Current Psychology (2024) 43:14604–14618
https://doi.org/10.1007/s12144-023-05400-8

The mediating role of response-focused emotion regulation strategies in intimate partner violence across the stages of change

Alicia Puente-Martínez[1] · **Silvia Ubillos-Landa**[2] · **Darío Páez Rovira**[3]

Accepted: 31 October 2023 / Published online: 29 November 2023

Abstract
Intimate partner violence against women is a pervasive and significant problem around the world that causes victims to suffer grave mental and physical health issues. The Stages of Change or SOC model has been used in recent study to examine the stage of change in female victims as a potential predictor of their readiness to end their relationship. This study's objective was to analyse emotion-focused coping strategies used by female victims to deal with emotions arising from trauma, violence or abuse, according to the SOC model. The sample comprised 200 victims of gender violence who had received formal assistance in Spain. The standardised test was administered in face–to-face interviews. According to the women's SOC, the findings showed differences in the use of emotion-focused coping strategies and indicated that emotion regulation efforts were greater in the early SOC- especially in precontemplation and action—of the continuum towards action. Emotion-focused coping strategies were activated to regulate either positive or negative emotions, again in accordance with participants' stage of change, with negative affectivity predominating in the early stages (precontemplation and contemplation), and positive affectivity having a greater presence in the later ones (action and maintenance). A series of mediation analyses demonstrated that although negative emotions immobilise female victims in the precontemplation stage, they also facilitate effective coping in the action stage, thereby helping to reduce the emotional impact of violence.

Keywords Positive and negative affects · Intimate partner violence against women · Emotion-focused coping strategies · Stages of change

Introduction

Intimate partner violence against women (IPVAW) is a major gender-based, socioeconomic, and public health issue that affects women worldwide. IPVAW is defined by the World Health Organization (WHO, 2023) as any act of violence done by a male intimate partner or ex-partner that results in either physical, sexual, or psychological harm directed toward females. It is a common and major cause of morbidity and mortality in women all over the world (Wood et al., 2021).

An important avenue of research in the study of IPVAW aims to discover the factors that impact women's decisions to stay with or leave an abusive partner (Wood et al., 2021). In this vein, the interplay between theories on affective science (Broaden-and-Build Theory and Modal Model of Emotions) (Gross, 2015) and the Stages of Change (SOC) model (Prochaska & DiClemente, 1982) allows researchers to analyse women's willingness to act and the efficacy of their coping efforts, which are aimed at overcoming violence within a specific timeframe of reference. However, research linking emotional components to ways of coping with gender violence is very limited, and there is a scarcity of literature examining the efficiency of various coping behaviours utilizing a contextual frame of reference.

Therefore, according to previous literature, this study will examine the association between positive and negative

✉ Alicia Puente-Martínez
apuentema@usal.es

✉ Silvia Ubillos-Landa
subillos@ubu.es

[1] Department of Social Psychology and Anthropology, Faculty of Social Sciences, University of Salamanca (USAL), Campus Miguel de Unamuno, P.º Francisco Tomás y Valiente, s/n, 37007 Salamanca, Spain

[2] Department of Social Psychology, Faculty of Health Science, University of Burgos (UBU), Avda. C. de Villadiego, 1, sn., 09001 Burgos, Spain

[3] Faculty of Education and Social Sciences, University of Andres Bello, Santiago de Chile, Chile

affect, emotion-focused coping strategies and the influence of these factors on the SOC in women who have experienced intimate partner violence (IPV). Our aim is to help to understand the role of negative emotions and emotion-focused coping strategies in the women's behaviour during their attempts to resolve violent situations involving their intimate partners.

Broaden-and-build theory: positive and negative affectivity

The broaden-and-build hypothesis claims that both, negative and positive emotions fulfil functions that preserve health. Consequently, not only do negative emotions engender specific behavioural action tendencies aimed at ensuring the survival of human beings, but also, positive emotions trigger expanded thought-action tendencies that generates long-lasting psychological, physical, and social resources (Fredrickson, 2001). In the context of IPVAW, recent studies have highlighted the role played by negative and positive emotions in abusive relationships and how they impact on the decision-making process IPVAW (Enander, 2011; Scheffer Lindgren & Renck, 2008). Authors such as Fleming and Resick (2016) argue that emotions influence the type of response engaged in and may result in the loss of the resources and strengths needed to cope with IPV. For example, some authors have reported that victims with higher degrees of anxiety and sadness, as well as guilt and shame (Murray et al., 2015a), exhibit more emotional suppression behaviours and have a lower likelihood of ending their violent relationship. Nevertheless, some negative emotions (NA) could produce the separation from the aggressor; for example, fear of an aggression or attack on her children may motivate women to leave abusive relationships (Enander, 2011).

Not every emotion that plays a role in the victim's decision to break up with an abusive relationship is negative in valence (Zaki & Williams, 2013). For example, consistently with the broaden-and-build theory (Fredrickson, 2001), an article focusing on IPVAW found that positive emotions seem to strengthen psychological resources (i.e., coping strategies) and victims' positive orientation towards the future, which may motivate women to leave abusive relationships (Cabras et al., 2020). However, Scheffer Lindgren & Barbro (2008) argue that female victims of IPV may experience a certain degree of emotional ambivalence (positive and negative emotions) in the intimate relationship, which may interfere in the process of change or their decision to leave a violent partner.

Recent studies in this field recognise that affect levels may fluctuate over time and across situations, meaning that victims' emotions may change during the separation process (Cabras et al., 2020; Puente-Martínez et al., 2022). For instance, Jordan et al. (2004) found that women who are in violent relationships exhibit lower levels of NA than those who have left abusive relationships. Indeed, this author suggests that NA may increase the use of more action behaviours. Also, victims of IPVAW may tend to confront violence more frequently when experiencing high-intensity NA than when positive affect (PA) predominates (Puente-Martínez et al., 2022). As a result, it is still unknown what role PA and NA play in the decision to leave a violent relationship (Enander, 2011). These findings highlight the necessity of investigating the link between affect and the coping efforts employed by victims to control their emotions and exit abusive relationships, while at the same time taking the contextual framework into account (Barrios et al., 2020).

Emotion regulation process: emotion-focused coping strategies

Emotion regulating refers to the overall process by which victims of IPVAW modify their emotional subjective experience, physiological response, verbal and nonverbal expression, and displayed behaviours based on their frequency, form, length, and intensity (Gross, 2015; Puente-Martínez et al., 2022). Victims' cognitive and behavioural attempts to manage certain external and internal pressures that are judged to be challenging or surpassing their capacity are referred to as coping (Lazarus & Folkman, 1984). Numerous strategies for handling different stressors have been identified. To categorise these coping mechanisms, the Modal Model of Emotions (MME) (Gross, 2015) identifies two basic types of coping: problem-focused and emotion-focused. According to this model, people can intervene in the process of emotion regulation at two different moments: prior to the emotion's emergence (problem-focused coping) or following its emergence (emotion-focused coping). Problem-focused coping involves tackling stress head-on and taking steps to address its root causes. Instead of focusing on the issue at hand, emotion-focused coping includes controlling your mood and emotional reaction to the circumstances. This distinction is possible because people can change the expression of their emotions, but not necessarily their significance (Gross, 2015). Therefore, response-focused strategies emerge after an emotion is triggered by a positive or negatives situation (Mauss et al., 2007). This may be related to the foundation of traditional models, in which coping strategies are viewed as a result to affects, with the aim of decreasing or increasing emotional stress (Gross & Thompson, 2007).

