PREDICTING SUCCESS INDICATORS OF AN INTERVENTION PROGRAMME FOR CONVICTED INTIMATE-PARTNER VIOLENCE OFFENDERS: THE CONTEXTO PROGRAMME

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Abstract

Recent legal changes in Spain have led to an important increase in the number of men court-mandated to community-based partner violence offender intervention programmes. However, just a few of those interventions have been systematically examined. This study aims to predict success indicators of an intervention programme for convicted intimate-partner violence offenders. The sample consisted of 212 convicted intimate-partner violence offenders who participated in the Contexto Programme. Three "intervention gains" or target criteria were established (increasing the perceived severity of violence, increasing the responsibility assumption for one's actions, and reducing the risk of recidivism). A structural equations model was tested, fitting data appropriately. Participants with major gain in recidivism risk were those who presented lower levels of alcohol consumption, shorter sentences, lower impulsivity, and a higher degree of life satisfaction. The largest gain in perceived severity was found in younger participants, participants with shorter sentences, lower alcohol consumption, higher life satisfaction, higher participation in their community, and higher self-esteem. And, finally, participants with the highest gains in responsibility assumption were older participants, participants who presented higher intimate support, higher anxiety, higher sexism, lower anger control, higher depression, higher impulsivity and higher self-esteem.

Keywords: partner-violence offenders; perceived severity of violence; responsibility assumption; risk of recidivism; structural equations model.

Resumen

Los cambios legales introducidos recientemente en España han supuesto un incremento importante en la cifra de hombres condenados y derivados a programas de intervención en medio abierto para agresores. Sin embargo, aún son muy pocas las intervenciones evaluadas de forma rigurosa. Este estudio pretende predecir indicadores de éxito de un programa de intervención para hombres condenados por violencia contra la mujer en las relaciones de pareja. La muestra estaba compuesta por 212 hombres condenados por violencia contra la mujer en las relaciones de pareja, participantes en el Programa Contexto. Se establecieron tres indicadores o criterios de éxito (el incremento de la gravedad percibida de la violencia, el incremento de la asunción de responsabilidad de sus actos y la reducción del riego de reincidencia). Se estimó un modelo de ecuaciones estructurales, representando adecuadamente los datos. Los participantes con mayor ganancia en riesgo de reincidencia fueron aquellos con menor consumo de alcohol, menor tiempo de condena, menor impulsividad y mayor grado de satisfacción con la vida. La mayor ganancia en severidad percibida se encontró entre los participantes más jóvenes, con tiempos menores de condena, menor consumo de alcohol, mayor satisfacción con la vida, mayor participación en la comunidad y mayor autoestima. Finalmente, los participantes con mayores ganancias en asunción de responsabilidad fueron los de mayor edad, mayor apoyo íntimo, mayor ansiedad, mayor sexismo, menor control de la ira, mayor depresión, mayor impulsividad y mayor autoestima.

Palabras clave: maltratadores; gravedad percibida de la violencia; asunción de responsabilidad; riesgo de reincidencia; modelos de ecuaciones estructurales.

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Introduction

Intimate partner violence (IPV), defined by the World Health Organization (WHO) as *"the behaviour in an intimate relationship that causes physical, sexual or psychological harm, including physical aggression, sexual coercion, psychological abuse and controlling behaviours"* (World Health Organization, 2011), has become a public problem since it affects the society as a whole (Winstok & Eisikovits, 2011). Women are the most affected group by IPV, and early in 1998 the WHO warned about the high levels of prevalence of intimate partner violence against women (IPVAW). Since then, its eradication and prevention have become central issues in the political, health, and social agendas (Gracia & Lila, 2008; Guggisberg, 2010; Shoener, 2008).

