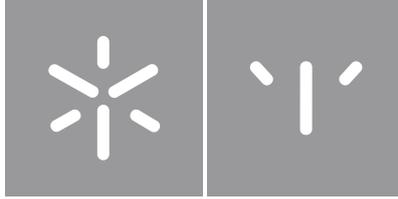


**Universidade do Minho**

Escola de Psicologia

Catarina Sofia Tenedório Abrunhosa

**Crimes against women: From violence to  
homicide**



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Dissertação de Mestrado  
Mestrado Integrado em Psicologia

Trabalho efetuado sob a orientação da

**Doutora Olga Cunha**

e do

**Professor Doutor Rui Abrunhosa Gonçalves**

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## Crimes contra mulheres: da violência ao homicídio

### Resumo

A violência e o homicídio na intimidade são dois fenômenos bem estudados. Contudo, a literatura demonstra-se escassa sobre perpetradores de tentativa de homicídio na intimidade. Deste modo, o objetivo deste estudo, realizado em Portugal, é comparar os perpetradores destes crimes, tanto na prisão como na comunidade, assim como identificar os preditores para cada um dos grupos de ofensores. A amostra é constituída por 50 homens condenados por homicídio na intimidade, 27 por tentativa de homicídio na intimidade e 168 por violência doméstica. Os participantes foram entrevistados individualmente e preencheram três instrumentos de autorrelato, de modo a obter informação sobre os seus dados sociodemográficos, criminais e traços de personalidade. Os resultados demonstraram que apesar destes indivíduos partilharem certas características, diferenças significativas foram encontradas entre eles. Os dados revelaram que o uso de armas e a separação da vítima aumentam significativamente a probabilidade de cometer um homicídio ou uma tentativa de homicídio na intimidade. Por outro lado, a violência conjugal diminui essa probabilidade. Além disso, os resultados da regressão logística multinomial sustentam que ser divorciado, não ter filhos e cometer outros crimes são preditores de tentativa de homicídio na intimidade. Estes resultados sublinham a importância de realizar avaliações de risco precisas.

*Palavras-chave:* violência na intimidade; homicídio na intimidade; tentativa de homicídio na intimidade; perpetradores; preditores

## Crimes against women: From violence to homicide

### Abstract

Intimate partner violence and intimate partner homicide are two well-studied phenomena. However, little is known in the literature about attempted homicide between intimate partners. Therefore, the purpose of this study, conducted in Portugal, is to compare perpetrators convicted of these crimes, both in prison and in the community, as well as to identify predictors for each. The sample was constituted by 50 men convicted for marital homicide, 27 convicted of attempted homicide and 168 men convicted for domestic violence. The participants were individually interviewed and three self-report instruments were administered, in order to obtain information related to sociodemographic, criminal and individual traits. Results show that although these individuals share some characteristics, significant differences were found among them. Data revealed that use of weapons and separation from victim significantly increases the probability of a man to commit intimate partner homicide or attempted homicide. On the other hand, marital violence decreases that likelihood. Furthermore, results from multinomial logistic regression support that being divorced, having no children and committing other crimes are predictors of attempted homicide against an intimate partner. These findings underline the importance of conducting accurate risk assessments.

*Keywords:* intimate partner violence; intimate partner homicide; intimate partner attempted homicide; perpetrators; predictors

### Crimes against women: From violence to homicide

Currently there is an increased interest and research on intimate partner violence (IPV) and intimate partner homicide (IPH). IPV is characterized by physical, sexual, emotional or psychological abuse among intimate partners (Campbell, Sharps, Gary, Campbell, & Lopez, 2002) with different levels of severity, from blows and bruises to severe injuries and even murder. This means that the worst consequence of IPV is IPH, i.e. the murder of a woman by a former or current male partner.

Violence against women is a problem that has always existed, however, only in the past two decades it began to be addressed and defined properly as a human's rights violation (European Union Agency for Fundamental Rights (FRA), 2017). Since then, there is a rising recognition on the health effects of IPV, which has a large public health impact (World Health Organization (WHO), 2013). A recent systematic review revealed that 30% of all the women worldwide and 25.3% of the European women experienced intimate physical and/or sexual violence throughout their life (WHO, 2013). More recently, in the European Union (EU), the FRA survey related to violence against women reported that one in five woman that already had an intimate partner has been through physical and/or sexual violence since they have been fifteen (FRA, 2017). Official data revealed that, in Portugal, approximately 22.599 cases of IPV were reported to the police in 2017 (Portugal has approximately 10.5 million inhabitants) (Sistema de Segurança Interna (SIS), 2017). In the EU only 14% of women victims of IPV informed the police about the most severe incident (FRA, 2017). Relatively to homicide, in Portugal, 9% are between intimate partners (SSI, 2017). According to the World Health Organization (2013), this violence often continues or starts during pregnancy, which can cause serious implications for the health of both mother and child.

Despite the high prevalence of IPV, the number of women killed by an intimate partner is comparatively smaller. As a result, IPH and attempted IPH are quite infrequent; however, the consequences of such experiences are tragic. IPH represents the most common type of lethal violence against adult women in industrialized occidental countries (Granath, Hagstedt, Kivivuori, Lehti, Ganpat, & Liem, 2011). One in seven (13.5%) homicides is committed by an intimate partner and the proportion of women murdered was six times higher than the proportion of men murdered (Stöckl et al., 2013). According to the World Health Organization (WHO, 2013) 38% of women murders worldwide were committed by an intimate partner.

Compared with IPH, attempted IPH is more prevalent, however, it is more difficult to estimate. As far as we know, there are few reports published that describe the prevalence of non-fatal injuries specific to abused women (Lewandowski, McFarlane, Campbell, Gary, & Barenski, 2004), in part

because data regarding attempted IPH is difficult to analyse. One of the problems is addressing the concept of attempted homicide because definitions are often based on jurisdictional interpretations. Other problem is the difficulty in ascribing perpetrators motives as well as correlating the intended outcome with the actual outcome (Lewandowski et al., 2004). For the purpose of this study, attempted IPH is defined as the survival of a severe injury perpetrated by a former or current male partner with evidence of intent to kill, according to the court sentence, which did not occur only by circumstances beyond the perpetrator's will.

