

Shapiro Control Inventory (SCI): Adaptation into Spanish and psychometric study in women who are victims of gender-based violence

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Personality and Individual Differences (JCR: 1.877)

Summary

The objective of this study was to adapt the Shapiro Control Inventory (Shapiro, 1994) into Spanish and to validate it. A sample of 116 women was used, 51 of them (43.9%) victims of gender-based violence, and confirmatory factorial analysis was used to validate the structure of the SCI as well as its ability to discriminate between the perception of control, the desire for control and agents of control among women who are victims of violence compared with women who do not present this condition. There was an adequate internal consistency of scales: sense of positive control (Alpha = .86), sense of negative control (.70) and desire for control (.71) and an adjustment of the structural model of scales of sense of positive control (GFI = .97; CFI = .99; RMSEA = .035), sense of negative control (GFI = .99; CFI = .99; RMSEA = .009) and sense of overall control (GFI = .92; CFI = .94; RMSEA = .064). It was also noted how women who are victims of gender-based violence have a greater sense of negative control and less self-control. On the other hand, women not exposed to the situation of abuse, presented higher levels of sense of overall control. In conclusion, the version of the SCI adapted into Spanish presented metrical characteristics of consistency, structure and discriminating capacity which makes it an appropriate instrument for the assessment of the construct of control both in the general population and in groups affected by emotional disturbance.

Keywords: Psychometric properties, Sense of Control, Desire for control, SCI, Gender-based violence

1. Introduction

Several studies have shown that the perception of control is an essential element of human control which correlates with personal well-being (Burger, 1992; 1996; Carver & Scheier, 1998; 1999; Deci & Ryan, 2000; Evans, Shapiro & Lewis, 1993; Lazarus & Folkman, 1984; 1988; Thompson & Schlehofer, 2008). In fact, on several occasions the perception of control has been defined not only as a desire (Burger, 1992), but also as a basic psychological and biological need for human adaptation (Leotti, Iyengar & Ochsne, 2011).

Human control is a complex construct which includes various dimensions— cognitive, motivational and emotional as well as executive and behavioural. In its cognitive dimension, the perception of control is based on the belief that we have the ability, the resources, or the opportunities necessary to achieve positive results, significantly alter an event and/or avoid negative effects through our own action (Burger, 1989; Thompson & Schlehofer, 2008; Wallston, Strudler, Smith & Dobbins, 1987). Beliefs about control can be classified into two major types. On the one hand, beliefs about *personal control* that are related to sensations of mastery and trust (Burger, 1992; Lazarus & Folkman, 1984; Shapiro, 1994). And on the other, beliefs about *situational control* that make reference to the extent that the individual believes that they can determine or modify their stressful relations with the environment (Lazarus & Folkman, 1984).

The person feels in control as a result of the conjunction of all these dimensions, their perceptions of personal and situational control, their desire for control and the level of executive control carried out. The feeling or sense of positive control can come from various sources, such as the person him- or herself with his or her efforts for self-control and feelings of self-efficacy (Bandura, 1994; Shapiro, 1994), also from the increased opportunities of control from the environment (Langer, 1985) and the control exercised by the benevolent power of others (Taylor, 1983; in Shapiro, 1994). However, most of the literature on self-regulation and self-control (Baumeister, Voh, & Tice, 2007; Carver & Scheier, 1998; Deci & Ryan, 2000) focuses mainly on the person in itself, as an agent of control (Evans, Shapiro & Lewis, 1993). From this perspective, the feeling of loss of self-control is a threat to the loss of autonomy and control over their own lives (Shapiro, Aston, Shapiro, Robitshek & Shapiro, 2011).

Although it may seem paradoxical, the perception of control and the power of executive control also have their dark side. This means that people do not always positively assess the fact of having instrumental control over their environment. Personal, motivational and contextual variables come into play in this discussion (Burger, 1989; Evans et al., 1993; Shapiro, 1994; 1983; Shapiro & Bates, 1990) such as, for example, the result of their own experience or what is more rewarding or socially desirable in a given context (Leotti et al., 2011). An increase in personal control does not seem to be always desirable, especially in situations which, in fact, are beyond the control of the person (Evans et al., 1993; Shapiro, 1983a, 1983b; Shapiro, 1985; Shapiro & Shapiro, 1983; Shapiro & Shapiro, 1985) such as for example natural disasters, chronic illness, the death of a loved one (Benight & Bandura, 2004) or work with terminally ill patients (Shapiro, Aston, Shapiro, Robitshek & Shapiro, 2011). In the situations raised in these examples, it has been shown that attempts to get more control paradoxically lead to a greater sense of loss or a feeling of being out of control (Shapiro & Shapiro, 1983). Also, striving to increase or decrease control can be associated with states of anxiety and negative states of affect, eating disorders or substance abuse (Leotti et al., 2011). For all these reasons an adaptive sense of control should include not only ways and means to exercise the positive