In the present study, our aim is to analyse emotion-focused coping strategies, since they may influence victims' attempts to alter their emotional expression (e.g., anxiety, fear, sadness, or anger) and may impact their decision to either leave the abusive relationship or change

stage (Murray et al., 2015b). Victims frequently confront adversity and attempt to manage their emotional responses in order to attain their goals. Emotions therefore may influence the strategies women use to cope with IPV (Puente-Martínez et al., 2022). Furthermore, rather than perceiving victims as solely passive conduits of emotional reactions to possible violence, the MME expressly defines the coping efforts through which victims may influence to the beginning, offset, volume, duration, severity, or quality of an emotional experience (Gross, 2015). This is congruent with findings from studies of IPVAW victims, which conclude that feelings may predict and generate behavioural changes (Puente-Martínez et al., 2022).

In a situation of IPV, women try to survive by using a range of emotion-based coping strategies, including passive physiological regulation, which is an elusive response associated to NA (Warshaw et al., 2013), and active physiological regulation, which is associated with fewer negative emotions and more energy in female victims of IPV (Gallegos et al., 2020). When victims of IPVAW do not perceive the situation as being under their control, confrontation (i.e., individuals express their concerns and directly address them) is considered to have a negative effect and may even increase the severity and frequency of the abuse suffered (Pereira et al., 2020). However, a recent study found no differences in the severity of the violence experienced by victims in accordance with whether or not they confronted their abuser (Aguilar Ruiz & González Calderón, 2020), prompting the authors to conclude that confrontation may also imply a unilateral decision by the victim to end the relationship and protect themselves from further abuse. Emotional discharge or emotional discharge (i.e., behavioural attempts to alleviate stress by expressing negative emotions) is also often linked to an increase in NA (Larsen et al., 2009), as well as with a higher risk of violence (Murray et al., 2015a). However, other authors claim that emotional discharge may have a positive effect on victims and may facilitate a change of stage, since it helps reduce the intensity of the emotions experienced and offers temporary relief to victims (Taherkhani, 2022). Emotional suppression (i.e., limiting facial expression and controlling positive and negative feelings) is a regulating strategy that is associated with lower PA, life satisfaction, and psychological well-being (Gross, 2015), and related with a lower level of functioning, a lack of acceptance and desire to remain in contact with one's emotional experiences, more vulnerability and the lack of responses to leave a violent relationship (Kashdan et al., 2006). High levels of emotional suppression may be linked to negative self-concept, increase distress, and are associated with more posttraumatic stress symptoms in IPV survivors (Muñoz-Rivas et al., 2021). Finally, the regulated expression of emotions (i.e., showing emotions in a controlled manner) is associated with positive affect in victims and with more action behaviours (Puente-Martínez et al., 2022).

Different studies have found that victims frequently try to control their own emotions either for instrumental purposes or to regulate their aggressor's behaviour (Zaki & Williams, 2013). For instance, one study concluded that women manage their anger-related feelings by using strategies such as emotional suppression to prevent a possible escalation of the relationship's violence (Muñoz-Rivas et al., 2021). This implies that women may intentionally use emotion-focused regulation strategies (that could result adaptive or maladaptive) to manage the aggressor's responses to their expression of emotions (e.g., anger and fear), as well as to maintain emotional equilibrium and improve the relationship's overall wellbeing (Wong et al., 2016). In this vein, Hamby and Gray-Little (2007) argue that different strategies are beneficial or adaptive only in so far as they pursue progress through the continuum of change and reduced the risk of revictimisation among victims of IPV. This argument is supported by flexibility theory (Bonanno & Burton, 2013; Gross, 2015), which is one of those adopted in this study.

According to this idea, effective coping is defined by the victim's ability to regulate and switch between a variety of coping ER strategies, changing their behaviour to their situation rather than by the adoption of one strategy over another (Bonanno & Burton, 2013; Puente-Martínez et al., 2022). Consequently, coping strategies mediate between PA and NA and victims' behaviours. That is, in the context of IPAW, distress may increase if the strategies used to cope with the situation are maladaptive (Puente-Martínez et al., 2018).

The stages of change (SOC) model or the transtheoretical model of change (TTM)

Most research carried out to date on IPVAW lacks a contextual framework of reference. Consequently, the present study applies the Transtheoretical Model (TTM) of change, also referred to as the Stages of Change (SOC) model, to analyse women's process of getting out of abusive relationships. The SOC model gives a comprehensive framework for comprehending the complex process and variables (cognitions, emotions, and behaviours) involved in women's search for safety in IPV (Reisenhofer & Taft, 2013). Moreover, the SOC model has also been applied to effectively advise female victims to move towards safety (Barrios et al., 2020; Murray et al., 2015a; Puente-Martínez et al., 2022). A systematic review demonstrated that the SOC framework is helpful for analysing real threats, how women perceive the violence in their lives (such as risk awareness), internal and external factors that may encourage or hinder actions toward

safety, and how they ultimately decide to take action to cease the violence in their lives (Reisenhofer & Taft, 2013).

The SOC model defines a pathway (not necessarily sequential) that female victims traverse as they move through four stages of change: precontemplation, contemplation, action and maintenance (Barrios et al., 2020; Prochaska & DiClemente, 1982). Victims in the precontemplation stage (S1) are characterised by a refusal to recognise the abuse being suffered and a indifference to change the situation, while those in the contemplation stage (S2) acknowledge the existence of a problem in their relationship and start to prepare for a change, while weighing the 'pros' and 'cons' (e.g., making plans for escaping). Women in the action stage (S3) have made significant changes (e.g., seeking social support) to enable them to end the intimate relationship. Finally, in the maintenance stage (S4), women try to maintain the changes they made in the previous stages (Reisenhofer & Taft, 2013).

Prochaska et al. (1992) conceptualised stage changes as cyclical rather than linear in almost all cases. Researchers applying this model assume that in moving through the various stages, women may experience a 'relapse' during which they regress to an earlier stage. Women may repeatedly go back to an abuser before terminating the violent relationship, and it is likely that, during that time of leaving and returning, they take critical steps towards ending the violence in their lives (Barrios et al., 2020; Murray et al., 2015a; Puente-Martínez et al., 2022; Reisenhofer & Taft, 2013).

The present study

The present study aims: (1) to compare victims' coping strategies across the SOC; (2) to analyse possible associations between PA and NA and the emotion-focused coping strategies based on the SOC model and, (3) to study whether emotion-focused coping strategies explain the relationship between affect level (PA and NA) and the SOC.

