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## Introduction

Sexual assaults committed by groups are a serious problem that has received more media than scientific attention due to the severity of these actions and the consequences for the victims. Despite the social alarm created by this type of crime, knowing the dimensions of the problem and its characteristics is not an easy task since, in most countries, official statistics do not distinguish group-perpetrated from individual-perpetrated sexual assaults. According to some studies conducted in other countries, between 9% and 33% of sexual assaults are committed by multiple aggressors (da Silva & Woodhams, 2019). In the United States, sexual assaults committed by groups represent 10% of sexual assaults against women (Planty et al., 2013); in the United Kingdom, this value ranges between 11% and 19%; and in South Africa, this value ranges between 9% and 27% (Swart et al. 2000). In Spain, the first official report providing this type of data revealed that sexual offences by more than one perpetrator represented 4.5% of all sexual offences committed between 2016 and 2019 (MIR, 2019).

The term used to describe the phenomenon of group-perpetrated sexual assault is somewhat controversial due to a lack of strong agreement on the term “group”. Greater acceptance is retained by other expressions, such as *multiple-perpetrator rape (MPR)* or *multiple-perpetrator assault (MPA)* (Horvath & Kelly, 2009; Woodhams & Cooke, 2013), defined as “any sexual assault committed by two or more aggressors” (Horvath & Kelly, 2009).

Thus, over the last few years, a line of research has emerged in other countries that has analyzed this subtype of sexual assault, distinguishing between assaults perpetrated by one perpetrator and by multiple perpetrators (i.e., two, three or more) (Bijleveld & Hendriks, 2003; Höoing Jonker & van Berlo, 2010). The studies published to date show an increasingly clear distinction between the two categories in terms of the subjects who

commit them, their modus operandi, the assault committed, the consequences for the victim and the motivations of their perpetrators (Amir, 1971; Bijleveld & Hendriks, 2003; da Silva, et al., 2014; Hauffe & Porter, 2009; Morgan et al., 2012; Wright & West, 1981).

The study presented in this article aims to analyze the differences between these categories of sexual assault in the Spanish context. To date, limited scientific research has been conducted in Spain to investigate MPAs and their differences from solo-offender sexual assaults. Further research is needed for two main reasons. First, because of certain cases of sexual assaults committed by multiple aggressors, there has been social and political debate regarding the criminal retaliation that they deserve (Robles et al., 2020). The case that generated the current social repulsion was a multiple rape perpetrated by a group dubbed “La Manada” because of the WhatsApp group title of the five perpetrators who raped an 18-year-old woman on July 7, 2016, during the Fiesta of San Fermin in Pamplona. At 2.50 am, 5 young men started to talk with the victim, who had traveled from Madrid for the festival. When she told them that she was leaving, they accompanied her. After requesting a hotel room without her knowledge and not finding a room available, they entered a building hall. They then forced her to perform oral sex on all of them, and two of them raped her (El Imparcial, 2019). It is worth mentioning that four members of this group were later found guilty of committing similar sexual aggressions in 2016 at a festival in Cordoba.

This case had a large social impact due to not only the rapes perpetrated but also the judicial decision adopted in 2018, which qualified the case as sexual abuse instead of rape (Boldura, 2019). Finally, the case went to the Supreme Court, and the judges changed the previous decisions and considered this case rape. Consequently, the judicial processes led to a considerable debate in the political and academic arena regarding changes in actual legislation concerning sexual aggressions. Unfortunately, this debate is poorly founded due to the lack of empirical research in the field. With the results presented by this study,

we intend to fill this empirical gap and additionally determine whether our study's findings differ from those of other countries in a manner that could be explained by the Spanish cultural and social context.

Furthermore, Spain has cultural and leisure habits that need to be considered to understand MPRs in the local context. Regarding Spanish population, non-national population represented between 12 and 13% of the general population between 2010 and 2020 (predominantly from Latin America, Morocco, and Europe) (INE, 2019). Additionally, young people from the age of 14 spend their spare time in popular fairs, public spaces, and bars where they use drugs and high levels of alcohol. In 2019, 8,4% of the European population aged 15 and over reported having an alcoholic drink every day, compared to 13,0% in Spain (Eurostat, 2021). A survey conducted by the Spanish Observatory about Drugs and Addictions revealed that alcohol continues to be the most commonly consumed psychoactive substance (77,2% of the population between 15 and 64 years old, have consumed alcohol in the last 12 months, 63% in the last 30 days, and 8,8% daily in the last 30 days). Consumption prevalence of cannabis and cocaine is 8% and 1,1% respectively in the last 30 days (OEDA, 2021). In comparison to European countries, Spain is also a higher consumer of cocaine, with a prevalence of 2,5% in the last 30 days in comparison to the mean prevalence of EU countries (2,1%) (EMCDDA, 2021).

However, even if excessive alcohol consumption and violence in nightlife settings are strongly associated (Huges et al., 2008), the levels of violence and sexual aggression are not very high; the prevalence of physical and/or sexual non-partner violence from the age of 15 in Spain ranges from 10-19% and is one of the lowest in the European Union (FRA, 2014). Nevertheless, this can be explained by a high underreporting rate, data from the Macro Survey on Violence Against Women 2015 showed that only 6% of women raped

by other than their partner or former partner make a formal complaint against the offender (Domenech del Rio & Sirvent Garcia del Valle, 2017).

