SHORT-TERM TREATMENT RESPONSE, ATTRITION AND RECIDIVISM IN A PARTNER VIOLENT MEN TYPOLOGY COMPARED WITH A CONTROL GROUP

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Abstract

The goal of this study is to analyze the short-term effectiveness of a cognitive-behavioral treatment program in a sample of partner violent men, compared to a waiting-list control group. The sample consists of 347 men: 303 in the experimental group -divided into three subtypes according to the level of partner violence and the presence of psychopathology- and 44 in the control group. The dropout rate was 12.2%. Results reveal greater reduction of the levels of self-reported violence in all three subtypes, compared to the control group. Regarding police recidivism, the experimental group subtypes obtain better results than the control group. Lastly, higher level of justification of violent partner behavior after participating in the program and having attended fewer therapy sessions, predict higher levels of recidivism. Results highlight the benefit of participating in the treatment program, and the need to adapt programs to participants' characteristics.

KEY WORDS: *intimate partner violence, typologies, treatment response, recidivism.*

Resumen

El objetivo de este estudio es analizar la eficacia a corto plazo de un programa de tratamiento cognitivo conductual en una muestra de hombres violentos hacia la pareja y condenados por un delito de violencia de género, en comparación con un grupo de control en lista de espera. Participaron 347 hombres: 303 en grupo experimental (GE) –dividido en tres subtipos en función del nivel de violencia hacia la pareja y la presencia de psicopatología- y 44 en grupo control (GC). La tasa de abandonos fue del 12,2%. Los resultados indican una mayor reducción de los niveles de violencia autoinformada en los tres subtipos, comparados con el GC. Respecto a la reincidencia policial, los subtipos del GE obtienen mejores resultados que el GC. Por último, un mayor nivel de justificación de la violencia hacia la pareja tras el programa y haber asistido a un menor número de sesiones, predicen niveles más altos de reincidencia. Estos resultados ponen de manifiesto el beneficio que supone participar en el programa de tratamiento y la necesidad de adaptarlos en función de las características de

los participantes.
PALABRAS CLAVE: *violencia en las relaciones de pareja, tipologías, respuesta al tratamiento, reincidencia.*

Introduction

Intimate partner violence (IPV) is one of the most important social and public health problems faced by society, not only because of the magnitude of the problem but also because of the severity of its consequences (Cáceres, 2011; Cuenca, Graña, & Redondo, 2015; Muñoz-Rivas, Graña, & González, 2011; World Health Organization [WHO], 2002). Therefore, in recent decades, there has been a substantial increase of psychological treatment programs for partner violent men, with a predominantly feminist and/or cognitive behavioral approach. In this sense, Babcock, Green, and Robie (2004) carried out a meta-analysis of treatment programs with partner violent men, in which they reviewed 22 studies and analyzed different indicators: (a) recidivism measured through police or victim reports; (b) type of study design: experimental (using random allocation to the experimental and control group) or quasi-experimental (e.g., by comparing the treatment group to drop-outs); and (c) type of intervention program: feminist or cognitive-behavioral approach. The police recidivism rates for the cognitive-behavioral therapy (CBT) programs ranged from 4 to 50%, whereas for the feminist orientation, they ranged from 0 to 26%, although variability was high in terms of program duration (from 8 to 36 weeks both for the CBT and the feminist programs), sample size (from 16 to 168 participants in the CBT and from 10 to 174 in the feminist programs), and follow-up periods (from 2 months to 3 years for CBT and from 2 months to 2 years for feminist programs). These authors concluded that the general effect size (Cohen's *d*) of the analyzed programs was low, ranging from .09 to .34, and no significant differences were found in the results as a function of program or type of design. According to Babcock et al., the men assigned to therapy were 5% less likely to reoffense compared with those in the control group, and this percentage indicates a decrease in the number of future victims.

The two most relevant problems faced by intervention programs with partner violent men are high dropout rates and high recidivism rates as shown by a meta-analysis performed by Olver, Stockdale, and Wormith (2011) in which they concluded that the mean dropout rate from feminist-based treatment programs is 40.3%, while for the cognitive-behavioral approaches, it is 36.2%. The authors of the study conclude that partner violent men form a heterogeneous population with differential characteristics in sociodemographic and criminal variables, the severity and frequency of IPV, personality traits, and the presence of psychopathology. In this line, studies on typologies of partner violent men and their implications for treatment and recidivism rates began to emerge. One of the most important typologies with greater empirical support is that proposed by Holtzworth-Munroe and Stuart (1994), who proposed the existence of three subtypes of partner violent men from lowest to highest level of IPV: *family only,*

