Siblicide: The Psychology of Sibling Homicide

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Abstract

Siblicide has been overlooked in both the family violence literature and homicide studies. This is unsurprising as sibling abuse research in general has remained on the periphery until recently, and since then has tended to focus on non-lethal conflict, bullying or bi-directional aggression. This chapter examines the available literature to present a comprehensive overview of this poorly understood phenomenon. We report on prevalence rates, the sociodemographic context of offenses and the patterns and dynamics that underpin offender and victim characteristics - including age, birth order, gender, genetic-relatedness, race and cultural collectivism. Individual risk factors such as the influence of psychopathology and substance use are explored, as well the impact of developmental disorders, that is, Autism and Asperger's syndrome. The chapter will conclude by examining sibling homicide in the context of sociobiological and psychoanalytical perspectives.

Keywords: sororicide, fratricide, homicide, sibling violence,

Introduction

Sibling relationships are perhaps the most diverse of all family kinships. Depending on degrees of genetic relatedness, brothers and sisters may share more, the same, or a smaller percentage of their DNA with their siblings than they do with their parents -100% for identical twins, 50% for full siblings, and 25% for half siblings. While these sibling bonds begin in utero, there are many step, adopted or fostered siblings genetically unrelated to the brothers or sisters they live with, whose relationship may begin at any age. Yet one commonality of all sibling relations is that they are formed independently, resulting entirely from other family members' relational choices and desires. Add to that mix that siblinghood is globally prevalent and longer lasting than most other kinships, it is unsurprising that the nature and dynamics of sibling relationships vary greatly, depending on the interplay of myriad psychological, social, and environmental factors.

Maybe it is because siblinghood is complicated that research studies that focus on the negative aspects of brothers and sisters' relationships have lagged behind those that have explored other forms of familial abuse. In the forty years since Straus, Gelles, and Steinmetz's (1980) seminal national study indicated that physical aggression against siblings was the most common form of family violence, research and clinical interest in the abusive physical conduct of brothers and sisters has steadily increased. There is now a more robust body of work available, offering explanations on the characteristics and motives underpinning the physical harm inflicted against siblings. This research has provided some insight on how and why sibling abuse occurs, not only in childhood but also across the lifespan (Khan & Rogers, 2015).

Physical aggression between siblings is now increasingly recognized as a serious and global problem. Violent incidents are reported not only in European-American or British populations but also in ethnic minority groups in the United States (Perkins & Shadik, 2018) and the United Kingdom (Irfan & Cowburn, 2004) and other parts of the world, including Portugal (Relva, Fernandes, Alarcão, & Quelhas, 2014; Relva, Fernandes, & Costa, 2013), Finland, Canada, Israel, and Puerto Rico (Steinmetz, 1981).

It is common for studies to report high rates of sibling assaults - some of the highest in family violence research. Although prevalence rates vary across studies, estimates range between 30 to 60 percent (e.g., Tucker, Finkelhor, Shattuck, & Turner, 2013;

Rothman et al., 2010). Some studies have reported estimates as high as 70% to 96% (e.g., Eriksen & Jensen, 2009; Kettrey & Emery, 2006).

A large proportion of aggressive behavior against siblings is reported to be mild and bi-directional (e.g., Straus & Gelles, 1990; Tucker et al., 2013). A number of studies have distinguished between mild and more severe forms of aggression by considering a range of aggressive sibling behaviors, including incidences of severe abuse (Eriksen & Jensen, 2009). These studies report the use of weapons (e.g., blunt objects, knives) resulting in physical injury (e.g., cuts, bruises, broken limbs) in normative (Khan & Rodgers, 2015; Khan, 2017), clinically-referred (Tompsett, Mahoney, & Lackey, 2016), and forensic (Khan & Cooke, 2008; 2013) populations. Similar outcomes are reported in national databases (e.g., Krienert & Walsh, 2011).

In light of these findings, perhaps one of the most unusual outcomes from this area of research is the contrasting prevalence rates found for fatal sibling abuse, that is, sibling homicide. This might explain, to some extent, why investigations into siblicide have not received a similar degree of attention in the research literature.