In Portugal we are assisting to a considerable number of homicides perpetrated by an intimate partner. UMAR reported that 14 women were murdered by their current or past intimate partner in 2017, which 55% of them was a victim of domestic violence in that relationship (União de Mulheres Alternativa e Resposta (UMAR), 2017). The official rates of attempted IPH are difficult to identify mainly because the attempt of a crime is often based on jurisdictional interpretations. In Portuguese Criminal Law there is an "attempt" when the agent decides to commit a crime, without it being produced; however, this analysis implies the assessment of the agent intention to produce the result (i.e. to kill the victim) which is very difficult. In this sense, it is possible that a considerable part of abusive behaviours falls in the domestic violence category or others, such as physical offenses, and are treated by the criminal justice as such. Notwithstanding, statistical data revealed that in 2017 were registered 28 attempted femicide and 78% of them were perpetrated by an intimate partner (UMAR, 2017).

Researchers focus their attention on the role that risk factors play on IPV and IPH. Breitman, Shackelford and Block (2004) showed that IPH perpetrators tend to be older. On the contrary, age in IPV perpetrators it is considered a protective factor (Capaldi, Knoble, Shortt, & Kim, 2012), since violence usually declines with increasing age (Kim, Laurent, Capaldi, & Feingold, 2008). Low socioeconomic status (SES) and unemployment are two well-known risk factors for IPV (Ali, Asad, Mogren, & Krantz, 2011; Capaldi et al., 2012). Nevertheless, Walton-Moss, Manganello, Frye, and Campbell, 2005 showed that most perpetrators of IPV did not graduated high school. However, these factors do not apply to IPH perpetrators since the vast majority achieved the equivalent of a high school education, are employed in unskilled or skilled jobs, performing non-agricultural manual labor, and have a medium socioeconomic status (Dobash, Dobash, & Cavanagh, 2009; Dobash, Dobash, Cavanagh, & Lewis, 2004).

Regarding substance abuse, IPV perpetrators are twice more likely to report abuse or addiction of alcohol than IPH perpetrators (Gass, Stein, Williams, & Seedat, 2011), this being consistently associated with a higher risk of violence towards women in their current relationship (Abramsky et al.,

2011; Moracco, Runyan, & Butts, 2003). Walton-Moss et al. (2005) demonstrated a higher probability for IPV perpetrators to have problems with drug or alcohol use which is related to the perpetration of violence between intimate partners (Cummings, Gonzalez-Guarda, & Sandoval, 2013; Duke & Cunradi, 2011). In Sweden, more than half of the perpetrators were influenced by alcohol when they committed homicide (Belfrage & Rying, 2004).

The literature has recognized that recently separated women have a heightened risk of homicide compared to women in intact relationships (Johnson & Hotton, 2003). Furthermore, women are much more likely to be injured with the presence of a gun in the house, especially in cases of IPV ((Walton-Moss et al., 2005). McFarlane, Campbell and Watson (2002) noticed that women who stated to feel threatened or terrified with a weapon by their partner were six times more probable to be killed.

Although, IPH perpetrators reveal a prevalence of antisocial behavior, they rarely met the diagnostic criteria for psychopathy (Belfrage & Rying, 2004; Eke, Hilton, Harris, Rice, & Houghton, 2011). However, there is a connection between antisocial characteristics and IPV offenders (Cunha & Goncalves, 2016).

Some perspectives assume that IPH is a sudden or unexpected event. Research suggests that murderers may have mental health problems (Bartok & Bartok, 2005) or that contextual and/or situational factors (such as crisis, stress, or opportunity) can lead to the incident (Weisburd & Waring, 2001). Other perspectives stated that intimate murder is a culmination of history of violence (Stark & Flitcraft, 1996), since it is generally preceded by a previous history of violence, usually reported to police enforcements (Caman, Kristiansson, Granath, & Sturup, 2017; Dobash & Dobash, 2011; Moracco et al., 2003). Wilson et al. (1995), comparing IPV and IPH, found that some demographic risk patterns were similar for lethal and nonlethal incidents. A recent qualitative study (Goussinsky & Yassour-Borochowitz, 2012) revealed that IPH is not different from other manifestations of violence against a female partner in terms of motives and dynamics. Nonetheless, the circumstances surrounding IPH are distinct from IPV and in the majority of the cases lethal violence is premeditated. Moreover, Dobash, Dobash, Cavanagh and Medina-Ariza (2007) found that murderers are more conventional in terms of childhood backgrounds, education, employment, and criminal careers, are more likely to be possessive and jealous and to be separated from their partner at the time of the incident and were less likely to have previously used violence against the victim than batterers. On the contrary, IPV perpetrators are more likely to have used violence against a previous partner, to have sexually assaulted and strangled the victim, and to have used a weapon or instrument. A recent study conducted by Cunha and Goncalves (2016), comparing men convicted for marital homicide or

attempted homicide and men convicted for domestic violence, found that the use of weapons, separation/break-up, and high SES significantly increased the likelihood of a man to commit severe violence. On the other hand, prior violence, aggression, and medium SES decreased significantly the probability of an individual to perpetrate severe violence.

Much has been learned about IPH, however, little is known about attempted IPH (Mcfarlane et al., 1999). None withstanding, and despite the problems related with attempted IPH definition and operationalization, some research has been conducted. A study by (Lewandowski et al., 2004) revealed that in the majority of the attempted femicide cases there was a prior physical violence directed toward the women and in 29% of the cases the perpetrator made threats toward the entire family. The British Crime Survey (Walby & Alen, 2004) showed that 36% of the women reported have been choked, strangle, threatened with a weapon or threatened to be killed by an intimate partner at least once and 20% referred to have been victimized 6 to 50 times. A study conducted by (Glass et al., 2008) also found that non-fatal strangulation is an important risk factor for homicide and attempted homicide of women. Another study developed by Mcfarlane et al., (1999) revealed that 85% of attempted femicide respondents reported at least one episode of stalking within 12 months of the violent incident. In the same study the authors found that 71% of the victims of attempted femicide were physically abused within the year prior to the violent incident.