### **Differences between solo- and multiple-perpetrator sexual assaults**

Recent research shows notable differences between solo- and multiple-perpetrator sexual assaults, which justifies the distinction of the latter subtype. The differences are shown in the characteristics of the aggressors and victims (especially age and nationality), how the sexual assaults are committed (type of sexual behavior), the use of force, and the consequences for the victims.

Concerning the *characteristics of aggressors*, multiple aggressors are typically younger (less than 20 years old) (Amir, 1971, Bijleveld & Hendriks, 2003; da Silva et al. 2014; Hauffe & Porter, 2009; Morgan et al. 2012; Wright & West, 1981) and belong to an ethnic minority group (Bijleveld & Hendriks, 2003; Bijleveld et al., 2007; Porter & Alison, 2004, 2006; Woodhams, 2008). In terms of the relationship between the aggressor and the victim, the results are less conclusive. Some studies show that MPAs are more common between strangers (Horvath & Kelly, 2009; Porter & Alison, 2006; Ullman, 2007; Woodhams, 2008). Other authors find that there is most often a relationship of prior acquaintance between victims and aggressors (Bijleveld et al, 2007; De Wree, 2004; Gidycz & Koss, 1990; Wright & West, 1981). Regarding criminal records and previous convictions, multiple aggressors have fewer convictions, especially for sexual crimes, than aggressors who act alone (Bijleveld & Hendriks, 2003).

Some *characteristics of sexual assaults* also differ between the two types. In MPAs, drug use is more common (Hauffe & Porter, 2009), as is the use of a vehicle to commit the assault (Amir, 1971; da Silva et al, 2014; Porter & Alison, 2006). The place where multiple aggressors encounter the victim is usually a place of passage or an open space, although the assaults are later committed in an interior space (Porter & Alison, 2006;

Woodhams, 2008; Wright & West, 1981). In fact, da Silva et al. (2014) showed that MPAs of three or more aggressors occur more frequently in interior places, possibly to avoid being seen by witnesses or police.

Regarding the specific behaviors during an incident of *sexual assault*, studies show major differences. The physical violence exerted by multiple aggressors is usually manifested in more acts of violence and with greater intensity and is usually associated with other behaviors, such as crimes against property (Amir, 1971; Ullman, 2007; Wright & West, 1981). Wright & West (1981) also showed that multiple aggressors threatened the victim with a weapon or knife more often than those who acted alone. In reference to sexual behavior, MPAs more frequently include acts that involve penetration (Gidycz & Koss, 1990, Hauffe & Porter, 2009; Morgan et al., 2012; Woodhams, 2004, 2008) and a greater variety of sexual acts: oral and anal sex and coercion to perform fellatio (Morgan et al., 2012). On the other hand, solo sexual aggressors are more likely to masturbate and usually kiss the victim during assault (Bijleveld et al., 2007). Taking into account this evidence, some authors (Bijleveld et al.; 2007; Brownmiller, 1975; Franklin, 2004; Hauffe & Porter, 2009) conclude, as we described further, that in MPAs, group pressure and dynamics play a greater role than sexual elements, whose effect predominates in solo-offender assaults.

Concerning the *characteristics of the victims and the consequences of the assault* for the victim, multiple aggressors more often attack women (Groth & Birnbaum, 1979; Morgan et al., 2012; Porter & Alison, 2006) and younger people than those who act alone (Porter & Alison, 2006). Studies that have analyzed postassault injuries show that these occur less frequently in cases of MPAs, a finding that is surprising given that these assaults are more violent (Kelly et al. 2005; Myhill & Allen, 2002). The authors justify these data by recognizing that MPAs tend to be preferentially between strangers, whereas the highest level of injuries usually occurs among acquaintances. Likewise, in reference

to the victim's resistance to the assault, studies show less or no resistance of victims in MPAs compared to those that occur alone (Amir, 1971; Hauffe & Porter, 2009; Woodhams, 2009). This difference is possibly due to the number of participants and because multiple aggressors threatened the victim with a weapon or knife more often than those who acted alone.

### **Explanations of multiple-perpetrator sexual assault**

The theoretical interpretations offered by authors of the empirically found differences are diverse. Sexual assault by a single perpetrator has been preferentially linked to multiple factors of an individual nature and to the psychopathological characteristics of the aggressor, including nonnormative sexual interest, psychopathy, antisocial cognition, cognitive distortions about minors and the use of violence, a history of sexual abuse in childhood, self-esteem deficit, lack of social skills, etc. (Alleyne et al., 2014; Bartels & Gannon, 2011; da Silva, Woodhams; Harkins, 2015; Ward & Beech, 2006; Wright and West, 1981). On the other hand, studies of sexual assaults with multiple perpetrators tend to give more importance to social rather than sexual motivations (Hooing et al., 2010).

Delving into social motivations, there is a broad consensus regarding explanations from social psychology, considering that multiple perpetrators would be much more affected, during a sexual assault, by the dynamics that occur within the group and among its members. The main factors to which they appeal are varied. First, among these are needs linked to the development of a social identity, since MPAs offer the opportunity to display masculinity, gain the respect of others and impress peers to a greater extent than solo-offender assaults (Groth & Birnbaum, 1979; Harkins & Dixon, 2010). On the other hand, the deindividuation and diffusion of the responsibility that the group provides would foster a certain amount of anonymity around the assault and would encourage greater participation and violence (Gidycz & Koss, 1990). Finally, the mutual pressure generated between members of the group, motivated by excitement or amusement (Scully

& Marrolla, 1985), also increases the level of violence and coercion exerted on the victim, leading to an escalation of violence (Gillet and Grant, 2007; Porter & Alison, 2004; Woodhams,) that is fueled by the factors of anonymity and deindividuation mentioned above.