First (Aim 1), based on Gross's emotion regulation theory (Gross, 2015) and the TTM (Prochaska & Di Clemente, 1982), we expect to find that female victims use different strategies throughout the different SOC (Hypothesis 1). Specifically, we expect victims to use more strategies like emotional suppression and passive physiological regulation in the first stage of change (precontemplation stage or S1) than in the rest of the stages. This is because, in S1, victims justify and minimise the violence to which they are exposed and tend to employ coping behaviours consistent with this type of cognition; furthermore, these strategies may be associated with more NA (e.g., fear). We also expect victims to use more confrontation, emotional discharge and active physiological regulation during the S2 and S3, since this is when they generally start planning and asking for help. Furthermore, we expect emotion regulation efforts to be greater in the early stages of the process than in the last one (maintenance), in which victims face other problems not associated with the breakup.

Second (Aim 2), according to the extend-and-build theory that holds that emotions engender behavioural action tendencies, we expect both PA and NA to be associated with the different SOC and to therefore influence women's decision to either leave or remain in the relationship (Hypothesis 2). Specifically, we expect that S1 and S2 to be linked to decreased PA levels, and greater PA to be linked to S3. We also expect greater NA to be associated with S2, due to the affective imbalance that characterises victims' decision-making process. Based on previous studies on emotion-focused coping strategies, we also expect NA to correlate positively with strategies such as passive physiological regulation, emotional suppression, confrontation and emotional discharge, and negatively with active physiological regulation. In contrast, we expect PA to correlate positively with active physiological regulation, and regulated expression and negatively with confrontation. Finally, greater use of maladaptive strategies (passive physiological regulation and emotional suppression) will be associated with S1 and S2, and with a higher use of confrontation, emotional discharge, active physiological regulation and regulated expression of emotions with S3 and S4.

Third, theoretical approaches to emotion regulation postulate that NA and PA could be regulated during various stages of the emotion generation process and that strategies aimed at regulating the emotional responses are triggered once the emotion has been emerged. Here, we posit that it is emotions that prompt the activation of coping strategies and trigger specific behavioural tendencies. Consequently, to determine how the use of emotion regulation strategies influences motivation to change (Aim 3), this study suggests that the association between PA/NA and the SOC is mediated by emotion-focused coping strategies. We expect lower NA and higher PA to be related to the use of more adaptive strategies (in this case, confrontation, emotional discharge, active physiological regulation, and regulated expression), which in turn will be positively related to the S2-S3 and S4 stages of change and negatively to S1. In contrast, we expect higher NA and lower PA to be associated with the use of more maladaptive strategies (i.e., passive psychological regulation and suppression), which will, in turn, be associated with less motivation to advance through the stages of change (correlating positively with S1 and negatively with S2, S3 and S4) (Hypothesis 3).

Materials and methods

Sample

The sample comprised 200 victims of IPVAW from two autonomous communities in Spain (Comunidad Autónoma

Vasca and Castilla y León). The age ranges from 18 to 66 years old ($M = 40.16$, $SD = 11.27$). The average duration of the professional assistance received was approximately 2 years ($M = 27.24$ months, $SD = 28.09$). A large proportion of women were referred by police organisations (57.5%), were from Spain (89%), lived in urban areas (58.5%), had completed primary or secondary education (67%), and were Catholics (55.5%). More than two thirds were financially independent (69%) and were employed (47%), however a significant percentage were unemployed (44.5%). Most of the women were single, separated, divorced or in the process of divorce (82%).

The number of children per women ranges from 0 to 11 (approximately 2, $M = 1.69$, $SD = 1.50$). The average time in a violent relationship was 10 years and 9 months (range: 1 day-11 months). More than a half informing having suffered violence since dating ($n = 130$, 65%) and the latest episode of violence had happened more than 6 months previously ($n = 105$, 52.5%). The vast majority ($n = 170$, 85%) had filed a formal complaint against their partners on the grounds of abuse, and 62% ($n = 124$) had been assigned police protection.

Instruments

Sociodemographic characteristics. Participants were asked about their age, centre of reference (police, association), duration of assistance, region (rural or urban areas), education, religion, working status, income, number of children, time in the violent relationship, first and last episode of IPV, whether or not they had filed a formal complaint against their partners on the grounds of abuse, and whether or not they had been assigned police protection.

The Conflict Tactic Scale (CTS2-S) (Loinaz et al., 2012). This scale evaluates respondents' lifetime IPV as well as their IPV throughout the past year. It comprises of 20 items on both violence performed and sustained (10 items). This study included four dimensions of the violence suffered scale (8 items): physical assault (e.g., My partner punched, kicked, or hit me), psychological assault (e.g., My partner destroyed something that belonged to me or threatened to hit me), damage (e.g., I went to a doctor because of a fight with my partner), and sexual violence (e.g., My partner insisted on sex when I did not want to). Answers are given on an 8-point Likert-type scale, on which options 1 (*once in the last year*) to 6 (*more than 20 times in the last year*) asses the prevalence of IPV during the last year and options 7 (*not in the last year, but before*) and 8 (*this has never happened*) assess the prevalence of violence throughout the respondent's lifetime. The total alpha was 0.78.

The Brief Emotional Regulation Scale (Measurement Affect Regulation Scale, MARS) (Puente-Martínez et al., 2018). Only the emotional response regulation strategies were utilized for the current investigation. Passive physiological regulation (e.g., I slept or took a nap); Emotional suppression (e.g. I tried to not let my feelings show, to suppress any expression); Confrontation (e.g. I expressed my feelings to the person(s) responsible for the situation or tried to get them to change their minds or to improve the situation); Emotional discharge (e.g., I made my emotion clear, verbalizing it and expressing it as strongly as I could with my face, my gestures and my way of behaving); Active physiological regulation (e.g., I played sports, exercised), and Regulated expression (e.g., I calmly apologised for what was done or said). This scale includes a Likert-type scale ranging from 0 (*never*) to 6 (*almost always*). Each coping strategy's average frequency of usage was calculated, with higher scores suggesting a stronger use of these coping strategies in IPV situations. The alpha was 0.75.

Positive–Negative Affectivity (PANAS) (Vergara et al., 1989). This scale measures respondents' affective balance. It comprises 18 items rated on a Likert scale ranging from 1 (*little or never*) to 4 (*almost all the time*), grouped into 2 subscales: positive affect- PA (9 items) ($\alpha = 0.72$) (e.g., Have you felt really happy?) and negative affect- NA (9 items) ($\alpha = 0.82$) (e.g., Have you felt afraid or nervous?). Higher scores indicate a greater presence of NA.

The University of Rhode Island Change Assessment Scale (SOC) (Prochaska & DiClemente, 1982; Tejero & Trujols, 1994). This scale measures respondents' location on the readiness to change continuum proposed by Prochaska and DiClemente in their Transtheoretical Model (TTM). It consists of 32 items distributed across four 8-item subscales: precontemplation (e.g., To my knowledge, I have no problems to change) ($\alpha = 0.73$), contemplation (e.g., It might be worth working to solve my problems related to IPV) ($\alpha = 0.80$), action (e.g., I'm finally doing something to fix my problem related to IPV) ($\alpha = 0.86$) and maintenance (e.g., I am here to prevent the possibility of relapsing into IPV) ($\alpha = 0.75$). Items are formulated to refer to IPVAW and are rated on a 5-point Likert-type scale ranging from 1 (*completely disagree*) to 5 (*completely agree*). Summing the individual scores resulted in the total score for all items in each category. The internal consistency was $\alpha = 0.76$.

