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Differences in treatment adherence, program completion, and recidivism among batterer subtypes

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ABSTRACT

The present study aimed to cross-validate Holtzworth-Munroe and Stuart's typology in a Spanish sample of court-referred intimate partner violence batterers. The study also analyzed the typology's capability to predict treatment attendance, completion, and IPV recidivism two years after the treatment. The sample consisted of 210 batterers court referred to a batterer intervention program. Using cluster analysis, three batterer subtypes were identified in accordance with the original typology: family-only batterers, borderline/dysphoric, and generally violent-antisocial. The typology predicted program attendance, completion, and recidivism. Batterers from the generally violent-antisocial group attended a significantly lower number of sessions, presented the highest dropout levels, and had the highest recidivism rate followed by borderline/dysphoric and family-only batterers. These findings suggest that in order to increase the effectiveness of batterer intervention programs, batterers' different needs and risk profiles should be taken into account.

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Diferencias en la adherencia al tratamiento, finalización del programa y recaídas entre subtipos de maltratadores

RESUMEN

Este estudio tiene por objeto la validación cruzada de la tipología de Holtzworth-Munroe y Stuart en una muestra española de maltratadores de pareja remitidos por el tribunal. También analiza la capacidad de la tipología de predecir la asistencia al tratamiento, su finalización y las recaídas a los dos años del tratamiento. La muestra constaba de 210 maltratadores derivados por un tribunal a un programa de intervención. Mediante un análisis de clústeres se descubrieron tres subtipos de maltratadores, según la tipología original: maltratadores familiares únicamente, límites/disfóricos y generalmente violentos-antisociales. La tipología predijo la asistencia al programa, su finalización y las recaídas. Los maltratadores del grupo generalmente violento-antisocial asistieron a un número de sesiones significativamente menor, mostraban el mayor grado de abandono y el mayor índice de recaídas, seguidos del grupo de límites/disfóricos y de los maltratadores familiares únicamente. Dichos resultados indican que para aumentar la eficacia de los programas de intervención con maltratadores hay que tener en consideración sus diferentes necesidades y los perfiles de riesgo.

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One of the main objectives in the field of intervention with intimate partner violence (IPV) batterers is to determine the efficacy of treatment programs in preventing recidivism. The meta-analyses that have evaluated batterer intervention programs (BIPs) reveal limited efficacy (e.g., Arias, Arce, & Vilariño, 2013; Babcock, Green, & Robie, 2004; Eckhardt et al., 2013; Feder & Wilson, 2005). One explanation may be that current programs are "one size fits all" and therefore do not take into account the variety of characteristics, needs, and risk levels that differentiate IPV batterers (Cantos &

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O'Leary, 2014; Carbajosa, Boira, & Tomás-Aragonés, 2013; Coulter & VandeWeerd, 2009; Gover, 2011). This perspective has spawned an interest in recent decades to develop a typology with which to classify IPV batterers according to their characteristics. The study of typologies is based on the notion that different types of batterers can respond in varied ways to treatments and can present different levels of recidivism risk. Current interventions might therefore be more efficacious if they were adapted to the different batterer types (Cavanaugh & Gelles, 2005; Holtzworth-Munroe, Meehan, Herron, Rehman, & Stuart, 2003; Huss & Langhinrichsen-Rohling, 2006).

In this context, numerous studies have identified various IPV batterer subtypes. Most studies report two (Goldstein, Cantos, Brenner, Verborg, & Kosson, 2016), three (Huss & Ralston, 2008; Stoops, Bennett, & Vincent, 2010), or four subtypes (Eckhardt, Holtzworth-Munroe, Norlander, Sibley, & Cahill, 2008; Thijssen & de Ruiter, 2011). Of all the classifications proposed, the theoretical typology developed by Holtzworth-Munroe and Stuart (1994) has attracted the most attention and has been validated in numerous studies involving different populations, contexts, and countries (Cunha & Gonçalves, 2013; Johnson et al., 2006; Stalans, Yarnold, Seng, Olson, & Repp, 2004; Thijssen & de Ruiter, 2011; Walsh et al., 2010). This model proposes three batterer subtypes based on dimensions of frequency, severity, and generality of the violence, and psychopathological characteristics. The first subtype, the family-only (FO) batterer, is characterized by low levels of physical and psychological violence against the partner and presents low rates of pathologies, substance abuse, and criminal activity. The second subtype, the borderline/dysphoric (BD) batterer, shows higher levels of physical and psychological violence than the first group and is likely to be violent outside the intimate partner relationship and to be more involved in criminal activities. At a pathological level this group typically presents borderline and dependent personality traits, with high levels of depression, impulsivity, anger, and substance abuse. Finally, the generally violent-antisocial batterer (GVA) presents higher levels of all types of violence and criminal activity than the previous two subgroups, and has a notably higher presence of antisocial personality traits. In a subsequent study, Holtzworth-Munroe, Meehan, Herron, Rehman, and Stuart (2000) validated their theoretical model in a community sample of IPV batterers. The study confirmed the three subtypes described, but also included a new subtype: the low-level antisocial (LLA) batterer. This group of batterers falls between the FO and BD subtypes in severity of partner and generalized violence, and has a higher presence of antisocial traits than the FO and BD subtypes, but lower than the GVA subtype. A subsequent follow-up study of the same sample examined the stability of this typology. Despite some inconsistencies, the levels of violence continued to be lower in the FO group and more severe in the GVA group (Holtzworth-Munroe et al., 2003).

