The unusual victim: Understanding the specific crime processes and motivations for elderly sexual homicide

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Despite being a horrible crime, the research on sexual violence against elderly people has been limited. Although this type of sexual crime is relatively rare compared to sexual crimes against adult women or even children, the frequency will likely increase because of the rise in the elderly population due to the combined effect of greater life expectancy and the aging of 'baby boomers.' This makes it imperative to better understand how and why these crimes occur. In a recent study, Chopin and Beauregard (1) found that sexual abuse against elderly victims was different from the sexual abuse of (younger) adult victims. It appears that offenders targeting elderly victims use a different modus operandi and present different motivations (2, 3). Moreover, the research to date has shown that due to a general difference in physical size and strength, elderly victims are usually less capable of resisting a physical attack compared to younger females (e.g., 4), and therefore are more likely to sustain serious injuries during the attack (5). In fact, Muram, Miller (6) have mentioned that postmenopausal women – due to the reduction in estrogen – are especially more at risk to suffer from genital injuries than younger women and a number of these sexual assaults will result in a lethal outcome (7).

As the sexual homicide (SH) of elderly victims is still considered to be a rare and unusual crime, this may partly explain why only two studies describing this phenomenon have been published to date. Safarik and colleagues (5, 8) have described a sample of sexual homicide offenders (SHOs) of elderly victims, considering them as a specific group of SHOs. In the current study, we test whether SHOs of elderly victims are different from SHOs of adult females. Moreover, we examine whether SHOs of elderly victims include various subgroups based on crime characteristics.

Sexual Assaults Against Elderly Victims

Several studies have looked at victim, offender, and crime characteristics of sexual assault of elderly victims (for a complete review see 9) but few of them have used a comparative

approach to identify the specificities of the crime-commission process involving elderly victims. Chopin and Beauregard (1) compared the criminal event of sexual assaults involving adult and elderly victims. Based on a large sample of cases, they identified major differences in the crime-commission process involving the two types of victims. As with previous research, their findings indicated that sexual assault of elderly victims involved more physical violence (2, 3, 5, 10-12) expressed through the use of violent approach strategies as well as more violent blows, resulting in more severe injuries (1). Moreover, they identified major differences in the crime locations, with sexual assaults of elderly victims found to occur most often in the victim residence (1). Such a decision is not surprising given that previous studies have shown that the victims' residence should be considered as one of – if not the – major locus of rape (13-15).

The motivations for sex offenders assaulting elderly victims have been also been analyzed, with three main dimensions identified: Anger (2, 3, 10-12, 16), sexual (2, 3, 7, 17, 18), and opportunistic (2, 3, 7). Burgess, Commons (2) found that approximately 22% of their sample presented an “anger” motivation. They were characterized by evidence of misogynic anger, acts of sexual humiliation, sadistic fantasies as well as a high level of expressive aggression, juvenile and adult antisocial behavior, and a constant mood of anger (2). Similarly, Chopin and Beauregard (3) found that 10.15% of their sample presented an anger motivation. However, these offenders used a blitz approach, assaulted their victims at a deserted place, and beat them without performing sexual penetration (3).

Some offenders targeting elderly victims are primarily sexually motivated (2, 7, 17, 18). The main preoccupation of these offenders is the need for sexual gratification, evidenced by the possession of pornographic material and the involvement in deviant sexual behavior (2, 3). These offenders are characterized by a low level of expressive aggression, an absence of anger, and a high level of sexual penetration (2, 3, 7). Specifically, these offenders are involved in

different sexual behaviors with the victim, are likely to penetrate victims both vaginally and anally, as well as intentionally release their victim (3).

Elderly sexual victimization can also be the result of an opportunity encountered by a motivated offender when the victim is vulnerable and with no one around to protect her. Jeary (7) suggested that rape of elderly people could occur during the course of a burglary. Sexual assaults perpetrated by opportunist offenders are characterized by a lack of sexual penetration and the commission of acts of fondling and kissing (2, 3). These offenders are not familiar with the crime scene, which is more likely to be a public or an outdoor area, and they usually do not target a victim who is likely to resist the assault (3).

In their study, Chopin and Beauregard (3) identified a new motivation for the sexual assault of elderly: experimental. These offenders appear to be seeking out a sexual experience and purposely choose vulnerable victims (3). These offenders can be considered as a hybrid type of sex offender because their experience with elder sexual abuse is not necessarily defined. These offenders are more often acquaintances of the victims and they choose a deserted location as the crime scene (3).