dysphoric/borderline, and *generally violent/antisocial*. Many studies have replicated Holtzworth-Munroe and Stuart's typology with satisfactory results (e.g., Cunha & Abrunhosa, 2013; Stoops, Bennett, & Vincent, 2010). In this same line, Cavanaugh and Gelles (2005) analyzed different typologies, including that of Holtzworth-Munroe and Stuart (1994), finding that the majority classified partner violent men on a continuum, taking into account the severity and frequency of the violence perpetrated, the presence of psychopathology, and criminal history: partner violent men with low, moderate, and high risk of violence, which corresponds with *family only, dysphoric/borderline*, and *generally violent/antisocial*, respectively. In Spain, Graña, Redondo, Muñoz-Rivas, and Cantos (2014), in a sample of 266 court-referred partner violent offenders in psychological treatment, found three different subtypes according to the levels of partner violence and the presence of psychopathology: (1) low-level violence and psychopathology group, showing lower levels of psychopathology and lower frequency of partner violence; (2) moderate-level violence and psychopathology group, which falls between the two groups; and (3) high-level violence and psychopathology group, which shows a higher level of deviation in the psychopathological characteristics analyzed and higher severity and frequency of partner violence. These findings support the typologies found in prior studies with this type of population, either considering the level of risk of violence (Cavanaugh & Gelles, 2005) or the history of general and partner violence, psychopathology, personality traits, and other relevant clinical variables (Holtzworth-Munroe & Stuart, 1994; Stoops et al., 2010).

However, despite the advances in research on typologies, most investigations focus only on identifying different subtypes and few analyze how each of the subtypes responds to therapy. Some studies that do analyze this aspect, such as that of Murphy, Taft, and Eckhardt (2007) with a sample of 139 partner violent men who participated in a 16-session CBT program, conclude that the two subtypes with the greatest problems related to anger and the highest levels of violence presented increased levels of IPV at post-treatment and 6-month follow-up, according to victims' reports. Huss and Ralston (2008), in a sample of 175 partner violent men, also found a similar typology to that reported by Holtzworth-Munroe and Stuart (1994), concluding that all three groups decreased their post-treatment IPV levels as measured by the Revised Conflict Tactics Scale (CTS2). The *generally violent* group was the one with the greatest reduction in IPV, followed by the *borderline* and the *family only* groups. In terms of recidivism levels, the *generally violent* group presented the highest recidivism rate, with the *family only* being those who were less likely to relapse. These results are in line with other studies indicating that offenders with higher levels of violence and psychopathological problems at the beginning of the treatment achieve greater changes between pre- and post-treatment and therefore obtain more benefit from their participation in therapy (Langton, Barbaree, Harkins, & Peacock, 2006; Skeem, Poythress, Edens, Lilienfeld, & Cale, 2003).

In the light of the existing data in the scientific literature and in order to clarify the extent to which the various existing typologies of partner violent men respond differentially to psychological intervention, the goal of this study is to analyze the short-term effectiveness of a CBT program in a sample of court-

referred partner violent men in Spain, in comparison with a waiting-list control group. For this purpose, we classified the participants of the experimental group into various sub-groups through cluster analysis, to determine how their prior characteristics influence their response to treatment as measured by: (a) self-reported IPV perpetration and victimization; and (b) risk of reoffending, measured through the number of IPV rearrests. The initial hypothesis is that the different sub-types of the experimental group will respond better to treatment than those of the control group and, within the experimental group, those who present a higher level of partner violence and psychopathology at the beginning of the program will obtain more benefit from their participation in the therapeutic process. We also expected that therapeutic success, as measured by the clinical impression of the therapists in charge of the therapeutic process as well as by the number of therapy sessions attended by the participants, will predict the levels of police recidivism.

Method

Participants

The participants in this study are men from the Community of Madrid, who were convicted for a crime of IPV to a term of imprisonment of less than two years. The penalty could be replaced by participation in a psychological treatment program, as established in the IV Title of Organic Law 1/2004, of Measures of Integral Protection against Gender Violence. The inclusion criteria were understanding written and spoken Spanish, not having a serious problem of drug or alcohol consumption that would interfere with the treatment program, and not having psychotic symptoms.

The initial sample was made up of 347 men: 303 formed the experimental group, and 44 were in the control group. In the experimental group, 37 participants (12.2%) dropped out during the program, and we could not access their data because, by law, all of them start another treatment in a different program that was better adjusted to their work possibilities or the distance from their home environment. Therefore, for the purposes of the analysis of this research, we had a total sample of 310 men: 266 in the experimental group and 44 in the control group. The mean age of the sample was 38.26 years (*SD*= 10.21) with ages ranging between 18 and 69 years. Of them, 24.2% are married, 2.3% are re-married, 0.3% are widowed, 15.2% are separated, 19.4% are divorced, 33.9% are single, and 4.8% live with a partner. Regarding educational level, 41.6% have primary studies, 40.3% secondary studies, and 18.1% university studies. The majority professions belong to the "Construction / Catering/Industry" category (72.9%). More than half of the sample are Spanish (53.2%) and 37.7% are from South American countries. Most of them were sentenced for committing physically aggressive acts (90.3%) such as punching, grabbing, hair-pulling, or shaking, and 9.7% for psychological abuse, with the most characteristic being threats and insults.