When compared IPH with attempted IPH perpetrators their social and demographics characteristics are similar (Campbell, Webster, & Glass, 2009; Mcfarlane et al., 1999). Furthermore, (Eke et al., 2011) reported few differences between both groups of offenders. On the contrary, IPH and attempted IPH perpetrators seem to differ from IPV offenders in certain aspects. For example, in the Danger Assessment (DA), a tool to determine the level of danger an abused woman has of being killed by her intimate partner, the first two groups of offenders obtained similar results which are twice higher than the results from IPV offenders (Campbell et al., 2009).

### **Study's purpose**

Several studies determine predictors of IPV and IPH, as well as the major risk factors for both. However, attempted IPH is not a well-studied phenomenon, therefore there is a need for more research on this matter. So, my research question is: what are the differences between these three groups of perpetrators? Consequently, the aim of this study was to analyze whether perpetrators of IPV, IPH and attempted IPH differed from each other, as well as, to identify the factors that predict violence in intimacy. In order to do that, the three groups of perpetrators were compared according to a

considerable amount of variables, which were selected based on previous research. These variables include demographic (e.g., marital status, education, employment), criminal (e.g., prior history of violence, criminal record), and individual traits (e.g., psychopathy, psychopathology, aggression, substance abuse, history of violence in childhood).

Thus, considering all the investigation on this field, three hypotheses were formed:

H1 - It is not expected to find significant differences between perpetrators of homicide and attempted homicide in the different analyzed variables.

H2 - It is expected to find significant differences between perpetrators of IPH and attempted IPH and offenders of IPV, with the latter scoring higher on the different variables.

H3 - It is expected that features like socioeconomic level, alcohol and drug consumption, aggression, separation from the victim, use of weapons, prior history of violence and abusive behaviors in intimacy are identified as possible predictors for each of the offender groups.

## Method

### Participants

The participants were nominated according to a non-random convenience sample, using a set of inclusion criteria to guarantee methodological rigorousness and fairness, which are: being male; being more than 18 years old; being heterosexual; currently or formerly engaged in an intimate relationship with the victim; having perpetrated physical, psychological, and/or sexual violence (IPV), or having committed a murdered or an attempted murder; and having sufficient intellectual and communicative skills to answer to the interview and the instruments administered.

This study had a total of 245 participants, which were divided into three groups: perpetrators of IPV ( $n = 168$ ), perpetrators of IPH ( $n = 50$ ) and perpetrators of attempted IPH ( $n = 27$ ). A significant part of this sample, more precisely 218 participants, are part of a previous study conducted by Cunha (2013) and 27 were collected among individuals convicted of homicide and attempted homicide, for the purposes of the present study. Participants were recruited from prison ( $n = 142$ ; 58%) and from the community ( $n = 103$ ; 42%). Batterers in the community (i.e. with suspended sentences or provisional suspension processes) were attending domestic violence intervention programs or were in supervision by probation services or child protection services.

The participants' average age was 44.14 ( $SD = 11.2$ ). At the time of the crime, more than half of the perpetrators were married to or in cohabitation with the victim ( $n = 144$ ; 58.8%) and belonged to

a low SES ( $n = 143$ ; 58.4%). Most of them had a fourth ( $n = 94$ ; 38.4%) or sixth-grade education ( $n = 82$ ; 33.5%). The main part of the participants were Caucasian ( $n = 231$ ; 94.3%), Portuguese ( $n = 239$ ; 97.6%), had children ( $n = 219$ ; 89.4%), and were employed during the incident ( $n = 143$ ; 58.4%). More than half of them had no previous convictions for spouse abuse ( $n = 138$ ; 56.3%) and no other convictions ( $n = 140$ ; 57.1%).

### Instruments

With the purpose of widen data gathering, information was collected from different sources (i.e. the perpetrator himself and the consultation of their individual files) and different instruments (i.e. individual interviews, questionnaires, and psychological tests). Perpetrators' individual files were examined to acquire information about criminal record (i.e., previous convictions by domestic violence and other crimes) and crime perpetrated (i.e., type of offense, relationship with the victim).

The Sociodemographic and Juridical Questionnaire is a brief survey developed to serve the aims of this study and it is constituted by question about participants' age, marital status, educational level, socioeconomic status, employment and cohabitation at the time of the crime, as well as their criminal record, previous convictions by domestic violence and episodes of previous domestic violence that were not reported to the authorities or resulted in no conviction. In order to calculate SES we based on Graffar's (1956) classification. However, due to the small representativeness of some levels, we decided to recode the five initial levels into simply three levels: low, medium and high.

The Brief Symptoms Inventory (BSI; Derogatis, 1993) is a self-report tool constituted by 53 items that measure psychopathological symptoms, divided into nine dimensions: somatization, obsession-compulsion, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism; and three global indexes of distress: global severity index (GSI), positive symptom distress index (PSI) and positive symptom total (PST). Items are assessed in a scale of 5 points (0 - *not at all* to 4 - *extremely*). The original version of BSI (Derogatis, 1993) revealed Cronbach's alpha values for the nine scales between .71 (psychoticism) and .85 (depression). In this study was used the translated and adapted to the Portuguese population version by Canavarro (1999; 2007). In the Portuguese version (Canavarro, 1999), the correlations between each item and the overall scale score varied between .29 and .79., and the values of Cronbach's alpha were between .62 (phobic anxiety and psychoticism) and .80 (somatization) for the nine dimensions of the instrument. The internal consistency of the present sample ranged from .64 (psychoticism) to .80 (depression).

The Marital Violence Inventory (Machado, Gonçalves, & Matos, 2007) is a self-report instrument constituted by 21 items and measures two dimensions: physical violence and psychological violence. Items such as “pulling hair tight” are considered as physical violence and items like “prevent contact with others” are considered as psychological violence. The inventory is evaluated on a scale of 3 points (0 - *never*, 1 - *once*, 2 - *more than once*). The internal consistency of this study's sample was .83 to physical violence, .63 to psychological violence, and .84 for the total sum.

