

Foreign object insertion in sexual homicide: A new perspective

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Introduction

In the context of homicide and sexual violence, FOI has been defined as “the unwanted placement of any object, by another individual, into any orifice (e.g., mouth, vagina, anus, ear) of the victim” (Koeppel and colleagues, 2019, p. 1729). Although an unusual behavior, it serves as one of the defining criteria of sexual homicide as proposed by Ressler, Burgess, and Douglas (1988). In studies of sadistic sex offenders – many of whom had killed their victims – the rate of FOI was reported to be as high as 40 to 65 percent (Dietz, Hazelwood, & Warren, 1990; Warren, Hazelwood, & Dietz, 1996). However, studies looking at homicide cases generally reported rates as low as one percent (e.g., Keppel, 1995). For instance, the study by Horning, Salfati, and Labuschagne (2015) identified only two cases out of 302 homicides. In studies conducted specifically on sexual homicide cases, rates of FOI have varied between 11.4% (40/350; Beauregard & Martineau, 2013) and 23.6% (Chopin & Beauregard, 2020; Koeppel and colleagues, 2019; Safarik, Jarvis, & Nussbaum, 2002; Schlesinger, Kassen, Mesa, & Pinizzotto, 2010)

Partly due to the low frequency of this behavior, limited empirical research has been published on this topic. Moreover, many findings on FOI are anecdotal, stemming from case studies or biased samples (e.g., with over-representation of sadistic cases). The current study aims to shine a new light on sexual homicide cases involving FOI by examining the offender, victim, and crime characteristics associated with this specific behavior.

FOI and Sexual Homicide

Certain violent offenders – especially sexual homicide offenders (SHOs) – have been reported to engage in specific acts at the crime scene that are unnecessary to successfully commit

the crime but may serve a psychological need for the offender (e.g., sexual gratification). In their study of 38 serial SHOs with 162 victims, Schlesinger and colleagues (2010) distinguished what constituted a ritual behavior from a signature behavior. Ritualistic behaviors were defined as actions that exceeded those required to cause death and were committed with at least two victims. They provided examples of torture, overkill, and FOI. On the other hand, signature behavior can be considered a subset of ritualistic behavior, which is distinct or unique to the perpetrator (e.g., inserting a flower in the victims' vagina). The study showed that of the 38 offenders, 37 engaged in ritualistic acts during their series, with more than 90% of the crimes involving ritual. However, the findings showed that these rituals were not consistent with each victim in the series and that almost half of the serial SHOs evidenced some evolution in their ritual across victims (e.g., from oral penis penetration of the victim to FOI).

Labuschagne (2008) examined 17 cases of FOI in South Africa between 1990 and 2004 using case-files, police databases, and public court records. Despite the small sample, Labuschagne was able to identify common traits among these cases. Of interest is the fact that out of eight offenders, seven were under the influence of drugs and/or alcohol, whereas none had a mental disorder. Almost two thirds of these offenders had prior convictions, mostly for violent crimes. Most of the offenders were single, unemployed, heterosexual, but many (75%) were known to the victims.

The most extensive study to date on FOI was by Koeppel and colleagues (2019). Looking at 260 cases of sexual homicide (207 nonserial and 53 serial) from the FBI Behavioral Analysis Unit, they described several aspects of FOI that were not systematically reported previously. They found that a total of 65 objects were inserted, the most common specific categories being tools (e.g., screwdriver) and natural materials (e.g., sticks, logs, rocks). Other objects were

weapons (e.g., knife, gun, axe), clothes (e.g., shirt, sock, underwear), and food (e.g., pickle, carrot, ketchup). The largest category of objects inserted though was labeled as ‘miscellaneous’ and included umbrella, chair leg, garbage bag, cutoff genital of victim, soap, beer bottle, toilet brush, baby wipes, and cigarette. Despite the wide variation among these objects, the authors classified 55.4% of them as being phallic-like.

