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## Perceived risk and safety-related behaviors after leaving a violent relationship.

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### ABSTRACT

Given that victim' risk perception could improve risk assessment in cases of intimate partner violence research is paying attention to it. However, it is not clear whether perceived risk relates to safety-related behaviors. This study is aimed to analyze how perceived risk by women who have left a violent partner relates to their safety-related behaviors and post-separation violence. Participants were 249 women (from protection services and the community) who had concluded a violent relationship. A structural equation model describes the relationships between three groups of factors: (1) women's risk perception; (2) three types of conditions that increase the opportunity for victim/abuser contact: (a) women's actions that make them easier to track, (b) women's reasons for not protecting themselves, and (c) batterers' strategies to gain access to their former intimate partners; and (3) post-separation violence. Results indicate that psychological violence is positively related to perceived risk and helplessness. Moreover, while women's risk perception predicts less contact and self-deception, male strategies predict greater contact and routines. In turn, contact predicts intimacy, whose absence fully accounts for 93.3% of the prediction of no re-abuse, six months later. The results' implications for intervention are discussed.

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## Percepción de las conductas relacionadas con el riesgo y la seguridad tras terminar con una relación violenta

### RESUMEN

Dado que la percepción de riesgo de las víctimas podría mejorar la valoración de riesgo en casos de violencia de género, la investigación le está presentando atención. No obstante, no está clara la relación entre riesgo percibido y conductas que afectan a la seguridad. Este estudio se propuso analizar dicha relación en mujeres que habían roto una relación violenta. Participaron 249 mujeres (servicios sociales y comunidad). Un modelo de ecuaciones estructurales describe las relaciones entre tres grupos de factores: (1) percepción de riesgo; (2) tres tipos de condiciones que incrementan la oportunidad de contacto víctima/agresor: (a) acciones que facilitan la localización de las mujeres, (b) razones de las mujeres para no protegerse, y (c) estrategias de los maltratadores para establecer contacto con sus ex parejas; y (3) violencia tras la separación. Los resultados indican que la violencia psicológica se relaciona positivamente con el riesgo percibido y la indefensión. Mientras la percepción de riesgo predice menos contacto y autoengaño, las estrategias de los agresores predicen mayor contacto y rutinas. A su vez, el contacto predice la intimidad, cuya ausencia da cuenta del 93.3% de los casos sin reabuso (seis meses después). Se discuten las implicaciones de los resultados para la intervención.

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Researchers interested in intimate partner violence (IPV) have focused on predicting reabuse and identifying the most severe cases of violence (Campbell, Alhusen, Draughon, Kub, & Walton-Moss, 2011; Cattaneo & Goodman, 2005; Garcia, Soria, & Hurwitz, 2007; Hilton & Harris, 2009). To this end, several waves of risk assessment tools have been developed (see for a review Bowen, 2011; Nicholls, Pritchard, Reeves, & Hilterman, 2013). Most are based on structured professional judgments. This is the case of the Spousal Assault Risk Assessment (SARA, Kropp, Hart, Webster, & Eaves, 1995), the Ontario Domestic Assault Risk Assessment (ODARA, Hilton et al., 2004), the Severe Intimate Violence Partner Risk Prediction Scale (SIVIPAS, Echeburúa, Fernández-Montalbo, Corral, & López-Goñi, 2009), etc. Others, such as the Danger Assessment (DA, Campbell, 1995; Campbell, Webster, & Glass, 2009), rely on victims' responses.

Recently, researchers have also begun to consider victims' risk perception as a tool that may improve risk assessment (Bell, Cattaneo, Goodman, & Dutton, 2008; Cattaneo, Bell, Goodman, & Dutton, 2007; Connor-Smith, Henning, Moore, & Holdford, 2011). According to the evidence accumulated, the combination of risk assessments by female IPV victims and by different risk assessment tools leads to more accurate predictions (Bowen, 2011; Eke, Hilton, Harris, Rice, & Houghton, 2011). In this sense, it has been suggested that women might attend to factors that are different of those assessed by risk assessment tools. For example, female risk assessments seem strongly related to past relationship violence and weakly related to the partner's criminal history (Connor-Smith et al., 2011). Some forms of IPV also seem more related than others with feelings of insecurity (Ditcher & Gelles, 2012). Moreover, researchers have examined factors that may influence victims' perceptions and their accuracy (Cattaneo et al., 2007). Thus, while stalking seems to lead women to make accurate estimates of reabuse, female substance abuse erroneously reduces risk estimation.

Perception of risk is usually taken into account in many areas because it may change the probability of an event occurring and the severity of its consequences (Breakwell, 2007). However, there are few studies on how perceived risk for battered women may affect their help seeking and safety-related behaviors (Heckert & Gondolf, 2004). Zoellner et al. (2000), for example, pointed out that the perception of threat predicts whether women would follow through with or withdraw from a protection order process.