In the Spanish context, a significant increase in the number of community-based programmes for intimate partner violence offenders has taken place during the last decade (e.g., Arce & Fariña, 2010; Expósito & Ruiz, 2010; Graña, Muñoz, Redondo, & González, 2008; Lila et al., 2010; Quinteros & Carbajosa, 2008). These programmes are an important breakthrough in fighting IPVAW (Scott, King, McGinn, & Hosseini, 2011), and have a variety of purposes, such as protecting those victims who are still in contact or living with their aggressors, preventing violent behaviour against future victims, or changing aggressors' attitudes and behaviour (Bennet & Williams, 2001; Echeburúa, Sarasua, Zubizarreta, & Corral, 2009). These programmes provide a follow-up and control over men convicted of IPVAW, help them to assume their responsibilities, and send a message of potential change to the wider society (Scott et al., 2011).

The Contexto Programme

The *Contexto Programme* is a community-based intervention programme for intimate partner violence offenders, implemented at the University of Valencia, Spain. It is based on the ecological model framework (Heise, 1998), recommended by the WHO (Dahlberg & Krug, 2002; Merlo, 2011). The main objective of the programme is to reduce risk factors and increase protective factors for violent behaviour against women in intimate relationships, taking into account four levels of analysis: individual, interpersonal, situational and macro-social (Lila et al., 2010).

The programme begins with an *assessment phase*. The priority objectives in the evaluation phase are collecting information, verifying compliance with the inclusion

criteria, and increasing motivation to participate in the programme. This phase includes the administration of a battery of standardized tests and self-report measures and in-depth motivational interviews.

The *intervention phase* consists of seven modules delivered over 38 weekly group sessions lasting 2 hours. It is a long-term group intervention, and it complies with the standards recommended in previous meta-analyses (Austin & Dankwort, 1999; Babcock et al., 2004; Sánchez-Meca, Marín-Martínez, & López-López, 2011). Groups are closed (no new members are enrolled after the programme starts) and they consist of 10-12 participants. Two professionals guide each group. In the first module, the priority is to build a climate of trust within the group work, and to set the performance standards for the group. In the second module, basic concepts and legal terminology are introduced –as they should be used in later sessions. This module also introduces for the first time some activities targeted to eliminate participants' distortions and self-justifications for their situation (e.g., denial, minimization, victim-blaming) and to increase the responsibility assumption for their own behaviour (this task continues throughout the whole intervention). From the third module to the sixth, the goals of the sessions are to increase protective factors, providing participants with resources and skills, as well as reducing risk factors at four levels: individual (third module), interpersonal (fourth module), situational (fifth module), and sociocultural (sixth module). In the seventh module, sessions deal with recidivism prevention and strengthening the strategies learnt.

After completing the intervention, the follow-up phase starts. This stage lasts 18 months starting from the end of the programme, with six follow-up sessions held every three months (for a detailed description of the Contexto Programme, see Lila, García and Lorenzo, 2010).

The present study

Whereas traditionally the focus of the evaluation of community-based intervention programme for intimate partner violence offenders has been on offenders' behaviours (Lee, Uken, & Sebold, 2007; Tolman & Bennet, 1990), there exist a growing number of researchers who point out the limitations of this kind of evaluation, and advocate for the importance of the variables in which the programme can achieve changes (Lee et al., 2007; Scott, 2004). In this regard, a growing body of research is being conducted to explain intervention success (Bowen, 2011; Cadsky, Hanson,

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Crawford, & Lalonde, 1996; Echeburúa et al., 2009; Novo, Fariña, Seijo, & Arce, 2012; Pérez, Giménez-Salinas, & Juan, 2012). Variables such as responsibility assumption (Henning & Holdford, 2006), perception of severity of IPVAW incidents (Gracia & Herrero, 2006a; Gracia, Herrero, Lila, & Fuente, 2009), or perceived risk of recidivism (Andrés-Pueyo & Echeburúa, 2010; Dutton & Kropp, 2000), have been found to be important indicators of intervention success.