Sexual Homicide Involving Elderly Victims

To our knowledge, only two studies of sexual homicide of elderly victims aged 60 years or older have been published (5, 8). Offenders were characterized as being mainly White and Black and much younger (ages 20 to 35) than the victims (5, 8). As to the victims, they were mainly White (86%), and in most of the cases, the victims had no additional home security beyond locks normally found on doors and windows. Moreover, in the majority of cases, victims and offenders lived in a proximal area (i.e., within six blocks) and most elderly victims were killed in their residence (5). As to the criminal history, only 21% presented prior convictions for sexual crimes. Most offenders were considered to be unskilled workers or unemployed. The great majority of these SHOs reported a history of substance abuse.

Interestingly, 45% of the offenders confessed to the crime following their arrest and 19% made some partial admission related to the crime (5).

The modus operandi used in SH of elderly was characterized by a blitz attack to incapacitate the victim, as well as overkill, suggesting brutal and excessive injuries to what would be necessary to cause death (5). SHs involving elderly victims were characterized by the offenders gaining entrance through unlocked doors or windows (40%), while 20% were freely admitted to the residence (5). The majority (77%) of offenders brought nothing with them to the scene but they took property 72% of the time (e.g., cash, jewelry) (5, 8). As to the cause of death specifically, they found that strangulation was the most frequent, followed by blunt force trauma (5). SH of elderly were characterized by severe types of injuries. Most victims were killed between 8 P.M. and 4 A.M., especially after midnight, and in the majority of cases, SHOs left the body of the victim uncovered. Finally, SHOs have sexually assaulted the victims vaginally (65%) and anally (24%), as well as by inserting foreign objects into the victim's body (22%) (5).

Aim of Study

Recent empirical studies have suggested that the sexual abuse of elderly victims is different from sexual abuse of (younger) adults. Moreover, these studies have shown that elderly sexual abuse is heterogeneous, presenting different motivations as well as different crime-commission processes. To date, however, no study has analyzed these aspects in SH involving elderly victims. Therefore, this study aim is twofold. The first question to answer is whether SH involving elderly victims is different from SH of (younger) adults. Then, the second question is testing whether SHOs of elderly people constitute a heterogeneous population.

Methodology

Sample

The sample used in this study was taken from the *Sexual Homicide International Database* (SHIeID). This database includes 772 cases of extra familial (strangers or acquaintance) SHs, wherein 412 cases are from France and 350 from Canada. These SHs have all occurred between 1948 and 2018. Cases were identified using the definition from Ressler, Burgess (19), stating that for a homicide to be considered as sexual, there has to present at least one of the following characteristics present at the crime scene: victim's attire or lack of attire; exposure of the sexual parts of the victim's body; sexual positioning of the victim's body; insertion of foreign objects into the victim's body cavities; evidence of sexual intercourse; evidence of substitute sexual activity, interest, or sadistic fantasy. This database was initially compiled from criminal investigation files with the exact same indicators for both Canadian and French cases. Information included in these files are mainly filled out by police officers but also by other experts who are involved in the investigative process (e.g., coroner, psychologist, etc.).

For the purpose of the study, 569 cases were selected: 513 cases of SHs involving adult victims and 56 cases involving elderly victims. To increase the comparability between both groups, we followed the methodology used by Chopin and Beauregard (1) to compare sexual assault of adult and elderly victims. First, there is no universal rule to operationalize elderly victims. The review of the literature shows that scholars use different age cutoff to define elderly people (e.g., 1, 5, 6, 17, 20). In the current study, it was decided to consider 65 years old and more for the elderly (1, 3, 21). This age is considered as the average age of retirement and is associated with significant changes in terms of lifestyle, routine activities, and, therefore, risk exposure (1). Second, it was decided to exclude all cases involving victims who were less than 16 years old. Several studies have shown that SHs involving children have a very specific modus operandi (22-24) and thus differ considerably from adult sexual homicides. We therefore selected age 16 as the cut-off for child victims, as adolescents

between ages 16 to 18 are more developmentally similar to adults than children. Third, we limited the adult victims to those aged between 16 and 45 years old. This decision was made due to the middle-aged people (46–64 years) having been defined both as elderly victims as well as adults (see 17, 21), which could introduce noise into the analyses and findings. Furthermore, this age group shares more physiological similarities to elderly victims, while socially, their routine activities are closer to adult victims (1, 6).

Measures

The choice of variables included in this study has been guided by recent previous empirical studies on sexual assault or SH involving elderly victims. (1-3, 5, 8).

Dependent variable. To compare the two groups (i.e., SHs involving adult and elderly victims) we used one dichotomous dependent variable. This variable describes type of victims targeted by SHO (0 = adult victims, 16-45 years old; 1 = elderly victims, 65 or older).