The present study looks at the relationships between women's perceived risk, their safety-related behaviors, and post-separation violence. Based on previous interviews with professionals working in protection services and IPV victims (Gonzalez-Mendez & Santana-Hernandez, 2012), it was analyzed how women may involuntarily increase the opportunities for victim/batterer contact after separation. For example, women may become involved in routine activities that make them easier to track, keep in touch with their former intimate partners, or not protect themselves for different reasons. In addition, batterers may use different strategies to make such contacts occur. The question is whether women's perception of risk prevents these situations and whether it contributes to their safety.

#### *Women's activities that make them easier to track*

The routine activities perspective has demonstrated its usefulness in accounting for different types of victimization. Evidence indicates that guardianship has a negative correlation with victimization and offending, while target attractiveness, deviant lifestyles, and exposure to potential offenders will have a positive correlation (Spano & Freilich, 2009). It also seems clear that routine activities involve risk for women who have left their abusers, especially for those who live in the same community or relate within the same social network (Mele, 2009). However, the association between routine activities after leaving a violent relationship and women's risk perception has not been explored.

Moreover, there are other conditions which increase the opportunities for victim/batterer contact. For example, having children in common with their abusers (Hardesty & Ganong, 2006) or economic hardship may force women to maintain contact with them (Scott, London, & Myers, 2002). Also reconciliation attempts are rather frequent after separation, and the risk of reabuse tends to increase when they fail (Aldridge & Browne, 2003).

#### *Women's reasons for not protecting themselves*

Women may not take measures for protecting themselves, even after reporting abuse. Professionals working in protection services give different explanations for this, ranging from lack of awareness of the seriousness of the problem to feelings of helplessness. For example, they mentioned that some women believe that divorce will end their problems, making subsequent protection unnecessary. Likewise, women may also distrust protection measures, and not consider them truly helpful in preventing their abusers from trying to do harm to them. In short, more research is needed to generate strategies to enhance women's ability to protect themselves.

#### *Batterers' strategies to gain access to women*

Several studies have examined batterers' strategies aimed at ensuring control over women at different times in relationships (Hardesty & Ganong, 2006; Keeling & Fisher, 2012; Lila, Gracia, & Murgui, 2013). For example, Hardesty & Ganong (2006) indicated that controlling men tend to become more involved with their children after separation as a way to continue exerting control over former partners. Along with the use of children, previous interviews outlined other strategies used to approach women, to get victims not to declare against them at the trial, to restart the relationship, etc. For example, batterers show repentance, threaten to commit suicide, use friends or family members, etc. However, to what degree do these strategies allow men to succeed in maintaining contacts with and tracking women? To what extent do they contribute to increasing the risk of reabuse?

The aim of this study was to develop a structural equation model describing the relationships between three groups of factors: (1) women's risk perception; (2) three types of conditions that increase the opportunity for victim/abuser contact: (a) women's actions that make them easier to track, (b) women's reasons for not protecting themselves, and (c) batterers' strategies to gain access to their former partners; and (3) post-separation violence. A measure of reabuse six months later was included. The proposed model is based on the following hypotheses:

Hypothesis 1: The greater the frequency of post-separation violence, the greater the women's risk perception.

Hypothesis 2: The greater the women's risk perception, the less likely they are to act in a way that makes them easier to track or to agree with the reasons offered for not protecting themselves.

Hypothesis 3: The greater the frequency of batterers' strategies, the more likely women are to act in a way that makes them easier to track and to agree with the reasons offered for not protecting themselves.

Hypothesis 4: The more likely women are to act in a way that makes them easier to track and to agree with the reasons offered for not protecting themselves, the higher the risk of reabuse six months later.

## **Method**

### *Participants and procedure*

Participants were 249 women who had concluded a violent relationship. Their ages ranged from 18 to 67 ( $M = 36.9$ ,  $SD = 10.7$ ), while their former partners were aged between 19 and 86 ( $M = 40.9$ ,  $SD = 11.8$ ). The age difference between partners was, on average, 3.7

( $SD = 5.7$ ). However, the differences reached up to 19 more in some women and 20 more in some men. The educational level of the women was higher than that of their male partners (e.g., 11.7% of the women and 7.7% of the men had a college education), but women experienced higher unemployment than men (60.9% and 38.5% respectively). In 20.9% of cases, one or both members of the couple were foreigners i.e., non-Spanish nationality.

With respect to the relationship status of participants, 76.5% were divorced, 15.8% were in the process of divorce, and 7.3% cohabited with a new intimate partner. Relationships had begun when women were aged 12 to 58 ( $M = 23.0$ ,  $SD = 8.3$ ), had lasted a mean of 10.9 years ( $SD = 9.1$ ), and had ended a mean of 1.4 years before the study ( $SD = 1.2$ ). Most participants were mothers (84.9%) and many of them had children in common with their abusers (68.2%). They had suffered violence during a mean of 7.4 years ( $SD = 7.8$ ), but only 58.8% had reported it. About half of participants (59.7%) lived in their own homes, 21.3% lived in a shelter, and 19.0% lived with their parents.

