

Sexual sadism: Its role in the crime-commission process of sexual homicide of children

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Introduction

Gilles de Rais, a French nobleman living in the 15th century is known to have tortured and killed hundreds of children in order to obtain sexual gratification. He is often considered as the first sadistic sexual homicide offender (SHO) of children. In the 19th century, Fritz Haarman, also known as the ‘Oger of Hanover’ murdered numerous young boys. He reported obtaining sexual pleasure by ripping the throat of his young victims and mutilating them (Holmes, 1983; Holmes & DeBurger, 1985). Sadistic sexual homicide (SH) of children is a rare, unusual and horrible event. However, despite these gruesome characteristics and what appear to be “irrational” motivations, this type of crime was never empirically studied. Knowledge on this particular form of SH comes mainly from the sadistic SH of adult victims. Empirical research on child SH has been non-existent and cases involving child victims were included with cases involving adult victims (for a review see Chopin & Beaugard, 2019c, 2019d). More recently, an emergence of empirical studies demonstrated that child SH constituted a specific form of offending with a distinct crime-commission process (Beaugard, Stone, Proulx, & Michaud, 2008; Chopin & Beaugard, 2019c; Firestone, Bradford, Greenberg, & Larose, 1998; Gratzler & Bradford, 1995; Proulx, Blais, & Beaugard, 2007; Proulx, James, Siwic, & Beaugard, 2018; Schmidt & Madea, 1999). To further investigate the heterogeneity of SH, Chopin and Beaugard (2019c) were the first to empirically identify a classification specific to SH of children. In continuity with this line of research, the current study aims to examine the role of sexual sadism in SH of children.

Sexual Homicide of Children

Although these findings are informative, very few studies have examined the phenomena of SH of children. To show the distinct aspects of SH against children, some researchers compared sexual murderers of children to diverse groups of sex offenders. In

terms of offender characteristics, these studies have shown that sexual homicide offenders (SHO) of children exhibited more antisocial personality disorders, deviant sexual fantasies and paraphilias, were more likely to receive three or more DSM III-R diagnoses, and demonstrated higher levels of deviant arousal to pedophilic and adult assault stimuli (Firestone and colleagues, 1998; Gratzer & Bradford, 1995; Proulx and colleagues, 2007; Schmidt & Madea, 1999). However, SHOs of children were less likely to report alcohol abuse and drug dependency, as well as to present sexual dysfunctions or a narcissistic personality disorder (Spehr, Hill, Habermann, Briken, & Berner, 2010). SHOs of children have been described as stressed individuals who feel rejected and have low self-esteem (Beauregard and colleagues, 2008). They are also more likely to use pornography prior to the crime and to plan the crime, compared to SHOs of adults (Beauregard and colleagues, 2008). In addition, SHOs of children were more likely to establish contact with the victim prior to the crime, to commit the crime during the day, to use strangulation to kill the victim, and to dismember and hide the victim's body, as compared to SHOs of adults (Beauregard and colleagues, 2008). Furthermore, SHOs of children were more likely to find the victim at home or outside on the street and to physically beat the victim during the criminal event (Beauregard & Martineau, 2015). A study conducted by Proulx and colleagues (2018) showed that SHOs of children were more likely to use physical violence in order to control the victim, to kill the victim for the purpose of eliminating a witness, and to commit the crime outdoors. SHOs of children were less likely to exhibit a structured premeditation, to pre-select the crime site and body dump site, to use restraints, to kidnap and confine the victim, to humiliate the victim, to use expressive violence as well as to use torture, compared to the SHOs of adult victims (Proulx and colleagues, 2018). Moreover, SHOs of children were less likely to commit a crime that occurred over a longer duration or use physical violence or kill the victim out of anger (Proulx and colleagues, 2018). Skott (2019) compared 8 SHOs of children with 89 SHOs of adults

and 176 nonsexual child homicide offenders. Analysis of SHO characteristics and modus operandi showed that SHOs of children were more similar to SHOs of adult victims than non-sexual homicide offenders (NSHO) of children.

Lanning (1994), suggested that in addition to the definitional problem of what constitutes a child, the discussion of SH of children has been obscured by the fact that SHOs of children appear to be a diverse population of offenders. Lanning (1994) further explained that the violence used in SH can take different forms and proposed a theoretical classification: 1) Inadvertent (i.e., killing for a lack of care), 2) indiscriminate (i.e., killing if necessary), and 3) intentional (i.e., varied categories including sadists, killing to avoid detection, misguided love from a pedophile or ambivalent hate). Chopin and Beauregard (2019c) were the first to propose a first empirical classification of SH against children with 72 cases from France. They identified a six-cluster typology based on Lanning's (1994) level of violence as well as the age category. The first type was labeled as the *intentional/pre-pubescent* where offenders usually select very young male victims and they typically anally penetrate them. They kill victims to avoid detection and move the victims' body from the crime scene following the murder. Offenders of this category are relatively young, do not suffer from social isolation and consumed alcohol and/or drugs at the time of the offense. The *inadvertent/pre-pubescent* is characterized by young offenders targeting very young victims who are mostly male. Offenders from this category are mostly single, they are not socially isolated, and they generally have not engaged in previous criminal activities. However, their behavior is very violent, as these offenders are characterized by beating the victim and performing unusual acts. They do not typically penetrate the victim but instead fondle the victim as well as inflict, some sadistic acts. The crime scene is never a residence, and, in most cases, victims are killed by strangulation. Offenders of *intentional/pre-teen* category present a high prevalence of alcohol and/or drug consumption during the criminal event, similar to the *intentional/pre-*