Instruments

a) *Sociodemographic Questionnaire* (Graña et al., 2014). This was created to evaluate participants' sociodemographic characteristics and personal variables: age, marital status, nationality, level of studies, and profession. Data relating to the crime was obtained through the analysis of the Court rulings.

b) *The Revised Conflict Tactics Scale* (CTS2; Straus, Hamby, Boney-McCoy, & Sugarman, 1996), Spanish adaptation of Loinaz, Echeburúa, Ortiz-Tallo, and Amor (2012). The scale was administrated only to sample men, it was not possible to contact victims because the Organic Law 1/2004 prohibits it. This scale assesses the frequency, prevalence, and severity of assaults in couple relationships using a self-administered format. It consists of 78 items, 39 asking about the perpetration of aggressive acts and 39 about victimization of such acts over the past year of cohabitation. It has five subscales (Negotiation, Psychological, Physical, and Sexual Aggression, and Injury or Injury) with Cronbach alpha coefficients ranging from .79 to .95 (Straus et al., 1996). In this study, the alpha coefficient for the global scale of Perpetration was .83, and for Victimization, it was .88.

c) *Police recidivism*. This was measured through the number of police arrests for IPV prior to the start of the program and 12 months after completion of the treatment program. The number of police arrests for violence against women was obtained through the Spanish Police electronic database related to IPV. It was not possible to contact prior victims (Organic Law 1/2004 prohibits it) or current partners to determine another measure of IPV recidivism.

d) *Number of sessions and therapeutic success*. This measure was created *ad hoc*. We coded the total number of sessions attended by each of the participants, and therapeutic success was evaluated through the clinical impression of the two therapists in charge of the therapeutic process (the final score in each of the three items was the average given by both psychologists). At the end of the program, they scored each participant on a scale of 0 to 10 in: (a) positive attitudes towards the partner (0= total absence; 10= maximum presence); (b) justification of their violent behavior were reversed score (0= absence of justifications; 10= maximum presence); and (c) improvement in living with the partner (0= no improvement; 10= maximum improvement). The alpha coefficient for the three items was .84, and the convergent validity calculated through Pearson correlation between the total score of the three items and the total score of the CTS2 perpetration was -.16 ($p<$ .05). Both scores were considered complementary but CTS2 scores are more relevant concerning therapeutic success.

Procedure

This study was approved by the Ethics Commission of the Faculty of Psychology of the University Complutense of Madrid, on May 30, 2009. The procedure of the psychological treatment consisted of the following phases: a) Derivation of the patients from prisons to the Psychology Faculty of the

Complutense University of Madrid, where they were received by a skilled therapist who informed them of the treatment program, requesting their written consent to perform the evaluation and treatment; b) Allocation of each participant to two Masters-degree level therapists, trained in the evaluation and treatment of partner violent perpetrators. The treatment program began with a phase of assessment and motivation to treatment, which consisted of 4 to 8 weekly 60-minute sessions. The therapists collected information about sociodemographic data and analysis of the offense committed, and they administered the CTS2 and all other measures describe in *Data Analysis* Section. During these sessions, in addition to collecting the information needed to assess the effectiveness of the intervention program, they also applied motivational enhancement procedures in order to increase treatment compliance, with particular emphasis on the benefits that could be obtained with the completion of the treatment program, such as complying with the law, knowing the way they relate with their partner, and the function of aggression in intimate relationships. Another important aspect was to address the victimizing aspects related to the judicial process (complaint, police detention, trial, and sentence received) and to analyze how they had experienced this, using techniques of active listening and empathy; c) to minimize socially desirable responding, participants were aware that therapists leading the groups would be blind to their responses, as they were different at the assessment and treatment phases. Riggs, Murphy, and O'Leary (1989) inform that in partner aggression, social desirability, can be understood analyzing the reports of perpetration and victimization, and aggressors have a greater willingness to admit victimization and a lowered tendency to admit perpetration. In the present study both types of aggression were considered and the Pearson correlation of CTS2 total score for perpetration and victimization was .60 ($p< .001$); in a complementary way, when considering the Pearson correlation between CTS2 perpetration and police arrests at pretreatment the result was significant .15 ($p< .01$); d) allocation of each participant to the experimental group or to the waiting-list control group, taking as reference that, for each 6-10 patients who came to the program, one was assigned to the waiting-list control group. This type of assignment tried to be the most objective considering the existing difficulties in dealing with court referred cases. This proportion was established in an attempt to combine two aspects: to minimize the long wait to participate in therapy after waiting for an interval equivalent to the duration of the program, and to be able to have a sufficient number of cases to make the comparisons; e) participants assigned to the experimental group began to participate in a cognitive-behavioral treatment program (CBT). Its contents were developed and specified session-by-session in a manual in which the therapists of the study had been trained (Graña, Muñoz-Rivas, Redondo, & González, 2008). This program consisted of 23 weekly 90-minute sessions conducted in an 8-patient closed-group format by two Masters-degree-level therapists. Weekly supervision sessions were carried out during the application of the program to review the session activities and intervention strategies. This CBT program has the following general goals: (1) to address the victimization process that all of the participants had experienced during the judicial process, helping them to internalize the relationship between aggression and

victimization, not only throughout their partner relationship, but currently, analyzing their victimization and associated emotions, such as anger and hostility. This therapeutic work helps patients to enhance their awareness and to take responsibility for IPV; (2) to develop strategies to control anger and promote empathy with the victims, at this time, assuming the aggressor role; (3) to identify and modify cognitive distortions underlying IPV; (4) to provide alternative problem-solving skills to the use of violence and to enhance the development of a non-aggressive and assertive communication style; (5) to eliminate erroneous expectations about alcohol use and to provide realistic information about its effects; and (6) to promote the adoption of a respectful attitude towards others and to prevent relapses. Those who finished the program or who attended at least 75% of the sessions, or an equivalent period in the control group, completed the post-treatment assessment, for which we again administered the CTS2 to all participants.