Participants were selected by means of two non-probabilistic procedures. A first group was selected through different services for the protection of women who suffer from violence at the hands of their intimate partners ( $n = 151$ ). After receiving authorization from the agency that coordinates these protection services, staff invited women over 18 to collaborate. Participation was voluntary and all women who agreed to respond were selected for the study. With the second group, a snow-ball procedure was used. Social work students on work experience programs in different community settings collaborated by selecting battered women who did not attend protection services ( $n = 98$ ). Both groups of participants received identical instructions. Confidentiality of data was assured.

### Measures

The instrument used in this study was developed through several steps. First, the literature related to IPV risk assessment was reviewed and conditions that increase the risk of reabuse were explored by means of in-depth interviews (Gonzalez-Mendez & Santana-Hernandez, 2012). Then, a first questionnaire was designed and tested in a previous pilot study. Finally, exploratory factorial analyses allowed developing a smaller but more rigorous instrument, which consists of several scales whose psychometric properties have been established (Santana-Hernandez, 2012). Besides collecting data on socio-demographic variables, relationship characteristics, safety-related information, etc., the scales included were: (1) a scale on women's risk perception; (2) three scales on conditions that increase the opportunity for victim/batterer contact: (a) women's activities that make them easier to track, (b) women's reasons for not protecting themselves, and (c) batterers' strategies to gain access to their former intimate partners; and (3) a scale on post-separation violence.

Six months later, it was retested whether women had suffered any aggression during this period (yes/no). This information was obtained in 77.9% ( $n = 194$ ) of cases (52.6% of women attending protection services, and 47.4% from the community group).

**Women's risk perception.** A six-item scale was used to measure women's risk perception. Participants were asked to estimate the level of risk, for themselves and their families, of suffering these aggressions. The scale ranged from 0 (*no risk*) to 10 (*high risk*) and its reliability was .87 (Cronbach's  $\alpha$ ).

**Women's activities that make them easier to track.** In this case, three different scales were used: (1) a three-item scale to assess routines ( $\alpha = .70$ ); (2) another three-item scale to measure contact with former intimate partner or his family ( $\alpha = .75$ ); and (3) a last two-item scale to measure intimacy ( $\alpha = .70$ ). Participants were asked to estimate how often they engaged in each of these activities. Their answers ranged from 0 (*never*) to 10 (*very often*).

**Women's reasons for not protecting themselves.** Two scales were used to assess why women do not protect themselves: (1) a six-item scale covered self-deception ( $\alpha = .85$ ); and (2) other two-item scale measured helplessness ( $\alpha = .70$ ). Participants indicated their level of agreement with each statement from 0 (total disagreement) to 10 (total agreement).

**Batterers' strategies.** A six-item scale was used to measure batterers' strategies to gain access to women ( $\alpha = .80$ ). Participants indicated the frequency of each male strategy on a scale ranging from 0 (*never*) to 10 (*very frequently*).

**Post-separation violence.** Finally, two scales were used to measure post-separation violence: (1) a five-item scale covered psychological violence ( $\alpha = .84$ ); and (2) another three-item scale measured physical violence ( $\alpha = .80$ ). Participants indicated the frequency of each of the types of aggression on a scale ranging from 0 (*never*) to 10 (*very frequently*).

### Results

Covariance structure analyses were performed with LISREL 8.80 for Windows (Jöreskog & Sörbom, 2006), using Maximum Likelihood Estimation. First, measurement models were calculated for the nine latent variables expected. Table 1 shows the indicators properly loaded on these factors. Second, a Structural Equation Model (SEM) was adjusted for the entire sample to determine whether the postulated model adequately generated the sample variance-covariance matrix. The first SEM estimated included all the variables of each theoretical dimension and the hypothesized relations between the factors without other restrictions. This model was re-estimated until a factorial structure with fit was achieved. In the first SEM, Physical Violence covaries with both Risk Perception ( $\phi = .38$ ,  $p < .001$ ) and Psychological Violence ( $\phi = .42$ ,  $p < .001$ ), but it did not relate to any endogenous variable in the model. Thus, it was estimated a SEM without this factor. The modification indices based on Wald's test and the expected change statistics (ECs) guided model modifications. This strategy led to an eight-factor model which fits the data adequately,  $\chi^2(300) = 342.83$ ,  $p < .01$ ,  $\chi^2/df = 1.14$ , RMSEA = .024, 90% CI [0.010, 0.035], SRMR = .051, CFI = .98.