mastery but also the constructive acceptance of loss of instrumental control in those circumstances or issues where the person sees their ability to activate this control limited (Evans et al., 1993; Shapiro et al., 2011; Shapiro & Shapiro, 1983). On other occasions, people consciously or unconsciously renounce the exercise of control (Burger, 1992; 1996; Wallston, Studler, Smith & Dobbins, 1987). That is to say, sometimes one seeks to exert as much control as possible, while other times, it is renounced. Burger (1996) points out three circumstances in which an increase in instrumental control may be less desirable for the person: When this may affect their public image (self-presentation), when it leads to a decline in the perception of self-efficacy and finally, when an increase in the perception of control intensifies the focus of attention to unpredictable events.

Many of the tools so far existing on the construct of control focus on its different dimensions. While some measure the perception of control and of personal mastery in general, such as the *General Perceived Control (mastery) Scale* (Pearlin & Schooler, 1978), *Multidimensional-Multiattributonal Causality Scale* (Lefcourt, Von Baeyer, Ware, & Cox, 1979), *Internality, powerful others, and chance* (Levenson, 1981), *Self-Control Behavior Inventory* (Fagen, Long & Steven, 1975) or *Internal/External Locus of Control Scale* (Rotter, 1966), others focus on specific domains of human control. In relation to this last, we should distinguish between more extensive measures that focus on more than one domain, such as *Spheres of Control Scale* (Paulus, 1983) or *Domain - Specific Impulsive Behavior* (Duckworth, 2006) and measures that focus exclusively in the field of health, such as *Multidimensional Health Locus of Control* (Wallston, Wallston & DeVellis, 1978), on the consumption of alcohol *Drinking Locus of Control Scale* (Donovan and O'Leary and 1978) in body weight *Locus of Control Scale* (Saltzer, 1982) or in the workplace *Work Locus of Control Scale* (Spector, 1988) . We should also note the existence of other tools focusing exclusively on self-control as a trait, such as *Self-Control Schedule* (Rosenbaum, 1980), *Self-Control Questionnaire* (Brandon, Oescher & Loftin, 1990) or *Self-Control Scale* (Tangney, Baumeister & Boone, 1994).

The Shapiro Control Inventory, hereafter SCI (Shapiro, 1994) provides a multidimensional profile on the psychological construct of control. To this end, it provides information on what is the specific problem of the person related with control, identifies what style of control should be used to deal with the problem, and defines where specific deficits on control exist. This information helps to focus control-related aspects to which a psychotherapeutic intervention should be directed. (Shapiro and Astin 1998; Shapiro, Shapiro, D, Soucar, B., Shapiro, S.L, Astin, 2009. In recent years SCI has been adapted to different languages and has been applied in different countries and contexts with the purpose of analyzing problems related to eating behavior disorders in Hong Kong, New Zealand and Jerusalem (Sing, Chang, Kwok & Hsu, 2004; Surgenor, Horn & Hudson, 2003), the consumption of alcohol in New Zealand and the United Kingdom (Sepehri & Miles, 2010; Surgenor, Horn, Hudson, Adamson & Robertson, 2006), breast cancer in Arizona (Shapiro, Figuerero, Caspi, Schwartz, Bootzin, Lopez & Lake, 2002), cultural differences between the Chinese and American population (Chia Cheng & Chuang, 1998), the prison population in Spain (Santibáñez, 1994), anxiety disorders in Argentina (Bogiaizian, 2004) and professionals in the field of public health (Shapiro, Aston, Shapiro, Robitshek & Shapiro, 2011).

The present study aims to contribute to the adequacy psychometrics of the Spanish version of the SCI

using a sample of 116 women, of which 51 are affected by gender-based violence. The structural validity and reliability of the SCI will be analyzed and the possible differences in perceived self-control of people affected or not affected by gender-based violence will be contrasted, analyzing its discriminating capacity.

2. METHOD

2.1 Sample

The participants in the study were 116 women who live in the province of Cantabria (Spain), 51 (43.9%) of which were victims of gender-based violence, to whom we will henceforth refer as the 'Exposed' group (EG). The 65 other women not affected by abuse will henceforth be designated as the 'Non-exposed Group' (NEG).