Data analysis

The statistical analyses were performed using the SPSS 19.0. Firstly, we calculated the reliability of all scales and subscales with the Cronbach alpha coefficient. Secondly, in order to analyze whether the CBT program had differential effects on the participants according to their initial characteristics, the experimental group was divided into three sub-groups as a function of their level of violence and psychopathology. In this sense, two cluster analyses were performed: A hierarchical cluster analysis was performed first, in order to identify the statistically most appropriate number of clusters (Clatworthy, Buick, Hankins, Weinman, & Horne, 2005) using Ward's method of agglomerative clustering (using *Z*-scores), and squared Euclidean distances were used as a measure of similarity of cases. Hierarchical cluster analysis included the following variables: physical aggression, verbal aggression, anger, hostility [*Aggression Questionnaire* (AQ, Buss & Perry, 1992) Spanish adaptation by Andreu, Peña, & Graña (2002)]; alcohol use [two measures: *Alcohol Use Disorders Identification Test* (AUDIT; Saunders, Aasland, Babor, de la Fuente, & Grant, 1993) and *CAGE Questionnaire* (Ewing, 1984)]; borderline and antisocial personality [*Self-report Assessment of the DSM-IV-R Personality Disorders* (SCID-II; First, Gibbon, Spitzer, Williams, & Smith Benjamin (1999)]; primary and secondary psychopathy [*Levenson Primary and Secondary Psychopathy Scale* (LPSP; Levenson, Kiehl, & Fitzpatrick, 1995)]; impulsiveness [the *Barratt Impulsiveness Scale* (Barratt, 1995)]; state anger, trait anger, anger expression and control [*State-Trait Anger Expression Inventory* (STAXI-2; Spielberger, 1988), Spanish adaptation by Miguel-Tobal, Casado, Cano-Vindel, & Spielberger (2001)]; minor and severe psychological aggression, minor and severe physical aggression, minor and severe sexual coercion, minor and severe injury [*Revised Conflict Tactics Scale* (CTS2; Straus et al., 1996), Spanish adaptation of Loinaz et al., (2012)]. The whole procedure and the above instruments are described in detail in Graña et al. (2014). All used instruments showed satisfactory reliability. After having identified the most appropriate number of clusters, a two-step cluster analysis was performed (with all variables

included in the hierarchical analysis and in the same order). All the variables were previously standardized. Bayesian clustering criterion of Schwarz (BIC) was used, and the measure of distance was the log-likelihood. In order to validate the obtained clusters, an ANOVA with posthoc comparisons (Bonferroni) was performed with several validation variables, which were independent from the cluster analysis: police arrests for intimate partner violence, social and family problems, and drug use. Finally, to show that the clusters are stable, the two-step cluster analysis was repeated in a different randomly drawn sample from the same population. The three resulting groups were called: low, moderate and high level of violence and psychopathology groups and were empirically established in a prior study. For more detailed information about the typology consult Graña et al. (2014).

Once the typology was established, in the present study an ANOVA and Student´s t-Test were conducted to identify pre-treatment significant differences among groups, and a Pearson chi-square test was used for categorical variables. Then, we performed repeated measures ANCOVAs (covariate age) with posthoc comparisons (Bonferroni) to determine significant pre- and post-treatment group differences in partner aggression perpetration and victimization, and in number of arrests for IPV twelve months after post-treatment. We also calculated the effect size with partial eta squared ($\eta^2_{partial}$), of the intervention program for the four groups. We performed ANCOVAs (covariate age) to analyze the post-treatment group differences in all the variables analyzed. Lastly, we conducted a binary logistic regression analysis (conditional forward method), which analyzed the predictive capacity of different variables (sociodemographic, number of sessions attended, and therapeutic success) on police recidivism.

Results

Partner violent men typology

First, we carried out a series of analysis as explained in Data Analysis section. Results, presented in a prior study (Graña et al., 2014) indicated that there were three subtypes of partner violent men in the experimental group: the low-level violence and psychopathology group (LL), made up of 65% of the sample, showed lower levels of psychopathology and lower frequency of partner violence. The moderate-level violence and psychopathology group (ML) comprised 27.8% of the sample, and was in-between the two groups and, finally, the high-level violence and psychopathology group (HL), including 7.1%, showed a higher level of deviation in the psychopathological characteristics analyzed and higher severity and frequency of partner violence. These three-cluster solution was validate and shown to be stable in a prior study. Complete results can be seen in Graña et al. (2014).