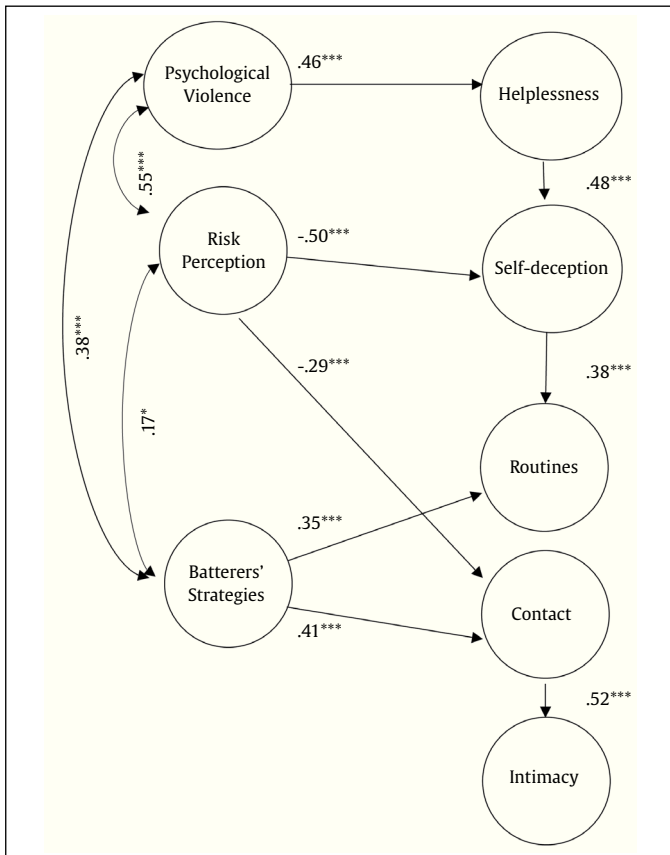
As shown in Figure 1, Psychological Violence, Risk Perception, and Batterers' Strategies exhibited covariance with each other, and predict the other five factors included in the SEM estimated. However, while Risk Perception reduces the likelihood of Self-deception and Contact, the other two factors positively relate to other endogenous variables. Specifically, Batterers' Strategies increases the likelihood of Contact and Routines, and Psychological Violence positively relates to Helplessness. Moreover, Self-deception predicts Routines and Contact predicts Intimacy. Therefore, the SEM estimated supports the first three hypotheses. Risk Perception and Batterers' Strategies relate to female actions that make them easier to track and reasons for not protecting themselves, but in the opposite way, which supports hypotheses 2 and 3. Moreover, Psychological Violence and Risk Perception positively relate to each other, as stated in hypothesis 1. Indirect effects were not detected.

Once this model was adjusted for the complete sample, it was simultaneously estimated for both groups of participants. The fit indexes were:  $\chi^2(344) = 247.39$ ,  $p < .01$ ,  $\chi^2/df = 0.72$ ; RMSEA = .030, 90% CI [0.10, 0.44], CFI = 1; SRMR = .05. The SEMs estimated for both groups were similar to that estimated for the entire sample and comparable to each other (Figure 2). Standardized parameters of each group may be seen on Table 2.

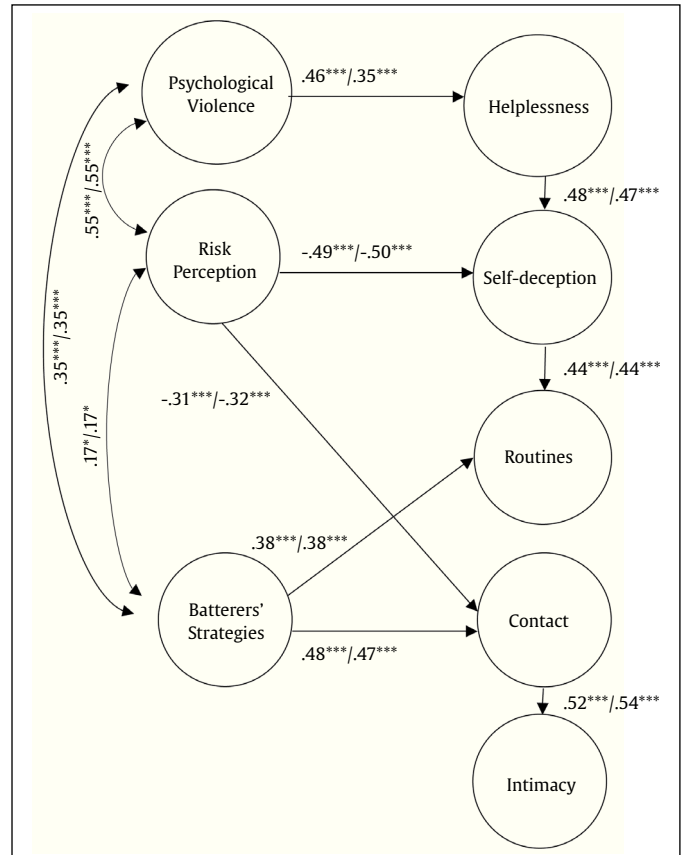
Six-month later, it was surveyed whether women had suffered any aggression since the completion of the study (yes/no). Given that this information was only obtained in 77.9% ( $n = 194$ ) of cases (6.7% had suffered a new aggression: 5.1% from protection services and 1.6% from the community), a binary logistic regression analysis was carried out, including all the former latent variables to predict