Koeppel and colleagues (2019) also determined that in the majority of cases of FOI (67.6%), the object was obtained at the crime scene. Interestingly, in only 31.8% of cases FOI was visible at the crime scene, the rest being discovered by autopsy. Contrary to early work on FOI, Koeppel and colleagues (2019) found that almost half of the FOI were pre-mortem. As to the motives reported by offenders, most (73%) explained that they did not know why they did it, whereas some offenders reported the motive was sexual, to kill, to keep the victim quiet, to hide evidence or accidental. Although their study included both serial and nonserial sexual homicide, they failed to find significant differences between the two groups as to the rate of FOI. According to Koeppel et al. (2019), the behavior of FOI reflects sadism and sexual deviancy and not psychosis as suggested by some. Moreover, such behavior could be an indicator of signature or ritualistic behavior (Schlesinger and colleagues, 2010).

Interestingly, FOI has been associated with cases of sexual homicide of older victims. In their study on elderly sexual homicide, Safarik and colleagues (2002) found that as well as being victims of vaginal (65%) and anal (24%) penetration, victims were also subjected to FOI (22%). Moreover, in their study comparing sexual homicide cases of elderly and adult victims, Chopin and Beauregard (2020) found that the use of restraints, postmortem sexual activity, and FOI were more often perpetrated when victims were elderly (23.2% for elderly versus 8.1% for adult victims). This over-representation of FOI in elderly sexual homicide cases has been described as

a ritualistic act, as well as a perverse practice to achieve sexual gratification associated with a method of physical torture (Dietz and colleagues, 1990). According to the authors, the overrepresentation of this practice is congruent with previous studies suggesting that anger and sadistic motivations are important among elderly victim sexual offenders (Chopin & Beauregard, 2018). It has also been suggested that FOI is used as a substitute for offenders with sexual dysfunctions (e.g., erectile dysfunction). This hypothesis is compatible with certain types of sex offender who are inexperienced and who try to have a first sexual experience with a vulnerable victim (Chopin & Beauregard, 2019b).

Douglas, Burgess, Burgess, and Ressler (2013) suggested that FOI was associated with mentally ill offenders (i.e., psychotic), unplanned homicides, disorganized crime scenes, and an absence of control over the victim. But according to Schlesinger and colleagues (2010), “The accused’s state of mind at the time of the crime is always an important forensic issue. Unfortunately, some forensic mental health professionals, having had limited experience with this rare type of criminal behavior, often incorrectly conclude that the offender must have been psychotic, since the ritualistic or signature behavior engaged in at the crime scenes appears bizarre and ostensibly pointless” (p. 245).

Aim of Study

Although there is some research on the prevalence and nature of FOI in sexual homicides, there is very little on the characteristics of cases where FOI occurs, and no previous research has compared cases with and without FOI. Given the lack of research on FOI in general and the dissemination of untested ideas regarding the correlates of this behavior specifically, the current study aims to shine new light on sexual homicide cases involving FOI by examining the offender, victim, and crime characteristics associated with FOI in a large international sample of

sexual homicide cases. The examination of the correlates of FOI may help identify the type of offender more likely to commit such acts (e.g., sadistic).

Methods

Sample

The sample used in this study comes from an international database on sexual homicide (the Sexual Homicide International Database; SHIELD). This database includes 762 solved and unsolved cases of extrafamilial (stranger and acquaintance offenders) SH which occurred in France and Canada between 1948 and 2018 (for an exhaustive description of the database methodology see Chopin & Beauregard, 2019a). All SH cases included in this database were identified using the FBI definition from Ressler, Burgess, and Douglas (1988), stating that for a homicide to be considered as sexual, it has to present at least one¹ of the following characteristics at the crime scene: a) victim's attire or lack of attire; b) exposure of the sexual parts of the victim's body; c) sexual positioning of the victim's body; d) insertion of foreign objects into the victim's body cavities; e) evidence of sexual intercourse; f) evidence of substitute sexual activity, g) interest, or sadistic fantasy.

Information included in this database is collected throughout the investigation by various actors (police detective, coroner, psychologist, forensic experts, etc.). These data are compiled in the database by crime analysts who are experts in extrafamilial violent crimes. For the purpose of this study we selected only solved cases (n = 662) in order to analyze offender characteristics.