Taking into account this typology, in the present study, firstly, we analyzed whether the three subtypes of partner violent men from the experimental group and the control group differed in sociodemographic variables. The four groups presented significant age differences, $F(3, 306)= 4.09$, $p< .01$, with the mean age

of the ML subtype (35.09 years) being significantly lower than that of the LL subtype (39.03 years) and of the control group (41.14 years). There were also differences in the profession, where the LL subtype presented a higher proportion of managers/ entrepreneurs/civil servants/administrative staff than the other two groups, whereas the HL subtype had a higher proportion of unemployed persons/pensioners/retirees, $\chi^2(6)= 19.30$, $p< .01$. We found no significant differences among the four groups in nationality, level of education, civil status, and type of crime (physical or psychological violence) for which they had been sentenced. When analyzing the sociodemographic data of the experimental group as a whole in relation to the control, there were no significant differences between them.

Differences between pre- and post-treatment in partner abusive behavior

Firstly, we put together all treatment groups and compare experimental group pre-treatment partner violence levels versus control group. We found no significant differences in any of the CTS2 subscales (see Table 1).

Table 1
Pre-treatment means of the experimental and control groups on the Revised Conflict Tactics Scale

CTS2	Experimental group (n= 266)	Control group (n= 44)	t(308)
	M (SD)	*M (SD)*	
Perpetration subscales			
Psychological aggression	19.21 (28.23)	15.43 (25.04)	0.83
Physical aggression	4.87 (10.38)	6.25 (18.36)	-0.72
Sexual coercion	1.78 (6.01)	1.84 (6.10)	-0.07
Injury	1.83 (6.35)	0.77 (3.78)	1.07
Victimization subscales			
Psychological aggression	29.14 (35.88)	20.36 (33.22)	1.52
Physical aggression	11.38 (26.76)	6.45 (19.19)	1.17
Sexual coercion	2.26 (11.39)	0.55 (2.35)	1
Injury	1.47 (3.82)	1.89 (4.86)	-0.65

Note: CTS2= the Revised Conflict Tactics Scale.

Table 2 shows the results of the ANCOVA (with age as a covariate) on the subscales of the CTS2-Perpetration, as well as the pre- and post-treatment means on these subscales of each of the four groups. The results indicated that, in the HL and ML subtypes, there was a statistically significant reduction in all the analyzed subscales. As for the control group, there was a significant reduction in physical and psychological aggression, even though the effect size of the differences was around zero in both IPV measures. However, the effect of the program on the four variables was greater in the HL subtype ($\eta^2_{partial}$ ranging from .41 in psychological aggression to .10 in sexual coercion), followed by the ML and the LL groups. The greatest impact of the program was found in the reduction of psychological aggression

Table 2
Means of the groups of patients on the Revised Conflict Tactics Scale - Perpetration (CTS2),
results of the ANCOVA, and size effect of the program for each subtype

Variables	Pre Psychological aggression	Post Psychological aggression	Difference of means $F(1, 305)$	$\eta^2_{partial}$
HL (n= 19)	84.67 (39.19)	12.72 (16.24)	212.78***	.41
ML (n= 74)	25.14 (27.49)	4.37 (7.91)	67.58***	.18
LL (n= 173)	9.44 (12.62)	3.11 (8.55)	14.94***	.05
Control (n= 44)	15.58 (25.04)	7.68 (8.41)	5.86*	.02
Group: $F(3, 305)$= 70.16***; $\eta^2_{partial}$= .41				
Time: $F(1, 305)$= 36.54***; $\eta^2_{partial}$= .11				
Group × Time: $F(3, 305)$= 56.53***; $\eta^2_{partial}$= .36				
Variables	Pre Physical aggression	Post Physical aggression	Difference of means $F(1, 305)$	$\eta^2_{partial}$
HL (n= 19)	29.75 (23.14)	0.72 (1.37)	129.82***	.30
ML (n= 74)	4.23 (5.90)	0.96 (3.47)	6.26*	.02
LL (n= 173)	2.31 (4.31)	1.62 (7.23)	0.67	0
Control (n= 44)	6.66 (18.36)	1.23 (2.16)	10.44**	.03
Group: $F(3, 305)$= 30.35***; $\eta^2_{partial}$= .23				
Time: $F(1, 305)$= 33.39***; $\eta^2_{partial}$= .10				
Group × Time: $F(3, 305)$= 37.57***; $\eta^2_{partial}$= .27				
Variables	Pre Sexual coercion	Post Sexual coercion	Difference of means $F(1, 305)$	$\eta^2_{partial}$
HL (n= 19)	8.46 (14.19)	0.54 (1.31)	34.50***	.10
ML (n= 74)	3.09 (7.66)	0.54 (2.24)	13.57***	.04
LL (n= 173)	0.47 (1.48)	0.57 (2.96)	0.05	0
Control (n= 44)	1.88 (6.10)	0.65 (2.21)	1.88	.01
Group: $F(3, 305)$= 9.40***; $\eta^2_{partial}$= .09				
Time: $F(1, 305)$= 7.35**; $\eta^2_{partial}$= .02				
Group × Time: $F(3, 305)$= 12.25***; $\eta^2_{partial}$= .11				
Variables	Pre-Injury	Post Injury	Difference of means $F(1, 305)$	$\eta^2_{partial}$
HL (n= 19)	12.02 (17.05)	1.55 (5.75)	56.41***	.16
ML (n= 74)	2.47 (6.08)	0.40 (2.03)	8.43**	.03
LL (n= 173)	0.44 (1.57)	0.50 (2.70)	0.02	0
Control (n= 44)	0.74 (3.78)	0.42 (0.61)	0.12	0
Group: $F(3, 305)$= 25.82***; $\eta^2_{partial}$= .20				
Time: $F(1, 305)$= 2.03; $\eta^2_{partial}$= .01				
Group × Time: $F(3, 305)$= 17.90***; $\eta^2_{partial}$= .15				