Delving deeper into the internal dynamics of multiple aggressors, some authors have studied the *roles of the different components of the group* in the initiation and continuation of sexual assault. Thus, Porter (2013) considers the facilitating role of the leader, as he promotes group violence through orders and guidelines, both at the beginning of and during the act. Such clear leadership by one of the members has been identified in 35% to 95% of the samples studied (Bijleveld et al., 2007; Porter & Alison, 2001; Hart-Kerkhoff et al., 2011; Woodhams et al., 2012). In the most serious multiple-perpetrator sexual assaults, leaders usually act with great hostility toward the victim, and other members usually encourage and reinforce their behavior, escalating violence.

*Group size* is key in the influence of the leader and therefore in the violence exerted upon the victim. Along these lines, Levine et al. (2011) found that in the largest groups, conciliatory behavior is promoted, and consequently, the escalation of violence is usually reduced. This effect of size can be much stronger than the possible resistance from the victim. This finding is especially important because of the possible initial assumption that the violence of assault would be mediated by the interaction between victim and aggressors. However, there is much more evidence in favor of the influence of group size on the escalation of violence than in favor of victim resistance. The uncontrolled and disproportionate nature of many multiple-perpetrator sexual assaults is well above the required level of violence in response to the victim's behavior (Chambers et al., 2010; Hunter et al., 2010; Porter & Alison, 2006; Woodhams, 2004).

All the theoretical explanations that address multiple-perpetrator sexual assault have been partial, analyzing one aspect of the phenomenon. The only integrative explanation

is that provided by Harkins & Dixon (2010), whose proposal consists of a multifactorial theory that combines individual factors (nonnormative sexual interest, leadership and cognitive aspects such as distorted attitudes, cognitive restructuring as a way to avoid feelings of guilt and deindividuation when acting in a group); sociocultural contexts (aspects such as myths about rape or cultural aspects related to it and hypermasculinity or male dominance generate a group acceptance of these behaviors); and, finally, situational factors based on theories of social comparison (Festinger, 1954), social dominance (Sidanius et al., 1999), deindividuation and group thinking that can occur more often in places of risk, such as during war or in fraternities.

### **Current study**

Multiple-perpetrator sexual assaults have caused great social alarm in Spain after a controversial sentence, considered exceptionally mild by the public, that was initially issued in a case of multiple-perpetrator sexual assault occurring at the San Fermin festivities. As a result of this outcry (Boldura, 2019; Robles et al., 2020), media and political interest in this phenomenon has resurfaced, to which we want to respond by providing empirical evidence. Therefore, the main reason for this study is our interest in studying multiple-perpetrator sexual assaults and their differences with solo sexual assaults in a Spanish sample. Since leisure activities in Spanish culture can be related to MPA, we sought to assess whether a leisure culture characterized by a great tourism presence, a high degree of alcohol and drug consumption, and an extensive night life, especially during weekends and holidays, could facilitate MPAs. Regarding the use of alcohol and drugs, Spain has one of the highest prevalence of cocaine use in Europe in the young population (15-34) (3.2%, while the European Union mean is 2.1%) (EMCDDA, 2021). Regarding alcohol consumption, the statistics offered by Eurostat (2021) show that in 2019, the frequency of alcohol consumption in the population aged 15 and over was the fourth highest in the EU (13% every day (EU 8.4%) and 22.9% every

week (EU 8.4%)). Consequently, greater empirical information and the identification of facilitating factors will better guide policies on sexual crime related to prevention and deterrence.

Therefore, the purpose of this study is to analyze the differences in a Spanish sample of sexual assaults among strangers with solo versus multiple perpetrators. The first objective of this work is to quantify the differences between these assaults and determine whether the differences found are consistent with studies from other countries. In this regard, we would like to know whether multiple perpetrators in Spain are younger and foreign, with fewer convictions and higher levels of drug use than solo perpetrators. In relation to sexual assault, we investigate whether MPRs are most often committed in open spaces (completed indoors); more frequently carried out using a vehicle, weapon or knife; perpetrated with more violence; more often completed; and more likely to incorporate a variety of sexual behaviors in comparison with solo offenses. Finally, we explore whether the victims of multiple-perpetrator sexual aggressions are usually alone and whether they suffer more injuries and physical consequences.

The second objective is to identify the predictive variables that best discriminate MPAs from solo-offender assaults in the Spanish context.

## **Methods**

### **Sample**

The data used for the study were obtained from police files on sexual assaults from across all of Spain reported in 2010. Only solved cases with an identified perpetrator were included in the sample in order to find offender information reliable for the research (i.e. criminal records). Police files were obtained due to special authorization under a joined research project (University-Ministry of Interior), conducted between 2013 and 2017. Of the 1,046 incidents reported in that year for sexual assault or abuse, 622 files were

recovered, of which 342 files met the sample criteria. The selection criteria were sexual assault or abuse of women over 13 years of age perpetrated by one or more men of legal age (18 years) who were strangers to the victim. According to Bamford et al. (2016), the most common relationship between victims and perpetrators of MPA is stranger, with a mean percentage of 60.33% (SD = 22.20). Other studies have found that most multiple sexual aggressors are strangers (Horvard & Kelly, 2009; Morgan et al., 2012; Porter & Alison, 2006; Ullman, 2007; Woodhams, 2008).