**Table 1**  
Measurement Model for Each Scale

Risk Perception $\alpha = .87$ ; $\chi^2(7) = 9.68$ , $p < .05$ ; CFI = .99	$\lambda$	Self-deception $\alpha = .86$ , $\chi^2(10) = 14.03$ , $p < .05$ , CFI = .99	$\lambda$
Try to do harm to the children	.83	She is not afraid	.73
Try to kidnap the children	.73	She knows how to defend herself	.72
Try to do harm to her family	.67	Somebody cares for her safety	.65
Try to kill her	.62	He has a new intimate partner	.60
Try to do physical harm to her	.55	He does not want to hurt her	.61
Try to kill her and then himself	.49		
Psych. Violence $\alpha = .84$ , $\chi^2(16) = 22.26$ , $p < .05$ ; CFI = .99		Helplessness $\alpha = .70$	
Threaten her	.82	Protection orders are useless	.83
Insult her	.80	If he wants, he will be able to find her	.59
Falsely accuse her of things	.66	Batterers' Strategies $\alpha = .80$ $\chi^2(7) = 8.87$ ; $p < .05$ ; CFI = 1	
Stalk her	.64	He promises her that it will not happen again	.72
Destroy her documents	.64	He blackmails her	.71
Physical Violence $\alpha = .80$		He shows repentance	.62
Sexually assault her	.85	He tell her they have to talk about their children	.59
Try to strangle her	.80	He takes advantage of meetings with their children	.57
Hit her	.62	He uses his or her family	.44
Routines $\alpha = .70$		$\chi^2(15) = 20.56$ , $p < .05$ ; CFI = .99	
His friends and family are aware of her movements	.69	Contact $\alpha = .75$	
She always takes the same route to go home and return	.51	She speaks to him on the phone and responds to his messages	.81
She meets his family to hand over the children	.50	She meets him to talk about the children and other issues	.60
Intimacy $\alpha = .70$		She meets her former partner to hand over the children	.65
She spends some evenings with him	.90		
She accepts his gifts	.59		



**Figure 1.** Structural Equation Model with all participants.  
Note. \*  $p < .05$  \*\*\* $p < .005$



**Figure 2.** Structural Equation Model comparing the two groups.  
Note. The slashes separate standardized parameters for women from services/community.  
\* $p < .05$  \*\*\* $p < .005$

**Table 2**  
Measurement and Structural Model with Standardized Parameter Estimated

Risk Perception	$\lambda$	Self-deception $R^2 = .35/.35$	$\lambda$
Try to kill her	.84/.84	He does not want to hurt her	.74/.74
Try to do physical harm to her	.78/.78	She knows how to defend herself	.64/.64
Try to do harm to the children	.59/.60	She is not afraid	.57/.79
Try to kidnap the children	.55/.55	He has a new intimate partner	.57/.57
Try to do harm to her family	.54/.54		
Psych. Violence		Helplessness $R^2 = .21/.21$	
Threaten her	.86/.85	If he wants, he will be able to find her	.78/.78
Insult her	.76/.76	Protection orders are useless	.64/.64
Falsely accuse her of things	.66/.66	Intimacy $R^2 = .27/.29$	
Stalk her	.63/.64	She accepts his gifts	.75/.75
Destroy her documents	.59/.59	She spends some evenings with him	.70/.70
Batterers' Strategies			
He takes advantage of meetings with their children			.64/.62
He tells her they have to talk about their children			.63/.62
He shows repentance			.54/.55
	Routines	$R^2 = .21/.31$	
His friends and family are aware of her movements			.64/.60
She meets his family to hand over the children			.53/.51
She always takes the same route to go home and return			.56/.56
	Contact	$R^2 = .28/.27$	
She speaks to him on the phone and responds to his messages			.80/.80
She meets him to talk about the children and other issues			.75/.73
She meets her former partner to hand over the children			.59/.59

Note. The slashes separate parameters estimated differently for each group (protection services/community).

reabuse. Wald's test indicated that Intimacy contributes significantly to the model ( $B = .11$ , Wald's test = 4.79,  $df = 1$ ,  $p < .05$ ,  $SE = .05$ ,  $OR = 1.12$ , 95%CI[1.01, 1.24]), classifying correctly the 93.3% of the non-reabused (true-negatives) and incorrectly the 6.7% of the reabused (false-negatives). Thus, the odds of suffering reabuse decreases 1.12 times for each unit decreased of Intimacy. The Hosmer-Lemeshow test,  $\chi^2(1) = 0.10$ ,  $p = .76$ , Cox-Snell  $R^2 = .02$  and Nagelkerke  $R^2 = .05$ , showed that the overall model fit is good. Finally, the stability of this predictive model was confirmed through bootstrapping (1000 samples) ( $B = .15$ , Wald's test = 4.89,  $df = 1$ ,  $p < .05$ ,  $SE = .07$ ,  $OR = 1.12$ , 95%CI[1.02, 1.34]). In this case, 100% of the true-negatives and 7.7% of true-positives were correctly predicted, Hosmer-Lemeshow test  $\chi^2(8) = 8.97$ ,  $p = .34$ , Cox-Snell  $R^2 = .04$ , and Nagelkerke  $R^2 = .10$ .