The two groups did not differ statistically in age ($M_{EG} = 42.0$ vs $M_{NEG} = 45.5$; $t_{(114)} = 1.38$, $p = .170$), place of origin ($\chi^2 = 5.06$, $p = .079$), educational level ($\chi^2 = 3.94$, $p = .0558$), nor in the number of dependent children ($t_{(114)} = 1.49$, $p = .139$). Conversely, there were significant differences in variables relating to marital status ($\chi^2_{(6)} = 52.09$, $p < .001$) and psychotherapeutic intervention ($\chi^2_{(1)} = 31.49$, $p < .001$). In this respect, nearly two out of three women affected by gender-based violence were divorced or in the process of separation or divorce (64.7%) as opposed to one in twenty women from the non-exposed group (6.1%). On the other hand, eight out of ten women from the exposed group (80.4%) stated that they received some kind of psychotherapeutic intervention as against one in four of the non-abused women (26.2%).

2.2 Procedure

The recruitment of the participants in the exposed group (EG) was carried out through contact with the system of aid and foster care for victims of gender-based violence or to the Directorate General for Women of the Government of Cantabria (Spain), with all participants included in processes of psychological treatment or legal assistance. On the other hand, to recruit the non-exposed group (NEG) women's groups were contacted who participated in the associative framework with 'specific topic related to women' in Cantabria, who were therefore from the same sociocultural context to which the EG belonged. All the participants were informed of the objectives of the study and characteristics of the interview to obtain their cooperation, and were able to respond to the questionnaire if they were of age (> 18 years).

If they agreed to participate, an interview was held, guided by a researcher trained in aid to women who are victims of gender-based violence, in which the research questionnaire was filled in. The EG women were in all cases treated individually and confidentially, while for most of the women of the NEG the interview was carried out collectively and every woman replied individually to their own questionnaire.

In all cases, the approval of the Research Ethics Committee of the participating institutions was obtained and throughout the process, the principles of confidentiality, voluntary and informed consent have been considered.

2.3 Measuring tool

The Shapiro Control Inventory - SCI (1994) obtains a multifaceted and multidimensional profile of personal control. It consists of 187 items which are distributed on nine scales organized around four areas: *Sense of control* - (1) Sense of overall control, (2) sense of positive control, (3) sense of negative control and (4) specific domains; *Modes of control* — (5) positive active, (6) positive passive, (7) negative active, (8)

negative passive; *Motivation for control* - (9) desire for control; and *Agency of control* - locus of control. The response format is Likert-type with response options ranging between 3, 6, or 7 points. It is an inventory of self-reporting that takes approximately 20 to 30 minutes to fill in. It can be used with both general and clinical populations from the age of 16. The average reliability values for each of the scales were acceptable - around values between .70 and .89, and in the case of the test-retest reliability values ranged between .67 and .93 (Shapiro, 1994).

This study applied the scales of 'sense of positive control', 'sense of negative control', 'sense of overall control' (an index made up of the sum of the two previous subscales), 'desire for control' and items 19 and 20 for the subscales of 'others as agents of control' and 'self as an agent of control' respectively. The items that make up the four modes or styles of self-control, by virtue of their conceptual entity and scope, will be subject to proximate analysis.

Prior to the implementation of the field study, we adapted the tool into Spanish through a procedure of translation and back-translation (Behling & McFillen, 2000) with permission of the author (Deane Shapiro). In a first phase, the study's principal investigator translated the original version from English into Spanish. Two people evaluated the conceptual equivalence and clarity of wording of the items until reaching a version adapted to Spanish. In the second phase, a person fluent in English, unrelated to the areas of psychology and education and who was unfamiliar with the original version, translated the Spanish version back into English. In the third phase, the back-translated version was compared with the original (both in English) to compare their equivalence of content and concepts, as well as their syntactic and technical consistency. The author of the original tool took part in this last phase, and based on those suggestions and by consensus among the translation team, some items were reworked until a final version in Spanish was reached. After analyzing its psychometric performance with a pilot sample of 17 participants, different from the final sample, the final version was created that was used in the study and which appears in Spanish in the annex.