To apply the stranger-perpetrator criterion, we used the classification of Waterhouse *et al.* (2016), which distinguishes among three types of circumstances: a) when the victim and the perpetrator do not recognize each other and have never seen each other; b) when the victim does not know the aggressor but has heard of him or knows him by sight; and c) when the victim and the aggressor have spent at least 24 hours together.

The selection and identification of the cases generated a sample of 400 perpetrators of sexual assault, of whom 25.5% ( $n = 102$ ) committed the assault with others and 74.5% ( $n = 298$ ) committed the assault alone. The demographic characteristics of perpetrators are displayed in Table 1.

## **Procedure**

To compare the assaults committed by one or more than one aggressor and taking into account the information available in the police files (the victim's statement included), a series of variables related to the characteristics of the perpetrator, the victim and the assault were identified. The research team developed a protocol containing continuous, ordinal and dichotomous variables, which are described in Table 1. Additionally, a coding dictionary was created by the research team to ensure accuracy. This document was revised, and the variable definitions were refined, several times to clarify and address the doubts that arose in the coding process. Finally, the cases were coded by a research

assistant, who had been trained in the use of the coding dictionary. Training included the coding of several cases with the assistance of the research team. The assistant work was monitored by the research team in weekly meetings throughout the coding process.

Concerning the variable coding, the approach method includes the use of physical violence, intimidation and coercion (use of threats), deception (use of tricks or games to approach the victim), and abuse of authority or trust (when the perpetrator takes advantage of a relationship of authority or trust with the victim). Related to the control or maintenance method, violent control was defined as the use of physical and psychological (threats or weapon display) violence to control the victim, whereas nonviolent control involved restraining actions to control the victim (binding or gagging her). Last, without control implies taking advantage of victims' circumstances (alcohol intoxication or vulnerability) where no control is needed.

*Add Table 1*

### **Analytic Plan**

The data analysis of this study occurred in three stages according to the goals previously stated. To achieve the first objective, we compared MPAs and solo-offender assaults on all the variables described above (related to the aggressor, the victim and the assault). We used Student's t test for continuous variables and Pearson's chi-squared test to compare proportions of dichotomous variables.

Second, to identify the predictive variables that best discriminate between the two groups, those variables found statistically significant in the first stage were incorporated into a logistic regression model (continuous, ordinal and dichotomous variables). The introduction method was the backward method based on the Wald statistic. First, all the

variables were included in the model (full model), which had the advantage of considering the effects of all variables simultaneously and reducing multicollinearity. Then, the variables that did not contribute to the model were eliminated, leaving only the explanatory variables.

## Results

### Differences between solo and multiple aggressors

First, if we compare the two samples of solo and multiple aggressors by the *characteristics of the aggressors*, multiple aggressors had a lower mean *age* than the solo aggressors, 27.5 ( $SD = 10.5$ ) versus 34.3 years ( $SD = 14.6$ ), a difference of almost 8 years ( $t = -5.048$ ,  $df = 243.5$ ,  $p < .001$ ). In addition, they were more often foreigners, 72% versus 52% ( $\chi^2_{(1)} = 11.52$ ,  $p < .001$ ), and were mainly from four geographic areas (Western Europe, 10%, Eastern Europe, 14%, South America, 14% and Northern Africa, 22%). Furthermore, multiple aggressors had fewer *previous criminal records* (0.9 versus 1.4) ( $t = -1.84$ ,  $df = 275.8$ ,  $p = .067$ ) and a history of fewer violent offenses (0.3 versus 0.5) ( $t = -1.27$ ,  $df = 217.9$ ,  $p = .206$ ) than solo aggressors. However, a statistically significant difference was found only in the *records of sexual offenses* (0.04 versus 0.2) ( $t = -2.836$ ,  $df = 371.09$ ,  $p = .005$ ). Regarding *signs of drug or alcohol use*, multiple perpetrators had higher levels of use than did solo perpetrators (47.3% versus 29.7%) ( $\chi^2_{(1)} = 9.19$ ,  $p = .002$ ).

Differences were also observed in terms of the *characteristics of assault*. The MPAs usually began with levels of violence, similar to those of the solo assaults (38.2% versus 36.3%); however, they involved more intimidation, coercion (21.6% versus 16.6%) and deception (24.5% versus 9.8%) and less abuse of authority or trust (7.8% versus 15.4%) ( $\chi^2_{(5)} = 25.53$ ,  $p < .001$ ). In addition, during the assault, the more frequent *method of control* within MPAs appeared to be violent in nature (92.2% versus 76.2%),

while solo assaults were more often perpetrated without control or with nonviolent control. These percentage differences were also significant ( $\chi^2_{(2)} = 13.68, p = .001$ ).