pubescent category. This category of SH is mainly characterized by the diversity of sexual acts committed as well as the presence of sadism. These offenders typically use a ruse to approach the victim and they are generally familiar with the crime scene, which is most often not a residence. The *inadvertent/pre-teen* category of offenders exclusively targets female pre-teen victims. These offenders are particularly violent with their victim, but the sexual acts committed appear as less sadistic and less humiliating than previous category. However, one of the most distinguishable features of this modus operandi is the use of a coercive approach by offenders to assault their victims. Offenders from the *intentional/teen* category only target female teenagers and perpetrated sexual penetration of the victim, acts of sexual sadism, as well as using strangulation to kill the victim. In these SHs, the offender and the victim are complete strangers, but the offender uses a ruse to approach the victim. These offenders always commit their crime in a residence but are never familiar with the crime location. Offenders from the *indiscriminate/teen* category are the oldest and they target the oldest female child victims. These SHs are characterized by the absence of sadism and humiliation, the presence of the vaginal penetration of the victim and the use of strangulation to kill the victim. Another distinguishable feature of these SHs is related to the criminal career of the offenders. Chopin and Beauregard (2019c) observed that two thirds of them were frequently engaged in a variety of criminal activities, similar to the versatile sex offender identified by Beauregard, DeLisi, and Hewitt (2018). This criminal experience could also be related to the fact that all offenders have moved the victims' bodies after the murder, which is a strategy developed by experienced offenders to avoid being detected by the police (Beauregard & Martineau, 2015).

Sexual Homicide of Adult Victims and Sadism

In his book *Psychopathia Sexualis*, Krafft Ebing (1886) described the sadistic offender as an individual driven by the experience of pleasure, which could only be achieved through means of cruelty and corporal punishment on animals or people. Since then, multiple efforts by researchers and clinicians have been made to validate the notion of sadism. Despite some difficulties in reaching an agreed upon definition, it seems that there exists a general consensus as to the sexual arousal of sexual sadists, whether it is (a) some form of violent or humiliating behavior (e.g., Abel, 1989; Groth & Birnbaum, 1978; Knight & Prentky, 1990; Knight, Prentky, & Cerce, 1994), (b) the victim's reaction to this behavior (e.g., being frightened, scared, or being in pain; Marshall & Kennedy, 2003), or (c) the resulting feeling of power and control as a result of the violence inflicted (Brittain, 1970; Dietz, Hazelwood, & Warren, 1990; Grubin, 1994; MacCulloch, Snowden, Wood, & Mills, 1983). The DSM-V defines sadism as 'recurrent and intense sexual arousal from the physical or psychological suffering of another person, as manifested by fantasies, urges, or behaviors' (American Psychiatric Association, 2013, p. 694). Further, the DSM-V requires that these urges, fantasies and behaviors are acted onto a nonconsenting individual. Others have argued that sadists can be characterized by a deviant sexual preference for violence (Abel, 1989; Groth & Birnbaum, 1978; Knight & Prentky, 1990; Knight and colleagues, 1994). However, researchers like Gratzler and Bradford (1995, p. 50) have suggested that violence is not a sufficient condition to elicit sexual arousal, but the 'control of another person through domination, degradation, or infliction of pain for the purpose of sexual pleasure'. According to this perspective, it is not so much the violence, but the humiliation, degradation, subjugation, and suffering producing fear, terror, pain, and panic in the victim, which makes the sadist feel powerful and sexually aroused.

Although most researchers have reached a consensus on the main features associated with sexual sadism, there are still some methodological issues related to the measurement of

sadism. Consequently, diagnosing sadism is still challenging today, and it has led to various estimates on the actual prevalence of this disorder. Depending on the study, it ranges anywhere from 5 to 50% of all sexual offenders (Barbaree, Seto, Serin, Amos, & Preston, 1994; Groth & Birnbaum, 1978; Harenski, Thornton, Harenski, Decety, & Kiehl, 2012; Proulx, St-Yves, Guay, & Ouimet, 1999). In a recent estimate, sadism has been detected in approximately 35% of SHs (Hill, Habermann, Berner, & Briken, 2007).