Independent variables. A total of four dichotomous variables have been used to describe victims' characteristics/routine activities (i.e., activities of victims prior to the sexual aggression). These variables are: (1) Gender (i.e., 0=victim is a male; 1= victim is a female), (2) victim was assaulted during domestic activities (e.g., watching TV, cooking, cleaning home, etc.), (3) victim was assaulted while she was sleeping, (4) victim was assaulted while she was walking/jogging. A total of 19 variables have been used to describe the crime characteristics (divided in pre crime, crime and post crime phases). All the variables are dichotomous with the exception of one that is continuous (i.e., number of sexual acts committed). These variables are the following: (1) relationship: acquaintance (i.e., as opposed to stranger), (2) offender used a con approach (i.e., offender used subterfuge as well as tricks to approach his victim without using force and coercion; for example, befriended the victim, posed as an authority figure, offered assistance, etc.), (3) offender used a blitz approach blitz approach (i.e., offender used a direct, physical assault to subdue and injure the

victim; for example, the offender grabbed and immediately choked the victim, the offender immediately overpowered the victim, the offender immediately hit the victim, the offender immediately stabbed or shot the victim, etc.), (4) encounter, crime, and body recovery locations are the same, (5) crime location: Victim residence, (6) crime location: Outdoor (i.e., residence front/back yard, play space, green space, jogging/bike path, public park, wooded area, alley, etc.), (7) introduction: Let in by victim (i.e., when crime occurred in the victim residence), (8) vaginal intercourse, (9) number of sexual acts committed (i.e., vaginal penetration with a penis, anal penetration with a penis, digital penetration, fellatio, cunnilingus), (10) sexual sadism (i.e., this concept was operationalized using the SADSEX-SH-R scale of Myers, Beauregard, & Menard (2019)), (11) foreign object insertion, (12) postmortem sexual activity, (13) victim was beaten, (14) victim was strangled/asphyxiated, (15) items taken during crime, (16) use of restraints, (17) precaution: destruction of forensic evidence, (18), weapon involvement (i.e., at least one weapon is involved in crime process but not necessary in the death of victim), (19) body moved (i.e., offender moved the victim's body at a different location than the crime scene).

Analytical Strategies

To answer our research questions, we proceeded in a three-step analytical process. First, we examined at the bivariate level (i.e., Chi-square, Mann-Whitney test analyses) the differences between the two groups of offenders as to the various victim and crime characteristic variables included in the study. Second, to classify the 56 offenders we performed a two-step cluster analysis using the Schwarz Bayesian Criterion (BIC) as an indicator of the best cluster solution. To create the classification model, we used six dichotomous variables (coded as 0= no, 1 = yes) based on previous findings on SHs involving elderly victims (5, 8): (1) Offender used a blitz approach, (2) introduction: Let in by victim, (3) crime location: victim residence, (4) vaginal intercourse, (5) items taken during crime, (6)

body moved. We have tested for multicollinearity and no correlations were higher than .36. Third, to test the external validity of our classification, we have examined the bivariate relationship between the cluster solution and the 16 additional variables related to the victims' and modus operandi characteristics across the precrime, crime, and post-crime phases. Ethical approval was granted by a research ethic committee.

Results

Table 1 describes the bivariate analyses between the victim and crime characteristic variables and the two types of offender groups (adult vs. elderly). More specifically, in terms of their routine activities, elderly victims were mostly assaulted during domestic activities ($\phi = .274, p \leq .001$) or when they were sleeping ($\phi = .229, p \leq .001$). In terms of crime characteristics, offenders were more often acquaintances to the victim than strangers ($\phi = .086, p \leq .05$), and tended to use a violent approach over other strategies ($\phi = .240, p \leq .001$). Findings suggest that offenders assaulting elderly victims use a unique encounter, offense and body recovery location compared to others ($\phi = .274, p \leq .001$). For elderly victims, this location was more often the victim residence ($\phi = .331, p \leq .001$), compared to adult victims that were more often assaulted at an outdoor location ($\phi = .121, p \leq .01$). In terms of their crime scene behaviors, foreign object insertion ($\phi = .140, p \leq .05$), the use of restraints ($\phi = .119, p \leq .05$), as well as postmortem sexual activity ($\phi = .097, p \leq .05$) were more often perpetrated when victims were elderly. Lastly, offenders that assault elderly victims moved the victims' bodies less often after the crime, compared to offenders with adult victims ($\phi = .102, p \leq .05$). Taken together, these findings support the assertion that SHs involving adult and elderly victims are different.