Research has pointed out that, frequently, IPVAW offenders show a lack of responsibility assumption (Henning & Holford, 2006). These men often deny and minimize their violent behaviour by making victims responsible for provoking it (Cattlet, Toews, & Walilko, 2010; Henning & Holdford, 2006). For example, Cadsky et al. (1996) found that men who acknowledged having committed an aggression were less likely to leave the intervention before its completion (Scott et al., 2011). Thus, it is a key issue in community-based programmes for convicted intimate-partner violence offenders to address offenders' responsibility assumption (Lila, Gracia, & Herrero, 2012; Lila, Herrero, & Gracia, 2008). Responsibility assumption is one of the first steps to change effectively intimate partner violence offender attitudes and behaviours (Murphy & Baxter, 1997; Scott & Wolfe, 2003) and a critical element for these offenders not to drop out and to complete all the treatment (Cadsky et al., 1996).

Regarding attitudes towards violence, many authors stress the importance of changing tolerant attitudes towards IPVAW as an indicator of intervention success (Bowen, 2011; Cunradi, Ames, & Moore, 2008; Eckhardt, Samper, Suhr, & Holtzworth-Munroe, 2012). For example, research has shown that perceived severity of IPVAW, is related to the acceptability of violence towards women in intimate relationships (Herrera, Expósito, & Moya, 2011; Gracia & Herrero, 2006a; Gracia, Herrero, Lila, & Fuente, 2009). To increase the perception of the severity of IPVAW situations, along with a higher level of responsibility assumption, is particularly relevant if we take into account that a large proportion of IPVAW offenders transferred to community-based programs do not consider the behaviour which cause their conviction to be a crime, and define their own behaviour as "normal" or "acceptable" in intimate partner relationships. This would explain why they consider unfair conviction and the law, because in their opinion, they punish a "normal" male behaviour (see Cattlet et al., 2010, for a qualitative analysis). Increasing perceptions of the severity of intimate partner violence is an important target in intervention programmes, to challenge

offenders' perceptions of normality and acceptance of the use of violence in intimate relationships (Gracia, Herrero, Lila, & Fuente, 2009; Muehlenhard & Kimes, 1999).

Finally, the risk of recidivism is a priority target and one of the central indicators of success in intimate partner violence offender intervention programmes, and has been related to the possibility of establishing specific individual protection measures for victims (Andrés-Pueyo & Echeburúa, 2010; Dutton & Kropp, 2000; Gracia, García, & Lila, 2008; Hilton & Harris, 2005; Lee et al., 2007; Scott et al., 2011; Tolman & Bennett, 1990).

In the present study we will explore the contribution of a set of offenders' characteristics in explaining change in three indicators of success: perceived severity of violence, responsibility assumption, and risk of recidivism. Thus, we will take into account the following psychosocial variables traditionally linked to IPVAW: alcohol consumption, impulsivity, self-esteem, depressive symptoms, anger, anxiety, life satisfaction, sexism, stressful life events, intimate social support, and community participation (e.g., Chereji, Pintea, & David, 2012; Echeburúa & Fernández-Montalvo, 2009; Flood & Pease, 2009; Forbes, Jobe, White, Bloesch, & Adams-Curtis, 2005; Gioncola et al., 2009; Holtzworth-Munroe, Stuart, & Hutchinson, 1997; Klinteberg, Andersson, Magnusson, & Stattin, 1993; Michalski, 2004; Murphy, Stosny, & Morrel, 2005; Norlander & Eckhardt, 2005). We will also consider age and length of sentence as they have been related to intervention success (e.g., Caetano, Ramisetty-Mikler, & Field, 2005; Caetano, Vaeth, & Ramisetty-Mikler, 2008; Kingsnorth, 2006). Research has traditionally considered these variables in isolation. In this study we aim to contribute to this body of research by examining the influence of these predictors in a multivariate context.

Method

Participants

The sample consisted of 212 men who were convicted of IPVAW and court-mandated to the *Contexto Programme* (Lila et al., 2010). They had been sentenced to less than two years in prison and had no previous criminal record, and so benefitted from a sentence suspension subject to their attendance to an intervention programme. The criteria for inclusion in this study were: (a) not to have a serious mental disorder,

(b) not to have a serious addiction to alcohol or other substances, (c) signing an informed consent.