The Buss-Perry Aggression Questionnaire (AQ; Buss & Perry, 1992) is a self-report instrument, constituted by 29 items distributed into four subscales: physical aggression, verbal aggression, anger, and hostility. The questionnaire is evaluated on a scale of 5 points, ranging from 1 (*extremely uncharacteristic of me*) to 5 (*extremely characteristic of me*). The internal consistency values range from .72 and .85, concerning the four subscales, and .89 for the total sum in the original version. The adapted version to the Portuguese population (Simões, 1993) revealed satisfactory results and close to those of the original version, in terms of Cronbach's alphas: .87 for the global scale, .80 for physical aggression, .60 for verbal aggression, .73 for hostility, and .73 for anger. In this sample was used the translated and adapted to the Portuguese population version by de Cunha and Gonçalves (2012). This version of the scale obtained an internal consistency for the total score, measured by the Cronbach's alpha values, of .88. Concerning the different subscales, the instrument presented an alpha of .79 for rage, .79 for physical aggression, .76 for hostility and .56 for verbal aggression. The internal consistency of this sample was .64 for physical aggression, .56 for verbal aggression, .70 for anger, .73 for hostility and .85 for the scale's total sum.

The Hare Psychopathy Checklist-Revised (PCL-R; Hare, 1991, 2003) is a checklist that uses a semi structured interview, case history information, and specific scoring standards to rate 20 items on a 3-point scale (0 - *not applied*, 1 - *applied somewhat*, 2 - *fully applied*), which the sum ranges between 0 and 40. A score of 30 or higher is indicative of the presence of psychopathy, between 20 and 29 is indicative of mixed or moderately psychopathic characteristics, and below 20 there are no indicators of psychopathy. An initial exploratory factorial analysis discovered the existence of two correlated dimensions: factor 1 (clinical) and factor 2 (antisocial). In the second edition (Hare, 2003) the factor structure was altered, considering a structure of four factors, called facets: interpersonal (facet 1), affective (facet 2), corresponding to factor 1, and lifestyle (facet 3), antisocial (facet 4), corresponding to factor 2. The checklist revealed a high internal consistency, with the total scale presenting a Cronbach's alpha value of .85 for the sample of aggressors and of .81 for the clinical sample, and satisfactory results in the agreement on inter-coders (.86 for offenders and .88 for psychiatric patients)

(Hare & Neumann, 2006). The confirmatory analyses corroborate the four-factor model. In the Portuguese measurement of PCL-R (Gonçalves, 1999), the instrument also showed good psychometric properties, obtaining a Cronbach's alpha of .84. In this sample was used the translated and adapted to the Portuguese population version by Gonçalves (1999). The four-factor model values, for this sample, are .77 to interpersonal, .74 to interpersonal and affective, .58 to lifestyle, .62 to antisocial, and .82 to the total score. PCL-R was also used to collect data about educational and professional history, economic situation, familial history, physical and mental health history, drug consumption, and violent and criminal behavior.

### Procedure

To collect data from institutionalized individuals (i.e., IPV, IPH and attempted perpetrators') an authorization was obtained from the General Directorate of Reintegration and Prison Services–Ministry of Justice (DGRSP-MJ). Once the consent was obtained we emailed the directors of the institutions to schedule a meeting to explain the procedure and start gathering data. In collaboration with the staff and through a computerized system of prison information we were able to get a list of individuals convicted by domestic violence, homicide and attempted homicide, and then identify the men who fulfilled the previously stated inclusion criteria through the access of their personal files. The identification of the victim was required in order to determine if that person was a current or former intimate partner. All the participants were contacted and explained the procedures as well as the voluntary and confidential nature of the study. After stating their consent to participate in this study they were individually interviewed and filled in three self-report instruments. Data were collected in eight national prisons.

Data concerning individuals in community (i.e., perpetrators of IPV) were collected through probation services, child protection services, and family services. Authorizations were obtained from the different institutions. . The individuals who fulfill the inclusion criteria were identified by the staff. The participants were then contacted, the procedures and the study objectives were explained and an informed consent was obtained. After that they were subjected to the same procedures that institutionalized individuals did, i.e., they were individually interviewed and completed a set of psychological measures.

The investigation project was submitted for appreciation to the Ethics Committee of the University of Minho (Comissão de Ética da Universidade do Minho). After approval, all the ethical procedures established by the Ethics Committee were followed.

### Data analysis

First of all, to estimate effect sizes and statistical power of at least 80% it was used G\*Power Version 3.1. Data were analyzed in IBM SPSS Statistics Version 24 applying univariate, bivariate and multivariate tests to search the differences between the three groups and also to recognize the predictors of intimate partner violence. Primarily, to confirm if the parametric tests' assumptions were achieved we conducted a data exploratory analyses. Parametric and nonparametric tests were performed since normality and homogeneity were not assumed. So, if tests show identical conclusions, results from parametric tests were displayed. However when conclusions were different, results from nonparametric tests were exhibited (Fife-Schaw, 2000).

Descriptive statistics were performed using measures of central and dispersion tendency in order to describe information related to the participants' juridical and demographic characteristics. Then analysis of variance (ANOVA), chi-square and Kruskal-Wallis tests were used to examine differences between the three types of perpetrators in the different variables analyzed. Finally, a multinomial logistic regression model was used to identify the variables that best predict all three types of violence (i.e. IPV, IPH and attempted IPH).

## Results

### Sociodemographic and juridical characteristics

The results from Kruskal-Wallis (for age), chi-squares and ANOVA tests that were used to examine the differences and associations between the three groups and the demographic and juridical variables, are presented in Table 1. These results revealed statistically significant differences between the three groups in the following variables: marital status at the time of the offense  $\chi^2(4) = 10.477$ ,  $p = .033$ , with a small effect size,  $V = .15$ ; socioeconomic status  $\chi^2(4) = 15.477$ ,  $p = .004$ , with a small effect size,  $V = .18$ ; having children  $\chi^2(2) = 12.735$ ,  $p = .002$ , with a small effect size,  $V = .21$ ; ethnicity  $\chi^2(4) = 11.609$ ,  $p = .021$ , with small effect size,  $V = .16$ , separation  $\chi^2(2) = 32.241$ ,  $p = .000$ , with medium effect size,  $V = .36$ , and other crimes  $\chi^2(2) = 9.435$ ,  $p = .009$ , with small effect size,  $V = .20$ . No statistically significant differences between the groups were observed in age, education, employment, nationality and previous convictions for domestic violence.