[INSERT TABLE 1 HERE]

Next, we examined crime characteristics and routine activities within SHs of elderly victims exclusively ($n = 56$) to determine the possibility of unique sub-groups. Schwarz's

Bayesian criterion (Appendix A) suggests that a four-cluster solution is the best model to appropriately classify the cases of SHs against adult victims (Table 2). Cluster 1 includes 25 cases (44.64%) and can be labeled as *Sexually* motivated SHOs. It is characterized by offenders using a violent approach in more than half of the cases. These offenders also use a violent strategy to enter the crime location, which is generally the victim's residence. All cases from this cluster perform vaginal intercourse and most of them do not take items from the victim. These offenders also do not typically move the victim's body at a different location.

Cluster 2 includes 14 cases (25%) and can be labeled as *Robbery* motivated SHOs. It is characterized by the offenders using a non-violent approach to access the victims, while using a violent strategy to break into the victims' residence, which is always where the crime takes place. These offenders do not commit vaginal penetration but always rob the victims during the crime. These offenders do not move the victim's body after the crime.

Cluster 3 includes 9 cases (16.06%) and can be labeled as *Sadistically* motivated SHOs. It is characterized by offenders using a violent approach to assault their victim at a different location than the victim residence. They do not commit vaginal penetration and do not rob the victims. However, after killing the victim all of these offenders will move the body.

Cluster 4 includes 8 cases (14.29%) cases and can be labeled as *Experimentally* motivated SHOs. These offenders do not use a violent approach to access their victims. In most cases, the crime occurs in the victim's residence. These offenders never commit vaginal penetration, rob the victim, nor do they move the victim's body to a different location after the crime.

[INSERT TABLE 2 HERE]

Table 3 presents victim and crime characteristics associated with the four-cluster classification model. Interesting and major differences appear between the four categories of SHs involving elderly victims. As to the victim characteristics, we can observe that there are more male victims in Cluster 4 (Cramer's $V = .554$, $p \leq .001$). Differences are also found in terms of victims' routine activities prior to the crime. In cases from Cluster 1, victims were more often sleeping (Cramer's $V = .403$, $p \leq .05$), while victims of Cluster 3 were more often walking or jogging at the time of the crime (Cramer's $V = .580$, $p \leq .001$). As to the crime characteristics, we observed that in Cluster 4, victims and offenders were more often acquaintances (Cramer's $V = .365$, $p \leq .05$) and offenders more often used a con approach to access the victims in comparison with the other clusters (Cramer's $V = .481$, $p \leq .01$). Cases from Cluster 3 are characterized by the fact that the encounter, crime, and body recovery locations are rarely the same (Cramer's $V = .608$, $p \leq .001$), while in most of the cases the crime took place at an outdoor location (Cramer's $V = .580$, $p \leq .001$). Kruskal-Wallis test showed that there was a statistically significant difference in the average number of sexual acts committed between the different clusters ($\chi^2(3) = 20.013$, $p \leq .001$), with a mean rank score of 2.44 for Cluster 1, 1.05 for Cluster 2, 1.01 for Cluster 3, and 1.13 for Cluster 4. Acts of sexual sadism were more often performed in Cluster 3 (Cramer's $V = .334$, $p \leq .1$), foreign object insertion in Cluster 4 and Cluster 1 (Cramer's $V = .419$, $p \leq .05$), while Cluster 3 and Cluster 4 are more often characterized by postmortem sexual activity (Cramer's $V = .419$, $p \leq .05$). Elderly victims were more often beaten in cases from Clusters 2 and 3 (Cramer's $V = .360$, $p \leq .1$), while they were more often strangled/asphyxiated in cases from Cluster 1 (Cramer's $V = .373$, $p \leq .05$). Cases from Cluster 3 used more often restraints (Cramer's $V = .335$, $p \leq .1$), while weapons are more often used in Cluster 3 and Cluster 4 (Cramer's $V = .436$, $p \leq .05$). Finally, offenders from Cluster 3 are more forensically aware (i.e., they are

more able to avoid police detection by using various strategies focused on forensic evidence potentially left at the crime scene) than the others (Cramer's $V = .386$, $p \leq .05$).

[INSERT TABLE 3 HERE]

Discussion

The objectives of this study were twofold: first, to identify the differences between SHs involving adult and elderly victims, and second to determine whether elderly SHOs constitute a heterogeneous population. Findings of our study suggest that SHs involving elderly victims present interesting specificities compared to younger adult victims and that elderly SHOs are driven by four distinct types of motivations.

Sexual Homicide of Elderly Victims: A Distinct Criminal Event

To test the specificity of SH involving elderly victims, we have compared a sample of SHs involving victims aged between 18 and 45 years with victims aged 65 years or more. We examined victim characteristics and also divided the criminal event into three phases: precrime, crime and post-crime (Chopin and Beauregard (1). Bivariate findings suggest that major differences appear in the victim characteristics/routine activities as well as the precrime phase and, to a lesser extent, the crime and post-crime phases.