Although most existing scales used to measure sadism require access to the offender (see Guttman, 1944; Marshall & Hucker, 2006; Nitschke, Mokros, Osterheider, & Marshall, 2013), a new type of scale was recently developed to dimensionally measure the degree of offender sexual sadism expressed at SH crime scenes (see Jones, Chan, Myers, & Heide, 2013). The SADSEX-SH (Myers, Beauregard, & Menard, 2019) aims to assist in the diagnostic assessment of unidentified or unconfirmed perpetrators purely from crime scene actions. It was constructed based on the sexual sadism and SH literature combined with the empirical experience of the authors in evaluating sexually sadistic murderers and SH crime scene characteristics (e.g., Brittain, 1970; Chan, Beauregard, & Myers, 2015; Chan & Heide, 2009; Dietz and colleagues, 1990; Fedoroff, 2008; Gratzer & Bradford, 1995; Healey, Lussier, & Beauregard, 2013; Marshall, Kennedy, Yates, & Serran, 2002; Myers, Chan, & Damiani, 2016; Myers, Chan, Vo, & Lazarou, 2010; Nitschke, Osterheider, & Mokros, 2009). The SADSEX-SH scale is based on the 8 following items: 1) Sexual domination of the victim through the use of bondage, asphyxia, blindfolding, a knife, etc., 2) physical or psychological torture of the victim, 3) the victim forced to verbally or physically engage in sexually degrading, humiliating behavior, 4) gratuitous violence, excessive injury, biting, cutting, or other acts of physical cruelty inflicted on the victim, 5) anal and/or oral sex forced upon the victim, 6) use of an inanimate object(s) to sexually penetrate the victim, 7) sexual mutilation of the victim, 8) souvenirs or trophies taken from the victim.

Sadistic Sexual Homicides and Crime Scene Behaviors

Several studies have compared the crime scene behaviors of sadistic and non-sadistic SHO. Following the classical organized/disorganized classification of offense characteristics (Ressler, Burgess, & Douglas, 1988), Meloy (2000) suggested that sadistic SHO are organized offenders. Warren, Hazelwood, and Dietz (1996) found that sadistic SH were highly planned, that offenders used a con or manipulative approach, and that victims were taken to a pre-selected location. Victims were generally bound and sexual intercourse, as well as sexual ritual, occurred in most of the cases. Most of the time, sadistic SHOs targeted female victims that were strangers (Warren and colleagues, 1996). Gratzner and Bradford (1995) used a sample of 59 sadistic SHO and found that they were more likely to perform a variety of sexual acts during the crime and that they more often inserted foreign objects and beat their victims. In the study by Beauregard and Proulx (2002), findings showed that sadistic SHOs more often premeditated their crime, selected a victim, humiliated and mutilated their victims, used physical restraints, left the victim's body at the crime scene, and presented a higher risk of being apprehended in comparison with angry SHOs. Healey and colleagues (2013) confirmed these findings by investigating crime scene behaviors of a mixed sample of 182 sexual aggressors and 86 SHOs. They found that crime premeditation, use of physical restraints, mutilations and humiliation were typical characteristics of crimes committed by sexual sadists. In their study based on 350 cases of SH, Reale, Beauregard, and Martineau (2017b) identified distinct groups of SHOs based on varying degrees of sadistic behavior. Three subgroups of SHOs emerged including a severe sadistic group, a mixed group, and a non-sadistic group. The mixed group of SHOs demonstrated forensic awareness at the crime scene (i.e., they are more able to avoid police detection by using various strategies focused on forensic evidence potentially left at the crime scene, see Beauregard & Martineau, 2018; Chopin & Beauregard, in press), as well as the use of torture, sexual

­mutilation, and the use of inanimate objects on their victims. These findings, particularly for the mixed group of offenders, are well situated in the current view that sadistic SHOs use instrumental violence for personal gain and thrill-seeking tendencies (see Porter and colleagues, 2000), in comparison to other SHOs whose primary motivation may differ (e.g., acting on deviant sexual fantasies, or reacting due to situational factors such as excessive resistance). With the same sample, Reale, Beauregard, and Martineau (2017a) tested if sadistic SHOs were more forensically aware. They found that sadistic SHOs used strategies to avoid police detection more often than non-sadistic SHOs. Specifically, sadistic SHOs selected deserted places to encounter their victims and dump their bodies, in addition to using forensic awareness strategies (FAS). They acted on victims and/or the environment, destroyed and removed forensic evidence, and used other precautions such as staging the crime scene or protected their identity (Reale and colleagues, 2017a).

Aim of Study

In addition to the limited knowledge available on SH of children, there is a lack of empirical insight into the role of sadism in these types of offenses. To the best of our knowledge no studies have empirically explored this aspect of SH of children. Therefore, the current study aims to investigate the role of sexual sadism in the crime-commission process of SH involving child victims and its implications for theory and practice. Specifically, this exploratory study aims to answer the following two research questions:

Research Question 1: What is the prevalence of sadism among SH of children?

Research Question 2: Which crime-commission process characteristics are associated with sadistic SHOs of children?

Method

Sample

The sample used in this study was taken from the Sexual Homicide International Database (SHIELD; see Chopin & Beauregard, 2019b for a description of the database methodology). SHIELD includes 772 solved and unsolved cases of extrafamilial (strangers or acquaintance) SHs from France (N = 412) and Canada (N = 350) that have occurred between 1948 and 2018. SH cases were identified using the definition from Ressler and colleagues (1988), stating that for a homicide to be considered sexual, it has to present at least one¹ 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. Information included in the database is coded by crime analysts who analyze the criminal investigation files for each case.

Information included in these files are mainly filled out by police officers but also by other experts involved in the investigation process (e.g., coroner, forensic psychologist, forensic experts, etc.).

For the current study, a sample of 136 solved cases of SHs involving children was selected. There is no concrete method to operationalize what constitute a child victim. However, to be congruent with the existing literature on SH, the victim was considered as a child if they were under the age of 16 years (see Beauregard & Martineau, 2015; Chopin, 2017; Chopin & Beauregard, 2019c; Chopin & Caneppele, 2019a, 2019b; Gravier, Mezzo, Abbiati, Spagnoli, & Waeny, 2010; Proulx and colleagues, 2018; Skott, 2019).