Participant's age ranged from 18 to 76 years (see Table 1). 9% had no schooling, 43.9% had completed primary or elementary studies, 36.3% had completed high school or vocational training and 10.8% had college degrees. In relation to the birthplace of the participants, 59.9% were Spanish. 32.1% were single, 25.5% married or couples, 24.1% divorced, 17.5% separated, and 0.9% widowed.

Table 1. Means and Standardized Deviations of Variables and Gain Scores under Study

Variables	*M*	*SD*
Age	39.06	11.67
Life Stressors	3.28	2.89
Support	3.52	1.00
Alcoholism	5.25	5.48
Length of Sentence	7.68	4.15
Life Satisfaction	6.83	2.50
Sexism	2.56	0.88
Participation	2.87	1.03
Anxiety	19.79	11.13
Anger Control	18.68	4.88
Depression	13.39	5.40
Impulsivity	27.66	5.98
Self-Esteem	3.81	0.57
Length of Sentence	7.68	4.15
Perceived Severity*	2.66	10.53
Responsibility Assumption*	0.55	0.98
Risk of Recidivism*	0.07	0.46

Note: * gain score.

Procedure

After obtaining their informed consent in writing and ensuring anonymity, participants were required to complete psychometric measures at two stages (pre- and

post-intervention). They were informed of the nature and purpose of the research, and were told that neither participation nor refusal would affect their legal situation. Trained programme staff administered instruments, and items were read out loud to those participants with reading and writing difficulties.

Instruments

Independent variables

Stressful Life Events Inventory (Gracia & Herrero, 2004). This inventory includes 33 stressful life events, and measures the amount of unwanted events experienced during the last six months. The list of stressful life events includes conflicts and problems in areas such as work/school, home, love and marriage, family, health, community, finances, and legal.

Support from Close and Intimate Companions Scale (Lin, Dean, & Ensel, 1986). In this 3-item participants are asked how often they have been bothered for not having an intimate partner or close friends, or for not being in touch with relatives during the last six months, scoring in a 5-points Likert scale (1 = *most of the time; 5 = never)*. Internal consistency was .59.

Alcohol Use Disorders Identification Test (Babor & Grant, 1989). A 10-item screening test on alcohol consumption to detect harmful and hazardous alcohol consumption, and possible dependence. Three or four response options of frequency are given for each item (e.g., 0 = *never,* 1 = *less than once per month,* 2 = *once per month,* 3 = *once per week,* 4 = *daily or almost daily).* Alpha was .80.

Life Satisfaction. Measured with an item taken from the European Social Survey (2007) that asked participants about their general satisfaction with life, ranging from 0 *(extremely unhappy or unsatisfied)* to 10 *(extremely happy or satisfied).*

Hostile Sexism Scale from the *Ambivalent Sexism Inventory* (Glick & Fiske, 1996; Expósito, Moya, & Glick, 1998). 11-item scale measuring the subject's antagonistic attitude toward women by viewing these as inferior beings who try to control men, scoring in a 6-points Likert scale (0 = *totally disagree; 5 = totally agree).* Alpha was .89.

Community Participation, from the *Community Social Support Scale* (Gracia & Herrero, 2006b; Herrero & Gracia, 2007a). This scale measures the subject's participation level in his community, scoring in a 5-points Likert scale (1 = *totally disagree; 5 = totally agree).* Alpha was .77.

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State Anxiety Scale from the *State-Trait Anxiety Inventory* (Spielberger, 1988). This scale is composed of 20 items scoring in a 4-points Likert scale *(1 = nothing; 4 = a lot),* measuring levels of anxiety at the time of filling in the questionnaire. Internal consistency published by the author ranges between .90 and .93.

Anger Control Scale from the *State Trait Anger Expression Inventory, STAXI-2* (Spielberger, 1988). Composed of 12 items, it measures the frequency a person is able to control his feelings of anger and the expression of his feelings of anger, and scores in a 4-point Likert scale (1 = *almost never;* 4 = *almost always).* Alpha was .75.