## Discussion

The aim of this study was to analyze the relationships between women's risk perception, certain conditions that increase the opportunity for victim/batterer contact, and post-separation violence. More specifically, it has tried to answer whether women's risk perception relates to their behaviors and safety after separation. The results also shed light on factors associated with risk perception.

As stated in hypothesis 1, women's risk perception is positively related to post-separation violence. Firstly, Risk Perception and Psychological Violence covary in the SEMs estimated for both groups. This is consistent with research that points to the importance of some forms of psychological abuse such as stalking or threats in the estimation of risk of new assaults by victims of IPV (Cattaneo et al., 2007; Ditcher & Gelles, 2012). However, given that both measures were taken at the same time in this study, causality cannot be determined. Thus, it is equally probable that psychological abuse

affects the perceived risk as vice-versa, i.e., that the estimated frequency of threats, insults, etc. is altered by risk perception. Secondly, although physical violence does not relate to women's activities or reasons for not protecting themselves, it is associated with the perceived risk of future violence.

Risk Perception and Batterers' Strategies also covaried among women from protection services, but not among the community sample. This suggests that information given by protection services professionals may have been useful in increasing women's risk perception. The SEMs estimated also support hypothesis 2, since Risk Perception negatively relates to both the frequency of women's actions that make them easier to track and the agreement with the reasons for not protecting themselves. Specifically, women who perceived a greater risk of reabuse also indicated less Contact with their former partners and less Self-deception. In turn, greater Contact relates to greater Intimacy, and as discussed below, this later predicts reabuse. In this way, women's perceived risk seems to reduce the opportunities for victim/batterer contact, which makes it a protective factor. Additionally, women who exhibited less Self-deception also indicated fewer routine activities, but only in the protection services group. This again points to the effectiveness of information offered by protection services. Moreover, although Self-deception and Risk Perception are negatively related, the former tends to increase with Helplessness. This seems to confirm the need to add other resources to risk information in order to avoid female helplessness and reabuse (e.g., Goodman, Dutton, Vankos, & Weinfurt, 2005).

Hypothesis 3 is only partially supported, since Batterer's Strategies predict women's actions that make them easier to track, but not the reasons for not protecting themselves. Specifically, these strategies positively relate to Contact and Routines (this latter factor only in

community group). In both cases, strategies seem to allow batterers to succeed in maintaining contacts with and tracking women. However, while Contact appears to be a consequence of having children in common (e.g., she meets her former partner to hand over the children), Routines mainly suggests that women have not changed their lifestyle (e.g., his friends and family are aware of her movements). Thus, if male strategies and female routines only relate with each other in the community sample, this is probably because women from the protection services group are more likely to have moved.

Hardesty and Ganong (2006) stated that controller batterers' involvement with their children after separation allows them to continue exerting control over mothers. Mele (2009) also pointed out that victim/batterer meetings, when there are children in common; enhance the risk of conflicts regarding child support, visitation, etc. Consistent with this research, Batterers' Strategies and Psychological Violence exhibit covariance with each other. However, the SEM estimated goes a step further, indicating that contact motivated by having children in common makes intimacy with the former partners more probable. In addition, logistic regression analysis offers preliminary support for hypothesis 4, since it confirms the relationship between certain degrees of intimacy and reabuse. Specifically, women who did not accept gifts from their former partners or spend evenings with them face a lower risk of suffering new assaults. However, although a lower Intimacy fully accounts for 93.3% of the prediction of no reabuse (i.e., true-negatives), it does not predict any case of reabuse (6.7%). This result is far from optimal, but it does indicate an avenue of intervention.

The covariance between Batterers' Strategies and Psychological Violence helps us to understand the difficulties many women experience with recovery after leaving a violent relationship. As male strategies are more frequent, the opportunities for victim/abuser contact and psychological abuse tend to increase. In turn, the greater the psychological abuse, the higher the risk of women's feelings of helplessness. As Anderson and Saunders (2003) stated, psychological conditions may be paradoxically worse after separation than before it, when continued violence and additional stresses create a negative spiral. Besides the stress associated with the separation process, women with violent ex-partners experience added fear and threats to their physical integrity (Walker, Logan, Jordan, & Campbell, 2004). Overall, these results support the view that judicial decisions should take into account batterers' attempts to interfere in their former partner's life.