However, no association was found between the *termination of the assault* and whether it occurred by multiple or solo perpetrators. In both groups, the aggression most commonly ended with the conclusion of the assault (39.2% versus 33.4%) and second most often by the appearance of witnesses (31.4% versus 27%). To a lesser extent, the assault ended because the victim managed to escape (26.5% versus 29.4% in solo assaults) or because of the victim's screaming (2.9% versus 10.2% in solo assaults). These differences were not significant ( $\chi^2_{(3)} = 6.29, p = .098$ ).

Regarding *sexual behavior* during assault, both groups displayed similar behaviors and the differences found were not significant ( $\chi^2_{(5)} = 10.97, p = .052$ ). Touching was the most frequent sexual behavior (48% in MPA versus 60.1% in solo assaults), followed by penetration of any type (29.5% versus 22.4%) and multiple penetration (10.8% versus 5.5%).

On the other hand, the *injuries* and physical consequences of the assault were more serious for the victim in the MPA. More injuries occurred in MPAs (30.4% versus 22%), and the absence of injuries was more frequent in solo-offender assaults. Thus, a significant association was found between greater severity of injuries for the victim of MPA ( $\chi^2_{(3)} = 11.13, p = .011$ ).

Finally, *vehicle use* was similar in attacks committed by solo and multiple perpetrators (25.5% versus 18%) ( $\chi^2_{(1)} = 2.64, p = .104$ ). On the other hand, a *weapon* was used to the same extent in assaults committed by solo and multiple perpetrators (8% versus 6%) ( $\chi^2_{(2)} = 5.7, p = .058$ ).

If we look at the *circumstances surrounding the assault* or characteristics of the time and place where it occurred, no significant differences were found between solo and multiple perpetrators ( $\chi^2_{(4)} = 7.35, p = .118$ ). Multiple perpetrators acted in public spaces

at a rate similar to that of solo aggressors (57.1% versus 48.7%), and they acted in homes or closed spaces like solo aggressors (26.4% versus 23.8%). There were no differences between the two groups with regard to assaults committed in the intermediate or common areas of residential facilities, such as throughways (10.8% versus 2.2%), vehicles (10% versus 7.7%) or near a bar or place of leisure (6.7% versus 6.6%).

Significant differences were found in the *day of the week* that was greatly associated with the assault type: multiple aggressors acted more often on weekends or holidays (53.5% versus 38.4%), while solo aggressors acted on working days (61.6% versus 46.5%) ( $\chi^2_{(1)} = 6.92, p = .009$ ).

Regarding the *victim characteristics*, the average age of the victim was very similar between the two types of assault. The percentage of foreign victims was similar in both groups (46% in MPAs versus 38% in solo aggressors) ( $\chi^2_{(1)} = 2.12, p = .146$ ). With respect to the *circumstances of the victim* at the time of the assault, significant differences were found, since it was more common to find her accompanied in the case of MPAs and alone in solo-offender assaults (78.2.7% versus 65.6%) ( $\chi^2_{(4)} = 14.69, p = .005$ ). The percentage of victims who were under the influence of alcohol and drugs was small and practically identical between the two types (14.7% in MPAs versus 14.2% in solo aggressors).

#### *What variables are most predictive in multiple-perpetrator sexual assaults?*

The second objective of this study was to identify the selected variables that could discriminate between solo-offender sexual assaults and multiple-perpetrator sexual assaults. Once the significant variables were identified in the previous analysis, they were introduced into a multivariate logistic regression model. Through backward introduction using the Wald statistic, this process ended in step 6 and yielded a Nagelkerke  $R^2$  of .24 ( $\chi^2_{(5)} = 55.56, p = .000$ ).

*Add Table 2*

As seen in Table 2, four variables contributed significantly to discriminating between the two groups: a younger age of the perpetrator performing the criminal acts, signs of alcohol or drug use by the perpetrator (which increased the probability of belonging to the multiple-perpetrator group), violent control of the victim and not having been born in Spain. Finally, the resulting model correctly classified 73.9% of the sample.

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**Discussion**

The first objective of this work was to quantify the differences between MPA and solo sexual assaults and determine whether the differences found are consistent with studies from other countries. Our findings show that for most variables, the results are consistent with studies conducted in other countries, and most of our hypotheses are confirmed.

In terms of the characteristics of aggressors, multiple perpetrators are significantly younger than those who act alone, although not as young as in other studies, which show ages below 20 years (Amir, 1971; Bijleveld & Hendriks, 2003; da Silva *et al.* 2004; Hauffe & Porter, 2009; Morgan et al. 2012; Wright & West, 1981). This difference could be due to the inclusion criteria of the analyzed sample, which included perpetrators aged

18 or older, while others included young people and adults. Nevertheless, da Silva, Woodhams & Harkins (2013) present a mean closer to ours (24.5).

The multiple aggressors in our sample were foreigners significantly more often than the solo aggressors were, in line with the majority of international studies in this area (Aebi et al., 2012; Bijleveld and Hendriks, 2003; da Silva, De Wree, 2004; Horvath and Kelly, 2009; Woodhams, et al., 2014; Woodhams, 2008), although some of them did not find differences (Gidycz & Koss, 1990; Ullman, 2007). Therefore, the distribution of nationalities encountered (western Europe, 10%; eastern Europe, 14%; South America, 14%; and northern Africa, 22%) is consistent with the distribution of these nationalities in the general Spanish immigrant population and tourist countries of origin, especially Europeans. Consequently, the Spanish tourist and immigration context could be promoting and facilitating MPA since it is more prevalent among foreign populations.