Centre for Epidemiologic Studies Depression Scale-7 (Radloff, 1977; CESD short version by Herrero & Gracia, 2007b). This scale taps the most common symptoms of depression. Each item is scored on a Likert-type scale with a 4-point response, from 1 = *rarely or never (less than one day)* and 4 = *all the time or most of the time (5-7 days).* Alpha was .70.

Plutchnik Impulsivity Scale (Plutchnik & Van Pragg, 1989). This 15-items scale measures impulsivity as an immediate reaction disregarding any behaviour consequences. It is a Likert-type scale with a 4-point response (1 = *never*; 4 = *almost always*). Alpha was .72.

Self-esteem Scale (Gracia, Herrero, & Musitu, 2002). Composed of 17 items, the scale taps family, social, emotional, intellectual, and physical self-esteem. Each item scores in a Likert 5-point scale, from 1 *(strongly disagree)* to 5 *(strongly agree).* Alpha was .78.

Length of sentence. It refers to the sentence by a Court of Law measured in months of imprisonment for each offender (the participants in the study were benefitted from a sentence suspension subject to their attendance to an intervention programme).

Marlowe-Crowne Social Desirability Scale (Strahan & Gerbasi, 1972). This 10-item scale examines the tendency to present oneself as socially desirable. The response format is *true* (T = 1) or *false* (F = 0). Alpha was .49.

Dependent variables

Spousal Assault Risk Assessment-SARA (Kropp, Hart, Webster, & Eaves, 1995; Andrés-Pueyo & López, 2005). This is a 20-item protocol, with clinical checklist format, which includes the main risk factors of partner violence in order to assess the risk of recidivism. Response format is a 3-point scale (0 = *no present;* 1 = *possibly present,* and 2 = *present).* In this study, the Global risk assessment (*low, medium, high*)

was determined by a trained programme staff after checking the list and examining all risk factors present in the participant.

Perceived severity of Intimate Partner Violence Scale (Gracia, García, & Lila, 2008). In this scale participants had to rate on a 10-point scale (0 = *not severe at all;* 10 = *extremely severe)* the severity of eight hypothetical scenarios of intimate partner violence. Alpha was .71.

Responsibility assumption. In connection to their own situations of conviction of IPVAW, participants were asked the extent to which they agreed with the following statements: *"The way I am is the reason why I am now in the present situation"* and *"I am the only one responsible for the events that put me in this situation".* A five-point response scale was used (1 = *strongly disagree;* 5 = *strongly agree).* At Time 1 the consistency of the measure, obtained by Pearson correlation, was .28 (p <. 001).

Socio-demographic controls

This study includes *Age* (in years), *Level of education* (1 = *No schooling*; 2 = *Primary/Elementary*; 3 = *Secondary*; 4 = *College/University*), *Immigrant Status* (0 = *Native*; 1 = *Immigrant*), *Work Status* (1 = *Employed*; 2 = *Unemployed*), *Income level* (categorized by ranges of domestic incomes per year: from 1 = *Less than 1,800 euros* to 12 = *More than 120,000 euros*) and *Marital status* (1 = *Married or coupled*; 2 = *Single*; 3 = *Separated*; 4 = *Divorced*; 5 = *Widower*).

Data analyses

Success indicators were measured twice (before and after the intervention programme). Differences between the two times are the gain scores of the intervention, and they indicate treatment efficacy. The expected gain scores consist of, respectively, lower scores in SARA and higher scores in both, *Perceived severity of Intimate Partner Violence Scale* and *Responsibility assumption.* There were significant differences (*p* < .05) in the three criteria between pre and post-test raw scores. Means and standard deviations for each variable or gain score can be consulted in Table 1.

As pointed in previous research, in contexts with a pressure toward the response bias, collateral reports become necessary (e.g., Bowen, 2011; Moffit et al., 1997). In this study, objective indicators and evaluations by the intervention professionals are examined. Moreover, the effect of social desirability is monitored in the analyses.