Notes: Data of the first two columns correspond to the mean (*SD* in brackets). HL= high level of violence and psychopathology; ML= moderate level of violence and psychopathology; LL= low level of violence and psychopathology; *p*< .05; **p*< .01; ***p*< .001.

($\eta^2_{partial=}$ .41 for the HL and .18 for the ML subtypes) (see Table 2). Note that the HL subtype continued to present a significantly higher score of psychological aggression perpetration at post-test compared to the other two groups that participated in the CBT program, whereas the LL subtype reached post-treatment levels significantly lower than those of the control group, $F(3, 305)= 8.39, p< .001$; $\eta^2_{partial}= .08$.

In terms of victimization outcomes, in the HL subtype, there was a significant reduction on all the subscales, whereas in the ML and LL subtypes, significant reductions of victimization were only produced in psychological and physical aggression, and in the control group, no significant changes were observed in any of the victimization subscales. The effect size of the program, except for the variable injury, was higher in the HL subtype, followed by the ML subtype and the LL subtype and, like with perpetration, the program had a greater effect in reducing psychological aggression ($\eta^2_{partial}$ from .11 to .18) (see Table 3). Regarding the posttest levels of victimization, again, we only observed significant differences in psychological aggression, $F(3, 305)= 9.32, p< .001; \eta^2_{partial}= .08$, where the control group presented higher levels than the ML and the LL subtypes.

Differences between pre- and post-treatment in IPV police rearrests

Analyzing the number of arrests 12 months after the completion of the program or the equivalent time in the control group showed a decrease in the number of IPV arrests in the four groups, with the highest effect size of the program in the LL subtype ($\eta^2_{partial}= .17$), followed by the ML ($\eta^2_{partial}= .16$), the HL ($\eta^2_{partial}= .12$) and, finally, the waiting-list control group ($\eta^2_{partial}= .12$). Recidivism rates were 5.3% (HL), 5.4% (ML), 4% (LL), and 6.8% (control), with no significant differences among them, $\chi^2(3)= 1.14, p= .77$. Finally, to analyze the predictors of police recidivism, a binary logistic regression analysis (conditional forward method) was conducted where the criterion variable was being arrested again in the 12-month interval after completing the program, and the predictor variables were: (a) the socio-demographic variables in which significant differences between the groups of participants had been found: age and profession; (b) variables related to therapeutic success: attitude toward the partner, justification of aggression, and improvement in coexistence with the partner; and (c) number of program sessions attended. The regression model correctly classified 96.4% of the cases, $\chi^2(2)= 9.49, p< .01$. Of all the variables included in the analysis, only two turned out to be significant and were included in the final regression model: the number of sessions attended ($B= -.18, p< .05$) and the final level of justification of aggression according to the therapists' appraisal ($B= .30, p< .05$). The ratio for the advantages—*Exp(B)* indicate that for a unit increase in the level of justification of aggression 35% increase in the odds of reoffense, and for each additional session attended 16% decrease in the odds of reoffense (see Table 4).

Table 3
Means of the groups of patients on the Revised Conflict Tactics Scale - Victimization (CTS2), results of the ANCOVA, and the effect size of the program for each subtype