On the other hand, alcohol and drugs are consumed significantly more often by multiple aggressors than solo aggressors, as has been shown in a few studies (Bamford et al., 2016). This variable is relevant in the Spanish context since, as we mentioned in the introduction, Spain has higher levels of alcohol and drug use among EU nations, especially by young people hanging out together in nightlife settings. This social context clearly promotes MPA because of cultural habits. In that sense, these situational factors (alcohol, nightlife and the use of drugs) should be urgently approached from a prevention point of view since nightlife settings, tourist areas and public festivals could be hotspots for MPA.

Furthermore, multiple aggressors had fewer police records in general, although the differences were significant only in sexual records. Similarly, some international studies confirm the less frequent criminal careers of multiple aggressors compared to solo aggressors, especially those related to sexual aggressions (Bijleveld & Hendriks, 2003). Even if the differences are also explained by the age of multiple perpetrators, the most

significant differences in sexual offenses may show a less specialized criminal record. This finding confirms the conclusions reported by other authors, who state that multiple perpetrator motivations are more influenced by social and situational factors than by sexual inclinations (Höoing et al., 2010).

Regarding previous violent and sexual behavior, during and after the assault, the differences between solo and multiple offenses are mainly related to the approach, which involves more intimidation and coercion and a more violent control method that implies more physical harm to the victim. These findings partially confirm previous studies showing that physical violence is more often present in MPA in terms of the approach method, the control method and behaviors during the assault (Amir, 1971; Ullman, 2007 and Wright & West, 1981). This finding is also related to the participation and presence of multiple perpetrators, which is more intimidating than solo-offender assaults, and the group dynamics generated in MPA, which facilitate the escalation of violence and a higher physical impact on the victim (Woodhams, 2004; Porter & Alison, 2001).

Nevertheless, the greater severity of MPA and the greater violence are seen slightly in the sexual behavior itself. The results show that these involve more serious sexual behaviors; the occurrence of several types and multiple penetration is more frequent, but the differences are not significant compared to those of other studies (Morgan et al., 2012).

In summary, the violence and intimidation exerted in MPA are higher than those in solo-offender assaults from the beginning and have a greater impact on the assault; thus, the consequences for the victims are much more harmful. These findings are consistent with those of other studies that consider that the use and escalation of violence can be better explained by group dynamics (inhibition and peer pressure) than sexual motivations (Bijleveld et al., 2007; Porter & Alison, 2001; Woodhams et al., 2012). This finding has deep implications for guiding individual interventions with offenders, where

the identification of motives and drivers (sexual and social pressure) should be a priority to address and guide their interventions.

The use of a weapon has been correlated with MPAs in previous studies (Wright and West, 1981), but this correlation was not obvious in our sample. We did not find significant differences between solo and multiple offenders. This finding can be explained in that the use of weapons in crimes committed in Spain is very low compared to that in other countries. For example, from the homicides committed between 2010 and 2012, only in 16% of cases was a firearm used, whereas in 41% of the cases, a knife was used (Ministerio del Interior, 2018).

Concerning the place of assault, the multiple aggressors in the analyzed sample acted more frequently in public spaces, while solo aggressors usually attacked in intermediate spaces (e.g., throughways or transit areas between buildings) and in vehicles. These results are not significant but are similar to those reported in other studies, although some authors distinguish between the area of encounter and the area of assault. Thus, multiple aggressors often contact the victim in public or open spaces but commit the assault in private places (da Silva *et al.*, 2013; Porter & Alison, 2006; Woodhams, 2008; Wright & West, 1981). In our study, by not distinguishing between the areas of the two stages of attack, we cannot know whether those who attacked at home started by encountering the victim in a public or leisure space.

We observed no major differences between the two types of assaults in terms of the time of day when the assaults occurred. Significant differences were observed only on the day of the week: multiple aggressors acted preferentially on the weekends and on holidays, whereas solo aggressors acted preferentially during the week. These variables are not often found in other studies, but in Spanish culture, contextual value could be added when the interpretation includes some variables simultaneously. The use of open spaces by multiple-perpetrator rapists and a higher use of alcohol or drugs is more

common during the weekends and on holidays, especially in tourist areas or festivals when a larger number of foreigners can be found. This finding has implications for prevention strategies that should be implemented in leisure settings as follows: awareness-raising campaigns, promotion of emergency calls to protect potential and actual victims, increasing community surveillance of the young population to reduce opportunities, etc.

Regarding the age of the victims, the average age was very similar between the two types (29.2 years in multiple-aggressor assaults), although the difference was not significant. These data contrast with the findings of Porter & Alison (2006), who showed that the age of the victim was lower in attacks by multiple perpetrators than in solo attacks. Regarding the nationality of the victim, the percentage of foreign victims was higher in multiple-perpetrator sexual assaults than in solo-perpetrator sexual assaults. Some studies show that these data are consistent with a greater frequency of foreign perpetrators, as we have shown in the characteristics of our perpetrators (Wright & West, 1981). Applying the results of the situational facilitators and victim characteristics to the Spanish context implies that prevention and intervention strategies should focus on the foreign population living in Spain and arriving from abroad as tourists. Tourist areas should reinforce reduction and prevention strategies in nightlife areas due to the following facilitating factors that promote MPA: anonymity, transitory stay, need for adventure and local irresponsibility.