Prevalence of siblicide

Siblicide refers to the homicidal act of killing a sibling, while sororicide and fratricide, respectively, refers to the killing of a sister and of a brother (Walsh & Krienert, 2014). In one of the first empirical studies of siblicide, Wolfgang (1958) established that of all the homicides that took place in Philadelphia, United States, from 1948 to 1952, only 3% were sibling homicides. Sixty years on, siblicide is still noted to be one of the rarest forms of family homicide, at an average rate of around 2 percent of all interfamilial homicides (Bourget, Gagné, & Labelle, 2017). For example, examinations of national data reveal a frequency range of between 1% and 8% in the United States (Gebo, 2002; Peck & Heide, 2012).

Using data from the Uniform Crime Reports from 1991 to 1995, Underwood and Patch (1999) reported that 514 siblicides cases had been recorded during this period. The United States Bureau of Justice recorded only 119 siblicide cases from a total of 9,102 family homicides in 2002 (Harlow, Langan, Motivans, Rantala, & Smith, 2005). Similarly, in two examinations using the Federal Bureau Investigation's (FBI) Supplement Homicide Report between 2000 and 2007, Walsh and Krienert (2014) found 1,002 siblicides had occurred during this period, while Diem and Pizarro (2010) calculated a

.05 mean average siblicide rate per hundred thousand population in a sample of 334 siblicides in 235 cities across the United States.

Siblicide data outside of the United States is far more scant, yet an examination of data from Canada by Bourget and Gangné (2006) revealed a similar pattern; they analyzed coroner's files regarding domestic homicides in the province of Quebec from 1991 to 2000, of which 10 cases were siblicide. Likewise, in Australia, it was estimated that there are, on average, six siblicides a year compared with an average of 129 homicides overall (Mouzos & Rushforth, 2003). For example, of the 4,421 victims of homicide from 1989 to 2002, 60% of cases were intimate partner homicide while 5% were siblicides (Mouzo & Rushforth, 2003). In a more recent analysis of a ten-year period from 2002 and 2012, Cussen and Bryant (2015) examined 1,088 incidents of family homicide in which there were 10,158 victims. Of these cases, forty were identified as victims of siblicide. More recently still, the Australian Institute of Health and Welfare (AIHW, 2018) reported that of the 200 domestic homicides recorded between 2012-2013 and 2013-2014, 7 were siblicides – this represented 4% of all domestic homicides.

Although European data is also scarce, it indicates a similar pattern. In a sample of 306 offenders of familial homicide in Portugal, 17 (5.6%) were accused of siblicide over a period of thirty years from 1982 to 2012 (Mascoli, 2015). Elsewhere in Europe, Brookman (2005) examined the Homicide Index data for England and Wales, in which 126 cases of siblicide were identified from the 4,123 homicides overall, between 1997 and 2001. Similarly, in mainland Europe, Ganpat (2017) ascertained that of 1,577 homicides in Finland, Sweden, and the Netherlands that took place from 2003 to 2006, 17 were cases in which people had committed siblicide. In another multinational study, Dawson and Langan (1994) examined murder cases that took place in 1988 across 75 counties; they extracted a sample of approximately 8,063 victims overall, from which 123 were identified as victims of siblicide.

Bourget and Gagné (2006, p.532) contend that efforts to identify the factors that explain incidences of siblicide, and the motivations underpining them, must acknowledge that it is a heterogeneous phenomenon with "no single etiological explanation". It is also important to note that because empirical research in this area is limited, any available evidence must be interpreted with caution as most studies are based on small samples or qualitatative case studies and reports (e.g., Leal & Valença, 2016; Russell, 1984; Walsh & Krienert, 2014).