Measure

¹ in order to limit the number of false positives, cases included in SHIELD were identified using at least two criteria from the FBI's definition.

The dependent variable examined in the current study is the presence or not (0 = absence; 1 = presence) of ante-mortem FOI perpetrated in sexual homicide cases. Although only cases of ante-mortem FOI were included, it is noteworthy that many of these insertions lead to the death of the victim. Moreover, cases included in the current study concern only sexual FOI. In the sample, there were 84 cases characterized by the presence of FOI while 578 cases did not indicate any sign of FOI.

As to the independent variables, their choice was guided by previous empirical work focusing on FOI in sexual homicide cases (Douglas and colleagues, 2013; Koeppl and colleagues, 2019; Schlesinger and colleagues, 2010).

Independent variable. A total of 36 dichotomous variables were examined. Seven variables were used to describe the victim characteristics, seven variables offender characteristics, and 22 variables describing crime characteristics.

Victims characteristics. A total of seven variables described the victim characteristics, lifestyle and routine activities: 1) victim is 65 years old or more, 2) victim was female, 3) victim used alcohol/drugs prior to crime 4) victim was a loner (i.e., avoid social contacts), 5) victim was a sex trade worker, 6) victim was involved in domestic activities at time of the crime, and 7) victim was sleeping at time of the crime.

Offender characteristics. A total of seven variables described offender characteristics, lifestyle and sexual behavior: 1) offender was living alone, 2) offender had a sexual collection (i.e., pornographic movies, magazines, pictures, sexual paraphernalia), 3) offender presented evidence of paraphilic behaviors, 4) offender experienced sexual dysfunction (i.e., unable to obtain/sustain an erection, premature/retarded/conditional ejaculation), 5) offender used

alcohol/drugs prior to crime, 6) offender was a loner (i.e., avoids social contact), 7) offender had prior criminal convictions².

Crime characteristics. A total of 22 variables described crime characteristics: 1) victim and offender were strangers (i.e., describes situations where offenders and victims were totally unknown to each other), 2) offender targeted the victim, 3) contact location was the victim residence, 4) offender used a con approach (e.g., befriended the victim, posed as an authority figure, offered assistance, etc.), 5) offender used restraints, 6) offender used a weapon (i.e., offender had a weapon during the crime but not necessarily used it), 7) offender beat the victim, 8) offender stabbed the victim, 9) offender strangled the victim, 10) offender asphyxiated the victim, 11) vaginal intercourse, 12) anal intercourse, 13) fellatio, 14) vaginal/anal fisting, 15) mutilation of genitals, 16) unusual acts on the victim's body (i.e., biting the victim, carving on victim, evisceration, skinning victim, cannibalism, drinking of victim's blood), 17) post-mortem sexual activities, 18) dismemberment of the victim's body, 19) offender destroyed/removed evidence (e.g., destruction of forensic evidence, offender set fire to scene, offender washed victim's body, offender cleared crime scene, offender planted evidence), 20) offender protected his identity (e.g., offender used a condom, offender wore gloves, etc.), 21) offender hid the victim's body, and 22) victim's body found naked.

Analytical Strategy

The first stage of analysis was to identify at the bivariate level (chi square tests) the significant differences between SH cases with FOI and those without FOI for each independent variable. The second stage involved analyzing the significant differences observed at the

² No details were available concerning previous criminal convictions

bivariate level in multivariate analyses. Sequential binomial regression analyses were used to both identify the specific characteristics associated with sexual homicide cases with FOI and determine the weight of each block of variables (i.e., victim, offender, and crime characteristics). Model 1 included only the victim characteristic variables. Model 2 included the offender characteristic variables, while Model 3 included the crime characteristic variables. As the final stage of analysis, a binomial regression analysis was conducted using only significant variables from Model 1 (victim), followed by significant variables from Model 2 (offender), and significant variables from Model 3 (crime). This analysis represented the final and best model.