We observed that SHs against elderly victims follow a similar pattern than the one described by Chopin and Beauregard (1) for sexual assault. The majority of crimes occurred at the same location (i.e., contact, crime and body recovery), that is, the victim's residence. This feature of elderly SHs can be explained by the fact that the age of the victim largely influences their routine activities as well as their crime exposure, as suggested by lifestyle and routine activities theories (25, 26). As shown in our results, routine activities of elderly people are different from younger adults. Retirement, loneliness, and health problems all increase the time elderly people spend at home. Thus, it makes intuitive sense that if this category of the population is going to be victimized, it is likely to be their own home, where they spend the

majority of their time. We can draw a parallel with sexual crimes involving children (i.e., child abuse as well as SHs of children) where younger victims are also assaulted in their proximal environment due to their limited routine activities and consequently crime exposure (22, 27).

We also observed that elderly victims and SHOs are more often acquaintances compared to cases involving younger adult victims. This finding is congruent with previous studies suggesting that acquaintance relationships are observed in most of elderly SHs (5, 8). As in the case of child abuse (see 28, 29), SHOs targeting elderly people have to gain entry in places harder to access. Following a rational choice approach (30-32), acquaintanceship is the most efficient strategies to obtain the victim trust and access to their residence.

Similar to sexual assault involving elderly victims (1-3, 10-12), elderly SHs are also more violent (Safarik, Jarvis (5). This excessive violence is a feature of sexual crimes against elderly and can be explained in two ways. First, as suggested in previous studies, most of sexual offenders assaulting elderly victims are driven by anger and sadistic motivations (1-3, 10-12, 16, 33). These motivations are associated with excessively violent behavior that reflects a feeling of revenge on elderly victims who are considered as persons in authority (10). Excessive violence can also reflect a lack of preparation and control of the situation as well as the lack of experience of the offenders (1, 3, 22).

In terms of sexual acts committed by elderly SHOs, our findings suggest there was no difference as to the “commonplace” sexual acts (i.e., vaginal penetration). Nevertheless, we observed an over-representation of some unusual and bizarre acts, such as foreign object insertions (FOI) as well as postmortem sexual activity. These two ritualistic acts (34) are considered as unusual and rare (see 35, 36-38) but both are perpetrated in approximately one quarter of SHs involving elderly victims (5). FOI is described as a perverse practice to achieve sexual gratification associated with a method of physical torture (18, 38, 39). Over-

representation of this practice is congruent with previous studies suggesting that anger and sadistic motivations are important among elderly sexual offenders population (2, 3). It is also possible 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 (3, 22). Postmortem sexual activity can be considered both as a paraphilia for offenders who have a desire to perpetrate sexual acts on a lifeless body (40), as well as a way for offenders with erectile dysfunction and sexual inadequacy to obtain an unresisting and unrejecting partner (41). In the study by Chopin and Beauregard (3) on elderly sexual assaults, all offenders included in the “sexual” and “opportunistic” clusters were characterized by deviant behaviors, while some offenders of the “sexual” cluster presented sexual dysfunction. This overrepresentation of these specific sexual behaviors among the sample of elderly SHs could be related to specific characteristics and motivations of these offenders.

Toward a New Classification of Elderly SHs

Findings of our study have shown that elderly SHs followed different patterns compared to younger adults (i.e., 16–45 years old), especially in terms of crime locations and sexual acts committed. A second stage of analyses showed that elderly SHs should not only be considered as a specific type of crime, but also as a heterogeneous group of SHOs. Using cluster analysis, four different groups were identified and additional analyses testing the external validity confirmed the utility for this typology. The four clusters identified reflect different SHOs motivations through the analysis of the modus operandi: Sexual, robber, sadistic, and experimental.

Sexually motivated SHOs usually target female elderly victims, especially while they are sleeping. In most cases, they use violent strategies of approach – i.e., a blitz or surprise – to assault the victim in her residence. As they assault their victims while they are sleeping,

SHOs use an illegal way to enter the crime location (e.g., forced entry, gain entry through insecure door or window). This group of offenders is distinguished by the commission of sexual acts. They all commit vaginal penetration with a penis and are especially diversified in the number of different sexual acts they perpetrated (in average 2.44) in comparison with other groups of offenders. This category of offenders is similar to the one identified by Chopin and Beauregard (3) as well as Burgess, Commons (2) for elderly sexual assaults. We believe this group of offenders are motivated mainly to have sexual intercourse with elderly people. Moreover, one third of these offenders performed FOI. As suggested previously, this situation could be due to erectile dysfunction (Chopin and Beauregard (3). In the majority of cases, victims were strangled or asphyxiated. As the offender is known by the victim, getting rid of the victim becomes the best option to avoid detection. However, these offenders are not forensically aware as they never move the victims' bodies and rarely destroy forensic evidence. This behavior is congruent with the inverted U-shaped dose response hypothesis of (42), suggesting that offenders are aware until the crime is effectively committed. After they obtained their gratification, they focus on leaving the crime scene and are less likely to use forensic awareness strategies to avoid police detection (see 43, 44-46). This hypothesis appears to be true especially in cases where offenders are sexually motivated. Finally, the fact that some SHOs will steal items belonging to the victim can be considered as secondary. Offenders may impulsively steal items as an afterthought simply for their value (e.g., for personal use, to trade for other goods, or be pawned for cash), rather than just done for the taking of a trophy or souvenir (Safarik, Jarvis (5).