Variables	Pre Psychological aggression	Post Psychological aggression	Difference of means $F(1,305)$	$\eta^2_{partial}$
HL (n= 19)	77.87 (36.67)	14.52 (19.66)	65.25***	.18
ML (n= 74)	35.43 (39.24)	6.43 (14.66)	52.05***	.15
LL (n= 173)	21.29 (29.31)	5.18 (14.40)	38.32***	.11
Control (n= 44)	19.61 (33.22)	19.53 (26.34)	0	0
Goup: $F(3, 305)$= 16.62***; $\eta^2_{partial}$= .14				
Time: $F(1, 305)$= 6.88**; $\eta^2_{partial}$= .02				
Group × Time: $F(3, 305)$= 17.29***; $\eta^2_{partial}$= .15				
Variables	Pre Physical aggression	Post Physical aggression	Difference of means $F(1,305)$	$\eta^2_{partial}$
HL (n= 19)	43.99 (35.32)	2.54 (4.72)	42.90***	.12
ML (n= 74)	12.14 (29.50)	2.09 (7.52)	9.61**	.03
LL (n= 173)	7.46 (21.69)	3.31 (16.29)	3.91*	.01
Control (n= 44)	6.49 (19.19)	5.83 (13.25)	0.02	0
Group: $F(3, 305)$= 8.97***; $\eta^2_{partial}$= .08				
Time: $F(1, 305)$= 5.42*; $\eta^2_{partial}$= .02				
Group × Time: $F(3, 305)$= 11.46***; $\eta^2_{partial}$= .10				
Variables	Pre Sexual coercion	Post Sexual coercion	Difference of means $F(1,305)$	$\eta^2_{partial}$
HL (n= 19)	13.53 (31.42)	0.33 (1.16)	21.32*** /	.07
ML (n= 74)	3.13 (12.86)	0.33 (1.95)	3.34	.01
LL (n= 173)	0.66 (3.08)	1.14 (9.71)	0.26	0
Control (n= 44)	0.53 (2.35)	0.37 (1.92)	0.01 /	0
Group: $F(3, 305)$= 5.50**; $\eta^2_{partial}$= .05				
Time: $F(1, 305)$= 0,83; $\eta^2_{partial}$= 0				
Group × Time: $F(3, 305)$= 7.37***; $\eta^2_{partial}$= .07				
Variables	Pre Injury	Post Injury	Difference of means $F(1,305)$	$\eta^2_{partial}$
HL (n= 19)	4.22 (6.72)	1.38 (5.73)	4.38*	.01
ML (n= 74)	1.79 (4.27)	0.72 (3.67)	2.36	.01
LL (n= 173)	1 (2.97)	0.88 (4.82)	0.07	0
Control (n= 44)	1.99 (4.86)	0.75 (1.26)	1.90	.01
Group: $F(3, 305)$= 2.53; $\eta^2_{partial}$= .02				
Time: $F(1, 305)$= 1.09; $\eta^2_{partial}$= 0				
Group × Time: $F(3, 305)$= 1.59; $\eta^2_{partial}$= .02				

Notes: Data of the first two columns correspond to the mean (*SD* in brackets). HL= high level of violence and psychopathology; ML= moderate level of violence and psychopathology; LL= low level of violence and psychopathology; *p*< .05; **p*< .01; ***p*< .001.

Table 4

Binary logistic regression to predict police recidivism

	B	Standard error	*Wald*	*Exp(B)*	95% Confidence interval
Number of sessions attended	-.18	.09	4.31	0.84*	0.71 - 0.99
Justification of aggression	.30	.14	4.48	1.35*	1.02 - 1.78
Constant	-.52	1.93	0.07	0.59	

Note: *$p < .05$.

Discussion

The results of this study confirm the existence of three subtypes of partner violent men, results that were already discussed in a previous study (Graña et al., 2014) in line with the extensive scientific literature on the subject (Cavanaugh & Gelles, 2005; Holtzworth-Munroe & Stuart, 1994; Stoops et al., 2010). Hence, the experimental group consists of three subtypes of offenders according to the levels of IPV and psychopathology they presented at the beginning of treatment, and this typology is an adequate alternative for a more accurate assessment of the effectiveness of treatment programs that are implemented with this type of population (Fernández-Montalvo, Echauri, Martínez, & Azcárate, 2011; Huss & Ralston, 2008; Murphy et al., 2007; Stoops et al., 2010). In terms of adherence to treatment, the rate of dropouts in this study was 12.2%, well below that reported in the literature (Olver et al., 2011), where rates of 36.2% in the CBT programs and of 40.3% in programs with a feminist approach are found. Possibly, this may be explained by the fact that the law in Spain requires all these men convicted of IPV to participate in a treatment program, such that those who drop out of the program are referred to other treatment programs (Eckhardt, et al., 2013; Olver et al., 2011) as they have to comply with the law.

When analyzing the effectiveness of the program, considering self-informed IPV through the CTS2, satisfactory results are obtained which provide valuable information to assess such interventions. The first aspect in this regard is that, at pre-treatment, the levels of IPV perpetration and victimization in the experimental group taken as a whole are comparable to those of the control group, as there were no significant differences between the two groups at baseline. Secondly, when analyzing the results differentiating between the three subtypes of the experimental group, a significant decrease in perpetration of psychological aggression was observed in the three subtypes and in the control group, with a low effect size in the LL subtype and the control group and a moderate to high effect size in the ML and HL groups, following ranges proposed by Cohen (1973). Regarding perpetration of physical aggression, a significant reduction is also observed in the HL and ML subtypes and in the control group, with effect sizes ranging from low to high in the HL subtype. However, in the LL subtype, no significant changes were observed because they presented very low levels of physical aggressions both at baseline and at the end of the treatment. This may

indicate that this group includes individuals who are in dysfunctional relationships, where self-informed aggression, as reported with the CTS2, is bidirectional. For this type of patients, couples therapy is recommended if they continue to live with the same partner who made the complaint.

In general, we note that, within the experimental group, the one that most benefits from their participation in the program is the HL subtype, with high effect sizes in the decrease of psychological and physical aggression and injury. This is in line with the results found in other research, indicating that such programs have a greater effect on the groups most at risk and with the highest level of violence (Huss & Ralston, 2008; Langton et al., 2006; Murphy et al., 2007; Skemm et al., 2003). It should not be forgotten that the control group decreased both psychological and physical aggression with a low effect size, which is also in line with the findings of other studies suggesting that the fact of being sentenced and subjected to probation also has an effect on the reduction of IPV (Eckhardt et al., 2013; Stover, Meadows, & Kaufman, 2009).