Procedure

This research was conducted in partnership with many Spanish organizations and associations, all belonging to the Network of Assistance for Victims of Gender-Based Violence. The organisations and associations contacted victims and asked if they would be willing to participate. Gradually and concurrently with the signing of partnership agreements with IPV authorities and organizations, data was gathered over the course of a year. Each woman received on average three calls, after agreeing to a personal interview. The

interviews were managed and conducted by a specialist in working with IPVAW. Individual semi-structured interviews lasted one and a half to two hours.

This study's sample size, a description of variables, initial hypotheses, and planned analyses were preregistered on Open Science Framework (https://osf.io/yv3r4/?view_only=09c2d9b52fd9461d97516d3df83da439) prior to any data being collected. Since participants belong to a vulnerable population (most women were involved in legal proceedings or were under police protection at the time of the study), researchers interested in requesting access to these data should contact the Ethics Committee of the University of Basque Country at Alicia Puente-Martínez. All of the participants agreed to take part in the study (reference: INA-AFREG-VG', CEISH/328/2015).

Data analyses

First, ANOVAs and post hoc tests with Bonferroni correction were performed to examine variations in the use of emotion-focused coping mechanisms across the SOC (Hypothesis 1). Second, the association between the SOC, emotion-focused coping strategies, and PA and NA was also examined using correlation analysis (Hypothesis 2).

Third, to test the hypothesis regarding the mediating role played by emotion-focused coping strategies in the association between affects and stages of change (Hypothesis 3), we used the PROCESS 4.0 macro for SPSS v.26.0. Due to the high collinearity found between PA and NA (r = -.59), we tested two different models (Model 1 analyses PA and Model 2 NA), one for each independent variable. The indirect effect (ind = c-c'), standard errors (SE) and confidence intervals (95% CI) were estimated using the bootstrap method set to 5000 iterations (Hayes & Rockwood, 2020). If the confidence interval doesn't have a value of zero, the indirect effect is considered significant.

For the purposes of performing the ANOVAs and mediation analyses, women were grouped according to the stages of change for which they received the highest overall score. Consistently with that reported in previous research on SOC (Shorey et al., 2013), when two stages obtained the same score, the stage further along the continuum was chosen as the participant's current stage of change.

Differences were observed in the SOC to which participants were assigned in accordance with duration of assistance ($F_{(187,3)} = 2.78$, $p = .004$), the autonomous community in which they were living ($\chi^2_{(3)} = 29.64$, $p = .0001$), referral centre ($\chi^2_{(1)} = 17.51$, $p = .0001$), whether or not they had lodged a formal complaint ($\chi^2_{(1)} = 12.28$, $p = .006$) and whether or not they had taken out a restraining order ($\chi^2_{(1)} = 11.51$, $p = .009$). Consequently, these variables were included as co-variables in all mediation analyses. Type of violence was also considered a control variable (Shorey et al., 2013).

Since fewer women than expected were identified as being in particular SOC (for instance, the precontemplation stage), stages were all treated as continuous variables in both the partial correlations and the mediation analyses, in order to improve the statistical power of the tests carried out. The significance level was set at .05.

Results

The results found that 9% of participants were in S1, 25% in S2, 48% in S3, and 18% in S4. Regarding the emotion-focused coping strategies used to deal with IPVAW (Hypothesis 1), the results indicated the use of these coping strategies varied significantly throughout the different SOC. In general, results reveal a progressive decline in the use of passive physiological regulation and emotional suppression across the SOC. Post-hoc analyses revealed that participants in S1 used emotional suppression and passive physiological regulation more than those in the other three stages (S2, S3 and S4). Similarly, emotional suppression was more common in S2 and S3 than in S4. In contrast, the use of confrontation, emotional discharge, active physiological regulation and regulated expression gradually increased the further along the change continuum participants were. Specifically, participants in S3 made greater use of confrontation than their counterparts in S2. In the case of emotional discharge, the results of the post-hoc tests were not statistically significant. The frequency of use of active physiological regulation was higher in S3 and S4 than in S1, and a difference was also observed between its use in S3 and S2. Finally, participants in S4 engaged more in regulated expression than those in S1, S2 and S3 (see Table 1).

In terms of NA, statistically significant differences were identified between the SOC, with levels in S1, S2, and S3 being significantly greater than in S4. Contrary results were found for PA levels, which were lower in S1 and S2 than in S3 and S4.

Correlations between affects, SOC and emotion regulation strategies

Table 2 shows partial correlations between among variables. Our results revealed a positive and significant relationship between NA and S2. In contrast, PA was negatively associated with S1 and S2 and positively associated with S3.

NA was positively and significantly linked with passive physiological regulation and emotional suppression, and negatively and significantly associated with confrontation, active physiological regulation, and regulated expression. In contrast, PA correlated negatively with passive physiological regulation and emotional suppression, and positively with confrontation, emotional discharge, active physiological regulation and regulated expression.

Table 1 Mean comparisons of ER strategies and affects, based on the stages of change

	SOC (stages of change)										
	Total	S1($n=18$)[a]		S2 ($n=50$)[b]		S3 ($n=96$)[c]		S4 ($n=36$)[d]		$F_{(df=3)}$	p
Affects											
NA	2.88 (.69)	3.30[d]	.53	2.98[d]	.68	2.88[d]	.63	2.50	.79	6.49	.0001
PA	2.69 (.57)	2.25[cd]	.56	2.44[cd]	.57	2.85	.48	2.81	.59	11.42	.0001
Emotion-focused coping strategies											
PPR	2.15 (1.72)	4.78[bcd]	2.22	2.19	1.75	1.72	1.51	1.88	1.24	21.24	.0001
SUP	3.39 (1.77)	5.33[bcd]	.98	3.84[d]	1.62	3.16[d]	1.72	2.33	1.44	16.18	.0001
CON	3.17 (1.84)	2.42	1.56	2.52[c]	1.94	3.57	1.78	3.39	1.69	5.05	.002
EDI	3.79 (1.94)	2.78	1.94	3.57	1.78	4.03	1.90	3.96	1.76	2.56	.05
APR	2.84 (2.15)	1.33[cd]	1.12	2.30[c]	2.7	3.37	2.18	3.06	2.09	6.50	.0001
REX	2.98 (1.84)	2.08[d]	1.27	2.82[d]	1.76	2.79[d]	1.78	4.04	1.78	6.21	.0001

$N=200$. NA: Negative Affects, PA: Positive Affects, PPR: Passive Physiological Regulation, SUP: Emotional Suppression, CON: Confrontation, EDI: Emotional discharge, APR: Active Physiological Regulation, REX: Regulated Expression

Scores for the NA and PA sub-scales ranged from 0–4, ER strategies ranged from 0–12, except for SUP, which ranged from 0–18

S1: Precontemplation Stage, S2: Contemplation Stage, S3: Action Stage, S4: Maintenance Stage