Results

Bivariate analysis

Table 1 presents results of bivariate analyses comparing sexual homicide cases with or without FOI with regard to victim and offender characteristics. Victims where acts of FOI were committed were more likely to be 65 years old or older ($\chi^2 = 12.08$, $p = .001$), to have used alcohol/drugs prior to the crime ($\chi^2 = 4.90$, $p = .027$), to be loners ($\chi^2 = 3.96$, $p = .047$), and to be involved in domestic activities at the time of the crime ($\chi^2 = 15.62$, $p < .001$). SHOs who have perpetrated FOI on the victims were more likely to experience sexual dysfunction ($\chi^2 = 5.71$, $p = .017$) and to use alcohol/drugs prior to the crime ($\chi^2 = 4.53$, $p = .033$).

[INSERT TABLE 1 HERE PLEASE]

Table 2 presents the differences in crime characteristics between sexual homicide cases with and without FOI. Sexual homicide cases characterized by the presence of FOI were less likely to be perpetrated by stranger offenders ($\chi^2 = 4.40$, $p = .036$), while the contact location was more likely to be the victim's residence ($\chi^2 = 11.48$, $p = .001$). In cases with FOI victims were more

likely to be beaten ($\chi^2 = 11.09, p = .001$) and to be asphyxiated ($\chi^2 = 7.26, p = .007$). In addition, when FOI was present, fellatio was less likely ($\chi^2 = 4.93, p = .026$) while vaginal/anal fisting acts were more likely to be perpetrated ($\chi^2 = 32.14, p < .001$). Finally, in sexual homicide cases with FOI, mutilation of genitals ($\chi^2 = 46.57, p < .001$), unusual acts on the victim's body ($\chi^2 = 20.41, p < .001$), and postmortem sexual activities ($\chi^2 = 29.22, p < .001$) were more likely to be observed.

[INSERT TABLE 2 HERE PLEASE]

Multivariate analysis

Table 3 presents findings of the binomial sequential regression analyses examining the presence of FOI. Model 1 includes only offender characteristic variables and has a Nagelkerke R^2 of 0.03. Findings show that SHOs who experienced sexual dysfunction (OR = 1.97, $p = .030$) were 1.97 times more likely to perpetrate FOI. Model 2 includes only victim characteristic variables and has a Nagelkerke R^2 of 0.08. Findings show that victims 65 years old or more (OR = 2.47, $p = .012$), who consumed alcohol/drugs prior to the crime (OR = 1.96, $p = .009$), and who were assaulted while they were engaged in domestic activities (OR = 2.25, $p = .002$) were respectively 2.47, 1.96 and 2.25 times more likely to sustain FOI. Model 3 includes only the crime characteristic variables and has a Nagelkerke R^2 of 0.27. Findings show that cases where the contact location was the victim's residence (OR = 2.19, $p = .005$), where victims were beaten (OR = 1.99, $p = .011$) and where vaginal/anal fisting acts were perpetrated (OR = 6.96, $p = .012$) were respectively 2.19, 1.99 and 6.96 times more likely to be characterized by FOI. Mutilation of genitals (OR = 5.90, $p < .001$), postmortem sexual activities (OR = 3.25, $p < .001$) and the use of strategies by the offender to avoid police detection (OR = 2.16, $p = .009$) were respectively 5.90, 3.25 and 2.16 times more likely to be observed in cases presenting FOI.

The best model (Model 4) includes only significant variables from Model 1, Model 2, and Model 3 and has a Nagelkerke R^2 of 0.27. SHOs who experienced sexual dysfunction (OR = 2.23, $p = .027$) and victims who used alcohol/drugs prior to the crime (OR = 1.80, $p = .049$) were respectively 2.23 and 1.80 times more likely to be involved in cases with FOI. Cases where victims were beaten (OR = 2.18, $p = .005$), where vaginal/anal fisting acts were perpetrated (OR = 5.73, $p = .019$), and where mutilation of genitals were observed (OR = 6.96, $p < .001$), were respectively 2.18, 5.73 and 6.96 times more likely to show evidence of FOI. Finally, post-mortem sexual activities (OR = 3.51, $p < .001$) and the use of strategies by offenders to avoid police detection (OR = 1.82, $p = .041$) were respectively 3.51 and 1.82 times more likely to occur in sexual homicide cases characterized by FOI.