Despite the widespread support for Holtzworth-Munroe and Stuart's (1994) typology, it is not without its limitations. The distribution of the batterer subtypes varies according to the research setting, the sample (communities, court-referred, or prison), and the instruments and techniques used to determine the clusters (Huss & Langhinrichsen-Rohling, 2006; Langhinrichsen-Rohling, Huss, & Ramsey, 2000). In their review of Holtzworth-Munroe and Stuart's (1994) typology, Dixon and Browne (2003) compared various studies using voluntary and court-referred samples of batterers. The results revealed significant differences in the proportions of FO and GVA subtypes in the two sample types. Specifically, the court-referred samples had fewer FO-type batterers than the voluntary samples (38% vs. 59%, respectively), and a higher proportion of BD (24% vs. 16%) and GVA batterers (36% vs. 23%). Recent studies using different characterization techniques and with samples mainly comprising court-referred batterers continue to show this pattern of variation in percentages and in the number of batterer subtypes within the same context. Hence, in studies that

classify the sample in three subtypes the figures range between 25% and 38% of FO batterers, 42% and 48% of BD batterers, and 13% and 23% of GVA batterers (Huss & Ralston, 2008; Stoops et al., 2010). In other studies classifying the sample into four subtypes (including LLA), the same variations persist, with figures ranging between 30% and 37% of FO batterers, 24% and 43% of LLA batterers, 20% and 21% of BD batterers, and 6% and 18% of GVA batterers (Eckhardt et al., 2008; Thijssen & de Ruiter, 2011). Bearing in mind that the proportion of each batterer subtype varies from one context to another (voluntary vs. court referred), and even among studies carried out in the same setting, it would appear that these typologies need to be validated in specific intervention contexts.

In the Spanish setting, the study of typologies has mainly focused on limited samples of IPV batterers in prison or a combination of court-referred and prison batterers (Loinaz, 2014; Llor-Esteban, García-Jiménez, Ruiz-Hernández & Godoy-Fernández, 2016; Ruiz-Hernández, García-Jiménez, Llor-Esteban, & Godoy-Fernández, 2015). In the court-referred context only, Graña, Redondo, Muñoz Rivas, and Cantos (2014) classified a large sample of IPV batterers into three types according to risk level (low, moderate, and high), similar to the typology proposed by Cavanaugh and Gelles (2005).

Apart from their descriptive interest, typologies are also used because of their capability to predict the future behavior of men who batter. Few studies have assessed the relationship between typologies and program outcomes. In terms of dropout rates, studies with mixed samples of voluntary and court-referred batterers classified into the three subtypes of the original typology show significant differences in the proportion of batterers who complete their programs (between 66% and 78% for FO, 57% and 59% for BD and 14% and 50% for GVA) (Huss & Ralston, 2008; Langhinrichsen-Rohling et al., 2000). Other studies classifying batterers into a different number of subtypes and using court-referred batterer samples report similar results. For example, Eckhardt et al. (2008) classified a sample of batterers (N = 199) into four subtypes (including LLA) and reported a 77% completion rate for the FO group, 62.7% for the LLA, 38.5% for the BD, and 9.1% for the GVA groups. Taken together, this group of studies evidences a possible pattern in dropout levels regardless of the number of clusters, the proportion of batterers in each cluster, or the techniques used to determine them. The group of batterers with the lowest risk factors (FO) is more likely to complete the treatment, followed by subtypes LLA, BD, and GVA.

With regard to recidivism, figures for repeated gender violence offenses are high, reaching up to 51% in follow-ups of up to 10 years (Richards, Jennings, Tomsich, & Gover, 2014), and around 20% after treatment (Gondolf, 1997, 2003). As with the dropout rate, recidivism appears to vary according to typologies. From a theoretical perspective, different risk levels have been associated with each subtype: low risk for FO, moderate risk for BD, and high risk for GVA (Cavanaugh & Gelles, 2005). Several studies support the validity of this type of classification. For example, in a sample of court-referred batterers, Eckhardt et al. (2008) found significant differences among subtypes in relation to general criminal recidivism (17.5% for FO, 24.7% for LLA, 37.5% for BD, and 45.5% for GVA). In another study, Huss and Ralston (2008) identified the same differences in recidivism of specific IPV offenses classified into three subtypes (10.6% FO, 23.9% BD, and 39.1% GVA). As in the case of dropout rates, there seems to be a gradual increase in recidivism rates from the low-risk FO group to the high-risk GVA group profile. As well as detecting these differences, the typology has shown some capacity to predict program attendance, dropout, and recidivism. Hence, belonging to the GVA group and presenting borderline traits have been shown to be good predictors (Eckhardt et al., 2008; Huss & Ralston, 2008; Stoops et al., 2010). In sum, the results of these studies show that IPV batterers are heterogeneous

and highlight the usefulness of classifying into typologies to predict different intervention outcomes.

Bearing in mind that different studies support the existence of IPV batterer subtypes with different results for program attendance and dropout and recidivism, the present study has several aims. The first aim is to cross-validate Holtzworth-Munroe and Stuart's (1994) subtypes in a Spanish sample of court-referred IPV perpetrators using a similar procedure to that of Holtzworth-Munroe et al. (2000). To this end, the batterers were first classified in typologies according to the dimensions described by Holtzworth-Munroe et al. (2000) and Holtzworth-Munroe and Stuart (1994): severity, generality of violence, and pathology. In addition, to validate the typology the subtypes were compared in relation to several variables (anger, impulsivity, psychological violence, and substance abuse). We hypothesized that GVA group batterers would present higher levels of violence, pathology, and substance abuse problems than the other subtypes. The second study aim was to analyze whether batterer subtypes differ in terms of intervention outcomes. To this end, the subtypes were compared for the variables attendance, program dropout rate, and IPV offense recidivism. Finally, the capacity of these typologies to predict the above variables was analyzed. We hypothesized that GVA batterers would have higher dropout and recidivism rates and lower levels of BIP attendance than the other subtypes.