Two structural equations models with observed variables were tested in order to simultaneously predict the score gains in the intervention study. The estimation method

was maximum likelihood on complete cases obtained through EM imputation data algorithm. In order to assess model fit, several fit criteria recommended in the literature were used (Hu & Bentler, 1999): chi-square statistic (χ^2), with significant test statistic casting doubt on the model specification; the normed chi-square statistic (χ^2/df), considered acceptable when is lower than 5 (Bentler, 1989); the Comparative Fit index (CFI); the Incremental Fit Index (IFI); the Tucker Lewis Index (TLI); the Root Mean Square Error of Approximation (RMSEA); and the Standardized Root Mean Square Residual (SRMR). According to Schumacker and Lomax (1996), values of .90 or higher for incremental indexes (CFI, IFI, and TLI) indicate acceptable fit. Other authors raised the cut-off point to .95 (Hu & Bentler, 1999), but this has been considered too restrictive (Marsh, Hau, & Wen, 2004). Regarding the RMSEA and the SRMR, .06 and .08, respectively, are the acceptable cut-off points (Hu & Bentler, 1999).

Results

As different researchers have called for attention to control certain socio-demographic variables in this field (Benson, Wooldredge, Thistlethwaite, & Fox, 2004; Scott & Strauss, 2007), such as age, immigrant status, socioeconomic status and social desirability, an initial model was estimated with these variables as predictors. Except for age, none of these variables showed significant relationships with the indicators of success; therefore, in a second step, they were removed and a final model re-estimated, as detailed below.

Overall fit indices of the second model, containing age, and all other predictive variables, mainly supported the explicative model of intervention gain: $\chi^2(37) = 67.38$, $p < .001$; $\chi^2/df = 1.82$; NFI = .949, CFI = .975, GFI = .981; SRMR = .045, and RMSEA = .044. Incremental fit indexes (NFI and CFI) and GFI were above .90, defining the model as an adequate representation of the observed data on model adequacy. Values of RMSEA and SRMR, under .08 and .06, respectively, also indicated an adequate fit of the model to the data. Finally, the normed chi-square was below 3.

Figure 1. Structural Equations Model Predicting Gain Scores in Success Indicators.
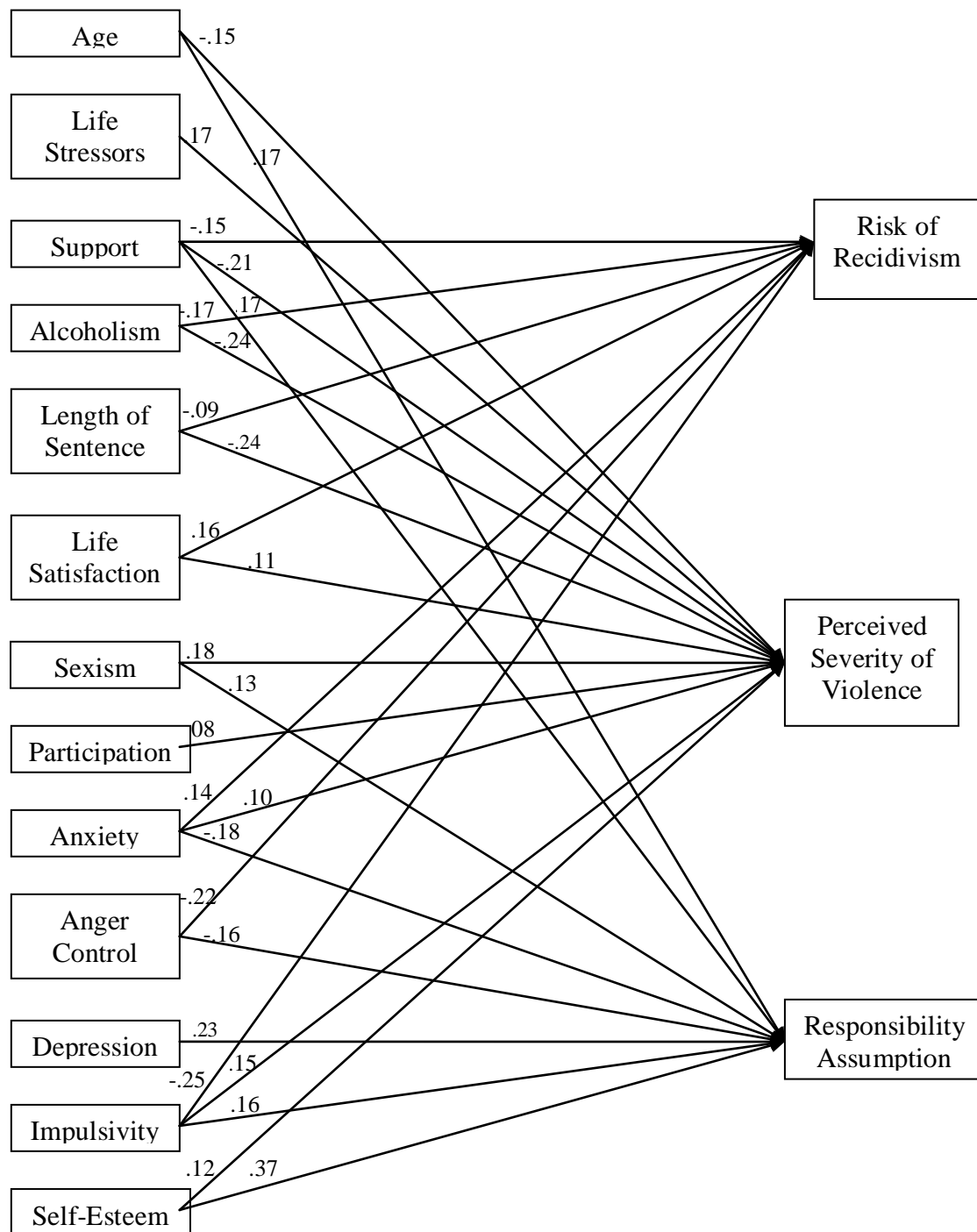
Note. For the sake of clarity, standardized errors are not shown.