Discussion

Mostly observed in cases of sexual rather than non-sexual homicide, FOI seems to be perpetrated to meet certain psychological needs. As described by Schlesinger and colleagues (2010), acts of FOI may be seen as ritualistic behaviors, defined as an action beyond those that caused death, or in other words, an action unnecessary to successfully commit the crime but necessary for the offender to meet a psychological need. The limited literature on FOI has been equivocal regarding the significance of this behavior for offenders. On one hand, FOI has been associated with disorganized crime scenes where perpetrators are apparently more likely to be mentally ill (Douglas and colleagues, 2013). On the other hand, such behavior has been interpreted as an expression of sadism in cases of sexual homicide (Koeppel and colleagues, 2019; Schlesinger and colleagues, 2010). Our findings have shed some light on the nature of FOI by examining the victim, offender, and crime characteristics associated with FOI in cases of sexual homicide.

Unexperienced Offenders Looking for Vulnerable Victims

Interestingly, FOI does not seem to be randomly distributed among victims of sexual homicide. Several indicators suggest that FOI is mainly perpetrated against the most vulnerable victims. As observed in previous studies, our findings have shown that elderly victims are more likely to be victims of FOI. Both the study by Safarik and colleagues (2002) as well as Chopin and Beauregard (2020) have found that in over 20% of elderly cases of sexual homicide, the offender inflicted FOI on the victim. Such behavior was also described as a ritualistic act (see Schlesinger and colleagues, 2010), as well as a perverse practice to achieve sexual gratification associated with a method of physical torture (Dietz, Hazelwood, & Warren, 1990).

Targeting an elderly victim is not the only vulnerability factor associated with FOI, however. The findings from the current study showed that those more likely to be victims of FOI were under the influence of drugs and/or alcohol, were loners, as well as involved in domestic activities at the time of the crime. These findings suggest that offenders are not randomly targeting their victims. In fact, these variables related to the victims are congruent with the experimentally motivated offender identified by Chopin and Beauregard (2020). These SHOs typically attack their victims in their own residence, using a ruse or a con, and they commit FOI as well as postmortem sexual activities. For these offenders, FOI may be used to torture as well as acting as a substitute for penile penetration in offenders with sexual dysfunction (Dietz and colleagues, 1990; Koeppe and colleagues, 2019). Our findings showed that offenders with sexual dysfunction were more likely to commit FOI. The presence of postmortem sexual acts can be interpreted as a manifestation of a deviant sexual fantasy (e.g., necrophilia) as well as a strategy for offenders with erectile dysfunction and sexual inadequacy looking for an unresisting

and unrejecting partner (Rosman & Resnick, 1989). As they know their victims, they have time to plan their crime, and kill the victim with a weapon.

FOI as a Manifestation of Sadism

As suggested by many (e.g., Koepfel and colleagues, 2019), FOI behaviors may represent a manifestation of sadism and sexual deviancy. Moreover, FOI could be an indicator of signature or ritualistic behavior (Schlesinger and colleagues, 2010). Our examination of the factors associated with the commission of FOI in cases of sexual homicide seems to agree with such an interpretation. Thus, the presence of beating, fisting, mutilation of genitals, and postmortem sexual activities represent behaviors that have all been associated with sadism (e.g., Myers, Beauregard, & Menard, 2019). It is noteworthy that vaginal and anal penetration did distinguish SHOs who have inflicted FOI on their victim and those who did not. However, SHOs who have inflicted FOI on their victim also preferred to penetrate their victim using their fist, a practice not often discussed in the literature but that is associated with the infliction of pain. Fisting and genital mutilation, along with FOI, may be part of a focus on the victim's genitals or anus, either due to immature, fixated or deviant exploration, or due to targeting of these orifices in a painful and destructive way.