Measure

Dependent variable. The dependent variable is a dichotomous variable (0 = non-sadistic SH – 1 = sadistic SH) and was created from the SADSEX-SH scale identified by Myers and colleagues (2019). This scale uses a cut-off score of six (i.e., not present or unknown = 0

¹ Although such definition has been criticized to potentially present false positives, it is important to mention here that all cases included in SHIELD presented at least two of the criteria to be considered sexual.

point, possibly present/some evidence = 1 point, present =2 points) to determine the presence or absence of sadism in a case of SH. This score is computed on the basis of eight items: (1) sexual domination of the victim through the use of bondage, blindfolding, a knife, etc.; (2) physical or psychological torture of the victim; (3) victim forced to verbally or physically engage in sexually degrading, humiliating behavior; (4) gratuitous violence, excessive injury, biting, cutting, or other acts of physical cruelty inflicted on the victim; (5) anal or oral sex forced upon the victim; (6) use of an inanimate object(s) to sexually penetrate the victim; (7) sexual mutilation of the victim; (8) souvenirs or trophies taken from the victim. What distinguish the SADSEX-SH scale from other sadism scales is its reliance on only observable crime scene indicators. Among the sample, we identified 35 cases of sadistic SH with an average score of 6.97 [SD=1.31; Range 6–10] and 101 cases of non-sadistic SH with an average score of 2.69 [SD=2.69, Range 0–4].

Independent variables.

A total of 34 independent variables were used to describe the crime-commission process. First, six dichotomous variables describe the context in which victims were assaulted: 1) Victim was involved in domestic activities at the time of offense (e.g., watching TV, etc.); 2) victim was traveling to or from somewhere at the time of offense (i.e., victims move from one place to another independently of the travelled distance that could be very short), 3) victim was hitchhiking, 4) victim was biking, 5) victim was visiting friends or relatives, and 6) victim was partying

Second, three dichotomous variables provide information on crime scene locations: 1) Contact scene is an outdoor location, 2) crime scene is an outdoor location, and 3) body recovery scene is an outdoor location.

Third, six variables were used to describe the crime characteristics. One of these variables is continuous (i.e., number of sexual acts committed) while all the others are

dichotomous. These variables are: 1) Offender and victim were strangers (i.e., describes situations where offenders and victims were totally unknown at the time of the crime), 2) victim was targeted by offenders, 3) offender used a con approach (e.g., befriended the victim, posed as an authority figure, offered assistance, etc.), 4) offender used restraints, 5) number of sexual acts committed by the offender [Range = 0 - 6], 6) unusual acts (i.e., carving on victim, evisceration, skinning victim, exploration of body cavities or wounds, cannibalism, drinking of victim's blood).

Fourth, 14 dichotomous variables were used to describe the method of killing and the body recovery characteristics: 1) Beating, 2) Stabbing, 3) cutting, 4) stomping, 5) crushing, 6) burning, 7) strangulation, 8) asphyxiation, 9) drowning, 10) gunshot 11) body was moved from the crime scene, 12) body was found naked, 13) evidence of postmortem sexual activity, 14) evidence of overkill (i.e., inflicting more grievous bodily harm on the victim than is necessary to cause death; see Geberth, 1986).

Finally, five variables describe the forensic awareness strategies (FAS) used by offenders to avoid police detection. One of these variables is continuous (i.e., number of forensic awareness strategies) while other are dichotomous. These variables are: 1) Offender administered drugs to victim, 2) offender destroyed evidence (e.g., destruction of forensic evidence, offender set fire to scene, offender washed victim's body, offender cleaned crime scene, offender planted evidence/staged scene etc.), 3) offender acted on environment (e.g., disable the victim phone, etc.), 4) offender protected his identity (e.g., offender used a condom, offender wore gloves, etc.), and 5) number of FAS used by the offender [Range = 0 - 3].

Analytical Strategy

The first analytical step of this research was to assess differences between the two groups (sadistic and non-sadistic SHs) at the bivariate level, in relation to all the independent

variables. For dichotomous variables we used chi-square analysis. When the cell count was insufficient to justify chi-square tests, the Fisher's exact significance was used. As the four continuous variables did not follow a normal distribution, we used non-parametric Mann-Whitney *U* test to explore potential relationships with the dependent variable.

The second analytical step was to examine the differences between the two groups at the multivariate level with binomial logistic regressions. The goal was to explore differences at the multivariate level in order to identify the most important factors that characterized the sadistic SH of children. As the sample size is limited, we utilized a series of five binomial logistic regression (methodological outcome of this decision is discussed in the limitation section). Each binomial logistic regression focuses on one predetermined block of independent variables that was significant ($p \leq 0.05$) at the bivariate level.