[a. b. c. d.] Sub-indexes indicate differences among groups (Bonferroni's correction)

Table 2 Partial correlations among the variables

	1	2	3	4	5	6	7	8	9	10	11	12
1. NA	–	$-.57^{**}$	$.17^{*}$	$.31^{***}$	$-.18^{*}$	$-.12$	$-.22^{**}$	$-.17^{*}$	.15	$.32^{**}$	.05	.03
2. PA		–	$-.34^{***}$	$-.33^{***}$	$.27^{***}$	$.19^{*}$	$.34^{***}$	$.16^{*}$	$-.25^{**}$	$-.14^{*}$	$.25^{***}$	.02
3. PPR			–	$.28^{***}$	$-.13$	$-.19^{**}$	$-.25^{**}$	$-.09$	$.47^{***}$	$-.22^{**}$	$-.38^{***}$	$-.22^{**}$
4. SUP				–	$-.27^{***}$	$-.34^{***}$	$-.25^{***}$	$-.15^{*}$	$.47^{***}$	$-.04$	$-.28^{***}$	$-.21^{**}$
5. CON					–	$.46^{***}$	$.17^{*}$	.10	$-.11$	$-.04$	$.35^{***}$	.14
6. EDI						–	$.34^{***}$	.06	$-.31^{***}$	$.26^{***}$	$.29^{***}$	.09
7. APR							–	$.16^{*}$	$-.40^{***}$	$-.16^{*}$	$.45^{***}$	.13
8. REX								–	$-.21^{**}$	$-.05$	$.18^{*}$	$.36^{***}$
9. S1									–	$-.24^{**}$	$-.42^{***}$	$-.28^{***}$
10. S2										–	$.54^{***}$	$.20^{**}$
11. S3											–	$.29^{***}$
12. S4												–

NA: Negative Affects, PA: Positive Affects, PPR: Passive Physiological Regulation, SUP: Suppression, CON; Confrontation, EDI: Emotional discharge, APR: Active Physiological Regulation; REX: Regulated Expression

S1: Precontemplation Stage; S2: Contemplation Stage; S3: Action Stage; S4: Maintenance Stage

$p \leq .001^{***}$, $p \leq .01^{**}$; $p \leq .05^{*}$

Covariates: duration of assistance, autonomous region, referral centre, formal complaints, police protection measures and types of violence

S1 correlated significantly and positively with the use of passive physiological regulation and emotional suppression, and negatively with the use of emotional discharge, active physiological regulation and regulated expression. S2 correlated negatively with passive and active physiological regulation and positively with emotional discharge. S3 correlated negatively with passive physiological regulation and emotional suppression, and positively with the use of confrontation, emotional discharge, active physiological regulation, and regulated expression of emotions. Finally, S4 correlated negatively with passive physiological regulation and emotional suppression, and positively with the use of regulated expression. Compared to S2 and S4, S1 and S3 were linked to the use of more coping strategies.

Mediation analises: coping strategies as mediators between PA and NA, and SOC

According to Hypothesis 3, model 1 revealed that PA was associated with less use of passive physiological regulation and emotional suppression and an increased use of confrontation, emotional discharge, and active physiological regulation (*a*-effects) (see Table 3). Conversely, NA was associated with more use of passive physiological regulation and emotional suppression, and less use of confrontation and active physiological regulation (*a*-effects) (see Table 4). The mediating effects of coping between affects and different SOC are depicted in Fig. S1 (supplementary material).

Precontemplation (S1): In PA and NA models, passive physiological regulation and emotional suppression were positively and significantly related to S1, whereas active physiological regulation was found to have an inverse relationship with that same stage (*b*-effect). Findings also revealed a negative and significant total effect of PA on S1 and a non-significant direct effect of PA and NA on that same stage. Moreover, indirect effects were significant in both models (PA and NA) for passive physiological regulation, emotional suppression, and active physiological regulation.

Contemplation (S2): In both models, passive physiological regulation was negatively associated with S2, whereas emotional discharge correlated positively with that same stage. Also, in the NA model, confrontation was negatively associated with S2 (*b*-effect). NA and S2 was positive and significantly associated (total effect). In these models, the direct effects of PA (negative) and NA (positive) on S2 were statistically significant. The indirect effects of passive physiological regulation were significant in both models. However, the indirect effects of emotional discharge were only significant in model 1 (PA).

Action (S3): In both the PA and NA models, the results indicated that confrontation and active physiological regulation were positively associated with S3, whereas passive physiological regulation was negatively associated with this stage (*b*-effect). In model 2, emotional suppression was also negatively associated with S3. The total effect revealed a positive and significant relationship between PA and S3. Direct effects were only positive and significant for the NA model. In both models, indirect effects were significant for passive physiological regulation, confrontation and active physiological regulation, indicating that these ER strategies may explain the relationship between PA and NA and S3. In the NA model, the indirect effects of emotional suppression were also significant.

Table 3 Mediating effect: PA

	S1		S2		S3		S4	
	a (se)	*b (se)*	*a (se)*	*b (se)*	*a (se)*	*b (se)*	*a (se)*	*b (se)*
PPR	−1.12(.23)***	1.06(.23)***	−1.09(.23)***	−.84 (.23)**	−1.12(.23)***	−.94(.25)**	−1.12(.23)***	−.68(.29)*
SUP	−.99(.22)***	1.07(.24)***	−.99(.23)***	.23(.24)	−.99(.22)***	−.25(.25)	−.99 (.22)***	−.58(.30)*
CON	.89(.25) **	.41(.23)	.82(.25)**	−.42(.22) †	.89(.25)**	.85(.25)**	.89(.25)**	.38(.29)
EDI	.64(.26)*	−.41(.23)†	.59(.26)*	.81(.23)**	−.64(.26)*	−.03(.25)	.64(.26)*	−.23(.30)
APR	1.22(.26)***	−.74(.21)***	1.23(.27)***	.22(.20)	1.21(.26)***	1.01(.21) ***	1.21(.26)***	.21(.27)
REX	.44(.26)†	−.35(.20)	.48(.26)†	.17(.19)	.44(.26)†	.23(.21)	.44(.26)†	1.30(.26)***
c	−2.67(.81)**		−1.33(.71)†		2.82 (.85)***		−.06(.94)	
c´	−.54(.75)		−2.50(.75)**		−.54(.83)		−2.41(.98)*	
F	1.81*		6.76***		4.61***		.97	
R-sq	.09		.29		.22		.06	
	Indirect effects (a-b)							
	b (se)	*LL, UL*	*b (se)*	*LL, UL*	*b (se)*	*LL, UL*	*b (se)*	*LL, UL*
PPR	−1.19(.41)	**−2.137, −.521**	.92(.32)	**.346,1.624**	1.05(.38)	**.412,1.900**	.76(.38)	**.136.,1.638**
SUP	−1.07(.41)	**−2.034, −.437**	−.23(.28)	−.832,.305	.25(.29)	−.235,.934	.57(.36)	**.037,1.404**
CON	.36(.23)	−.011, .894	−.34(.22)	−.847,.033	.75(.33)	**.208,1.494**	.33(.28)	−.149,.976
EDI	−.27 (.22)	−.778,.074	.47(.24)	**.056,.979**	−.02(.17)	−.410,.309	−.15(.23)	−.689,.234
APR	−.90(.30)	**−1.566, −.379**	.27(.29)	−.266,.907	1.23(.39)	**.553,2.109**	.26(.34)	−.409,.952
REX	−.16(.13)	−.449,.049	.08(.12)	−.092,.376	.10(.12)	−.079,.399	.57(.39)	**.098,1.421**