All the intervention programme success indicators were accounted by the model: the change in perceived severity in IPVAW ($R^2 = .22$), the risk of recidivism ($R^2 = .15$), and responsibility assumption ($R^2 = .20$). A detailed examination of the path coefficients, showed in Figure 1, allow to differentiate "general" predictors which are

able to explain intervention gains in all success indicators and also, "specific" ones. General predictors were impulsivity, anxiety and social support. Post-intervention significant change in perceived severity of intimate partner violence was explained by 11 variables (age, stressful life events, support from intimate relationships, alcohol consumption, length of sentence, life satisfaction, hostile sexism, community participation, anxiety, impulsivity, and self-esteem). Positive change in responsibility assumption was predicted by 8 variables (age, support from intimate relationships, hostile sexism, anxiety, anger control, depression, impulsivity, and self-esteem). Finally, the professional assessment of risk of recidivism is explained by 7 variables (support from intimate relationships, alcohol consumption, length of sentence, life satisfaction, anxiety, anger control, and impulsivity).

Discussion

The aim of this study was to identify variables predicting success indicators in a community-based intervention programme for intimate partner violence offenders. This is an important target since it allows us to identify participants' characteristics leading to a higher probability of change in three success indicators in this type of programmes (i.e., perceived severity of violence, responsibility assumption, and risk of recidivism).

When examining separately each one of the success indicators, we found that those participants who by the end of the programme had a significant lower *recidivism risk* (as compared to de risk assessed at the beginning of the program), were those participants who presented at the beginning of the programme: the lowest levels of alcohol consumption, the shortest length of sentence, the lowest impulsivity, and the highest levels of life satisfaction. However, these were also the participants who presented the lowest levels of intimate support, the lowest anger control and the highest levels of anxiety. It was found that, through intervention, the recidivism risk decreased not only on those participants with the highest levels of psychosocial adjustment in variables such as, for example, low abusive alcohol consumption, but also on those participants with high levels of anxiety or less control when expressing their anger. Moreover, the intervention reduced the recidivism risk in participants with low levels of support. This could be due to the fact that offenders with high levels of perceived support are part of an intimate support network that held attitudes of tolerance and acceptance towards violence (Gracia, García, & Lila, 2009). However, our data do not allow us to confirm this, and future research is needed to further explore this issue.