Taken together, these findings indicate that women's risk perception is associated with less contact with their former intimate partners, which indirectly reduces the opportunities for reabuse. Although both SEMs estimated are quite similar, there are some differences suggesting the importance of safety-related information given by protection services. Women in the community rely only on their own resources to avoid violence and perceived risk could be an essential ally. However, their perceived risk relates to psychological violence suffered, but not to batterers' strategies. This suggests that, for these women, it may be not easy to see the risk associated with this latter factor, and social support may be the way to gain awareness. It is equally necessary that women have resources to avoid contact with their former partners because knowing the risk will not be sufficient to prevent their self-deception.

The main limitation of this study comes from its retrospective character. With the exception of reabuse, the other factors offer a snapshot of post-separation conditions in violent relationships. However, the findings underline the need to pay more attention to post-separation dynamics. Batterers seem to play an active role in pushing women to engage in activities which increase the risk of reabuse. They may also hinder women's recovery, since these activities relate to reconciliation attempts and opportunities to commit further psychological abuse. Therefore, intervention should

focus on preventing activities that increase the opportunities for victim/batterer contact after separation. As noted by Campbell et al., (2011), it will be useful to show women the relevance of their own perception of risk.

Other batterer's strategies also could be analyzed. For example, Miller and Smolter (2011) have depicted procedural stalking used by batterers, namely "paper abuse". This "includes a range of behaviors such as filing frivolous lawsuits, making false reports of child abuse, and taking other legal actions as a means of exerting power, forcing contact, and financially burdening their ex-partners" (pp. 637-638).

Although the retest (after six months) offers a follow-up assessment of the association between the factors included in the SEM and reabuse, the number of cases analyzed and reported assaults is quite small. This makes necessary a further analysis of the relationship between women's actions and reabuse with a longitudinal design.

### Conflict of interest

The authors of this article declare no conflicts of interest.

### References

- Anderson, D. K., & Saunders, D. G. (2003). Leaving an abusive partner: an empirical review of predictors, the process of leaving, and psychological well-being. *Trauma, Violence, & Abuse, 4*, 163-191. doi: 10.1177/1524838002250769
- Aldridge, M. L., & Browne, K. D. (2003). Perpetrators and spousal homicide. A review. *Trauma, Violence, & Abuse, 4*, 265-276.
- Bell, M. E., Cattaneo, L. B., Goodman, L. A., & Dutton, M. A. (2008). Assessing the risk of future psychological abuse: Predicting the accuracy of battered women's predictions. *Journal of Family of Violence, 23*, 69-80. doi: 10.1007/s10896-007-9128-5
- Bowen, E. (2011). An overview of partner violence risk assessment and the potential role of female victim risk appraisals. *Aggression and Violent Behavior, 16*, 214-226. doi: 10.1016/j.avb.2011.02.007
- Breakwell, G. M. (2007). *The psychology of risk*. Cambridge, UK: Cambridge University Press.
- Campbell, J. C. (Ed.) (1995). *Assessing dangerousness: Violence by sexual offenders, batterers, and child abusers*. Newbury Park, CA: Sage.
- Campbell, J. C., Alhusen, J., Draughon, J., Kub, J., & Walton-Moss, B. (2011). Vulnerability and protective factors for intimate partner violence. In J. W. White, M. P., Koss, & A. E. Kazdin, (Eds.), *Violence against women and children: Mapping the terrain* (Vol. 1, pp. 243-265). Washington, DC: American Psychological Association.
- Campbell, J. C., Webster, D. W., & Glass, N. (2009). The danger assessment: Validation of a lethality risk assessment instrument for intimate partner femicide. *Journal of Interpersonal Violence, 24*, 653-673. doi: 10.1177/0886260508317180
- Cattaneo, L. B., & Goodman, L. A. (2005). Risk factors for reabuse in intimate partner violence. A cross-disciplinary critical review. *Trauma, Violence, & Abuse, 6*, 141-175. doi: 10.1177/1524838005275088
- Cattaneo, L. B., Bell, M. E., Goodman, L. A., & Dutton, M. A. (2007). Intimate partner violence victims' accuracy in assessing their risk of re-abuse. *Journal of Family Violence, 22*, 429-240. doi: 10.1007/s10896-007-9097-8
- Connor-Smith, J. K., Henning, K., Moore, S., & Holdford, R. (2011). Risk assessments by female victims of intimate partner violence: Predictors of risk perceptions and comparison to an actuarial measure. *Journal of Interpersonal Violence, 26*, 2517-2550. doi: 10.1177/0886260510383024
- Ditcher, M. E., & Gelles, R. J. (2012). Women's perceptions of safety and risk following police intervention for intimate partner violence. *Violence against Women, 18*, 44-63. doi: 10.1177/1077801212437016
- Echeburúa, E., Fernández-Montalvo, J., Corral, P., & López-Goñi, J. J. (2009). Assessing risk markers in intimate partner femicide and severe violence. A new assessment instrument. *Journal of Interpersonal Violence, 24*, 925-939. doi: 10.1177/0886260508319370
- Eke, A. W., Hilton, N. Z., Harris, G. T., Rice, M. E., & Houghton, R. E. (2011). Intimate partner homicide: Risk assessment and prospects for prediction. *Journal of Family Violence, 26*, 211-216. doi: 10.1007/s10896-010-9356-y
- Garcia, L., Soria, C., & Hurwitz, E. (2007). Homicides and intimate partner violence. A literature review. *Trauma, Violence, & Abuse, 8*, 370-383. doi: 10.1177/1524838007307294
- Gonzalez-Mendez, R., & Santana-Hernandez, J. D. (2012). Professional opinions on violence against women and femicide in Spain. *Homicide Studies, 16*, 41-59. doi: 10.1177/1088767911428959
- Goodman, L., Dutton, M. A., Vankos, N., & Weinfurt, K. (2005). Women's resources and use of strategies as risk and protective factors for reabuse over time. *Violence against Women, 11*, 311-336. doi: 10.1177/1077801204273297
- Hardesty, J. L., & Ganong, L. H. (2006). How women make custody decisions and manage co-parenting with abusive former husbands. *Journal of Social and Personal Relationships, 23*, 543-563. doi: 10.1177/0265407506065983
- Heckert, D. A., & Gondolf, E. W. (2004). Battered women's perceptions of risk, versus risk factors and instruments in predicting repeat re-assault. *Journal of Interpersonal Violence, 19*, 778-800. doi: 10.1177/0886260504265619