$N = 200$. Dependent variable (Y): SOC: Stage of change (S1: Precontemplation stage, S2: Contemplation stage, S3: Action stage, S4: Maintenance stage); Independent variables (X): PA: Positive Affect; Mediators: PPR: Passive Physiological regulation, SUP: Emotional Suppression, CON: Confrontation, EDI: Emotional discharge, APR: Active Physiological regulation, REX: Regulated Expression

c: Total effects, *c'*: Direct effects, a: X➔M, b: M➔Y; Indirect effects: c–c'; Confidence Intervals: CI (95%)

† $p > .05$, * $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$

Bold values represent significant results

Table 4 Mediating effect: NA

	S1		S2		S3		S4	
	a (se)	*b (se)*	*a (se)*	*b (se)*	*a (se)*	*b (se)*	*a (se)*	*b (se)*
PPR	.49(.20)**	1.03(.22)***	.45(.20)*	−.73(.21)**	.48(.20)*	−.97(.23)***	.48(.20)*	−.56(.28)*
SUP	.77(.19)***	1.10(.24)***	.77(.19)***	−.09(.23)	.77(.19)***	−.46(.25)*	.77(.19)***	−.62(.31)*
CON	−.52(.21)*	.41(.22)†	−.45(.21)*	−.44(21)*	−.53(.21)*	.94(.23)***	−.53(.21)*	.34(.29)
EDI	−.38(.21)†	−.41(.23)†	−.31(.22)	.78(.22)***	−.36(.22)	.09(.24)	−.36(.22)	−.20(.29)
APR	−.69(.22)**	−.74(.20)**	−.69(.23)**	.22(.19)	−.67(.23)**	1.10(.21)***	−.67(.23)**	.16(.26)
REX	−.41(.21)†	−.36(.20)	−.41(.22)†	.22(.19)	−.39(.21)†	.30(.21)	−.39(.21) †	1.32(.26)***
c	1.26(.69)		2.53(.57)***		.59 (.73)		.54(.78)	
c´	−.69 (.58)		3.06(.56)***		2.74(.61)***		2 (.76)*	
F	1.04		8.99***		3.37***		1.03	
R-sq	.06		.35		.17		.06	
	Indirect effects (a-b)							
	b (se)	*LL, UL*	*b (se)*	*LL, UL*	*b (se)*	*LL, UL*	*b (se)*	*LL, UL*
PPR	.51(.25)	**.101,1.061**	−.33(.18)	**−.728, −.037**	−.47(.22)	**−.959, −.107**	−.27(.18)	−.678,.001
SUP	.85(.30)	**.360,1.557**	−.07(.21)	−.342,.500	−.35(.26)	**−.398, −.035**	−.47(.28)	**−1.081,−.006**
CON	−.21(.15)	−.574,.013	.19(.15)	−.014,.547	−.50(.23)	**−.991, −.099**	−.17(.19)	−.626,.121
EDI	.15(.15)	−.064,.539	−.24(.22)	−.730,.117	−.03(.10)	−.190,.251	.08(.15)	−.137,.470
APR	.51(.23)	**.147,1.025**	−.15(.16)	−.517,.114	−.74(.29)	**−1.387, −.256**	−.11(.19)	−.479,.277
REX	.15(.12)	−.022,.444	−.09(.09)	−.316,.062	−.12(.11)	−.373,.034	−.52(.32)	−1.237,.045

$N = 200$. Dependent variable (Y): SOC: Stage of change (S1: Precontemplation stage, S2: Contemplation stage, S3: Action stage, S4: Maintenance stage); Independent variables (X): NA: Negative affect; Mediators: PPR: Passive Physiological regulation, SUP: Emotional Suppression, CON: Confrontation, EDI: Emotional discharge, APR: Active Physiological regulation, REX: Regulated Expression

c: Total effects, *c'*: Direct effects, a: X➔M, b: M➔Y; Indirect effects: c–c'; Confidence Intervals: CI (95%)

† $p > .05$, * $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$

Bold values represent significant results

Maintenance (S4): In both models, the use of less passive physiological regulation and emotional suppression was associated with a higher level of agreement with S4. Regulated expression was significant and positive related to S4 (*b*-effect). The relationship between NA and S4 was positive and significant while between PA and S4 was negative. The indirect effect of emotional suppression was significant, indicating that in both models, this strategy mediated between PA and NA and S4. The indirect effects of passive physiological regulation and regulated expression were also significant in the PA model.

Discussion

This study uses different theories and models (Broaden-and-Build Theory, Modal Model of Emotions and Stages of Change Model) and analyses person-centred and context-centred variables to contribute to a better theoretical knowledge of the interaction of factors involved in the process women go through to overcome IPV. The results confirm that female victims of IPV use different emotion-focused coping strategies throughout the process of change (Yan et al., 2020) to regulate their NA and PA, controlling for different variables in the couple relationship (type of violence) and community (duration of assistance, the autonomous community in which they live, referral centre, and whether or not they lodged a formal complaint or obtained a restraining order).

Supporting Hypothesis 1, findings demonstrate that women utilize different emotion-focused coping strategies at different stages of change. Victims deemed to be in S1 reported more NA and tended to use more passive physiological regulation and emotional suppression to cope with abuse than their counterparts in the other stages. Although no differences were found in the use of emotional suppression between S2 and S3, we did find a progressive decrease across the different stages (with less use in S4), suggesting that victims suppress their emotions less as they progress along the change continuum. Moreover, women in S3 used more confrontation and active physiological regulation than those in S2, and women in S4 used more regulated expression than their counterparts in the previous stages. These results suggest that: a) the employment of more adaptive emotion-focused coping techniques was associated with progressing through the stages and b) female victims of IPV are flexible when choosing the strategies to use at each specific

moment. However, the selection and effectiveness of some coping strategies (i.e., whether or not they are positively associated with the more advanced stages of change) may be influenced by victims' perceptions of their own ability to implement them in a context of violence (Sánchez & Lopez-Zafra, 2019). Unfortunately, we did not ask our participants about their perceived self-efficacy for implementing some emotion-focused coping strategies over others.