INSERT TABLE 1

3 RESULTS

3.1 Descriptive analysis and reliability

Table 1 presents the descriptive data of the 29 component items adapted to the Spanish version of SCI. The items are sorted according to their contribution to each of the five scales: once belonging to the domain "Sense of Positive Control" (M= 5.29; SD= 0.93; Alpha= .86), five to the domain "Sense of Negative Control" (M = 3.02; SD = 1.09; Alpha = .70), eleven to the domain "Desire for Control" (M= 4.69; SD= 0.83; Alpha= .71), and two items which correspond respectively to the domains "Self as Control Agent" or "Internal Control" (M= 5.39; SD= 1.40) and "Others as Control Agents" or "External Control" (M= 4.06; SD= 1.85). The combination of the first two domains (Sense of Positive and Negative Control) once the negative control scores have been reversed, make up the total scale of "Sense of Control" (M= 5.19; SD= 0.84; Alpha= .86). On a range of possible scores between 1 and 7, the scales of Sense of Positive Control, Sense of overall control, Internal Control and Desire for Control are, on average, over 5 points, indicating a high frequency of use.

In general marked Skewness can be seen ($Sk < -1$; $Sk > 1$) in five of the 29 component items, and only in

two cases do they exceed the absolute value of 1.25. Analysis of internal consistency presents item-total-scale correlations over .30, except for items 11, 8, 6, 30 and 32. The alpha value of the scale if you withdraw any of these items would not improve in any of the subscales of SCI.

3.2 Analysis of construct validity

Each of the three subscales which form part of the SCI was subjected to a confirmatory factor analysis (CFA), by modeling with the EQS program (Bentler & Wu, 1991), to test the one-dimensional structure proposed by the authors. In the case of the total scale of "Sense of Control", which is the integration of the positive and negative control scales, the items of this latter scale were recoded so that the total valuation of the scale could have the same meaning in the assessment of the construct, the higher the score, the greater the sense of control. For the estimation of the models, we used the matrix of polychoric correlations and the Unweighted Least Square (USL) method. The following indexes were considered to accept the appropriateness of the models tested: the likelihood ratio index (χ^2) with its value of statistical significance (p), the Goodness of Fit Index (GFI), the Adjusted Goodness of Fit Index (AGFI), Comparative Fit Index (CFI), (Standardized Root Mean Square Residual (SRMR) and the Root Mean Square Error of Aproximation (RMSEA) with its 90% confidence interval. GFI, AGFI and CFI index values must be greater than .90 to accept a correct fit; SRMR and RMSEA values must be less than .08 to be admitted, and less than .05 to indicate a correct fit.

INSERT TABLE 2

Table 2 presents the component items of each of the three basic scales of the SCI, their factorial weightings (lambda coefficients), and their errors (theta-delta coefficients). In general, all the factorial coefficients are statistically significant, and only item 11 (positive control scale) and item 32 (desire for control scale) have a weighting below .30 although close to this value. Table 2 also presents the indices of adjustment of the models tested. Only the "Negative sense of control" model has shown a statistically non-significant likelihood ratio test, which would indicate a proper fit, although this test is affected by sample size. Following the set of indices, it is accepted that the three models of the scales of sense of control (positive, negative and total) are a good fit, though not the "Desire to Control" model (GFI= .80; CFI= .54; RMSEA= .156).

Since the "Desire for control" scale did not provide confirmation of one-dimensionality, an exploratory factorial analysis (EFA) of main components was performed to determine its factorial structure. The EFA extracted a total of four factors with eigenvalues greater than 1, while the Parallel test advised retaining only the first two. The first factor explained 26.4% of the variance in which seven of the eleven component items (3, 4, 6, 25, 27, 36, and 37) were saturated, with factorial weights between .47 and .68, reaching a reliability of .70. The second factor explained 14.1% of the variance and was composed of four items (24, 30, 31 and 32) with factorial weightings between .57 and .82 and a reliability of .67.

INSERT TABLE 3

3.3 Relationships between the SCI scales

Table 3 shows the matrix of correlations between the scales of the SCI. As expected, the scale "Sense of overall control" is strongly associated with "Sense of positive control" ($r= .93$) and "Sense of negative

control" ($r = -.72$) with the relationship between these two subscales being $-.41$. "Desire for control" is associated with "Sense of negative control" ($r = .41$), but not with positive control ($r = .13$; $p = .164$). Decomposition in two factors of the "Desire for control" scale shows divergence in the association with the "sense of control" scales: while the first factor is associated with the sense of negative control ($r = .52$) and not the positive ($r = -.02$), the second factor shows the opposite ($r = .39$ with positive control and $r = -.06$ with negative control). The dimension "Self as a control agent" is positively associated with positive control scales ($r = .42$), total control ($r = .41$) and the second factor of desire for control ($r = .20$), and negatively with negative control ($r = -.21$). However, the dimension "others as control agents" is not significantly associated with any of the scales of the SCI.