The second cluster can be labeled as *Robbery* motivated SHOs. This category of offender targets mainly elderly female victims, systematically in their residence, while they are involved in domestic activities or while sleeping. These offenders use a surprise approach and similar to the "sexual" motivation, they use an illegal way to enter the crime location.

They do not commit diversified sexual acts on their victims and do not penetrate them, in most cases. The main characteristic of this category is the robbery of items belonging to the victim. According to Safarik, Jarvis (5), taking items belonging to the victim is subsequent to the sexual assault and the homicide. However, we believe that most of these offenders entered the victim's residence first to rob the victim and then the opportunity to sexually assault an elderly victim presented itself, as in the case of a sexual burglary (47). This second hypothesis is preferred as these SHOs do not appear primarily sexually motivated, as vaginal intercourse occurred in very few cases, the level of sexual diversification is low, and there is not a specific trend toward sadistic sexual acts. All these elements support the robbery motivation hypothesis, followed by an opportunity to be involved in some sexual acts (i.e., fellatio, masturbation) with an elderly victim. Physical violence and blows in particular could be linked to the offender's nervousness due to an unexpected situation and consequently, a lack of preparation (1, 3, 22). The death could be more the outcome of the excessive violence toward a physically vulnerable victim than a premeditated desire to kill.

Sadistically motivated SHOs targets exclusively female elderly victims at outdoor locations, especially while they are jogging or walking. They mainly use violent strategies to approach their victims, who generally do not know their offenders. Offenders included in this category are not especially motivated by more common acts of sexual abuse, as shown by their lack of sexual penetration and a low level of sexual diversification. However, these offenders are characterized by the commission of sadistic sexual acts (e.g., sexual domination, physical and/or psychological torture, humiliating behavior, sexual mutilation), use of restraints, as well as postmortem sexual activities. Such a description is congruent with the anger offender described by Burgess, Commons (2) as well as Chopin and Beauregard (3). This category of offenders is focused on the victim suffering and the use of violence, not the sexual nature of the acts (2, 3, 16). As described by Groth (16), the use of a weapon is also

typical of the offender motivated by anger. Finally, this group of offenders is especially forensically aware because they all move the victims' bodies and the majority will destroy forensic evidence. This feature fits with the description made by Reale, Beauregard (48) showing that being forensically aware is a typical feature of sadistic SHOs.

Experimentally motivated SHOs targets female as well as male elderly people, generally in their own residences. In most cases, offenders and victims have an acquaintance relationship and offenders use a ruse to access their victims. Although these offenders are not really involved in typical sexual abuse, they commit FOI as well as postmortem sexual activities. As suggested by previous studies (see 18, 38, 39), FOI can be used as a means of torture as well as a substitute by offenders with sexual dysfunction (e.g., erectile dysfunction) to penetrate the victim. Given the absence of other acts of torture and sadism, we can speculate that these offenders use FOI as an alternative to penile sexual penetration. 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 for the experimental offenders identified by Chopin and Beauregard (3), for sexual offenders of elderly victims, experimental elderly SHs target vulnerable victims to experience sexual intercourse despite their sexual dysfunction. Due to the fact that they know their victims, they have time to plan their crime leading to a lack of blows. Most of the victims are killed with a weapon.

Although interesting and innovative, this study is not without limitations. First, information used in this study comes from the police, which present methodological limitations in terms of validity and reliability (see 49, 50, 51). Only cases reported to the authorities have been considered in this study and thus findings cannot be applied to cases that are unknown to the police. However, we know that the number of crimes never reported

to authorities, also known as dark figure, is especially low for homicide (52) and we assume that the number of sexual homicides unknown to the police is relatively low. Second, it is possible that due to the lack of legal definition (53), some homicides have not been identified as sexual by authorities (54) and were not included in our sample. Third, due to the sensitive as well as specific nature this crime, comparisons with other studies focusing specifically on elderly SHs are very limited. Fourth, due to the rarity of this type of crime, our sample of SH cases involving elderly victims is limited and may have affected the significance of some findings. Fifth, a decision was made to operationalize elderly victims (i.e., cutting-off to 65 years old and more) limiting the comparisons with the findings of Safarik, Jarvis (8) as well as Safarik, Jarvis (5) who operationalized elderly victims using a 60 years old and more cut-off. Finally, despite several studies showing a relationship between the crime motivations and the crime characteristics (see 2, 3), we cannot state with certainty that the identified motivations in the current study directly reflect the offenders' as we were unable to conduct interviews with them.