Also, partly confirming Hypothesis 1, the correlational analyses revealed that S1 (with 5 out of the 6 strategies analysed) and S3 (with all strategies) were related to more use of emotion-focused regulation strategies, while S2 and S4 were associated with a weaker tendency to respond to violence (with three strategies). This may be because S1 and S3 are two critical and opposing stages in the SOC process where women exert significant effort to accomplish different goals. In S1, relationship maintenance may be the focus of regulatory efforts, while in S3, they are usually geared towards escaping from it. In this study, a lower use of passive physiological regulation and emotional suppression and a greater use of confrontation, emotional discharge, active physiological regulation, and regulated expression were associated with S3, indicating that this situation may be more demanding due to the goals to which female IPV victims aspire during this stage (i.e., leaving the violent relationship). This finding is consistent with previous theories that postulate that victims' needs at the moment of breakup are considerable, and that women have to employ multiple coping strategies during this stage (Gross, 2015; Yan et al., 2020). S2 seems to be a transitional stage with a lower use of coping strategies, but rather a growing awareness of the violent situation and the development of escape plans, which is consistent with a reduced use of passive physiological regulation, emotional suppression and increased emotional discharge. S4 reflects a desire to maintain the changes made and to return to normality after the experience of abuse. In contrast to S3, victims in this stage are less likely to utilize coping mechanisms and are better able to control how they express their feelings.

Findings show that both NA and PA are associated with the victims' SOC and their use of emotion-focused coping strategies. Hypothesis 2 posited that affectivity is related to emotion-focused coping strategies, and its confirmation demonstrates that emotions are indeed linked to victims' ability to react to violence. Findings confirm that the lower level of positive emotions associated with S1 may contribute to keeping women in that stage in the abusive relationship (our participants demonstrated a lack of motivation and energy in S1). In S2, the results of the correlational analyses suggest that more NA and fewer PA may prompt women to question their relationship, take stock of their situation, recognize, and identify abuse, and begin using emotion regulation strategies designed to help them scape of the violent situation. In line with this result, NA may have a gain function (i.e., a positive effect on victims' decisions), because it makes victims more conscious of the abuse they experience (Larsen et al., 2009). For instance, according to a previous study, higher levels of anger toward the abusive partner are associated with an effective response and better prospects for change (Puente-Martínez et al., 2022). In S3, the findings of the correlational analyses reveal that PA are the ones that are connected to action behaviours, suggesting that victims are more motivated and energised, seeing themselves as having more resources and a greater ability to make decisions. Consistently with this, we also found that PA may enhance victims' attentional focus and expand their repertoire of coping strategies toward violence (Puente-Martínez et al., 2022); PA may also be linked to a stronger desire to enjoy the life´s positive aspects. However, in the following stage, neither PA or NA seemed to be associated with greater agreement with S4.

The correlational analyses confirmed Hypothesis 2 on the relationship between affectivity, stages of change and regulation strategies. Our findings indicate that PA is positively associated with confrontation, emotional discharge, active physiological regulation, and regulated expression, whereas NA is related to passive physiological regulation and emotional suppression. This result suggests that higher NA and lower PA levels are associated with more difficulties regulating emotions among victims of IPV. For example, a study found that victims' desire to keep personal matters private, coupled with their feelings of sadness, guilt and embarrassment, may make it difficult for them to leave abusive relationships and seek social support (Wood et al., 2021). Our results also confirm that emotion-focused coping strategies mediate the relationship between affects and stages of change, in general confirming the association between affect (positive and negative) and emotion-focused coping strategies in each stage of change.

In the S1 (precontemplation) model, the results confirm that high NA and low PA were associated with more use of passive physiological regulation and emotional suppression and less use of active physiological regulation, which are in turn associated with a lack of consciousness and the minimisation and justification of violence. In this regard, a study has found that, victims may engage in maladaptive behaviours in the earlier stages of change (i.e., emotional suppression) in an effort for satisfying or appease their aggressor, maintain the emotional equilibrium in the intimate relationship, and prevent conflicts (Bellot et al., 2022). These coping behaviours may be aimed at recovering normal functioning (up-regulation of positive feelings) or may be survival strategies focused on reducing psychological discomfort and controlling the aggressor's behaviours (Murvartian et al., 2023). However, Sere et al. (2021) found that revictimization was associated with more use of maladaptive

strategies such and the lack of personal resources. At the same time, our results indicate that positive emotions may increase the use of active physiological regulation, which is in turn associated with lower levels of agreement with S1, thereby facilitating victims' change of stage. As other studies have argued, in this stage of change, victims often attempt to control the violent situation and bring about a change in their aggressor's behaviour, an undertaking which often exacts a high emotional price (Zaki & Williams, 2013).

As they progress along the change continuum and reach the second stage, women start using more coping strategies, becoming more conscious of the need to safeguard themselves and escape from the violent situation. The indirect effects indicate that high PA was linked to less passive physiological regulation and more emotional discharge, strategies which are associated with a greater awareness of mistreatment (S2). In this study it was positive affect that was associated with emotional discharge. Emotional discharge is considered an interpersonal coping strategy that is associated with family and peer support (Davies et al., 2023; Taherkhani, 2022). Victims who disclose such emotions and feelings can perhaps increase the support, validation, recognition, and warmth they receive, which in turn helps them enhance their effective interpersonal behaviour (Muñoz-Martínez & Aguilar-Cacho, 2022). Conversely, although emotional discharge has been defined a first step on the path to seeking support, many women in S2 continue to hide the mistreatment they suffer. One possible explanation is that victims are unable to find the personal, social and community resources they need to leave the violent situation (low positive affectivity associated with S2) and get carried away by their negative feelings. In this vein, results show that NA is associated with S2. This is particularly relevant because depending on the outcome of the analysis of the advantages and disadvantages of maintaining the relationship, women may decide to either change their behaviour or return to the precontemplation stage. The difficulties women experience when trying to accept the breakdown of their family ideal may also promote a relapse to a prior stage of change (Reisenhofer & Taft, 2013).

Our results also indicate that passive physiological regulation mediated between NA and S2. In other words, passive physiological regulation increased the effect of NA on S2. This is consistent with studies that suggest that women who experience more NA, such as fear of a more severe violence or the belief that the violence will continue remain paralysed in S2. Other authors have reported that fear of a direct confrontation with their aggressor may increase the risk of aggression, causing them to respond passively to abuse following uncontrollable experiences and ongoing yet ineffective efforts to control their aggressor's behaviour (Murray et al., 2015b). Supporting this idea, and based on the attribution of causality, Bosch-Fiol and Ferrer-Perez (2020) have concluded that continuous and uncontrollable exposure to abuses weakens victims, consumes their energy, and probably reduces the likelihood of them taking action.

Our results confirm that in S3, women take more active measures to escape the violent situation in which they find themselves. According to the SOC model, in S3, victims change their behaviour, preparing alternatives, gathering information, and making decisions (Murray et al., 2015b). Our results are supported by previous studies (Badenes-Sastre et al., 2023; Taherkhani, 2022). NA was positively associated with S3, and PA was related to this stage only through the use of coping strategies. The mediational analyses carried out indicate that passive physiological regulation was an inadequate response in this stage, because it was related to more negative and less positive emotions, as well as to a weaker tendency to engage in action behaviours. Moreover, NA was linked to the use of emotional suppression, which was negatively associated with S3. Emotional suppression was therefore deemed maladaptive since it may reduce behavioural change in S3. Conversely, high PA and low NA were related to an increase in the use of confrontation, active physiological regulation, and action behaviours.