Results

Bivariate Analyses

Table 1 describes analyses conducted on the eight items of the SADSEX-SH scale with the two types of SHOs (i.e., sadistic and non-sadistic). These findings suggest that only 6 of the 8 items are important in cases of SH of children. Results showed that sexual domination behaviors ($X^2 = 11.56, p \leq .001$), gratuitous violence ($X^2 = 25.42, p \leq .001$), anal and/or oral sex ($X^2 = 24.71, p \leq .001$), inanimate object insertion ($X^2 = 20.45, p \leq .001$), sexual mutilation ($X^2 = 18.11, p \leq .001$), and souvenirs or trophies collection ($X^2 = 27.72, p \leq .001$) are more often present in sadistic SH.

[Insert Table 1 here]

Bivariate analyses related to crime characteristics are presented in Table 2. As to the crime context, victims of sadistic SH were more often assaulted while they were hitchhiking ($X^2 = 6.63, p \leq .01$) or biking ($X^2 = 4.48, p \leq .05$). Analysis of crime characteristics indicated that individuals who have committed sadistic SH against children were more often strangers ($X^2 =$

4.20, $p \leq .05$) and they less often targeted their victims ($X^2 = 5.68$, $p \leq .01$). During the crime, they perpetrated more sexual acts ($U = 829.50$, $p \leq .001$, $r = 0.39$) as well as unusual acts ($X^2 = 8.35$, $p \leq .01$). Individuals who have committed sadistic SH against children more often selected outdoor locations for contact scenes ($X^2 = 2.53$, $p \leq .01$), crime scenes ($X^2 = 6.15$, $p \leq .01$) and body recovery scenes ($X^2 = 9.66$, $p \leq .001$). As to the method of killing, they more often stabbed ($X^2 = 3.26$, $p \leq .1$), strangled ($X^2 = 15.44$, $p \leq .001$), asphyxiated ($X^2 = 10.89$, $p \leq .001$), and drowned their victim ($X^2 = 8.44$, $p \leq .01$). Individuals who have committed sadistic SH against children less frequently moved the victim's body after the crime ($X^2 = 3.92$, $p \leq .05$), while more often undressing the victim completely ($X^2 = 9.96$, $p \leq .01$) and perpetrating postmortem sexual acts ($X^2 = 3.03$, $p \leq .1$). Individuals who have committed sadistic SH against children more often administered drugs to their victims ($X^2 = 17.04$, $p \leq .001$), destroyed evidence ($X^2 = 4.85$, $p \leq .05$), acted on the environment ($X^2 = 14.04$, $p \leq .001$), and used a higher number of FAS to avoid police detection ($U = 1141$, $p \leq .001$, $r = 0.28$).

[Insert Table 2 here]

Binomial Logistic Regression Analyses

Findings of binomial logistic regressions are presented in Table 3. Model 1 describes crime context variables. Results indicate that victims of SH who were hitchhiking or biking were respectively 5.81 (OR = 5.81, $p < .01$) and 4.84 times (OR = 3.94, $p < .01$) more likely to be victim of sadistic SH. Model 2 examines crime characteristics. In SH of children, as the numbers of sexual acts perpetrated increases, individuals are 1.72 times more likely to be sadistic (OR = 1.72, $p < .001$). Similarly, unusual acts are 3.92 times more likely to be perpetrated in sadistic SH (OR = 3.92, $p < .05$). Model 3 focuses on crime locations and indicates that a victim's body is 3.61 times more likely to be found at an outdoor location in sadistic SH (OR = 3.61, $p < .05$). Model 4 includes the method of killing and body recovery

characteristics. Sexual homicide in which the method of killing was strangulation, asphyxiation, or drowning, were respectively 6.75 (OR = 6.75, $p < .001$), 7.70 (OR = 7.70, $p < .01$), and 13.78 (OR = 13.78, $p < .05$) times more likely to be sadistic. The victim's body was 3.03 times less likely to be moved in a sadistic SH (OR = 1/0.33, $p < .05$) while they were 7.41 times more likely to be found naked (OR = 7.41, $p < .001$). Model 5 focuses on FAS used by offenders. Individuals who have committed SH against children who have destroyed evidence or acted on the crime scene were respectively 4.55 (OR = 4.55, $p < .05$) and 2.72 (OR = 2.72, $p < .05$) times more likely to have committed a sadistic SH.

[Insert Table 3 here]

Discussion

This study aimed to explore the role of sadism in SH of children. Using the SADSEX-SH scale (Myers et al. 2019), we showed that approximately one quarter of SH of children within our sample, scored at least 6, which is the cut-off to determine whether SH are sadistic or not. Such prevalence is coherent with previous studies on sadism in SH based on mixed or adult victims' samples (Barbaree and colleagues, 1994; Groth & Birnbaum, 1978; Harenski and colleagues, 2012; Hill and colleagues, 2007; Proulx and colleagues, 1999). The analysis of the individual item's distribution of SADSEX-SH allowed us to identify specific aspects of SH of children. First, sexual domination appears to be a distinguishing feature in cases of SH of children, as it was always present in sadistic cases, compared to only half of the cases for the non-sadistic SH of children. Nevertheless, we observed that this item is also common in non-sadistic SHs. This suggests that sadistic SHs of children are specifically characterized by the combination sexual domination with other items like the presence of gratuitous violence, anal and/or oral sex, and the collection of souvenirs or trophies. Second, physical/psychological torture as well as degrading and humiliating behaviors were totally absent from the SH of children cases in our sample, which is different from the findings from Reale and colleagues

(2017b) based on a sample mostly composed of adult SH cases. This over-representation of sexual domination behaviors with an absence of torture and humiliating behaviors in sadistic SH of children, suggests that the type of victim is important when analyzing the offender's behavior at the crime scene and that knowledge produced on sadistic SH of adult victims should not be applied blindly to cases involving children (Chopin & Beauregard, 2019c; Leclerc, Proulx, & Beauregard, 2009; Proulx and colleagues, 2018).