Method

Participants

The study sample comprised 210 men convicted for gender violence offenses and court referred for treatment in a batterer intervention program (BIP). The participants received custodial sentences of up to two years that were suspended on various conditions, one of which was the mandatory attendance to a BIP. The intervention was developed within the *Contexto* Program, a psychoeducational and community-based treatment program (mandatory for male abusers) at the Department of Social Psychology, University of Valencia, Spain (see Lila, Oliver, Catalá-Miñana, & Conchell, 2014). The main objective of the program is to reduce risk factors and increase protective factors for IPV, taking into account four levels of analysis: individual, interpersonal, situational, and macrosocial (Catalá-Miñana, Lila, & Oliver, 2013; Gracia, López-Quílez, Marco, Lladosa, & Lila, 2015; Lila, Gracia, & Herrero, 2012; Lila, Gracia, & Murgui, 2013; Rodríguez, Gracia, & Lila, 2016; Romero-Martínez, Lila, & Moya-Albiol, 2016; Vargas, Lila, & Catalá-Miñana, 2015). The sociodemographic characteristics of the sample were as follows: average age was 39.54 years (*SD* = 11.23); the average annual income was between 6,000 and 12,000 euros. Most of the participants were Spanish (73.80%) and the rest of the sample was distributed as follows: 11.40% Latin Americans, 8.10% non-Spanish Europeans, 6.20% Africans, and 0.50% Asians; 6.70% had no formal education, 53.30% had primary education, 33.80% had secondary education, and 6.2% had college education. The percentage of men who were married or in a stable relationship was 26.70%, 37.10% unmarried, 10% separated, 25.70% divorced, and .50% widowed. Finally, 45.70% were unemployed at the time the data were gathered.

Procedure

This study was approved by the Experimental Research Ethics Committee of the University of Valencia. The participants were referred to the *Contexto* Program by Penitentiary Institutions between the years 2011 and 2016. In the first session, participants completed a series of self-report questionnaires as part of the program protocol; the questionnaires used in this study were completed at this stage. All the participants gave their informed consent to their data being used for research, and their anonymity was guaranteed. Before the intervention program began, three individual semi-structured interviews were carried out with each participant; each interview lasted ninety minutes. Based on the results of the questionnaires and the information gathered in the three interviews, the psychologists completed the Spanish version of the Spousal Assault Risk Assessment Guide (Kropp, Hart, Webster, & Eaves, 1994), a recidivism risk protocol. The intervention consisted of 32 group sessions lasting two hours, simultaneously led by two psychologists specialized in the intervention with IPV offenders.

Measures

Millon Clinical Multiaxial Inventory-III (MCMI-III; Millon, 1994; Spanish version by Cardenal & Sanchez, 2007). This is a self-report inventory consisting of 175 dichotomous items (true or false) to measure personality disorders and psychopathology. It comprises 3 Modifying scales (Validity Index, Desirability Index, and Debasement Index); 11 Clinical Personality Patterns scales (Schizoid, Avoidant, Depressive, Dependent, Histrionic, Narcissistic, Antisocial, Aggressive, Compulsive, Passive-Aggressive, and Self-Defeating); 3 Severe Personality scales (Schizotypal, Borderline, and Paranoid); 7 Clinical Syndromes scales (Anxiety, Somatoform, Bipolar: Manic, Dysthymia, Alcohol Dependence, Drug Dependence, and Post-Traumatic Stress Disorder); and 3 Severe Syndromes scales (Thought Disorder, Major Depression, and Delusional Disorder). Higher scores mean higher psychopathology or personality disorder. The original and Spanish versions showed excellent reliability and validity. The Spanish version validation reported reliability between .65 and .92. MCMI-III is the most commonly used personality disorder measure in previous typologies (e.g., Eckhardt et al., 2008; Holtzworth-Munroe et al., 2000; Huss & Ralston, 2008). For this study, the Antisocial, Dependent, and Borderline scales were used for the cluster analysis, and the Drug Abuse scale for the subsequent cluster analysis validation.

The Revised Conflict Tactics Scale (CTS-2; Straus, Hamby, Boney-McCoy, & Sugarman, 1996; Spanish version by Loinaz, Echeburúa, Ortiz-Tallo, & Amor, 2012). This is a self-report inventory that assesses how individuals choose to resolve relationship conflicts. Respondents report on their own and their partners' behaviors during conflict. The scale consists of 78 8-point Likert-type items, where 0 means *this has never happened* and 6 means *more than 20 times in the past year*; however, 7 means *not in the past year, but it happened before*. CTS-2 is the most commonly used violence measure in previous typology studies (e.g., Eckhardt et al., 2008; Holtzworth-Munroe et al., 2000; Huss & Ralston, 2008). The present study examines self-reported physical partner violence in the past year for the cluster analysis and psychological violence for the subsequent cluster analysis validation. Validation of the original version reported high internal consistency ($.79 \leq \alpha \leq .95$). In the present study, the internal consistency for the physical violence was .88, and for psychological violence, .84. Items were scored according to a frequency-weighted scoring system recommended by the author (Straus et al., 1996).