Table 1  
*Comparisons of Demographic and Juridical Characteristics Between Intimate Partner Violence (IPV), Intimate Partner Homicide (IPH) and attempted IPH Perpetrators*

	IPV (n=168)	IPH (n=50)	Attempted IPH (n=27)	$\chi^2$
	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	
Age	43.05 (10.39)	48.14 (12.43)	43.52 (12.48)	4.958
	<i>N (%)</i>	<i>N (%)</i>	<i>N (%)</i>	$\chi^2$
Marital Status (at the time of the incident)				
Married/Cohabitation	101 (60.1)	30 (60.0)	13 (48.1)	10.477*
Divorced/Separated	53 (31.5)	9 (18.0)	11 (40.7)	
Single	14 (8.3)	11 (22.0)	3 (11.1)	
Education				
Incapable of reading and writing	2 (1.2)	3 (6.0)	2 (7.4)	8.338
Fourth grade	70 (41.7)	15 (30.0)	9 (33.3)	
Sixth grade	54 (32.1)	17 (34.0)	11 (40.7)	
Ninth grade or higher	42 (25.0)	15 (30.0)	5 (18.5)	
Employment				
Employee	94 (56.0)	31 (62.0)	18 (72.0)	8.078
Unemployed	56 (33.3)	11 (22.0)	5 (20.0)	
Retired	18 (10.7)	7 (14.0)	2 (8.0)	
Student	0 (0.0)	1 (2.0)	0 (0.0)	
SES				
Low	111 (66.1)	22 (44.0)	10 (37.0)	15.477**
Medium	38 (22.6)	20 (40.0)	14 (51.9)	
High	19 (11.3)	8 (16.0)	3 (11.1)	
Children				
Yes	155 (92.8)	45 (90.0)	19 (70.4)	12.735**
No	12 (7.2)	5 (10.0)	8 (29.6)	
Nationality				
Portuguese	165 (98.2)	47 (94.0)	27 (100.0)	3.626
Non-Portuguese	3 (1.8)	3 (6.0)	0 (0.0)	
Ethnicity				
Caucasian	162 (96.4)	46 (92.0)	23 (85.2)	6.067*
Non-Caucasian	6 (3.6)	4 (8.0)	4 (14.8)	
Separation from victim				
Yes	28 (16.7)	23 (46.0)	16 (59.3)	32.241***
No	140 (83.3)	27 (54.0)	11 (40.7)	
Previous convictions of DV				
Yes	73 (43.5)	19 (38.0)	15 (55.6)	2.207
No	95 (56.5)	31 (62.0)	12 (44.4)	

Note. SES = socioeconomic status; DV = domestic violence.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

(continued)

Table 1 (continued)

*Comparisons of Demographic and Juridical Characteristics Between Intimate Partner Violence (IPV), Intimate Partner Homicide (IPH) and attempted IPH Perpetrators*

	IPV (n=168)	IPH (n=50)	Attempted IPH (n=27)	$\chi^2$
	<i>N (%)</i>	<i>N (%)</i>	<i>N (%)</i>	
Other crimes				
Yes	67 (39.9)	19 (38.0)	19 (70.4)	9.435**
No	101 (60.1)	31 (62.0)	8 (29.6)	
Use of weapons				
Yes	26 (15.5)	36 (72.0)	21 (77.8)	81.064***
No	142 (84.5)	14 (28.0)	6 (22.2)	
Prior history of violence				
Yes	137 (81.5)	26 (52.0)	16 (59.3)	20.029***
No	31 (18.5)	24 (48.0)	11 (40.7)	

*Note.* SES = socioeconomic status; DV = domestic violence.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

These results in Table 1 reveal that, in comparison to the other two groups, perpetrators of intimate homicide had the lowest number of divorcees/separated and had a higher percentage of individuals belonging to a high SES. On the other hand, comparing to IPH and attempted IPH perpetrators, among IPV perpetrators there was a higher percentage of individuals belonging to a lower SES (66.1%), a lower percentage of single ones, a lower prevalence of use of weapons (15.5%) and a higher percentage of individuals with prior history of violence (81.5%). At least, among attempted IPH perpetrators (compared with the other two groups) there was a higher prevalence of individuals belonging to a medium SES, a higher percentage of divorcees (40.7%) and individuals separated from the victim at the time of the incident (59.3%), a higher prevalence of individuals who have committed other crimes (70.4%) and a lower percentage of individuals with no children (29.6%).

### Abusive behaviors in intimacy

After analyzing violence perpetration, results reveal that IPV perpetrators showed higher scores for total violence,  $F(2,244) = 18.337$ ,  $p < .001$ , with a large effect size,  $\eta^2 = .36$ , physical violence,  $F(2,244) = 12.956$ ,  $p < .001$ , with a large effect size,  $\eta^2 = .31$ , and psychological violence,  $F(2,244) = 12.956$ ,  $p < .001$ , with a large effect size,  $\eta^2 = .36$ , than IPH and attempted IPH perpetrators, which had similar scores (Table 2).

With further analyses comparing the three groups on the specific type of behaviors perpetrated (i.e. IVC items), it was possible to observe that conducts like blemishing,  $\chi^2(2) = 25.917$ ,  $p < .001$ , slapping,  $\chi^2(2) = 10.954$ ,  $p < .001$ , threatening with guns,  $\chi^2(2) = 14.252$ ,  $p < .001$ , punching,  $\chi^2(2) =$

9.923,  $p < .001$ , blocking contact with other people,  $\chi^2(2) = 6.863$ ,  $p < .01$ , hitting,  $\chi^2(2) = 8.252$ ,  $p < .001$ , kicking or head bumping,  $\chi^2(2) = 8.957$ ,  $p < .001$ , shoving,  $\chi^2(2) = 5.988$ ,  $p < .01$ , causing injuries that did not need medical assistance,  $\chi^2(2) = 5.433$ ,  $p < .01$ , and screaming or threatening to cause fear,  $\chi^2(2) = 10.405$ ,  $p < .001$  were more common among IPV perpetrators than IPH or attempted IPH perpetrators. IPH and attempted IPH perpetrators had no differences among them in the occurrence of these behaviors.