3.4 Differences in means

Finally, the differences have been analyzed between the groups affected by gender-based violence (EG) versus those who did not suffer this problem (NEG), whose results appear in table 4. Of all the scales two have proved statistically significant, those referring to "Sense of negative control" and the scale of "Sense of overall control", the effect being greater in the first than the second (Cohen's d $.63$ and $.45$, respectively). Regarding the "control of negative feelings", it can be seen that it is expressed more in the group of women exposed to violence ($M_{EG} = 3.39$) than among the non-exposed ($M_{NEG} = 2.72$), while the "Sense of overall control" shows an inverse expression ($M_{EG} = 4.98$ vs $M_{NEG} = 5.35$).

INSERT TABLE 4

4. DISCUSSION

In the context of a broader study which aims to study the perceptions of self-control and ways of facing the life situation of women who are victims of gender violence, the Shapiro Control Inventory (SCI) (Shapiro, 1994) was used, which required its translation and adaptation into Spanish and its psychometric study, the latter being the goal addressed in this article. The results achieved show an adequate metric behavior of the tool, both in its values of reliability and in the reproduction of a dimensional structure consistent with the theoretical propositions (Shapiro, 1994), and its ability to discriminate different forms of perceived control over a situation of abuse and their desire to control it in women who are victims of gender-based violence as compared with women who do not suffer such violence.

The Spanish version of the four scales is shown to be a reliable instrument to measure the perception of control and the desire for personal control in women. The results show that its adaptation into Spanish has an internal consistency very similar to the original version which Shapiro (1994) obtained in "Sense of positive control" ($.89$ vs $.86$ in the Spanish version), "Sense of negative control" ($.89$ vs $.70$), "Sense of overall control" ($.70$ vs $.86$) and "Desire for control" ($.76$ vs $.71$). However, the scales of "Self as agent of control" and "Others as agents of control" had to be discarded due to the low reliability rates obtained.

Correlational analyses showed that "Sense of overall control" is collinear with the scales of "Sense of positive control" and "Sense of negative control" given that it is a construct from the scales of positive and negative control. In general, the relationships between scales have a positive correlation except the association between "Sense of positive control" and "Sense of negative control". Later we will pay special attention to the medium-high positive association found between "Desire for control" and "Sense of negative

control".

With regard to the ability of the SCI to differentially measure forms of perceived control and the desire for it in groups of people subjected, or not, to emotionally harmful living conditions, the results show a profile of control in women who are victims of gender-based violence as compared with others who are not subjected to such circumstances. Women tend to perceive their personal situation more negatively than do those not exposed to abuse. The latter scored higher in "Sense of overall control". A more detailed discussion will follow.

The Confirmatory Factor Analysis presented a confirmation of unidimensionality on the three scales of sense of control (positive, negative and overall). While the scale of "Desire for control" did not provide a proper fit, the Exploratory Factor Analysis using the Parallel test revealed two factors of eight and four items, respectively. On the one hand, Desire for control₁ (eg. "I intensely want to have control" or "I fear losing control", among others) associated positively and significantly with "Sense of negative control", which could be interpreted as a negative dimensionality of the construct of desire for control. And on the other hand, Desire for control₂ (eg. "For me it is important to have self control", "For me it is important to get what I want," among others) associated with "Sense of positive control", which could be interpreted as a positive dimensionality that is closely related to the approach that the desire for control is a basic psychological need of human beings (Leotti et al., 2011). However, this double dimensionality of "Desire for control" should be taken with caution because of the low reliability rate achieved on "Desire for control₂", a result that may fall on the few items that comprise this dimension and the sample size.

Below is a more detailed discussion of the findings. With respect to the association found between "Sense of negative control" and "Desire for control", our results agree with research revealing that efforts to control a situation which, in fact, is outside the person's active and instrumental control, generate a greater desire for control. The questions posed by this result open up a debate on the contextual and cultural component of the construct of control (Chirkov, 2007) and the real possibilities of personal and situational control (Evans et al., 1993). As for the first question, Western culture and philosophy of life mainly mark the pattern of an active and instrumental control and of mastery as opposed to letting things be (Shapiro, 1983a, 1983b) and therefore, from this approach, letting events flow without intervening or leaving them in the hands of other people can pose a threat to autonomy and control of their lives (Shapiro et al., 2010). Regarding the second question, about the real possibilities offered by the control offered by each situation and the desire for it, these results are consistent with a previous study by Shapiro and Shapiro (1983) which found that, the less sense of control was perceived or the more losing it was feared, more efforts or attempts were made to obtain it and greater was the feeling of being out of control.