Spousal Assault Risk Assessment Guide (SARA; Kropp et al., 1994; Spanish version by Andrés-Pueyo & López, 2005). Completed by the psychologists based on observation and systematic follow-up of participants, this is a 20 item-risk factor protocol to assess the likelihood of repeat domestic violence, grouped into four sections: Criminal History, Psychosocial Adjustment, Spousal Assault History, and Alleged/Most Recent Offense. Each item scores 0, 1, or 2, depending on the degree of severity. In the present study, item 2 from the Criminal History section was used to detect the

existence of generalized violence: "Past assault of strangers or acquaintances".

Plutchik's Impulsivity Scale (Plutchik & Van Praag, 1989; Spanish version by Páez et al., 1996). This scale assesses impulsivity as an immediate reaction where consequences are not considered, measured by 15 items responded on a four point Likert-type scale (1 = *never*, 4 = *almost always*). The reliability coefficient of the scale for this study was .71. Higher scores indicate higher levels of impulsivity.

Alcohol Use Disorders Identification Test (AUDIT; Saunders, Aasland, Babor, de la Fuente, & Grant, 1993; Spanish adaptation by Contel, Gual, & Colom, 1999). This is a 10-item screening test on alcohol consumption that detects risky and harmful alcohol consumption, and possible dependency. Three or four frequency response options are given for each item. The instrument focuses on recent consumption, and higher scores reflect higher risk of excessive alcohol consumption. The authors identify a score of 8 as the cut-off point, above which participants' alcohol consumption is considered to be harmful and they risk becoming addicted. The internal consistency in our study was .73.

State-Trait Anger Expression Inventory (STAXI-2; Spielberger, 1988; Spanish version by Miguel-Tobal, Casado, Cano-Vindel, & Spielberg, 2001). This 49-item four-point Likert-type scale measures different elements of the anger construct: the level of anger felt at a given moment (state anger), the general disposition to feel anger (trait anger), and various styles of expressing and controlling anger. The trait anger scale was used in the present study. This scale measures the tendency to perceive different situations as hostile or frustrating and to react to them with a high level of anger. The authors report reliability coefficients between .69 and .89.

Treatment Completion and Attendance. A dichotomous variable was created (BIP dropout) in which participants who failed to complete the program during the intervention due to non-attendance were considered to have dropped out of the program. Following the *Contexto* Program protocol, participants who missed two or more sessions of treatment were considered as dropout cases (0 = dropout, 1 = completer).

A quantitative variable (treatment attendance) was created to consider the number of program sessions each participant attended.

IPV Recidivism. Recidivism data were taken from the VIOGEN database (integrated follow-up system for cases of gender violence), compiled by the Spanish Home Office, two years after participants finished the program. Participants who appeared in the database with new gender violence related offenses after finishing treatment were classified as recidivists. The average period elapsed before the date of the new offense was 8.29 months (*SD* = 7.35).

Data Analysis

To address the first aim, hierarchical cluster analysis was carried out to establish the male batterer subgroups. The Ward method was used to perform the cluster analysis, which was subsequently validated with the k-means method. This method has been used in previous studies to delimit batterer typologies (Holtzworth-Munroe et al., 2000; Huss & Langhinrichsen-Rohling, 2006) because it provides a better classification of the sample than other types of cluster analysis (Blashfield & Aldenderfer, 1988). The Ward method classifies the sample in such a way that variability among members of the same group is kept to a minimum. As a hierarchical cluster analysis, this method aims to keep the distance between the specific case and the center of the cluster as small as possible. The unit of distance in this case was the squared Euclidean distance, commonly used in this type of analysis (e.g., Holtzworth-Munroe et al., 2000; Huss & Langhinrichsen-Rohling, 2006). The classification was based on the three classic dimensions proposed by Holtzworth-Munroe

and Stuart (1994): psychopathology or personality disorder (antisocial, borderline, and dependent), severity of the violence against the partner, and generality of the violence. The total scores from the MCMI-III antisocial, borderline, and dependent subscales were used to determine psychopathology, CTS-2 measured the physical violence factor, and item 2 of the SARA determined levels of generalized violence. The choice of these instruments was made in line with previous studies on typologies and with the instruments normally used to assess batterers (e.g., Holtzworth-Munroe et al., 2000; Huss & Ralston, 2008). Finally, all variables were standardized before being included in the cluster analysis.

A multivariate analysis of variance (MANOVA) was performed with the variables used to generate the clusters as dependent variables (MCMI-III antisocial, borderline, and dependent scales, CTS-2 physical violence scale, and item 2 from SARA) and the typology generated as the independent variable. The MANOVA was followed by ANOVAs for each of the dependent variables and multiple comparisons were made using post hoc least significant differences (LSD).

Following the procedure described in Holtzworth-Munroe et al. (2000), to validate the clusters we compared the groups' scores on sociodemographic variables (by means of ANOVAs and chi-squared tests, depending on the nature of the variable) and psychological violence against the partner, impulsivity, anger trait, and drug and alcohol abuse. To do this, a second MANOVA was performed, followed by independent ANOVAs and post hoc LSD comparisons.

The typology's association with adherence to the program and recidivism was explored by first performing an ANOVA with post hoc LSD comparisons for the quantitative variable (number of sessions attended) and χ^2 tests for the categorical variables (dropout and recidivism). Finally, to examine the predictive capability of the typology two binary logistic regressions were run, one with the dropout rate and the other with recidivism as dependent variables. The previously obtained typology, codified in dummy variables, was introduced as the independent variable in both cases. Finally, the logistic regressions were repeated, this time using the dimensions comprising the typology as independent variables.