In the S4, results confirmed that high NA and low PA were related to a higher agreement with S4 or maintenance. Less use of passive physiological regulation and emotional suppression explained the relationship between NA, PA and S4, increasing agreement with S4. Also, regulated expression was used by victims with a better affective state and was also associated with greater agreement with S4. Consequently, working to improve one's affective state may be an appropriate response during this stage, since it means that victims will use fewer passive strategies, whereas failure to do so may imply that women are making decisions based on unpleasant feelings or low positive affect.

This study has several limitations. Firstly, due to its cross-sectional correlational design, it is difficult to make inferences about causality or the association mechanism at play between the SOC and the different variables studied. Moreover, cross-sectional studies do not let scientists to define the dynamics of a phenomenon or its long-term evolution. Longitudinal research would be required to confirm these relationships and get a greater understanding of how affects change over time. Also, the fact that data was collected exclusively through self-report instruments may have impacted the validity of results. It is possible that contextual variables are influencing in our results, such as problems in applying a particular tactic at a specific moment. Further research is required to empirically test the feedback mechanisms that exist between coping and the context of the relationship for a better comprehension of how the type of reaction evolves over time. Other limitations are linked to the external validity of the sample, because of difficulties in contact with participants (convenience sample). Most of the women in our sample had already sought help at a centre / association or had

filed charges against their aggressor, so around 50% were located in S3. Although our study included some women who had experienced violence without recognising themselves as victims, a more varied sample may lead to different results, especially for the group of women classified as being in S1. Only 9% of our participants reported being in the S1 and only 18% were in the S4, meaning we may not have had sufficient statistical power to assess between-group differences. Also, women generally follow a nonlinear, non-sequential progression towards change (i.e., may decide to return to an abusive relationship and may go through the SOC multiple times) and engage in multiple actions in response to external triggers. Given that the process of change in IPVAW is cyclical rather than linear, clinical interventions should not be solely concerned to move women from one stage to the next. Results of longitudinal analyses based on the continuum of change may find different conclusions. Finally, type of violence, duration of assistance, the autonomous community in which participants were living, referral centre, whether or not they had made a formal complaint and whether or not they had obtained a restraining order were added as covariates in the analyses since they may have affected the results. Other variables such as socioeconomic status or religion and their influence on women's decisions to leave the abusive relationship should be explored in future research. Studies that consider the impact not only of individual variables, but also of structural, cultural, community and situational contexts on women's decision-making processes are essential to understanding the dynamics of overcoming violence.

Conclusions

Female victims use different strategies in accordance with their stage of change. In S1, victims tend to employ more maladaptive coping (i.e., they use more passive physiological regulation and emotional suppression). In S3, victims use more adaptive strategies (i.e., more confrontation and active physiological regulation than in S1) and in S4, they use more adaptive and less maladaptive strategies to cope with violence than in previous stages (i.e., regulated expression).

Both, PA and NA are linked to the different SOC and therefore influence women's decision to either leave or remain in the relationship. Lower levels of PA were associated with S1. In S2, higher NA and lower PA may prompt women to question their relationship and in S3, PA was linked to action behaviours. Neither positive nor negative emotions seem to be associated with greater agreement with S4.

Emotion-focused coping strategies mediate the relationship between PA and NA and the different stages of change. In S1, high NA and low PA were linked to the use of more passive physiological regulation and emotional suppression and less active physiological regulation, which was in turn associated with unawareness of IPV as well as the minimisation and justification of violence. In S2, high PA and low NA were linked to less passive physiological regulation and only PA was associated with more emotional discharge, which is in turn linked to a greater awareness of mistreatment. In S3, victims tend to use more strategies to cope with abuse. Passive physiological regulation and emotional suppression (only in the case of NA) were maladaptive since they were positively associated with higher NA and lower PA and reduced behavioural change (S3), whereas confrontation and active physiological regulation were linked to more action responses among victims. Finally, in S4 or the maintenance stage, high PA and low NA were related to less use of passive physiological regulation and emotional suppression and greater use of regulated expression, which was in turn associated with greater agreement with S4.

Implications for research, practice and policy

This study contributes to the literature supporting the SOC model as applied to IPVAW since this study interviews victims of IPVAW referred directly from support services, shelters, and police departments. Knowing how emotional aspects and coping strategies are associated with each of the different stages of change within a broader context of individual and community variables provides relevant information that can be used to adapt interventions to the different situations experienced by women throughout the process of overcoming violence, with all its advances and setbacks. Without absolving the different social stakeholders of their responsibility, this study emphasises the active role played by women, since all too often, survivors are excluded from decision-making processes and treated as passive containers. Understanding the active processes by which women make their decisions, even if they remain in the relationship, is essential to designing more inclusive and flexible educational, social and health policies.

Professionals may use the findings reported here to design and provide more effective services, aimed at responding to victims' needs throughout their progression along the different SOC. The results also show that the number of strategies used by victims do not matters, but rather their efficacy within a specific timeframe and context, as it is this that enables women to effectively cope with situations of violence. An adequate and timely use of a given strategy may help reduce the likelihood of victims' experiencing a setback in their progression along the continuum and returning to their violent partner. Victims in the precontemplation stage may benefit most from the use of active physiological regulation to advance along the SOC, and those in the contemplation stage may benefit most from emotional discharge. Those in the action phase, in contrast, may respond most favourably to more confrontation and active physiological regulation. Finally, in the maintenance stage, women may benefit from the use of more regulated expression to help them maintain the changes made. Interventions carried

out in accordance with the SOC model needs to be developed and used in a way that promotes transformation and increases the possibility that women will secure and maintain a life free from violence (Reisenhofer & Taft, 2013).

Furthermore, considering the possibility that victims' decisions to stay in abusive relationships may be impacted by their own circumstances, it is vital to assess woman's situations using a model that defines both affects and behaviours. In this sense, the present study offers a more holistic vision that will help us gain a better understanding of the complex process and the variables that intervene in the search for safety in the face of a violent relationship. Future studies could focus on women's perceptions of the effectiveness of their behaviour and their own capacity to reach the behavioural change.

The present study also has implications for emotion regulation theories, indicating that victims' emotional state may have a direct effect on their SOC, and the decisions they make in each SOC may affect their emotional state and capacity for reaction in the next stages (loop effect). This suggests that future decisions made by women may change their emotional experiences and how they express their feelings. Our results indicate that even though emotions are the main drivers of the decision-making processes during the breakup, emotional experiences also change across the stages of change.

Supplementary Information The online version contains supplementary material available at https://doi.org/10.1007/s12144-023-05400-8.

Funding Open Access funding provided thanks to the CRUE-CSIC agreement with Springer Nature. This research was awarded by Projects led by the (MCIN/ AEI/10.13039/501100011033/), Spain (PDI2020-116658 GB-100) and (PID2020-115738GB-I00).

Data availability The datasets generated during and/or analyzed during the current study are available from the corresponding author on reasonable request.

Declarations

Ethical approval All procedures performed in studies involving human participants were in accordance with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards. Informed consent Informed consent was obtained from all participants included in the study before participation (reference: 'INA-AFREG-VG', CEISH/328/2015).

Conflicting interests The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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