** | .33*** | .27*** | .28*** |
| PMWI – SF (D/I) | .12 | −.08 | .07 | .12 | .46*** | .36*** | .34*** |

*PVES* partner violence entrapment scale, *S* socio-economic problems, *FL* attachment and fear of loneliness, *BO* blaming oneself and resignation, *IC* impact on children, *FH* fear of harm and worry for the partner, *FC* feelings of confusion, *BDI-II* Beck depression inventory. Second edition, *ISA – P* index of spouse abuse - physical subscale, *ISA – NP* index of spouse abuse - nonphysical subscale, *PMWI – SF (E/V)* psychological maltreatment of women inventory - emotional/verbal subscale, *PMWI – SF (D/I)* psychological maltreatment of women inventory - dominance/isolation subscale

** $p<.01$. *** $p<.001$

associated with the decision to leave, whereas the Fear of Loneliness factor was related to the decision to stay. The cross-sectional nature of both studies limits the interpretation of these results. A longitudinal design following women who remained in the abusive relationship would be necessary to establish the predictive validity of the PVES, and the relative weight of each subscale in predicting stay or leave decisions.

The PVES does have some potential clinical implications. Identifying women's perceived reasons for remaining trapped in violent relationships could help professionals to implement more targeted interventions. For example, women who score higher on *Socio-Economic Problems* would require, firstly, a referral to social services for the assessment of social resources related to their specific concerns. Women who score higher on *Blaming Oneself and Resignation* or *Attachment and Fear of Loneliness* should be referred to support groups and/or psychotherapy. Finally, women who score higher on *Fear of Harm and Worry for the Partner* should undergo a careful risk assessment so as to draw up an adequate safety plan. Not surprisingly, the *Fear of Harm and Worry for the Partner* was shown in our study to be associated with a greater severity of abuse.

Limitations of the study include the fact that for most of the women, data regarding the perceived reasons for staying in the violent relationship were gathered retrospectively. Furthermore, the sample of IPV women was predominantly composed of low-income, treatment-seeking women, which may limit the generalizability of the findings. Finally, the instrument was developed for women who live in Spain, and most of the participants were born in that country (only 16 % were Spanish-speaking women born outside Spain). Therefore, the utility of this instrument for other cultures and countries remains to be determined. The study validity may be improved with the inclusion of a nonviolent/distressed relationship group. The underlying empirical structure should be replicated in other populations and samples, and future validation studies should also include other instruments that measure the same construct (convergent validity), such as the DLS. The predictive validity of the PVES (that is, the ability of the PVES scores to predict women more likely to remain in the abusive relationship) should be addressed through a longitudinal study. This could help us to identify potential cut off scores.

In conclusion, the Partner Violence Entrapment Scale (PVES) is a reliable and easily comprehensible instrument for evaluating women's perceived reasons for remaining with an abusive partner. When used in clinical and social settings it should enable more targeted intervention strategies to be developed for each case.

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