Conclusion

This research aimed to investigate the peculiarities of elderly SHs. As a first step, we determined the specificities of the criminal event by comparing SHs involving adult (16–45 years old) and elderly (65+ years old) victims. Our findings indicated that there are major differences in the crime-commission process of the two groups of offenders. This confirms that SHO adapt their decision-making process to their victim's lifestyle and routine activities. They must consider the routine activities of elderly people to decrease crime exposure. We also observed that a higher frequency of excessive use of physical violence (e.g., violent approach) while unusual sexual acts are committed against this category of victims in comparison with other. As a second step, we also tested the heterogeneity of the elderly

SHOs. We identified a four-cluster typology of elderly SHOs based on their motivations (sexual, robber, sadistic, experimental) by analyzing the crime-commission process.

In terms of implications, our study provides a comprehensive analysis of a rare and understudied type of crime. First, our findings suggest that despite the scarcity of this type crime, SHs against elderly must be considered as a specific criminal event and should not be confused with SHs involving younger adult victims. Second, the new typology identified in this study present similarities with existing typologies of elderly sexual offenders as well as SHOs of children. Despite their age difference, children and elderly victims have a similar routine activities pattern which limits the possibilities for the offenders and push them to adapt. Third, we showed that it was possible to identify SHOs motivations based on their crime-commission process. The motivation to commit a crime is important, as correctional and therapeutic practices should be adapted depending on the offender's motivations – more so than with the type of crime. Some of these SHOs should be directed to specific treatment programs for their specific disorder associated with their motivation (e.g., sadistically motivated, sexually motivated). We cannot exclude the fact that one day some of these offenders will be released and will need to reintegrate society. Their offending motivation could be useful to assess the risk of recidivism as well as the supervision conditions.

Further research needs to be undertaken on this type of SHOs. We believe it would be necessary to replicate the typology with other data, especially data coming from different countries. Moreover, future research needs to examine whether these four different motivations are related to specific offender characteristics.

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Appendix

Appendix A. Model Fit for Cluster Solutions

Number of Clusters	Schwarz's Bayesian Criterion (BIC)	BIC change ^a	Ratio of BIC changes ^b	Ratio of Distance Measures ^c
1	443.791			
2	391.939	-51.853	1.000	1.322
3	358.578	-33.360	.643	1.173
4	333.685	-24.894	.480	1.615
5	327.469	-6.216	.120	1.121
6	324.536	-2.933	.057	1.155
7	325.236	.700	-.014	1.037
8	326.778	1.542	-.030	1.118
9	330.706	3.928	-.076	1.333

Note. Boldface type indicates the selected model.

^a The changes are from the previous number of clusters in the table.

^b The ratios of changes are relative to the change for the two cluster solution.

^c The ratios of distance measures are based on the current number of clusters against the previous number of clusters.

Note. Boldface type indicates the selected model.

Tables

Table 1. Comparison of victims and crime characteristics of sexual homicide against adult and elderly victims (N=569).

		Adult victims		Elderly victims		φ / Mann-Withney Z
		n=513		n=56		
		n	%	n	%	
Victim characteristics						
	Victim is a female	460	89.67%	50	89.29%	0.004
	Victim was assaulted while domestic activities	96	18.71%	32	57.14%	0.274***
	Victim was assaulted during she was sleeping	23	4.48%	13	23.21%	0.229***
	Victim was assaulted during she was walking/jogging	129	25.15%	7	12.50%	0.088*
Crime characteristics						
<i>Precrime phase</i>						
	Acquaintance relationship	185	36.06%	28	50.00%	0.086*
	Offender used con approach	263	51.27%	19	33.93%	0.103*
	Offender used blitz approach	73	14.23%	25	44.64%	0.240***
	Places of contacts, offence and body recovery are the same	146	28.46%	39	69.64%	0.274***
	Place of crime: Victim residence	119	23.20%	41	73.21%	0.331***
	Place of crime: Outdoor place	159	30.99%	7	12.50%	0.121**
	Modus operandi introduction: Let in by victim	71	13.84%	11	19.64%	0.049
<i>Crime phase</i>						
	Vaginal intercourse	258	50.29%	27	48.21%	0.012
	Number of sexual acts committed	1.51 ^a		1.52 ^a		-0.318 ^b
	Sexual sadism	147	28.65%	17	30.36%	0.011
	Foreign object insertion	42	8.19%	13	23.21%	0.140***
	Postmortem sexual activity	69	13.45%	14	25.00%	0.097*
	Victim was beaten	225	43.86%	28	50.00%	0.037
	Victim was strangled/Asphyxiated	220	42.88%	24	42.85%	0.00
	Items taken during crime	207	40.35%	28	50.00%	0.058
	Use of restraints	79	15.40%	17	30.35%	0.119**
	Weapon involvement	324	63.16%	39	69.64%	0.040
<i>Postcrime phase</i>						
	Precaution: Destruction of forensic evidence	136	26.51%	12	21.43%	0.035
	Body moved	163	31.77%	9	16.07%	0.102*