Results

A procedure similar to that in Holtzworth-Munroe et al. (2000) and Huss and Langhinrichsen-Rohling (2006) was used to validate the classification. First, after performing the cluster analysis with the Ward method, the resulting dendrogram was examined. The criterion to determine the number of clusters was based on the exploration of the dendrogram and the number of participants assigned to each group. The most appropriate solution was considered to be between three and four groups and the distribution of participants in the groups suggested that three groups was the best solution. Second, the k-means cluster analysis was performed using the centroids created by the hierarchical analysis for the 2, 3, 4, and 5 group solutions. Both procedures were therefore used to compare the participants' classification. The three-group solution had the best fit, classifying 196 to 210 participants in the same clusters in the two analyses. The remaining 14 participants were classified in different clusters in each analysis. To establish which cluster they belonged to we followed the same method as Huss and Raslton (2008): two researchers with expertise in batterer intervention and typologies assessed the participants according to their individual scores in the Millon subscales, the CTS physical violence scale, and item 2 of SARA. The two researchers assigned the 14 participants to the same subgroups. This expert assignment was the same initially determined by the k-means method, and this classification was therefore used in the subsequent analyses.

Table 1
Cluster Means of Variables included in Cluster Analysis.

	FO (n = 74) M (SD)	BD (n = 78) M (SD)	GVA (n = 58) M (SD)	F	η^2
Dependent	23.20 (14.54)	53.19 (13.66)	42.38 (19.61)	69.57***	.40
Antisocial	22.39 (13.75)	51.68 (14.81)	64.79 (13.40)	161.89***	.61
Borderline	9.51 (10.74)	44.03 (18.09)	56.17 (14.74)	180.91***	.64
Physical partner violence	1.04 (3.24)	1.90 (3.74)	5.45 (10.76)	8.45***	.08
General violence	0.32 (0.69)	0.06 (0.25)	1.71 (0.56)	180.16***	.64

Note. FO: Family Only; BD: Dysphoric/Borderline; GVA: General Violent Antisocial.
*p < .05; **p < .01; ***p < .001.

Cluster Group Examination

The cluster analysis generated three groups differentiated according to the standardized scores in MCMI-III, self-reported physical violence, and the generalized violence detected by the professionals. The MANOVA conducted to detect the differences at the multivariate level showed they were statistically significant, F(10, 408) = 95.53, p < .001, η^2 = .70. The subsequent ANOVAs revealed differences among groups in all the variables. To facilitate data interpretation, Table 1 shows the results of the ANOVAs with the non-standardized scores.

The first cluster generated (n = 58) represents 27.62% of the sample and shows the highest scores in the MCMI-III antisocial and borderline scales, in self-reported physical violence, and in generalized violence. The post hoc LSD comparisons showed that these scores were statistically significantly higher than the scores of the other two clusters (all p values < .002) (see Table 1). This subgroup showed a similar profile to the Generally Violent-Antisocial subtype (GVA) of Holtzworth-Munroe and Stuart's (1994) typology.

The second cluster (n = 74) represents 35.24% of the sample. This subtype had the lowest scores in the MCMI-III scales (dependent, antisocial, and borderline) and in self-reported physical violence. All the scores were significantly lower than the rest of the groups (all p values < .003), with the exception of self-reported physical violence. Although this cluster had the lowest score in this variable, the differences from cluster 3 were not significant (p = .41). This subgroup also had an intermediate score in generalized violence, significantly lower than cluster 1 (p < .001) and significantly higher than cluster 3 (p < .003) (see Table 2). The scores obtained showed agreement between this group and Holtzworth-Munroe and Stuart's (1994) Family-Only (FO) subtype.

Finally, the third cluster (n = 78) represents 37.14% of the sample. This subtype had the highest score in the MCMI-III dependent scale, intermediate scores in the MCMI-III antisocial and borderline scales, intermediate scores in self-reported physical violence, and the lowest score in generalized violence. All the differences

among the three clusters were statistically significant (all p values < .003), with the exception of self-reported physical violence between clusters 2 and 3, as noted above (see Table 1). The scores obtained identify cluster 3 as similar to Holtzworth-Munroe and Stuart's (1994) Borderline/Dysphoric (BD) subtype.

Examination of Dependent Variables across Cluster Groups

After the cluster analysis, we examined the differences in the sociodemographic variables among the groups. ANOVAs were used for the quantitative variables and χ^2 tests for the categorical variables. The results revealed no significant differences among the groups in terms of nationality (χ^2 = 13, p = .11), income level (F = 1.79, p = .17), employment status (χ^2 = 1.65, p = .44), or marital status (χ^2 = 12.33, p = .14). Differences were observed, however, in age and level of education (see Table 2). The post hoc LSD multiple comparisons revealed differences in age between groups BD and GVA (p < .001). In the no education and primary education categories, the highest percentages were found in the GVA group, whereas the highest percentages in the secondary and college education categories were in the FO group. Thus, the distribution of participants in each group varied according to level of education (see Table 2). MANCOVAs were performed to detect the influence of age and level of education in subsequent analyses (see below).

Secondly, a MANOVA was run with the typology generated by the cluster analysis as independent variable, and the variables selected to validate the cluster as dependent variables (psychological violence, impulsivity, trait anger, drug and alcohol abuse). The MANOVA revealed significant differences at multivariate level, F(10, 408) = 16.09, p < .001, η^2 = .28. The results of the subsequent ANOVAs reported in Table 2 reveal the differences among the groups in all the dependent variables. The post hoc LSD multiple comparisons showed significant differences between groups FO and BD in impulsivity (p < .05), trait anger (p < .01), and drug abuse (p < .001); between BD and GVA in impulsivity (p < .001), trait anger (p < .001), drug abuse (p < .01), and alcohol abuse (p < .001);

Table 2
Summary of Education, Age, and the Dependent Variables across Clusters.