The act of genital mutilations seems to also suggest the presence of sadism (see Chan & Li, 2019). Based on a 30-year study of mutilation of the human body in Sweden, Rajs, Lundström, Broberg, Lidberg, and Lindquist (1998) suggested four types of criminal mutilation based on the motivation. Criminal mutilation has been classified into *defensive* (where the motive is to get rid of the body), *aggressive* (where the killing and mutilation is motivated by anger), *offensive* (where dismemberment is the actual purpose for the murder, including lust and necrosadistic murders), and finally *necromantic* (mutilation carried out on a dead body with the

purpose of using some body parts as a trophy, symbol or fetish; Rajs and colleagues, 1998). In the study by Sea and Beauregard (2019) on Korean homicides, their findings showed that the whole process of mutilation-homicide, from killing to disposing of the body, exhibited a pattern consistent with the organized offender (Douglas and colleagues, 2013). The use of defensive mutilation (i.e., dismemberment), the most popular type of mutilation used by Korean homicide offenders, serve to throw-off the investigation and hinder police detection. For instance, offenders may stage the crime scene, that is altering the scene to make it look as if the crime had a different motive (Douglas and colleagues, 2013; Geberth, 2014). Although defensive mutilation is often found to be the most common form of mutilation, some studies also indicate that offensive mutilation is equally frequent (Konopka, Strona, Bolechała, & Kunz, 2007; Puschel, 1987; Püschel & Koops, 1987). Canter, Alison, Alison and Wentink (2004) in a study of the crime scene behaviours of 100 U.S. serial sexual murderers found that object insertion (present in 35% of cases) was closely related to torture, multiple sex acts, an isolated location, tease cuts, violence to genitalia and tampering with evidence, and fell within the behavioural theme of 'mutilation', which included: abdominal, thoracic and genital mutilation; missing body parts, dismemberment, disembowelment and decapitation. The current findings seem to suggest that mutilations associated with cases of FOI could be both defensively and offensively motivated.

Our findings have shown that sexual homicide cases characterized by FOI were also those more likely to involve strategies by the offender to avoid police detection. Interestingly, the use of strategies to avoid police detection has been associated with sadism in SHOs. Based on a sample of 350 cases of sexual homicide from Canada, Reale, Beauregard, and Martineau (2020) compared sadistic and non-sadistic SHOs (as identified with the Sexual Homicide Crime Scene

Rating Scale for Sexual Sadism - SADSEX-SH-R; Myers and colleagues, 2019) on their investigative awareness. Results from logistic regression analyses showed that sadistic SHOs were more likely to use various precautions to avoid detection and select a deserted location, in comparison to non-sadistic offenders. Additionally, sadistic SHOs, despite having a lesser time to body recovery than non-sadistic offenders, were more likely to see their case remain unsolved.

Conclusion

It has been suggested that FOI was associated with mentally ill offenders, unplanned homicides, disorganized crime scenes, and an absence of control over the victim (e.g., Douglas and colleagues, 2013). However, more recent research looking at extensive samples of cases involving FOI have questioned such claims and highlighted the association with sexual deviance and sadism (e.g., Koeppel and colleagues, 2019). Previous empirical studies have all been on U.S. samples. The current study contributes to this effort by examining the victim, offender, and crime characteristics associated with sexual homicide cases involving FOI in an international sample from France and Canada over a period of 70 years. Important issues in research on sexual homicide are the generalizability of findings across jurisdictions, understanding the diversity or heterogeneity of cases, and whether this understanding of diversity generalizes across jurisdictions. Our results are consistent with findings from U.S. samples both regarding the association between FOI and sexual deviance/sadism (Koeppel et al., 2019), and between FOI and behaviors and characteristics that have been labelled 'disorganized' (Douglas et al., 2013) such as inexperience, inadequacy, intoxication and mutilation. As so called 'organized' and 'disorganized' behaviors and characteristics are not necessarily mutually exclusive (Canter et al., 2004), offenders with FOI may be diverse with respect to these characteristics or may have both.