Specific Crime Commission Process for Sadistic SHO of Children

Our findings are congruent with previous studies which found that sadistic SHO present a structured premeditation (Beauregard & Proulx, 2002; Healey and colleagues, 2013; Ressler and colleagues, 1988; Warren and colleagues, 1996). SHOs of children demonstrate what Rossmo (2000) termed "premeditated opportunism". These offenders are ready to commit their crime and they have made some preparation. However, they do not necessarily know which victim they will choose or the exact time they will strike. Nonetheless, they have elaborated their plan in their fantasies and are ready to act when the right opportunity presents itself. This was illustrated in our findings, as offenders looked for specific crime opportunities as well as crime locations. Our analysis of the crime context suggested that victims of sadistic SH of children were more often biking or hitchhiking prior to being assaulted. This is coherent with the notion of predatory behavior of sadistic SHO of children. They were looking for opportunities where young victims were alone to assault them. According to the routine activities theory (Cohen & Felson, 1979), both hitchhiking and biking represent situations where children are vulnerable targets for a motivated offender. Contrary to adults, children are more difficult to access for offenders because they spend most of their time under the supervision or the care of adults protecting them (e.g., teacher, parents, etc.). Offenders who premeditated their crimes searched and identified riskier conditions for children (i.e., lack of supervision) to approach and assault them. This could imply that sadistic SHO of

children identified hunting areas they are familiar with and where such conditions are present. Second, our findings suggest that individuals involved in sadistic SH of children chose an outdoor location, not just at the contact location but also to dump the victim's body. This is coherent with the study by Reale and colleagues (2017b) where sadistic SHOs selected deserted places to encounter their victims and dump their bodies. The fact that sadistic SH of children are characterized by an important level of premeditation is contradictory to the findings by Proulx and colleagues (2018). They found that in general, SHOs of children were less likely to exhibit a structured premeditation compared to those who target adult victims. This discrepancy could be partly due to the fact that not all SH of children follow the same crime-commission process, with similar motivations and that they constitute a heterogeneous subgroup of SHOs (Chopin & Beauregard, 2019c).

Analysis of the crime characteristics showed that individuals involved in sadistic SH of children perpetrated more diversified sexual acts as well as unusual acts during the criminal event – a finding in line with previous studies on sexual sadism (Gratzer & Bradford, 1995; Warren and colleagues, 1996). In the case of sadistic SH involving child victims, this could be explained by the fact that sadistic offenders present a clear sexual preference for children and are unable to find excitement in classical sexual relationship with consenting adults (Proulx, McKibben, & Lusignan, 1996). Consequently, they choose to express their deviant sexual fantasies with children leading to the commission of diverse sexual and unusual acts to increase their sexual arousal (Firestone and colleagues, 1998; Gratzer & Bradford, 1995; Proulx and colleagues, 2007; Schmidt & Madea, 1999).

We can also make the hypothesis that in non-sadistic SHs, the sexual motivation might not be as strong, and other motives (e.g. anger, revenge, search for intimacy) might be more important for the offence.

Killing methods used by sadistic SHO are more often asphyxiation or strangulation. This finding is coherent with the method used by child SHO of the “intentional teen” category of Chopin and Beauregard’s (2019) typology, which also included strong elements of sexual sadism. Method of killing used by SHO changed according to their motivations. When the death of the victim is non-intentional, the use of an excessive amount of violence to beat the victim is more likely (e.g., to avoid resistance, to express feelings of anger) and lead to a lethal outcome (Chopin & Beauregard, 2019a, 2019c). On the opposite, when the crime is intentional and that the death of victims is part of the deviant script, offenders used other methods of killing like strangulation. We can hypothesize that sadistic SHO especially used asphyxiation or strangulation to kill their victims because these methods combine both feelings of sexual domination and suffering, which are two major components of sexual sadism (see Abel, 1989; Dietz and colleagues, 1990; Gratzer & Bradford, 1995; Groth & Birnbaum, 1978; Knight & Prentky, 1990; Knight and colleagues, 1994; Marshall & Kennedy, 2003). In addition to the method of killing, our findings highlighted that the victim’s body is more often found naked in sadistic SHO. This behavior could be an ultimate way to sexually degrade the victim as well as shock the people who will discover the body.

As to the use of FAS by individuals involved in sadistic SH of children, our findings are somewhat different from those of Reale and colleagues (2017a). Our findings suggested that sadistic SHOs of children are partially forensically aware. On one hand, they choose deserted locations to assault and dump the victim’s body, they acted on the environment (e.g., disable victims’ phone), and they administered drugs to victims to limit the resistance at the time of contact or during the crime, showing some forensic awareness. On the other hand, they did not move the victim’s body after the crime, they did not remove or destroy forensic evidence and did not protect their identity (e.g., use of gloves, condoms, etc.) during and after the crime. This observation could refer to the inverted U-shaped dose response performance

curve phenomenon identified by Cromwell and Olson (2004) in cases of burglary. Thus, offenders seem to be capable of using FAS until the crime was effectively committed. After they obtained their sexual gratification however, they focus on leaving the crime scene and are less likely to use any strategies to avoid police detection (Beauregard & Martineau, 2018; Chopin & Beauregard, in press). Such pattern of behavior was also identified in the crime-commission process of stranger rapists (Beauregard & Bouchard, 2010; Chopin, Beauregard, Gatherias, & Oliveira, 2020).