Note. *p ≤ .05. **p ≤ .01. ***p ≤ .001.

^a Correspond to the mean

^b Mann-Withney test has been performed because the variable does not follow a normal distribution

Table 2. Four-Cluster Model of Elderly Sexual Homicides Classification (N=56).

Cluster	1 Sexually Motivated		2 Robbery Motivated		3 Sadistically Motivated		4 Experimentally Motivated		χ^2
Percentage of sample (n)	(25) 44.64%		(14) 25%		(9) 16.06%		(8) 32%		
	n	%	n	%	n	%	n	%	
Offender used blitz approach	13	52%	5	35.71%	7	77.78%	0	0%	11.449**
Modus operandi introduction: Let in by victim	2	8%	4	28.57%	1	11.11%	4	50.00%	7.940*
Place of crime: Victim residence	19	76%	14	100.00%	3	33.33%	5	62.50%	12.988**
Vaginal intercourse	25	100%	2	14.29%	0	0%	0	0%	49.134***
Items taken during crime	11	44%	14	100%	3	33.33%	0	0%	23.360***
Body moved	0	0%	0	0%	9	100.00%	0	0%	56.000***

Note. *p ≤ .05. **p ≤ .01. ***p ≤ .001.

Table 3. Victims and additional Crime Characteristics According to 4 Clusters (N=56).

Cluster	1 Sexually Motivated		2 Robbery Motivated		3 Sadistically Motivated		4 Experimentally Motivated		Cramer's V Kruskal-Wallis test
Percentage of sample (n)	44.64% (25)		25% (14)		16.06% (9)		32% (8)		
	n	%	n	%	n	%	n	%	
Victim and Crime Characteristics									
Victim is a female	25	100.00%	12	85.71%	9	100.00%	4	50.00%	0.554***
Victim was assaulted during domestic activities	12	48.00%	10	71.43%	4	44.44%	6	75.00%	0.255
Victim was assaulted during she was sleeping	10	40.00%	3	21.43%	0	0.00%	0	0.00%	0.403*
Victim was assaulted during she was walking/jogging	2	8.00%	0	0.00%	5	55.56%	0	0.00%	0.580***
Precrime phase									
Relationship : Acquaintance	12	52.17%	5	35.71%	4	44.44%	7	87.50%	0.365*
Method of approach: Con	5	20.00%	5	35.71%	2	22.22%	7	87.50%	0.481**
Crime phase									
Places of contacts. offence and body recovery are the same	23	92.00%	10	71.43%	1	11.11%	5	62.50%	0.608***
Outdoor location	2	8.00%	0	0.00%	5	55.56%	0	0.00%	0.580***
Number of sexual acts committed		2.44 ^a		1.05 ^a		1.01 ^a		1.13 ^a	20.013*** ^b
Sexual sadism	8	32.00%	4	28.57%	5	55.56%	0	0.00%	0.334†
Foreign object insertion	9	36.00%	1	7.14%	1	11.11%	4	50.00%	0.360*
Postmortem sexual activity	6	24.00%	0	0.00%	5	55.56%	3	37.50%	0.419*
Victim was beaten	12	48.00%	10	71.43%	5	55.56%	1	12.50%	0.360*
Victim was strangled/Asphyxiated	14	56.00%	6	42.86%	4	44.44%	0	0.00%	0.373*
Use of restraints	4	16.00%	6	42.86%	5	55.56%	2	25.00%	0.335†
Weapon involvement	14	56.00%	8	57.14%	9	100.00%	8	100.00%	0.436*
Postcrime phase									
Precaution: Destruction of forensic evidence	5	20.00%	1	7.14%	5	55.56%	1	12.50%	0.386*

Note. †p ≤ .1. *p ≤ .05. **p ≤ .01. ***p ≤ .001.

^a Correspond to the mean

^b Kruskal-Wallis test has been performed because the variable does not follow a normal distribution