	FO	BD	GVA	χ^2	
Education				16.53**	
% No education	5.40	6.41	8.62		
% Primary	41.89	50.00	72.41		
% Secondary	43.24	37.18	17.24		
% University	9.46	6.41	1.72		
	M (SD)	M (SD)	M (SD)	F	η^2
Age	39.50 (10.47)	42.32 (12.35)	35.86 (9.57)	5.75**	.05
Psychological violence	7.64 (17.83)	12.73 (17.43)	17.90 (28.06)	3.89*	.04
Impulsivity	25.62 (4.54)	27.37 (5.39)	31.71 (6.46)	21.08***	.17
Trait Anger	13.57 (3.11)	15.63 (4.18)	18.50 (6.31)	18.96***	.16
Drugs Dependence	21.38 (16.33)	49.85 (21.35)	71.31 (20.70)	109.01***	.51
Alcohol Abuse	3.80 (4.61)	4.85 (4.78)	7.50 (5.88)	9.03***	.08

Note. FO: Family Only; BD: Dysphoric/Borderline; GVA: General Violent Antisocial.
*p < .05; **p < .01; ***p < .001.

and finally differences were found between groups FO and GVA in psychological violence ($p < .01$), impulsivity ($p < .001$), trait anger ($p < .001$), drug abuse ($p < .001$), and alcohol abuse ($p < .001$). The rest of the comparisons were not significant. A MANCOVA was run with age and level of education as covariables to check the differences among groups detected in the sociodemographic variables. The results showed no changes in relationships among the dependent variables in the cluster compared with the results of the MANOVA.

Examination of Attendance, Dropout, and Recidivism across Cluster Groups

First, the number of participants and the dropout rate were evaluated. For the whole sample, the average number of sessions attended was 25.62 ($SD = 8.18$) and the dropout rate was 22.90%. The results of the ANOVA showed significant differences among groups in terms of number of sessions attended, $F(2, 207) = 4.93$, $p < .01$, $\eta^2 = .05$. Post hoc LSD multiple comparisons revealed that GVA group participants attended a statistically significantly lower number of sessions ($M = 22.43$, $SD = 8.48$) than FO group ($M = 27.27$, $SD = 7.15$, $p < .01$) and BD group participants ($M = 26.05$, $SD = 8.45$, $p < .05$). However, no significant differences were found between groups FO and BD ($p = .35$) in the number of sessions attended. The χ^2 for the dropout rate revealed statistically significant differences among the groups ($\chi^2 = 14.33$, $p < .001$). Dropout rates were 12.16% for the FO group, 20.51% for the BD group, and 39.66% for the GVA group. A regression analysis was then run with the dummy variables from the typology as independent variables with subtype FO as the reference variable and dropout/completion of the intervention program as the dependent variable. The regression model showed that belonging to the GVA group did predict a higher dropout rate than belonging to the FO group ($W = 12.22$, $p < .001$, $OR = 4.75$), but belonging to the BD group did not predict a higher dropout rate than the FO group ($W = 1.89$, $p = .17$, $OR = 1.86$), with 77.1% of the sample correctly classified. The results therefore show that belonging to the GVA group implies being 4.75 times more likely to drop out of the intervention program than belonging to the FO group. The regression model with the typology dimensions as independent variables revealed generalized violence as a predictor of intervention dropout ($W = 11.23$, $p < .001$, $OR = 1.86$), with 76.2% of the sample correctly classified.

Finally, the χ^2 test revealed significant differences among groups' recidivism rates ($\chi^2 = 13.12$, $p < .001$). The recidivism rate for the whole sample was 8.10%. Recidivism rates were 0% for the FO group, 8.97% for the BD group, and 17.24% for the GVA group. In the regression model, however, typology did not predict recidivism. Finally, in the regression with the typology dimensions as independent variables, the MCMI-III antisocial scale was revealed as a predictor of recidivism ($W = 6.86$, $p < .01$, $OR = 4.84$), with 92.4% of the sample correctly classified.

All the analyses were repeated with age and educational level included as control variables because of the differences detected; no variations were observed in the results.

Discussion

The present study had two aims. First, to cross-validate Holtzworth-Munroe and Stuart's (1994) typology in a Spanish sample of court-referred IPV batterers using a procedure similar to that described by Holtzworth-Munroe et al. (2000). With regard to this aim, the results confirm the existence of three distinct groups of IPV batterers similar to those of the theoretical model proposed by Holtzworth-Munroe and Stuart (1994), and in line with previous studies conducted with court-referred IPV batterers

(Huss & Ralston, 2008; Langhinrichsen-Rohling et al., 2000; Stoops et al., 2010). As we first hypothesized, the batterers in the GVA group presented the highest levels of intimate partner and generalized violence, pathology, and substance abuse problems. Regarding the second aim, the analyses confirmed a relationship among the typologies and the various intervention outcomes (attendance, dropout, and recidivism). As we hypothesized, the GVA group was at the greatest risk of dropping out of the program and reoffending, the BD group had a moderate risk, and the FO group had the lowest risk, in line with previous studies using samples of court-referred batterers (Eckhardt et al., 2008; Huss & Ralston, 2008; Langhinrichsen-Rohling et al., 2000; Thijssen & de Ruiter, 2011). The results also confirmed the predictive capability of the typology in relation to attendance, dropout, and post-treatment recidivism. On the whole, this study reaffirms the importance of taking into account different batterer subtypes and risk levels when designing treatment programs and victim protection measures.