Table 2

*Differences Between Groups Regarding Violence Perpetration (Marital Violence Inventory Scores)*

	IPV (n=168)		IPH (n=50)		Attempted IPH (n=27)		F	$\eta^2$
	M	SD	M	SD	M	SD		
Total violence	14.36	7.11	8.60	6.42	8.52	6.78	18.337***	.36
Physical violence	7.45	5.20	4.08	4.07	3.93	4.25	12.956***	.31
Psychological violence	6.34	2.84	3.98	2.73	4.04	3.22	17.664***	.36

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

Moreover, on what concerns the use of weapons (Table 1) the results were statistically significant,  $\chi^2(2) = 81.064$ ,  $p < .001$ . Thus homicide (72%) and attempted homicide (77.8%) perpetrators were 4.5 and 4.88, respectively, more likely to use weapons against their intimate partner or ex-partner than IPV perpetrators (15.5%).

Furthermore, there were statistically significant associations between the three groups and prior history of violence in intimacy (Table 1),  $\chi^2(2) = 20.029$ ,  $p < .001$ , since IPV perpetrators were 1.58 and 1.39, respectively, more probable than IPH and attempted IPH of having used violence against their current or former intimate partner.

### Individual characteristics

On what concerns alcohol,  $\chi^2(2) = 2.605$ , *ns*, (IPV = 44%; IPH = 36%; Attempted IPH = 29.6%), or drugs consumption,  $\chi^2(2) = 1.410$ , *ns*, (IPV = 16.1%; IPH = 10%; Attempted IPH = 11.1%), the results revealed no differences between the three groups. Similarly, regarding psychopathy (Table 3), there were no significant differences in the total scores between the groups,  $F(2,244) = .239$ , *ns*.

Table 3

*Differences Between the three Groups of Offenders Regarding Psychopathy (Psychopathy Checklist-Revised Scores)*

	IPV (n=168)		IPH (n=50)		Attempted IPH (n=27)		<i>F</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Total PCL-R	11.42	5.98	11.22	6.18	12.19	5.96	.239
Interpersonal factor	3.18	2.12	3.24	2.43	2.56	2.68	.978
Affective factor	3.37	2.12	3.42	2.23	3.93	1.73	.819
Lifestyle factor	2.33	1.94	2.14	1.83	2.63	2.22	.553
Antisocial factor	1.51	1.55	1.26	1.29	1.93	2.70	1.400

*Note.* PCL-R = Psychopathy Checklist-Revised.\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

Concerning psychopathology, there were also no significant differences between the three groups of perpetrators in Global Severity Index (GSI),  $F(2, 244) = .902$ , *ns*, Positive Symptoms Total (PST),  $F(2, 227) = 1.619$ , *ns*, Positive Symptom distress Index (PSI),  $F(2, 222) = 1.815$ , *ns*, and all the nine dimensions (Table 4).

Table 4

*Differences Between the Groups Regarding Psychopathology (Brief Symptoms Inventory Scores)*

	IPV (n=168)		IPH (n=50)		Attempted IPH (n=27)		<i>F</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
GSI	.75	.50	.80	.67	.63	.45	.902
PST	19.70	10.98	18.70	12.85	15.38	10.51	1.619
PSI	2.02	.52	2.17	.60	2.14	.48	1.815
Somatization	.48	.59	.47	.65	.34	.48	.653
Obsessions-compulsions	.72	.63	.71	.71	.63	.75	.218
Interpersonal sensitivity	.79	.73	.74	.92	.48	.60	1.905
Depression	1.01	.78	1.22	1.00	.93	.80	1.507
Anxiety	.74	.66	.72	.84	.56	.56	.833
Hostility	.52	.60	.49	.66	.40	.55	.481
Phobic anxiety	.38	.52	.36	.64	.23	.38	.882
Paranoid ideation	1.34	.85	1.22	.79	1.15	.60	.937
Psychoticism	.72	.65	.92	.88	.70	.74	1.506

*Note.* GSI = global severity index; PST = positive symptom total; PSI = positive symptom distress index.\* $p < .05$ .

On what concerns aggression, as we can see in Table 5, we found significant differences in physical aggression,  $F(2, 244) = 3.904$ ,  $p < .05$ , with a large effect size,  $\eta^2 = .18$ , and anger,  $F(2, 244) = 5.052$ ,  $p < .01$ , with a large effect size,  $\eta^2 = .20$ . The perpetrators of IPV presented the highest scores in both subscales.

Table 5

*Differences Between the Groups Regarding Aggression (Aggression Questionnaire Scores)*

	IPV (n=168)		IPH (n=50)		Attempted IPH (n=27)		F	$\eta^2$
	M	SD	M	SD	M	SD		
Total Aggression	62.87	15.17	57.40	15.63	60.67	20.37	2.322	-
Physical aggression	17.64	5.48	15.14	5.31	16.74	6.69	3.904*	.18
Verbal aggression	12.05	3.50	11.94	3.80	13.11	4.43	1.072	-
Anger	14.65	5.20	12.34	4.65	12.52	5.71	5.052**	.20
Hostility	18.74	5.61	17.98	6.33	18.30	7.18	.338	-

\* $p < .05$ . \*\* $p < .01$ .

### Predictors of violence in intimacy

A multivariate logistic regression was conducted to find predictors of IPV, IPH and attempted IPH. The variables that were statistically significant in the three groups were included in the analysis, such as marital status, SES, having children, separation from victim, perpetration of other crimes, marital violence (total IVC), use of weapons, and prior history of violence. The variables with a number of participants less than 5 were not included in this analysis (high SES, ethnicity and being single). The results are summarized in Table 6.

The multinomial logistic regression model that compares the three groups was statistically significant,  $\chi^2(20) = 159.940$ ,  $p < .001$ . In agreement with the pseudo  $r$ -square, between .481 (Cox & Snell) and .594 (Nagelkerke) of the variance in the dependent variable can be explained by this set of variables. According to these data, we can observe that IPV offenders were more prone to perpetrate violent behaviors (total IVC) against an intimate partner or ex-partner than IPH or attempted IPH offenders. Contrarily, perpetrators of IPH and attempted IPH had a higher probability of being separated from the victim at the time of the incident and to use a weapon than IPV offenders. Moreover, it is more likely to commit attempted IPH than IPV or IPH if the perpetrator is divorced/separated from the victim, did not have children and had perpetrated other crimes than domestic violence.