Diversity

This study examined sadism in cases of SH involving child victims. Specifically, analyses compared the similarities and differences in the crime-commission process of sadistic and non-sadistic SHO of children. Diversity is specifically addressed in this research through two aspects. First, this empirical study is based on an international database including cases which occurred in France and Canada over a period of 70 years. Second, this study focuses on a specific type of victims as we considered only victims under the age of 16 years old. The combination of these two aspects increase the reliability and the validity of the findings while being based on a very specific population. Research on specific types of crime is needed to both improve their theoretical understanding and allow for better tailored practical implications.

Conclusion

This study was the first to explore the role of sadism in SH of children. Our findings show firstly that approximately a quarter of SHOs of children can be considered as sadistic. Also, sadistic fantasies of individuals involved in SH of children seem to differ from the ones of those offenders targeting adult victims. Thus, there is an over-representation of sexual domination behaviors as well as an absence of physical/psychological torture and degrading and/or humiliating behavior. Second, several differences in the crime-commission process

were observed between sadistic and non-sadistic SHOs. Especially, we observed an important level of structured premeditation, the commission of more diversified sexual acts, the use of specific method of killing and the partial use of forensic awareness strategies.

These findings present several implications. First, as mentioned previously, this study is the first to explore sadism in SH of children. The comparison with sadistic SH involving adult victim and non-sadistic SH of children shows that it constitutes a specific group in itself. This confirms the idea that SH of children constitute a heterogeneous category of crimes and that the presence of sexual sadism will largely influence the crime-commission process. This exhaustive picture of the crime-commission process used by sadistic SHO of children may be used by investigators to better understand the presence of specific behaviors at the crime scene as well as potentially identify whether the offender they are looking for is sadistic. Contrary to sadistic SH of adult victims, our study showed that sadistic SHO of children do not use coercive strategies to assault their victims and instead prefer to take advantage of their weaknesses related to their routine activities and use a ruse to approach them. Hence, despite what may appear as “irrational” and “unusual”, sadistic SHOs of children still present rational decision making. Notwithstanding the presence of some rationality in their decision making, our findings showed that sadistic SHOs do not use any forensic awareness strategies during the postcrime phase. This is important as this lack of forensic awareness after the crime could be used by investigators and more specifically forensic technicians in order to search for evidence at the crime scenes or where the body was found.

This study is not without limitations. First, limitations are inherent to the use of police data (see Aebi, 2006 with references) in terms of validity and reliability. Findings of this research are also concerned only with cases that have been reported to the authorities. However, the dark figure of homicide is especially low (Aebi and Linde (2012), and is likely even more so in cases that involve the SH of children. Nevertheless, we cannot exclude that

some homicides involving children are not identified as sexual due the fact that victims' bodies are never recovered (Beauregard & Martineau, 2017). Moreover, our study focused only on solved cases and we cannot exclude that unsolved cases present different patterns (see Balemba, Beauregard, & Martineau, 2014; Beauregard & Martineau, 2014; Chopin, Beauregard, Bitzer, & Reale, 2019). Second, we used the SADSEX-SH scale to identify sadistic case of SH on the basis of crime scene behaviors. We cannot exclude that some sadistic cases remain unidentified by this tool. Finally, the limited sample size has led to methodological choices that could have had an impact on the interpretation. In the current study, we tested an important number of independent variables (34) for a limited sample size (N=136), which can lead to Type-1 error. Although using Bonferroni correction is one way to avoid this type of error, our study is exploratory in nature and is not meant to test specific hypotheses. Bonferroni correction is a very conservative procedure that has been criticized for increasing the risk of Type-2 errors (see for example Napierala, 2012; Simes, 1986; Streiner & Norman, 2011), especially in the context of exploratory studies. Due to the limited sample size, we utilized a series of binomial logistic regressions instead of integrating all the variables in one model of sequential binomial regression. As methodological problems of rare events with logistic regression have been highlighted and can lead to bias (e.g., over-representation of odds ratio) (King & Zeng, 2001) the results should be interpreted with this in mind.

Future studies should examine the distinction between sadistic SH of child and adult victims. In addition to comparing crime characteristics according to the type of victims (i.e., child and adult), future studies should test the heterogeneity of sadism in cases involving adult victims and compare the findings with sadistic SHOs of children. Finally, further studies could test whether differences exist according to the different childhood stages.