The most important result of this study regarding self-informed IPV has to do with victimization, where it was found that the three subtypes of the experimental group significantly decreased psychological aggression, with moderate to high effect sizes, and physical aggression with low to moderate effect sizes, compared to the control group, where no changes in any measure of victimization occurred. A defining characteristic of this type of patients is the high level of emotional victimization that they experience throughout this process and this emotional state are clear triggers for aggressive and violent behaviors toward the partner. In this context, the program proposed in this study consists of a specific module on victimization, in which empathy and taking responsibility play an important role in understanding the nature of the acts for which they were convicted. Moreover, after the midpoint of the program, a change of attitude towards the therapy was observed, with therapy adherence increasing and the level of victimization decreasing. These data show that for a psychological intervention program with this population to have an effect, its contents should go beyond the legal situation of the participants without judging them and holding them responsible for what they did without comprehensively considering the entire emotional experience of this problem. This significant decrease in victimization in the three subtypes of the experimental group compared to the control group clearly support a significant decrease in the justification of the aggression toward the partner as they no longer complain of being living an unfair situation comparing with the control group. This difference on the expressed verbalizations and the recognition that they no longer are victims of aggression by their partners probes that the decrease in the level of victimization can be used as an indicator of a good psychological adjustment of the men that followed the psychological intervention program for partner aggression.

In terms of recidivism, the percentage of participants who relapse in the experimental group is 5.3% for HL, 5.4% for ML, and 4% for LL versus 6.8% in the control group; no significant differences between the experimental group and the control group were found. Despite that the three subtypes of the experimental group and the control group decreased in the number of arrests for IPV, the

largest effect size of the program was found in the LL subtype, followed by ML, HL and, finally, the control group. These results show that, although the HL and ML subtypes change the most in self-reported aggression, their levels at the end of the program are still higher than those of the LL subtype. This indicates that it is advisable to prolong the treatment program with the most severe subtypes and to address other aspects such as, for example, antisocial and borderline personality traits and consumption of alcohol and other substances, as has been shown in a study on risk factors for abusive men in Spain (Jose, O'Leary, Graña, & Foran, 2014). In this line, the results of this study also indicate that attending more therapy sessions and greater internalization of the contents of the treatment program to cease justifying aggression in their intimate relationships predicted lower levels of recidivism.

The recidivism rates obtained in this study are consistent with those obtained by other authors working with similar populations in Spain. For example, Boira, López del Hoyo, Tomás-Aragonés, and Gaspar (2013) obtained a rate of new arrests for any crime of 6.38% in an 18-month follow-up, whereas Pérez and Martínez (2010) found a rate of new complaints of IPV of 6.4% in a follow-up period that ranged from 7 to 24 months after therapy completion. However, comparing these data with other international studies like that of Huss and Ralston (2008), we observe a considerable difference in recidivism rates, showing that in the *family-only* group, recidivism was 10.6%, and 23.9% for the *borderline*, and 39.1% for the *general/antisocial*, although the period of recidivism that the authors considered was greater (from 24 to 54 months after the post-treatment). These differences may be explained by the different consequences contemplated by the law for this type of aggressors in different countries.

These results suggest that it is important that, in the future, more indicators of response to treatment be assessed and follow-ups be carried out for longer periods. However, this study is in many ways a breakthrough because it shows the effectiveness of the CBT program proposed (Graña et al., 2008) for overcoming the victimization associated with this type of crime, especially for the most serious offenders. Moreover, it is also an important turning point in the study of typologies of partner violent men, as there are few studies that compare response to treatment in the different subtypes found, in this case, also comparing them with a control group that does not participate in the therapy.

The results of this study also have important clinical implications, such as the possibility of early identification of the more serious offenders who continue to present higher levels of IPV after the program. The fact of being able to identify them at the beginning of the process would make it possible to adjust intervention programs to the specific needs they may present beyond IPV, for example, consumption of alcohol and drugs or other mental health problems (Cavanaugh & Gelles 2005; Stoops et al., 2010). It is also likely that these men with greater severity will need more long-term supervision.

Despite this progress, this study also presents some limitations that must be taken into account. Firstly the impossibility, due to ethical issues, of forming a control group through random assignment procedures. In addition, the generalizability of the results must be taken cautiously as this sample is made up

only of a small subgroup of intimate partner violent men who have been convicted but who have not entered prison due to the severity of the crimes committed, alcohol problems have been excluded, the groups are not homogeneous, the therapeutic success in part was based on clinical impressions and dropouts could not be contacted. Finally, another important limitation is not having been able to access the data concerning recidivism according to victims, because the Spanish legal system does not allow it. Several studies conclude that these offenders tend to minimize the frequency of the violence they carry out towards their partners, compared to the information provided by the victims (Heckert & Gondolf, 2000; O'Leary & Arias, 1988). Therefore, having the data from their partners would have been relevant to improving the reliability of IPV measures used in this study. However, the judicial system habitually does not allow access to the victims and, in any case, there are studies indicating that the victims also minimize the frequency of IPV when compared with police data (Heckert & Gondolf, 2000).

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