Specifically, in relation to the cluster characteristics, significant differences were found in the dimensions (generalized violence, partner violence, and pathology) and the descriptive variables in line with Holtzworth-Munroe and Stuart's (1994) model. The first cluster, labeled GVA (27% of the sample), presented the most severe levels of physical and psychological partner violence, generalized violence, and antisocial traits. This group also had the highest levels of impulsivity, anger, alcohol abuse, and substance dependency. The batterers in the second cluster, labeled FO (35.24% of the sample), had the lowest levels of physical and psychological partner violence and pathology. They also scored the lowest in trait anger, impulsivity, alcohol abuse, and drug dependency. In contrast to Holtzworth-Munroe and Stuart's (1994) theoretical model, the FO group in the present study had higher than expected levels of generalized violence, falling between groups BD and GVA. However, as in Holtzworth-Munroe et al.'s (2000) validation study with a community sample, the levels of generalized violence in the FO and BD groups were low and significantly different from the GVA group. Moreover, in the court-referred context Huss and Ralston (2008) found the same results for this variable as the present study. Finally, the third cluster (37% of the sample) had high scores in the borderline subscale (lower than the GVA group), and their dependency scores were the highest of the three groups; for this reason, this cluster was labeled BD. In all the other variables, this group was located between groups GVA and FO. As in previous studies in European and Latin American settings, the results of the present study replicate the different types of batterers in Holtzworth-Munroe and Stuart's (1994) typology in a Spanish sample of court-referred IPV batterers, thus confirming its cross-cultural validity (Cunha & Gonçalves, 2013; Graña et al., 2014; Johnson et al., 2006; Thijssen & de Ruiter, 2011).

As regards the sample distribution in three clusters, compared to studies using court-referred samples, the percentage of FO batterers (35% of the sample) was higher than the 25.6% found by Stoops et al. (2010), but almost the same as the 38% in studies by Huss and Ralston (2008) and Dixon and Browne (2003). The percentage of BD batterers (37%) was lower than the 42% of Stoops et al.'s (2010) study and the 47% in Huss and Ralston's (2008), but higher than the 24% in Dixon and Browne's (2003) review. Finally, the 28% of GVA in this study was higher than the 13% in Huss and Ralston's (2008), but lower than the 32% in Stoops et al.'s (2010) and the 36% in Dixon and Browne's (2003). Despite these small variations in the comparative percentages these results are in line with previous studies conducted with samples of court-referred IPV batterers, which reflect a lower proportion of FO-type batterers and a higher proportion of GVA batterers than those found in studies with volunteer samples (Dixon & Browne, 2003; Johnson et al., 2006). Extending knowledge about typology distributions in each specific intervention context (voluntary, court-referred, or prison)

could improve efficiency in distributing resources to attend to and protect victims and in designing more efficacious treatment. For example, the greater presence of high risk batterers (GVA) in the court-referred context identifies the need for more resources to manage the risk of these batterers and to protect their victims.

The second aim of this study was to examine the capability of the typology to predict different intervention outcomes (BIP attendance, completion, and IPV recidivism). The results show that the subtypes are related to BIP attendance and dropout in the expected direction. Batterers from the GVA group attended a significantly lower number of sessions, followed by groups BD and FO. Typology was also related to BIP dropout in the expected direction. The GVA group presented the highest dropout levels (39.66%), followed by the BD group (20.51%) and the FO group (12.16%). However, although number of attendances was lower for the BD than the FO group, the differences between the two were not significant. The regression model also showed that participants classified as GVA were more likely to drop out of the program before completion, in contrast to the FO group, which had the lowest dropout rate. Belonging to the BD group did not imply a greater probability of dropout. On the other hand, the regression analysis based on the typology dimensions showed that the differences in generalized violence explained the greatest likelihood of dropout. This result suggests that belonging to the GVA group, because of its violent profile in a range of contexts, is a risk factor for dropout. It seems apparent that specific strategies are required for this subgroup to encourage adherence to the treatment. Current proposals such as motivational interviewing, interventions adapted to states of change, or focusing particularly on the therapeutic alliance have proven effective (Alexander, Morris, Tracy, & Frye, 2010; Crane & Eckhardt, 2013; Lila, García, Pedrón-Rico, & Terreros, 2015a, 2015b; Murphy, Linehan, Reyner, Musser, & Taft, 2012; Scott, King, McGinn, & Hosseini, 2011). Bearing in mind the relationship between dropout and recidivism rates, it appears that batterers with more antisocial characteristics require programs that incorporate this type of specific strategy in order to lower their dropout rates and probability of recidivism (Eckhardt et al., 2008; Huss and Ralston, 2008).

Finally, the subtypes were expected to differ in recidivism rates. As hypothesized, differences among the groups were significant. The GVA group (17%) had the highest recidivism rate, followed by the BD group (9%) and the FO group (0%), which had no cases of recidivism. However, in the logistical regression, typology did not predict recidivism. This could be due to the low recidivism rate for the whole sample (8.10%) and also because one of the categories had no cases of recidivism. King and Zeng (2001) cautioned that bias can arise in logistic regression analysis when there are few cases (rare events) in one or some of the categories. This observation, together with the fact that differences were observed in the chi-square test, suggests that the lack of significance is due to the low number of cases of recidivism reported. It would be useful to explore this relationship in a larger sample, which would probably provide a significant result. However, the analysis of the individual predictive capability of the dimensions on which the typology was constructed showed that generalized violence and the MCMI-III antisocial scale were predictors of dropout and recidivism, respectively. These two individual characteristics were clearly identified among the GVA batterers. It therefore seems that the profile of this group is one of higher dropout and recidivism risk. Taken together, the results reveal subtypes of batterers with varying levels of program dropout and recidivism risk (Eckhardt et al., 2008; Huss & Ralston, 2008; Stoops et al., 2010; Thijssen & de Ruiter, 2011). Further, in contrast to previous research it is noteworthy that in the present study there were no cases of recidivism in the FO group, clearly showing that these are low risk batterers. Hence, the typology allows

for discrimination between recidivist batterers (BD and GVA) and non-recidivists (FO), confirming the usefulness of this type of classification. These results highlight the need for a thorough pretreatment assessment that is capable of identifying high-moderate risk batterers, characterized by generalized violence and antisocial or borderline traits with a view to preventing future cases of recidivism.