Our findings suggest that sexual homicides where FOI was observed indicate the presence of sadism. This sadism is evidenced in the targeting of specific victims (i.e., elderly, vulnerable), acts of penetration involving pain (i.e., fisting), mutilations (i.e., to cause pain as well as to potentially avoid detection), and with the use of specific strategies to avoid police detection. The fact that so many correlates of FOI have been associated with sadism provide some confidence in the current findings. The findings also fit with FOI being committed by inexperienced and intoxicated perpetrators who experience sexual dysfunction, have deviant sexual interests, and target vulnerable intoxicated or elderly victims known to them. They beat and strangle their victims and focus on intrusive and destructive acts targeting victim's genitals, unusual acts, and post-mortem sexual activities. Some of these factors match the description of the disorganized offender identified by the FBI (Ressler and colleagues, 1988). In addition to sexual sadism, the findings suggest that this behavior could be the result of sexual dysfunction/inadequacy. This would mean that FOI can be a manifestation of sadism or a sexual dysfunction/inadequacy, but there may also be offenders who present a mixture of both.

Even though FOI is uncommon it probably fulfils different psychological needs for different offenders. Clinically it is important to understand the function of the behavior in the context of the other characteristics of the case. FOI into sexual orifices (vagina, anus, urethra, sometimes mouth if the object is phallic) should be seen as an indicator of deviant sexual interests (specifically sexual sadism) and/or sexual inexperience/inadequacy. Particularly brutal sexual acts of FOI (for example inserting a broom handle so far into a victim's vagina that it penetrates the abdominal and chest cavity) maybe the cause of death and indicative of rage and/or sadism. Non-sexual FOI (into the ear or mouth if the object is non-phallic) may fulfil

other needs, for example silencing a victim, torturing a victim, or having non-sexual symbolic significance.

The current study presents a certain number of limitations. As already mentioned, cases of FOI included were limited to those perpetrated ante-mortem. Although many of these insertions have caused the death of the victim, it is possible that postmortem FOI involves different motivations than when FOI is inflicted prior to death. Moreover, contrary to the study by Koeppel et al. (2019) our study did not include details such as which orifices were used for the FOI as well as the type of objects. This type of information could be useful to better identify the motivation for this behavior. In addition, it is important not to overlook the possibility that cases of FOI may have been missed as sometimes this particular behavior may only be identified after an autopsy. The nature of the data available also precluded a detailed examination of the developmental, personality, mental health and psychosexual characteristics of offenders.

Future studies should look into the psychopathology associated with FOI. Although our findings seem to suggest the presence of sadism, further research is warranted on this specific aspect (e.g. the role of paraphilias, sexual inadequacy/dysfunction and personality disorders). Future studies should also focus on the motivation associated with this behavior. There is a need for qualitative studies exploring the meaning of this behavior for offenders as well as to explore how or if FOI is connected to other aspects of sexual deviance.

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Tables

Table 1. Bivariate results comparing sexual homicide cases with and without FOI on victim and offender characteristics (N=662)

	No FOI (n=578)		FOI (n=84)		χ^2 Fischer's exact test
	n	%	n	%	
Victim Characteristics					
Victim is 65 years or more	39	6.75%	15	17.86%	12.08***
Victim is female	490	84.78%	72	85.71%	0.05
Victim used alcohol/drugs prior to crime	141	24.39%	33	39.29%	4.90*
Victim was a loner	35	6.06%	10	11.90%	3.96*
Victim was a sex trade worker	43	7.44%	3	3.57%	1.7
Victim was involved in domestic activities at time of the crime	121	20.93%	34	40.48%	15.62***
Victim was sleeping at time of the crime	41	7.09%	7	8.33%	0.17
Offender Characteristics					
Offender was living alone	58	10.03%	17	20.24%	7.6
Offender had a sexual collection	80	13.84%	17	20.24%	2.4
Offender presented evidence of paraphilic behaviors	144	24.91%	14	16.67%	2.75
Offender experienced sexual dysfunction	59	10.21%	16	19.05%	5.71*
Offender used alcohol/drugs prior to crime	314	54.33%	56	66.67%	4.53*
Offender was a loner	128	22.15%	14	16.67%	1.31
Offender has previous criminal conviction	186	32.18%	22	26.19%	1.22

Notes. * $p < .05$. *** $p < .001$.