Table 6

*Multinomial Logistic Regression Model and Predictors of Violence in Intimacy*

	<i>B</i>	<i>S.E.</i>	Wald	<i>df</i>	<i>p</i>	Exp( <i>B</i> )	95% C.I. Exp( <i>B</i> )	
							Lower	Upper
<b>IPH vs IPV</b>								
Married	-.489	.681	.515	1	.473	.614	.162	2.330
Divorced	-.551	.754	.534	1	.465	.576	.131	2.528
Low SES	-.547	.669	.669	1	.413	.578	.156	2.147
Medium SES	.537	.661	.662	1	.416	1.712	.469	6.247
Children	-.026	.806	.001	1	.975	.975	.201	4.730
Separation	-1.164	.488	5.691	1	.017	.312	.120	.813
Other crimes	-.430	.518	.688	1	.407	.651	.235	1.797
Use of weapons	-2.801	.464	36.463	1	.000	.061	.024	.151
Prior history of violence	.545	.523	1.086	1	.297	1.725	.619	4.807
Total IVC	-.112	.040	7.948	1	.005	.894	.827	.966
Intercept	3.216	1.038	9.595	1	.002			
<b>Attempted IPH vs IPV</b>								
Married	1.031	.943	1.195	1	.274	2.805	.442	17.814
Divorced	-2.151	1.010	4.539	1	.033	8.591	1.188	62.138
Low SES	.440	1.088	.164	1	.686	1.553	.184	13.094
Medium SES	1.872	1.075	3.032	1	.082	6.501	.791	53.468
Children	1.842	.807	5.206	1	.023	6.307	1.297	30.683
Separation	-1.788	.640	7.816	1	.005	.167	.048	.586
Other crimes	-2.077	.723	8.259	1	.004	.125	.030	.517
Use of weapons	-3.287	.669	24.157	1	.000	.037	.010	.139
Prior history of violence	1.095	.747	2.146	1	.143	2.989	.691	12.930
Total IVC	-.134	.051	6.843	1	.009	.874	.791	.967
Intercept	.775	1.445	.288	1	.592			

*Note.* SES = socioeconomic status; IVC = marital violence inventory.

(continued)

Table 6 (continued)

*Multinomial Logistic Regression Model and Predictors of Violence in Intimacy*

	<i>B</i>	<i>S.E.</i>	Wald	<i>df</i>	<i>p</i>	Exp( <i>B</i> )	95% C.I. Exp( <i>B</i> )	
							Lower	Upper
<b>IPH vs</b>								
<b>Attempted IPH</b>								
Married	-1.520	.900	2.849	1	.091	.219	.037	1.278
Divorced	-2.702	.983	7.549	1	.006	.067	.010	.461
Low SES	-.987	1.036	.908	1	.341	.373	.049	2.840
Medium SES	-1.335	1.010	1.744	1	.187	.263	.036	1.908
Children	-1.867	.830	5.064	1	.024	.155	.030	.786
Separation	.625	.598	1.091	1	.296	1.868	.578	6.030
Other crimes	1.647	.678	5.897	1	.015	5.192	1.374	19.622
Use of weapons	.486	.659	.545	1	.461	1.626	.447	5.919
Prior history of violence	-.550	.706	.607	1	.436	.577	.145	2.301
Total IVC	.022	.048	.216	1	.642	1.022	.931	1.123
Intercept	2.441	1.268	3.706	1	.054			

*Note.* SES = socioeconomic status; IVC = marital violence inventory.

### Discussion

This study contributes to the comprehension of the differences between IPV, IPH and attempted IPH and to identify predictors for each type of violence by analyzing the perpetrators' sociodemographic and juridical characteristics, abusive behaviors in intimacy and individual characteristics. Although some factors are similar between the three groups, there are several significant differences, which might help understanding these phenomena.

Comparing to the other two groups, IPH perpetrators have a higher percentage of individuals belonging to a high SES, in contrast, IPV perpetrators have a higher percentage of individuals with a low SES, which is consistent with previous studies (e.g. Capaldi et al., 2012; Dobash et al., 2009). Furthermore, IPV perpetrators score higher in marital violence frequency (total IVC), aggression and prior history of violence than IPH and attempted IPH, as reported in the literature, since all of these are risk factors for IPV (e.g. Cunha & Goncalves, 2016; Dobash et al., 2007). It also supports the second hypothesis (i.e., we expected to find significant differences between IPH, attempted IPH and IPV

perpetrators), and partially the third, because marital violence frequency (i.e. abusive behaviors in intimacy) constitutes a predictor for IPV. So, a higher frequency of marital violence and a lower SES are more frequent in IPV than IPH and attempted IPH. In fact, literature reports that a lower SES is usually related to highest levels of physical and/or sexual partner violence (Abramsky et al., 2011; Vyas & Watts, 2009). A possible explanation is that probably women with higher SES have access to a wider range of means and resources to escape. However, with these data we can conclude that all forms of violence between intimate partners affect transversally all social and economic status.

Contrarily, factors regarding violence perpetration (i.e. frequency of marital violence and prior history of violence) decrease the probability of severe violence (IPH and attempted IPH), which makes these phenomena harder to predict considering that, in some cases, these phenomena seems to be an isolated event, (i.e. with no prior history of violence). Nonetheless, IPH and attempted IPH can be associated with emotional states resulting from, for example, separation from the victim (Dobash et al., 2007; Johnson & Hotton, 2003), or even situational variables that can precipitate events, such as use of weapons (Cunha & Goncalves, 2016; McFarlane et al., 2002), since both heighten the risk of homicide. These two factors appear as predictors of both IPH and attempted IPH. On top of that these differences verify our third hypothesis.