In relation to *perceived severity of IPVAW,* the largest gain or change (that is, viewing this type of situations after treatment as more severe than at the beginning of the intervention) was found in: the youngest participants, participants with the shortest length of sentences, with low levels of abusive alcohol consumption, with high life satisfaction, with higher participation in their community, and with the highest scores in self-esteem. Furthermore, higher gains in this success indicator were found in participants who, at the beginning of the program, presented: a large accumulation of stressful life events, low intimate support, high levels of sexism, high anxiety, and/or high impulsivity. As for intimate support, as in the case of gain in recidivism assessment, this relation could also be reflecting the fact that the program participants' environment favours violence, and also that it is precisely participants with the lowest intimate support levels the ones who increase perception of severity of IPVAW. On the other hand, the fact those participants with the highest pre-intervention scores in sexism were the ones who most benefited from intervention in terms of gain in perceived severity of IPVAW, could be reflecting the program success in changing the attitudes of men who hold the most sexist set of beliefs. Moreover, the most impulsive participants are also those who increase to a higher extent the severity perception of IPVAW situations. This outcome is in contradiction to other studies, in which high impulsivity at the beginning of treatment is defined as a predictor of a poor therapeutic success (e.g., Caetano, Vaeth, & Ramisetty-Mikler, 2008; Echeburúa & Fernández-Montalvo, 2009). Indeed, a high impulsivity may be still related to a high probability of recidivism but, at least in our study, the most impulsive participants were also the ones who most easily acquired an awareness of the severity of this type of violence.

With regard to the variables which explain *responsibility assumption,* we found that participants with the highest gains in this variable were: the oldest participants, participants who presented the highest levels of intimate support, the highest anxiety, the highest sexism, the lowest anger control, the highest levels of depression, the highest impulsivity and, finally, the highest self-esteem. On the one hand, the presence of some of these relations within the model could be reflecting the positive impact of the program in producing a higher responsibility assumption in participants who, at the beginning of the treatment hold the most sexist attitudes, have more problems in controlling their anger, present higher levels of depression, and present higher levels of impulsivity.

Furthermore, there are certain aspects in this model, which need to be underlined. Firstly, we have confirmed that three variables linked to adjustment (impulsivity, anxiety and intimate support) contribute to explaining the three success indicators. This fact supports the critical importance of these variables in the intervention. Secondly, our results indicate that participants with high abusive alcohol consumption obtain a lower gain with the intervention. This is also the case of those offenders with tougher conviction sentences. This result is in line with the scientific literature on intimate partner violence offender intervention programs (e.g., Gondolf, 2002). Thus, for instance, there are an increasing number of studies that support the need to perform a dual intervention which can deal simultaneously with abusive alcohol consumption and violence management in subjects who present both problems (e.g., Easton et al., 2007). Thirdly, it is worth noting that men who start the program with high levels of depression obtain higher gains. This result is in line with the findings by Novo et al. (2012), who suggest that intimate partner violence offender intervention programs should aim, among other things, to reduce the depressive symptoms to normal levels to improve recidivism prevention.

This study presents some strengths and also limitations. One of the main strengths is that several information sources were used, increasing the external validity of the results, and their effects were tested simultaneously, in a multivariate context. In this regard, along with the participants' self-reports, objective data have been employed in relation to length of sentences, as well as the risk of recidivism assessments performed by the trained programme staff. Moreover, it has been controlled by social desirability, since this response bias is very frequent in this type of population (Scott & Strauss, 2007). Among the limitations, the most critical one is the absence of a control group, which would be crucial to confirm that the observed changes are caused by the intervention and not by variables not controlled. Furthermore, not having access to victims has prevented obtaining recidivism measures. Despite the limitations, the study contributes to the analysis of the efficacy of community-based programmes for intimate partner violence offenders. Further studies with control groups and victims' recidivism measures are needed.

Acknowledgements

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