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Tables

Table 1. Bivariate analysis of the eight items of the SADSEX-SH scale (N=136)

	General sample (N=136)		Non-sadistic SHs (n=101)		Sadistic SHs (n=35)		χ^2 Fischer's exact test
	n=	%	n=	%	n=	%	
Sexual domination	98	72.06%	65	64.36%	33	94.29%	11.56***
Physical/psychological torture	5	3.68%	4	3.96%	1	2.86%	0.08
Degrading and/or humiliating behavior	0	0%	0	0.00%	0	0.00%	0
Gratuitous violence	46	33.82%	22	21.78%	24	68.57%	25.42***
Anal/oral sex	53	38.97%	27	26.73%	26	74.29%	24.71***
Inanimate object insertion	17	12.50%	5	4.95%	12	34.29%	20.45***
Sexual mutilation	6	4.41%	0	0.00%	6	17.14%	18.11***
Souvenirs or trophies	33	24.26%	13	12.87%	20	57.14%	27.72***

Notes. *** $p \leq .001$.

Table 2. Bivariate analysis of crime-commission process (N=136)

	Non-sadistic SHs (n=101)		Sadistic SHs (n=35)		χ^2 Mann-Withney U Fischer's exact test
	n=	%	n=	%	
Crime context					
Victim was involved in domestic activities	11	10.89%	2	5.71%	0.81
Victim was walking to or from somewhere	38	37.62%	13	37.14%	0.00
Victim was hitchhiking	4	3.96%	6	17.14%	6.63**
Victim was cycling	4	3.96%	5	14.29%	4.48*
Victim was visiting friends or relatives	7	6.93%	1	2.86%	0.77
Victim was partying	7	6.93%	3	8.57%	0.10
Crime characteristics					
Offender-victim relationship: Stranger	52	51.49%	25	71.43%	4.20*
Offender targeted the victim	43	42.57%	7	20.00%	5.68**
Con approach	71	70.30%	24	68.57%	0.03
Use of restraints	21	20.79%	6	17.14%	0.21
Number of sexual acts committed	1.55 ¹ [SD=0.13] 1 ²		2.77 ¹ [SD=0.24] 3 ²		892.50***
Unusual acts	9	8.91%	10	28.57%	8.35**
Crime locations					
Contact scene: Outdoor location	42	41.58%	20	57.14%	2.53†
Crime scene: Outdoor location	57	56.44%	28	80.00%	6.15**
Body recovery scene: Outdoor location	57	56.44%	30	85.71%	9.66***
Method of killing					
Beating	44	43.56%	19	54.29%	1.20
Stabbing	15	14.85%	10	28.57%	3.26†
Cutting	13	12.87%	6	17.14%	0.39
Stomping	1	0.99%	2	5.71%	2.68
Crushing	1	0.99%	2	5.71%	2.68
Burning	4	3.96%	1	2.86%	0.08
Strangulation	39	38.61%	27	77.14%	15.44***
Asphyxiation	11	10.89%	13	37.14%	12.32***
Drowning	3	2.97%	6	17.14%	8.44**
Gunshot	7	6.93%	2	5.71%	0.06
Body recovery					
Body moved	42	41.58%	8	22.86%	3.92*
Body found naked	21	20.79%	17	48.57%	9.96**
Postmortem sexual activity	20	19.80%	12	34.29%	3.03†
Overkill	24	23.76%	11	31.43%	0.79
Forensic awareness strategies used by offenders					
Offender administrated drug to victim	4	3.96%	10	28.57%	17.04***
Removing/destroying forensic evidence	26	25.74%	16	45.71%	4.85*
Acting on environment/victim	21	20.79%	19	54.29%	14.04***
Protecting identity	6	5.94%	1	2.86%	0.50
Number of strategies used to avoid detection	0.77 ¹ [SD=0.10] 0 ²		1.46 ¹ [SD=0.09] 1 ²		1141***

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

¹ Represent the mean

² Represents the median

Table 3. Binomial logistic regressions of factors influencing sadistic SH of children (N=136)

		Model 1		Model 2		Model 3		Model 4		Model 5	
		β	Exp(β)	β	Exp(β)	β	Exp(β)	β	Exp(β)	β	Exp(β)
Crime context	Victim was hitchhiking	1.76	5.81**								
	Victim was cycling	1.58	4.84*								
Crime Commission	Offender-victim relationship: Stranger			-0.67	1.96						
	Offender targeted the victim			0.86	0.43						
	Number of sexual acts committed			0.55	1.72***						
	Unusual acts			-1.37	3.92*						
Crime scene	Contact scene: Outdoor					0.16	1.18				
	Crime scene: Outdoor					0.30	1.35				
	Body recovery scene: Outdoor					1.28	3.605*				
Method of killing and body recovery	Strangulation							1.88	6.57***		
	Asphyxiation							2.04	7.70**		
	Drowning							2.62	13.78*		
	Body moved							-1.10	0.33*		
	Body found naked							2.00	7.41***		
Forensic awareness strategies	Offender administrated drug to victim									1.50	4.55*
	Destroying forensic evidence									0.20	1.23
	Acting of environment/victim									1.00	2.72*
	Number of strategies used									0.16	1.17
	Constant	-1.36	0.258***	0.76	2.12***	-2.29	0.10***	-3.33	0.03***	0.60	1.82***
	χ^2	10.54**		34.99***		11.27**		51.74***		19.30***	
	-2 Log likelihood	144.56		120.11		143.84		103.37		135.80	
	Cox & Snell R ²	0.08		0.23		0.08		0.32		0.13	
	Overall classification %	0.77		0.79		0.74		0.85		0.79	

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