This study has certain limitations, the main one being the impossibility of obtaining accounts from victims who could have corroborated official recidivism data. In the Spanish context, there are considerable hurdles preventing access to victims (Ferrer-Pérez, Ferreiro-Basurto, Navarro-Guzmán, & Bosch-Fiol, 2016). The notion exists that researchers' contact with victims could generate false hopes of change in their aggressive partners if they are aware that they are taking part in a rehabilitation program. Furthermore, in accordance with the Spanish legislation, all the batterers in our sample were placed under restriction orders preventing them from approaching or communicating with their victims. For these reasons, this practice is not usual in Spain. Contact with victims is carried out by law enforcement officers to establish appropriate protection mechanisms and psychological attention for the victims. A second limitation was the use of a measure of generalized violence other than the original applied by Holtzworth-Munroe et al. (2000), for which there is no Spanish version. The item was therefore selected from SARA. Despite this limitation, the item from SARA allows for discrimination among subtypes in line with previous research in the court-referred context (Huss & Ralston, 2008). Furthermore, recent studies point to the usefulness of these more simple and efficient measures for professionals in making evaluations to identify the typologies in a clinical, police, or penal intervention context (Cantos, Goldstein, Brenner, O'Leary, & Verborg, 2015).

Despite these limitations various conclusions and implications for treatment can be drawn from the present study. Regarding the design and implementation of BIPs, batterers are differentiated according to their distinct specific treatment needs (anger trait, impulsivity, addictions, pathology, type of violence, and levels of education) and their likelihood of dropout or recidivism. Attending to these differences, various approaches have been proposed for treatment matched to each batterer subtype. For the FO group, given the low level of risk factors and lack of post-treatment recidivism registered in this study, the current standard BIP may be the most suitable treatment (Holtzworth-Munroe & Meehan, 2004). For men in the BD group, however, taking into account their problems of dependency and emotional instability, a less structured and process oriented approach designed specifically for borderline personality disorder (Saunders, 1996) has been put into practice with good outcomes. Finally, for the GVA group, given the high comorbidity of antisocial and borderline traits recognized in this and other studies (e.g., Eckhardt et al., 2008; Holtzworth-Munroe et al., 2000; Huss & Ralston, 2008), it may be effective to introduce proposals that have been applied with general offenders that adapt dialectical behavior approach for forensic contexts with special emphasis on the comorbidity of antisocial risks and treatment for criminal behavior (Sheppard, Layden, Turner, & Chapman, 2016).

Additionally, with regard to recidivism and dropout risk, data from the present study suggest the need to develop specific risk management strategies for each group (Cavanaugh & Gelles, 2005). For the GVA group, given its high program dropout risk it seems to be necessary to apply specific techniques of retention and motivation to change in order to strengthen their adherence to the program (Eckhardt et al., 2008). This could be a key point for increasing BIP efficacy, since batterers who do not complete the program are more likely to reoffend (Olver, Stockdale, & Wormith, 2011; Stoops et al., 2010). Finally, to reduce the high recidivism rates in the GVA group, greater monitoring is needed during the

program, along with intensive court supervision and maximum police protection for victims.

In conclusion, the present study updates previous work on typologies of court-referred IPV batterers in the European setting (Graña et al., 2014; Johnson et al., 2006; Thijssen & de Ruiter, 2011). In addition, it contributes new data that confirm the capability of the typology to clearly differentiate between recidivist and non-recidivist batterers, and classify them according to their different treatment and risk needs. Overall, these results provide evidence to support the risk-need-responsivity (RNR) model of intervention (Andrews, Bonta, & Wormith, 2011), which prioritizes attention to the heterogeneity of batterers, as opposed to the current "one-size-fits-all" model (Cantos & O'Leary, 2014; Gover, 2011). Proposals for multilevel treatment models that incorporate the principles of RNR are operating with good outcomes in terms of dropout and recidivist rates (Coulter & VandeWeerd, 2009; Gover, 2011). This type of treatment, following a thorough evaluation, classifies batterers according to their risk level (e.g., severity of the violence, criminality) and specific needs (addiction problems, pathology, motivation to change, etc.) and applies treatments that are more or less intensive in line with the risk levels and needs detected. However, despite the clear evidence of heterogeneity among batterers, proposals for such alternatives to the standard treatments are scarce. In Spain, theoretical proposals have been made for treatment adapted to typologies (Loinaz & Echeburúa, 2010), but as in the international context there are still no experimental "gold standard" studies that provide a conclusive response on their greater efficacy. In sum, in order to increase the efficacy and efficiency of the current "one-size-fits-all" programs, further investigation is needed in order to offer a clear alternative treatment adapted to batterers' different needs and risk profiles.

Conflict of Interest

The authors of this article declare no conflict of interest.

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