In spite of this, we cannot set aside entirely the possibility of IPH and attempted IPH resulting from an escalation of violence (Stark & Flitcraft, 1996). Looking at the results, it is clear that, even though the following factors were nonsignificant in the multinomial regression analysis, more than half of the perpetrators of attempted IPH had previous convictions of domestic violence, and also a substantial percentage of perpetrators of severe violence had prior history of violence. Besides, when comparing attempted IPH offenders with IPH perpetrators, the first group of perpetrators shows higher percentages in the two factors above mentioned, along with use of weapons and aggression, so they seem to be more violent (e.g. Lewandowski et al., 2004). Considering these assumptions, we might assume the possible presence of two types of lethal violence perpetrators: one who shows less signs of possible risk for assault before the incident, looking like an isolated event, in this case the IPH perpetrators, and one who represents an abuser turned into a murder, like attempted IPH offenders, since the previous violence perpetration might have escalated into an almost tragic event. Previous research (Cunha & Abrunhosa, 2013) concerning batterer typologies describes a type of offender (antisocial/violent) that perpetrates physical and psychological violence, demonstrates antisocial behavior, criminal records and drug abuse. In the present research, this typology seems to be related to attempted IPH perpetrators.

Regarding perpetrators of attempted IPH we found that they have a higher percentage of individuals divorced, with no children and committing other crimes than domestic violence comparing to IPV and IPH offenders. These three features are predictors of attempted IPH, due to significance in the multinomial regression analysis, which does not corroborate our first hypothesis (i.e. we do not expect to find significant differences between perpetrators of homicide and attempted homicide in the different analyzed variables). Prior criminal involvement in attempted IPH perpetrators is one of the most surprising findings in this study, and the explanation can rely on the fact that previous convictions for violent crimes are considered a risk factor for IPV recidivism (Campbell, 2004), and might lead to a severe incident such as attempted IPH. This finding verifies our prior assumption that attempted IPH offenders show more violent behavior than IPH perpetrators prior to the incident. Moreover, prior criminal involvement is also correlated to psychopathy (Echeburúa & Fernández-Montalvo, 2007), and we can confirm that by analyzing the PCL-R scores, in which attempted IPH perpetrators scored higher both in total and antisocial factor, despite not being statistically significant.

In the present research psychopathology cannot distinguish perpetrators of IPV, IPH and attempted IPH, which might imply that these factors are similar in all three groups. This lack of significant results, despite of supported by previous literature, can be explained by the high rates of social desirability, after all pretending a degree of normality to the assessors might be one way of achieving quicker access to probation (Echeburúa & Fernández-Montalvo, 2007). Also, BSI is an instruments that measures a set of psychopathological symptoms experienced in the past week, hence these symptoms could be associated with a situation or moment instead of a psychiatric condition (Cunha & Gonçalves, 2017).

Although other studies (Cummings et al., 2013) support that IPV perpetrators present higher alcohol and drugs consumption in comparison to IPH and attempted IPH offenders, in this study it was not statistically significant. Therefore, substance abuse does not sustain our third hypothesis. However, previous literature indicates that alcohol and drugs consumption have been pointed out as causes and risk factors for violence in intimate relationships (Harris, Hilton, & Rice, 2011), which helps to understand these results as substance abuse is transversal to all types of violence.

Overall, our analysis demonstrates that even though perpetrators of severe and less severe violence share some traits (i.e. age, education, employment, previous convictions of domestic violence, substance abuse, psychopathy and psychopathology), differences were found among these individuals. The perpetrators differed in terms of marital status, SES, having children, separation from victim, perpetration of other crimes, marital violence (total IVC), use of weapons, and prior history of violence.

In addition, predictors were related mostly to sociodemographic and juridical characteristics, since being divorced, having no children and committing other crimes than domestic violence are predictors of attempted IPH. Within the characteristics linked to the abuse itself, only marital violence was found significant as a predictor of IPV. On the other hand, use of weapons and separation from victim are predictors of IPH or attempted IPH.

One of the strengths of this study is that we differentiate IPV, IPH and attempted IPH, allowing us to observe differences between them, especially those regarding attempted IPH, due to lack of literature on this matter. These results have some implications regarding the treatment of perpetrators of violence, which should focus on the specific needs of each individual, concerning the type of crime and the risk level of reoffending (Cunha & Abrunhosa, 2013). Also this study helps practitioners in the assessment of IPV, IPH and attempted IPH risk and management. Predicting risk of IPH and attempted IPH facilitates awareness of the problem and search for better solutions (Echeburúa, Fernández-Montalvo, De Corral, & López-Goñi, 2009; Snider, Webster, O'Sullivan, & Campbell, 2009).

Some limitations to this research must be stated. The first one is related to the samples' disparity, as IPH and attempted IPH are less usual than IPV (Echeburúa et al., 2009). Second, data gathering took place mainly in the north of Portugal, hence the sample was not representative of all Portuguese offenders, which may restrict the generalization of the results. Third, the instruments were filled out by two assessors which can create bias, especially when scoring PCL-R, although we tried to minimize this by training the use of criteria and debating each case before giving scores. Fourth, sexual and economic violence and the relation' dynamics are not specifically measured by the instruments. In the future we should include questionnaires that assess other forms of IPV. Fifth, perpetrators' reports and self-report measures are limitations as well, since conjugal offenders have the tendency to deny and minimize the magnitude of the abusive behaviors (Saunders, 1991) and, consequently, show high rates of social desirability (Dutton & Hemphill, 1992). To prevent this from happening in further research, the use of self-report measures must accompany social desirability measures, and also include the victim's report to evaluate discrepancy between perpetrator-victim reports of violence (Cunha & Goncalves, 2016). Sixth, we did not analyzed important elements, despite being acknowledged in the literature, such as violence during pregnancy and post-breakup stalking, that constitutes a risk factor regarding lethal violence (Mcfarlane et al., 1999). In addition, the absence of a comparison group composed by individuals with no IPV, attempted IPH, or IPH perpetration, as a control group, could enable to achieve important conclusions.

Finally, this study raises a question that was not able to answer and that could make way for future research. Are attempted IPH offenders that similar to IPH perpetrators? The present investigation shows that there are some differences between these two types of offenders concerning marital status, children, SES and perpetration of other crimes than domestic violence. So, in further investigations, a qualitative study related to the motivations behind IPH and attempted IPH could help to understand these differences better.

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