However, it should be noted that our study found no significant associations between "Desire for control" and "Sense of positive control", which agrees with the contributions of some other authors who argue that they are different constructs and that they are not always associated since a person can have control over what is happening, but at the same time may not want to have it (Burger, 1989; Leotti et al., 2011; Wallston et al., 1987).

Despite the fact that the exposed group obtained a higher average "Sense of negative control", their

score on "Desire for control" is very similar to the non-exposed group, both groups obtaining middling scores. The non-exposed group scores highest in "Sense of overall control" mainly due having lower scores in "Sense of negative control". Both groups get a medium-high score in "Sense of positive control".

When faced with gender-based violence, the fact of "naming the problem" and seeking external help is a fundamental step in recovering the sense of control over one's life (Fisher & Rose, 1995) but it is not sufficient since the results found in this study reveal that the exposed group, which is in a process of separation and recovery from the experience of abuse, has a higher sense of negative control than the non-exposed group.

At this point, we cannot dismiss the harmful influence that abuse can exert on the perception of personal and situational control (Walker, 2000). Beliefs about control are involved in the process of coping with stressful situations like abuse, and depend on various factors, such as the high demands to adapt to a new physical, emotional or social environment, especially when these women are served by specialized refuges or safe houses, the perception of danger and loss of control to suffer new attacks after the break (Carlson, 1997), personal and social resources that are available, the different options for coping that are available and the capacity to put them into practice (Lazarus & Folkman, 1984; Shapiro et al, 2009). Therefore, an increase in the sense of negative control in the exposed group can be derived from the experience of abuse and the decisions for separation taken. These two factors can cause exhaustion and affect, at least temporarily, the executive function of the self (Baumeister, 1998; 1999) and the capacity to decide (Vohs et al., 2008), to make changes in one's own life and exert control over oneself or one's immediate surroundings (Deci & Ryan, 2000).

In addition, increasing the sense of negative control may involve low feelings of self-efficacy and of internal locus of control. In fact although the difference is not significant, the exposed group scored higher on the item "others as agents of control". In this direction, a study by Fiore and Thomas (2000) found in a sample of 200 women, that the first six months after the separation were crucial because of the strong temptation to return to their partners, because of the psychological consequences, as well as the high demands for resources for coping that they needed to mobilize in order to deal with the situation of abuse. However the authors assured that if they got through this phase, feelings of self-efficacy, emotional autonomy, and self-confidence would emerge, and therefore, they could take the reins of their own life.

Thus, one of the strategies towards which the intervention with this collective should move, would be aimed at recovering the sense of control of their lives, working for empowerment, achieving greater control of their lives, enhancing personal and social autonomy at different levels of participation (Maertz, 1990; Rosen, 1992; Syers-McNairy, 1990). For this reason, given that the experience of abuse cannot be modified since it is a past event and it is important to avoid a retrospective control (Thompson, 1981), the intervention should be aimed at increasing the capacity to configure one's own life, helping women to reflect and identify the obstacles that make it difficult to change and to support the momentum of transforming actions that contribute to a process of strengthening their capacity to influence and gain power in areas where a change is possible. A specific example of all this could be learning to differentiate between the activation of the control in a particular situation and responsibility, in the sense that responsibility has to do with what the person

believes they should do and the activation of control with what a person is capable of doing or can truly do. It is an interesting nuance "should do versus able to do" when it comes to learning how to identify the aspects of a situation that are not modifiable compared with those that are (Wallston et al., 1987). In this way, one may decrease feelings of helplessness that hinder attempts to change situations in which change is possible (Thompson & Schlehofer, 2008). Ultimately, it is not only necessary to have the capacity for self-control but also the interaction of other personal and contextual factors, such as a belief in one's own ability to activate the process of self-control, the desire for self-control and the possibility of activating it given by the context.

Although the discussion lends itself to opening the debate on the role of perceptions of control and one's desire to reach it, our results should be taken with caution, given that the study has some important limitations. The first is in reference to the sample size used, which can lead us to question the statistical power of the analyses conducted. A larger sample would improve the precision of measurement, although the results obtained have managed to capture appropriately the conceptual proposal underlying the SCI model. However, having clinical or subclinical signs is always a complicated task, either because the prevalence of the problem is not high, or because voluntary participation is not always obtained since participants are prompted to respond about an experience that causes them pain and suffering.