Table 2. Bivariate results comparing sexual homicide cases with and without FOI on the crime characteristics (N=662)

	No FOI (n=578)		FOI (n=84)		χ^2 Fischer's exact test
	n	%	n	%	
Victim and offender were strangers	284	49.13%	31	36.90%	4.40*
Offender targeted the victim	177	30.62%	33	39.29%	2.54
Contact location was victim residence	140	24.22%	35	41.67%	11.48***
Offender used a con approach	330	57.09%	47	55.95%	0.04
Offender used restraints	114	19.72%	14	16.67%	0.44
Offender used a weapon	382	66.09%	54	64.29%	0.11
Beating	246	42.56%	52	61.90%	11.09***
Stabbing	125	21.63%	15	17.86%	0.63
Strangulation	232	40.14%	34	40.48%	0.0
Asphyxiation	59	10.21%	17	20.24%	7.26**
Vaginal intercourse	305	52.77%	42	50.00%	0.23
Anal intercourse	132	22.84%	27	32.14%	3.48
Fellatio	86	14.88%	5	5.95%	4.93*
Fisting	4	0.69%	8	9.52%	32.14***
Mutilation of genitals	21	3.63%	19	22.62%	46.57***
Unusual acts on the victim's body	80	13.84%	28	33.33%	20.41***

Post-mortem sexual activities	78	13.49%	31	36.90%	29.22***
Dismemberment	65	11.25%	12	14.29%	0.66
Destroying/removing evidence	189	32.70%	34	40.48%	1.99
Protecting identity	60	10.38%	10	11.90%	0.18
Body hidden	166	28.72%	22	26.19%	0.23
Body found naked	136	23.53%	25	29.76%	1.56

Notes. *p < .05. **p < .01. ***p < .001.

Table 3. Sequential binomial regression predicting FOI in sexual homicide cases (N=662)

	Model 1			Model 2			Model 3			Best Model		
	β	S.E.	Exp(β)	β	S.E.	Exp(β)	β	S.E.	Exp(β)	β	S.E.	Exp(β)
Offender experienced sexual dysfunction	0.68	0.31	1.97*							0.80	0.36	2.23*
Offender used alcohol/drugs prior to crime	0.48	0.25	1.62									
Victim is 65 years or more				0.91	0.36	2.47*				0.70	0.40	2.00†
Victim used alcohol/drugs prior to crime				0.67	0.26	1.96***				0.59	0.30	1.80*
Victim was a loner				0.37	0.40	1.45						
Victim involved in domestic activities at time of crime				0.81	0.26	2.25**				0.46	0.33	1.59
Victim and offender were strangers							-0.11	0.28	0.90			
Contact location was victim residence							0.78	0.28	2.19**	0.61	0.33	1.84†
Beating							0.69	0.27	1.99*	0.78	0.28	2.18**
Asphyxiation							0.56	0.35	1.75			
Fellatio							-0.93	0.53	0.40			
Fisting							1.94	0.77	6.96*	1.75	0.74	5.73*
Mutilation of genitals							1.78	0.44	5.90***	1.94	0.41	6.96***
Unusual acts on the victim's body							0.59	0.33	1.80			
Post-mortem sexual activities							1.18	0.29	3.25***	1.26	0.29	3.51***
Offender used strategies to avoid police detection							0.77	0.29	2.16***	0.60	0.29	1.82*
Constant	-2.32	0.20	0.01***	-2.51	0.19	0.08***	-3.64	0.37	0.03***	-3.99	0.35	0.02***
χ^2	8.92*			27.01***			99.71***			102.57***		
-2 Log likelihood	494.76			476.68			403.99			401.11		
Cox & Snell R2	0.013			0.04			0.14			0.14		
Nagelkerke R2	0.03			0.08			0.27			0.27		
Overall classification %	87.3			87.3			89.1			88.5		

Notes. †p < .1. *p < .05. **p < .01. ***p < .001.