- Hilton, N. Z., & Harris, G. T. (2009). How no recidivism affects predictive accuracy: Evidence from a cross-validation of the Ontario Domestic Assault Risk Assessment (ODARA). *Journal of Interpersonal Violence, 24*, 326-337. doi: 10.1177/0886260508316478
- Hilton, N. Z., Harris, G. T., Rice, M. E., Lang, C., Cormier, C. A., & Lines, K. (2004). A brief actuarial assessment for the prediction of wife assault recidivism: The Ontario Domestic Assault Risk Assessment. *Psychological Assessment, 16*, 267-275. doi: 10.1037/1040-3590.16.3.267
- Jöreskog, K. G., & Sörbom, D. (2006). *LISREL for windows* [Computer Software]. Lincolnwood, IL: Scientific Software International, Inc.
- Keeling, J., & Fisher, C. (2012). Women's early relational experiences that lead to domestic violence. *Qualitative Health Research, 22*, 1559-1567. doi: 10.1177/1049732312457076
- Kropp, P. R., Hart, S. D., Webster, C. D., & Eaves, D. (1995). *Manual for the spousal assault risk assessment guide*. Vancouver, British Columbia, Canada: British Columbia Institute against Family Violence.
- Lila, M., Gracia, E., & Murgui, S. (2013). Psychological adjustment and victim-blaming among intimate partner violence offenders: The role of social support and stressful life events. *The European Journal of Psychology Applied to Legal Context 5*, 147-153. doi: <http://dx.doi.org/10.5093/ejpalc2013a>
- Mele, M. (2009). The time course of repeat intimate partner violence. *Journal of Family Violence, 24*, 619-624. doi: 10.1007/s10896-009-9260-5
- Miller, S. L. K., & Smolter, N. L. (2011). "Paper Abuse": When all else fails, batterers use proceduralstalking. *Violence against Women, 17*, 637-650. doi: 10.1177/1077801211407290
- Nicholls, T. L., Pritchard, M. M., Reeves, K. A., & Hilterman, E. (2013). Risk Assessment in intimate partner violence: A systematic review of contemporary approaches. *Partner Abuse, 4*, 76-186. doi: 10.1891/1946-6560.4.1.76
- Santana-Hernandez, J. D. (2012). *Análisis del riesgo de violencia para las mujeres que inician la ruptura con su agresor* [Analysis of risk of violence for women who initiate the breakup with their aggressor]. La Laguna, Spain: Servicio de Publicaciones de la Universidad de La Laguna.
- Scott, E. K., London, A. S., & Myers, N. A. (2002). Dangerous dependencies: The intersection of welfare reform and domestic violence. *Gender & Society, 16*, 878-897. doi: 10.1177/089124302237893
- Spano, R., & Freilich, J. D. (2009). An assessment of the empirical validity and conceptualization of individual level multivariate studies of lifestyle/routine activities theory published from 1995 to 2005. *Journal of Criminal Justice, 37*, 305-314.
- Walker, R., Logan, T. K., Jordan, C. E., & Campbell, J. C. (2004). An integrative review of separation in the context of victimization: consequences and implications for women. *Trauma, Violence, & Abuse, 5*, 143-193. doi: 10.1177/1524838003262333
- Zoellner, L., Feeny, N., Alvarez, J., Watlington, C., O'Neill, M., Zager, R., & Foa, E.B. (2000). Factors associated with completion of the restraining order process in female victims of partner violence. *Journal of Interpersonal Violence, 15*, 1081-1099. doi: 10.1177/088626000015010005