Finally, significant differences were found in the victim circumstances at the time of the assault. The victims were more often accompanied in the case of MPA and more often alone when a solo offender attacked them. Therefore, potential victims should receive and reinforce protection because the presence of company does not have a deterrence effect. Alternatively, this can be understood as the possibility of multiple perpetrators seeking more than one victim. It is important to have a deep understanding of the

relationship between the number of victims and the number of aggressors. Unfortunately, our study is unable to answer this question due to the limited information concerning the number of victimizations in police files. We know only if the victim was alone before the aggression. Further research should be conducted in the future to understand the dynamics between multiple victims and multiple aggressors to improve victim protection.

With the second objectives of the research, we sought to identify the predictive variables that could allow significant discrimination between MPAs and solo-offender assaults between strangers. The results of the logistic regression show four variables with predictive capacity: the age of the perpetrators, their consumption of alcohol or drugs, the violent control method used and not being Spanish. This model achieved correct classification of 73.9% of the sample. That is, if those characteristics were met in a sexual assault, it was more likely that the sexual assault would involve multiple perpetrators. Age and nationality are key variables already strongly described in the literature (Amir, 1971; Bijleveld & Hendriks, 2003; Wright & West, 1981; Hauffe & Porter, 2009; Morgan et al. 2012 and da Silva et al. 2004), as is the use of alcohol and drugs. These findings reinforce the need to focus prevention efforts on the young population, tourists and foreigners, in places where a high use of drugs and alcohol occurs. Regarding the use of alcohol and drugs and the violent control method, Chambers et al. (2013) conducted a sequential analysis of multiple-perpetrator sexual assaults and identified two subtypes or strategies. First, manipulation of the victim was predominant, and the consumption of alcohol or drugs was often present, as were other variables. In the second, force and violent control prevailed over any previous contact before the assault. In this study, we did not sequentially analyze the assaults to assess the moments before and after the assault, but it would be interesting to perform new analyses to verify whether these two strategies were confirmed in the approach and in the multiple-perpetrator sexual assault.

The predictive variables encountered could help police investigations prioritize suspects to achieve higher levels of efficacy. Criminal investigations related to sexual aggressions between strangers have a lower rate of clearance than acquittal cases (25% versus 75%) (Perez et al., 2021).

Finally, this study does not delve into the motives or provide explanations of MPA but does confirm a series of differential variables that characterize MPA between strangers in a Spanish context. Once more, the differences encountered, especially regarding offender characteristics, location, approach and control methods and severity of sexual behaviors, show that motivations of multiple perpetrators could better be explained by social rather than sexual foundations (Höoing et al., 2010). Our research confirms that a) individual characteristics (age, nationality, and fewer police records of a sexual nature), b) group dynamics (intimidating approaching methods and execution with violence), and c) situational factors, such as convergence of the use of alcohol/drugs, open spaces and weekends/holidays, are strong facilitators of MPRs. All these findings that seem to be promoters at first glance must be confirmed with research that delves deeper into the dynamics of the groups of aggressors, their motives, member roles and explanatory factors. In Spain, no studies of this type have been carried out that would complement the results provided by this study.

### **Conclusions**

We have seen that the results in a Spanish sample confirm the findings of other studies with regard to the characteristics of the perpetrators, the victims, the circumstances surrounding the assault, the method of approach (except the use of weapons), the method of control, the end of the assault and the consequences for victims. First, this finding indicates that cultural and local context does not greatly influence the differences encountered in other studies since all findings for the predictors are consistent. Nevertheless, cultural context may help to elucidate circumstances, places and situations

where a concentration of factors could take place and to find strategies to prevent and deter MPRs. In the Spanish context, nightlife settings and festivals clearly facilitate this type of activity.

Second, this study confirms that MPAs are a different category from solo-offender sexual assaults, and many variables indicate that MPRs can be better explained by social and situational factors rather than sexual motives. This finding implies that intervention and prevention must be differentiated and adapted to the results found as follows: solo sexual offenders' interventions should be oriented toward sexual drives, and those for multiple offenders should mainly focus on self-autonomy and resisting peer pressure. Nevertheless, further research should be conducted to obtain a deeper understanding of the roles and dynamics generated in MPRs because leaders and followers can have different motivations and characteristics.

The predictive variables of MPA should guide our interventions: younger age and foreign nationality should guide us toward the group of potential perpetrators to which we must dedicate preventive efforts. However, we must not neglect to dedicate preventive and protective efforts to potential victims, who are also similar in age and often of a foreign nationality.

The consumption of alcohol or drugs is an empowering and facilitating element that, together with the multiple participants in sexual assault, is a source of social concern that should be a priority for public administrations. The context of leisure that is culturally instilled in Spain, characterized by a high consumption of alcohol in public and open spaces, also promotes this type of action that can go unnoticed if the victim does not report it. In this sense, it would be necessary to increase not only preventive actions aimed at limiting facilitating factors but also proactive actions that promote protection and assistance to victims before or after the assault.

In addition to the scientific evidence provided in this article on the differences between the types of sexual assaults, we must further explore their explanatory factors. Given the differences between the two types of assault, we should dedicate more scientific efforts to identifying the explanatory factors of MPA (role of members' motivations, relationship between MPA and number and characteristics of victims, etc.) given the remaining open debate (da Silva et al., 2015).