Another important limitation of the study is that only women have participated, so that the results achieved can only be extrapolated to this gender. On the other hand, part of the sample has been intentionally taken among women who are victims of gender violence, such that this feature specifically defines the composition of the group studied, further limiting the external validity of the findings. Therefore, it is necessary to expand the sample size and diversify the recruitment of participants in order to replicate validation studies to strengthen the psychometric characteristics of the SCI. Also, this is a "snapshot" of women who have experienced a situation of abuse, but all of whom already have the possibility of a new lifestyle. It would be of great interest to access sample at other stages to be able to discover the status of the variables analyzed.

5. CONCLUSION

The results of this study allow us to reach a double objective. On the one hand, knowing the effects of abuse against women may result in the perception and the desire for control in a sample of women who are making their situation visible through the search for social support and, on the other hand, contribute to the external validation of four scales of the SCI translated into Spanish.

With respect to its psychometric features, the results obtained show that the four scales of the SCI have a high internal consistency in all their dimensions and adequately replicate the dimensional structure proposed by their author, even though it would be necessary in future research to assess in greater detail the contribution made by the method of perceived control over an event and desire for control, to an achievement that is more or less adaptive in coping with problems that trigger emotional responses.

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Table 1

Descriptives and reliability of the Shapiro Control Inventory Scales

Item	Scale / Dimensión	Percent distributions							Central statistics			Reliabilities' coefficients		
		1	2	3	4	5	6	7	Mean	SD	Sk	r	Alpha	Alpha's Dimensión
1		4.3	4.3	5.2	26.7	23.3	20.7	15.5	4.84	1.54	-.57	.50	.85	
2		1.7	.0	11.2	16.4	20.7	24.1	25.9	5.30	1.44	-.59	.61	.84	
11		5.2	10.3	15.5	26.7	13.8	15.5	12.9	4.32	1.69	-.05	.25	.87	
12		2.6	3.4	6.9	23.3	26.7	12.9	24.1	5.03	1.53	-.44	.65	.84	
13		.9	.0	10.3	15.5	11.2	28.4	33.6	5.56	1.42	-.75	.61	.84	
14	Sense of Positive Control	.0	3.4	6.0	21.6	14.7	31.0	23.3	5.34	1.38	-.54	.77	.83	.86
15		.9	2.6	3.4	12.9	19.8	20.7	39.7	5.69	1.40	-.98	.50	.85	
16		.9	1.7	6.9	8.6	19.0	25.9	37.1	5.69	1.39	-1.04	.57	.85	
17		.9	.9	2.6	11.2	17.2	27.6	39.7	5.84	1.26	-1.15	.60	.84	
18		.0	2.6	2.6	25.9	15.5	31.0	22.4	5.37	1.29	-.45	.51	.85	
33		.9	.9	6.0	25	22.4	27.6	17.2	5.19	1.28	-.44	.65	.84	
7*		3.4	.9	6.0	29.3	8.6	31.0	20.7	2.85	1.51	.66	.49	.63	
8*		4.3	4.3	6.0	30.2	20.7	25.9	8.6	3.29	1.46	.60	.25	.72	
9*	Sense of Negative Control	6.9	5.2	2.6	17.2	16.4	25.0	26.7	2.87	1.78	.91	.52	.62	.70
26*		3.4	5.2	6.0	18.1	13.8	25.9	27.6	2.78	1.66	.79	.48	.63	
29*		4.3	10.3	5.2	26.7	13.8	24.1	15.5	3.30	1.70	.44	.53	.61	
3		3.4	18.1	6.9	20.7	16.4	15.5	19.0	4.51	1.83	-.19	.47	.66	
4		5.2	5.2	8.6	15.5	17.2	19.8	28.4	5.08	1.77	-.69	.50	.66	
6		15.5	14.7	13.8	29.3	9.5	6.9	10.3	3.65	1.82	.25	.29	.70	
24		.0	.9	.0	3.4	13.8	15.5	66.4	6.42	0.95	-1.80	.33	.69	
25		20.7	19.8	15.5	23.3	10.3	6.9	3.4	3.17	1.68	.38	.31	.69	
27	Desire for Control	19.8	13.8	8.6	22.4	12.1	10.3	12.9	3.76	2.02	.10	.43	.67	.71
30		.0	.9	4.3	19.8	12.9	25.9	36.2	5.67	1.31	-.62	.21	.70	
31		3.4	.9	6.0	16.4	12.1	19.0	42.2	5.59	1.61	-1.04	.39	.68	
32		.9	.9	.0	12.1	6.0	28.4	51.7	6.14	1.18	-1.67	.12	.71	
36		22.4	24.1	12.9	25.0	6.9	4.3	4.3	3.00	1.66	.60	.36	0.68	
37		6.9	9.5	10.3	23.3	11.2	12.1	26.7	4.66	1.92	-.27	.41	.68	
20	Internal Agency of Control	1.7	1.7	2.6	20.7	25.9	18.1	29.3	5.39	1.40	-.68	----	----	----
19	External Agency of Control	8.0	17.7	13.3	24.8	9.7	10.6	15.9	4.06	1.88	.13	----	----	----

SD: Standard Deviation; Sk: Skewness coefficient; r: Item correlation coefficient with the rest of the scale; Alpha: Value of Cronbach's alpha coefficient if the item is removed

Table 2

Confirmatory factor Analysis of the SCI's scales (Estimation method: Unweighted Least Squares – ULS)

Sense of Positive Control			Sense of Negative Control			Desire for Control		
Ítem	λ	ϵ	ítem	λ	ϵ	ítem	λ	ϵ
1	.57	.82	7	.70	.71	3	.62	.78
2	.69	.72	8	.35	.93	4	.66	.74
11	.27	.96	9	.69	.72	6	.35	.93
12	.71	.70	26	.62	.78	24	.49	.87
13	.73	.68	29	.71	.70	25	.35	.93
14	.87	.49				27	.51	.85
15	.57	.82				30	.30	.95
16	.64	.76				31	.54	.84
17	.68	.72				32	.26	.96
18	.63	.78				36	.37	.92
33	.76	.64				37	.52	.85

Scale	Ji	g.l.	p	GFI	AGFI	CFI	SRMR	RMSEA	IC	90%
Sense Positive Control	204.7	44	.000	.97	.96	.99	.08	.035	.009	.071
Sense Negative Control	6.4	5	.264	.99	.98	.99	.03	.009	.000	.055
Sense Total Control	237.4	104	.000	.92	.90	.94	.08	.064	.024	.103
Desire for Control	167.2	44	.000	.80	.70	.54	.11	.156	.131	.180

Table 3

Pearson coefficients matrix for the SCI's scales (n=116)

Escala	Media	DE	1	2	3	4	4a	4b	5
1 – Sense Positive Control	5.29	.93	1.00						
2 – Sense Negative Control	3.02	1.09	-.41	1.00					
3 – Sense Total Control	5.19	.84	.93	-.72	1.00				
4 – Desire for Control	4.69	.83	.13	.41	-.07	1.00			
4a – Desire for Control – Factor 1	3.97	1.02	-.02	.52	-.23	.93	1.00		
4b – Desire for Control – Factor 2	5.95	.85	.39	-.06	.33	.60	.27	1.00	
5 – Internal Agency of Control (Ítem)	5.39	1.40	.42	-.21	.41	.08	.01	.20	1.00
6 – External Agency of Control (Ítem)	4.06	1.85	-.04	.07	-.06	.08	-.10	.08	-.10

Note.- Valores de correlación superiores a .16 resultan estadísticamente significativos ($p < .05$) translate?!:)

Table 4

Escalas del SCI en mujeres afectadas (GE) o no (GNE) por maltrato (Comparación de medias y tamaños del efecto) translate?

	Non-Exposed Group (n=65)		Exposed Group (n= 51)		T-test and Effect size			Cohen's <i>d</i>
	Mean	SD	Mean	SD	<i>t</i>	d.f.	p	
1. Sense Positive Control	5.39	.95	5.15	.88	1.42	114	.158	.26
2. Sense Negative Control	2.72	.89	3.39	1.21	-3.25	89.20	.002	.63
3. Sense Total Control	5.35	.82	4.98	.82	2.44	114	.016	.45
4. Desire for Control (total)	4.66	.91	4.73	.61	-.47	114	.633	.08
5. Desire for Control (Factor 1)	3.95	1.15	4.00	1.00	-.50	114	.803	.04
6. Desire for Control (Factor 2)	5.90	.91	6.01	.77	-.72	114	.471	.13
7. Internal Agency Control	5.43	1.41	5.33	1.39	.37	114	.712	.07
8. External Agency Control	3.83	1.85	4.35	1.84	-1.51	114	.133	.28