### **Limitations of the study**

This article is not exempt from limitations. First, it is representative of not all assaults perpetrated by multiple perpetrators but rather only those that occur between strangers. Regardless, many of the studies conducted include a high percentage of strangers (da Silva et al., 2014) due to the accessibility and availability of certain data, and other studies have found that the majority of multiple aggressors are strangers (Horvard & Kelly, 2009; Morgan et al., 2012; Porter & Alison, 2006; Ullman, 2007; Woodhams, 2008). The data source used may include potential biases because it consists of police reports, whose information is mainly aimed at reconstructing the facts, collecting evidence and demonstrating the criminal responsibility of the perpetrator. For this reason, some information may be limited, such as information related to the victim, which is often underreported. Furthermore, the data were coded by only a single research assistant who, albeit supervised by the research team, had to read all the police files in paper form at the police facilities. Due to budget constraints and limited access to the police files, a second person could not be added. As a consequence, the interrater reliability of the coding is unknown. Despite the existing limitations, we consider the information included sufficient to allow a rigorous investigation with the limitations intrinsic to these data.

Additionally, our sample does not include gangs or criminal organizations even if they could be included based on the sample criteria. Nevertheless, the strategy adopted to

collect police files did not facilitate the inclusion of those cases that should be classified in the database under some other type of crime (criminal organization or gang). To this end, further research should be conducted to increase explanations for MPRs to identify possible subtypes. Finally, we did not consider the size of the group of perpetrators because the purpose of the study was to compare single and multiple aggressions. This is a limitation of this study because it could affect the intensity of violence involved in aggression and the consequences for the victim.

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## Appendix tables

Table 1. Descriptive information of solo- and multiple-perpetrator assaults.

Variables	Solo-offender assaults	Multiple-perpetrator assaults
	M (SD)	M (SD)
Characteristics of the aggressors		

Mean age at the time of the offense	34.3 (14.6)	27.5 (10.5)
Foreigner	52%	72%
National (Spanish)	48%	28%
Number of previous police records	1.4 (3.5)	0.9 (2.2)
Police records of sexual offenses	0.2 (0.8)	0.04 (0.2)
Police records of violent crimes	0.5 (1.1)	0.3 (0.9)
Signs of drug or alcohol use	29.7%	47.3%
<i>Characteristics of the victims</i>		
Victim's mean age	28.7 (11.8)	29.2 (10.1)
Spanish	62.2%	54.0%
Foreigner	37.8%	46.0%
Victim's circumstances (n = 391)		
Alone	78.2%	65.7%
Accompanied	7.6%	19.6%
Under the influence of alcohol or drugs	14.2%	14.7%
<i>Characteristics of the assault</i>		
Completed rape (n = 388)	80.8%	86.3%
Approach method (n = 397)		
Physical violence	36.3%	38.2%
Intimidation and coercion (use of threats)	16.6%	21.6%
Deception (use of tricks or games to approach the victim)	9.8%	24.5%
Abuse of authority or trust (when the perpetrator takes advantage of a relationship of authority or trust with the victim)	15.6%	7.8%
Other	21.7%	7.8%
Control or maintenance method (n = 396)		
Without control	7.5%	4.9%
Nonviolent control	16.3%	2.9%

Violent control	76.2%	92.2%
Termination of assault (n = 395)		
Crime perpetration	33.4%	39.2%
Victim escaped	29.4%	26.5%
Presence of witnesses	27.0%	31.4%
Shouts	10.2%	2.9%
Sexual behavior (n = 393)		
Absence of sexual acts	12.0%	11.8%
Touching	60.1%	48.0%
Oral, vaginal, or anal penetration	22.4%	29.5%
More than one type of penetration	5.5%	10.8%
Injuries to the victim (n = 380)		
Injuries	22.0%	30.4%
No injuries	54.0%	36.3%
Not recorded	24.1%	33.3%
Use of vehicle (n = 396)	18.0%	25.5%
Use of weapon (n = 396)	8.2%	5.9%
Location of assault (n = 360)		
Home or closed space	23.8%	26.4%
Shared spaces in residential facilities	10.8%	2.2%
Public and open space	48.7%	57.1%
Vehicle	10.0%	7.7%
Bar or leisure place	6.7%	6.6%
Condom (n = 396)	1.4%	2.0%
Time of the attack (n = 392)		
Morning (6:00-14:00)	29.2%	20.8%
Afternoon (14:00-22:00)	26.8%	23.8%
Night (22:00-6:00)	44.0%	55.4%
Day (n = 393)		
Working day	61.6%	46.5%
Weekend or holiday	38.4%	53.5%

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Note. Numbers in parentheses represent the number of valid cases.

Table 2. Results of the Logistic Regression Analysis.

	$\beta$	SE	Wald's $\chi^2$	Odds ratio (e <sup>B</sup> )	95% CI
Age	-0.07	0.02	17.16***	0.94	[0.91, 0.97]
Signs of alcohol/drug use	0.98	0.29	11.11**	2.66	[1.50, 4.72]
Method of violent control	-1.77	0.77	5.37*	0.17	[0.04, 0.76]
Spain: country of birth	-0.60	0.30	4.18*	0.55	[0.31, 0.98]

Note. CI = confidence interval.

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