Offender and victim characteristics

Life stage and age: Due to the diverse range of methodological approaches used in siblicide research, the degree to which sociodemographic factors such as age, birth order, and gender are found to be salient varies across studies. With regard to life-stage, Walsh and Krienert (2014) suggested that while research in this area was still in its infancy, it had evolved enough to indicate differences between cases of siblicide in youth when compared to incidences in adulthood, due to the unique characteristics associated with age-related development and sharing the same home. Gebo (2002, p. 158) speculated that this distinction may be particularly relevant as siblings spend more time together during childhood and adolescence and thus, "seem to have more opportunity to engage in lethal violence against one another". In partial support of this, it is interesting that other researchers have reported that siblicide in adulthood often occurs when siblings are still living together (see Diem & Pizarro, 2010). Yet findings from a number of other studies do not support this. Underwood and Patch (1999, pp. 338), for example, found that the mean age of siblicide victims and offenders were 33.3 years and 34.4 years respectively, with a small age difference between them, and a "peak occurring between the ages 20 and 30". Gebo's (2002) own empirical analysis found that siblicide in the teenage years was rare (9%) when compared to adulthood siblicide (78%). Likewise, in Dawson and Langan's (1994) multinational study of 75 countries that identified 123 sibling victims, around 9% were younger than 12 years, 2% were aged between 12 and 19 years, 43% were aged between 20 and 29 years, 43% age ranged between 30 and 59 and 3% were aged 60 years and older. Around 17% of offenders were aged between 12 and 19 years, 37 % were aged between 20 and 29 years and 47% were aged between 30 and 59 years. Only one study's finding did not align fully with this pattern, as Peck and Heide (2012) found, using Uniform Crime Reports, that between 1976 and 2007, 60% of siblicide offenders were aged between 15 and 17 years.

Birth order and age difference: There is mixed evidence for the association between birth order and siblicide. Some studies have found that victims were younger than their sibling perpetrator (e.g., Adinkrah & Jenkins, 2018), while other studies have found that victims tend to be older than the brother of sister who killed them (e.g., Daly, Wilson, Salmon, Hiraiwa-Hasegawa, & Hasegawa, 2001). Gebo (2002) also reported that younger siblings were more likely to kill older sibling, with an exception for juvenile offenders,

who were they were more likely to kill their younger siblings. With regard to age difference and juvenile siblicide, Daly et al. (2001) found that a difference of more than six years between victim and the offender was rare.

Gender: An examination of data from samples in Canada, Great Britain, Japan, and Chicago revealed "… victim and killer were both males in the majority of cases" (Daly et al., 2001, p. 34). Likewise, a multinational study of 75 countries identified that approximately 85% were males (Dawson & Langan, 1994). In analyses of 22 siblicides that took place in Oklahoma State, United States, between 2010 and 2014, 17 perpetrators and 7 victims were male (Lamothe, 2016). Walsh and Krienert (2014) also found that male victims (73%) were also more prevalent compared with female counterparts (27%) with a similar pattern found for offenders - 834 males and 168 females. Cussen and Bryant (2015) found the same in Australia, in 40 siblicide victims, 32 were males.

One of the first studies to explore the characteristics associated with juvenile siblicide found that both fratricide and sororicide offenders were most likely to be male – around 88% and 79% respectively (Peck & Heide, 2012). From the limited literature on juvenile fratricide and sororicide, it can be gleaned that males are more likely to kill their brothers than brothers are likely to kill their sisters, sisters to kill their brothers, or the least common type, sisters to kill sisters (Daly et al., 2001; Gebo, 2002).

Walsh and Krienert (2014) found the following pattern regarding siblicide dyads: brother-brother (n=636), brother-sister (n=198), sister-brother (n=96) and last one dyad sister-sister (n= 72). Underwood and Patch's (1999) findings reflected this pattern: brother-brother (n=391), brother-sister (n=61), sister-brother (n=42) and sister-sister (n=20). A greater number of fratricide cases were (n=825), when compared with sororicide (n=171), over a period of 5 years. In Dawson and Langan's (1994) study, only about 11% of siblicide offenders were sisters while 55% of the victims were a brother.

Genetic relatedness: Studies that explore the association between the genetic relatedness of siblings (full siblings, stepsiblings and half-siblings) in relation to siblicide are almost non-existent. Yet it is noteworthy that, according to Gebo (2002, pp. 164-165), a sociobiological hypothesis would contend "step-siblings would be more likely to murder each other than half-siblings; and half siblings would be more likely to murder each other than full siblings because of their biological stakes in the gene pool". This area is worthy of investigation given that a recent study conducted in England found, contrary

to this postulation, a higher frequency of mild and severe physical aggression against full siblings than with half siblings, including the use of potentially life-threatening violence such as purposefully strangled, beatings and the use of weapons (Khan, Brewer & Archer, 2020). Living with a genetically unrelated brother or sister was also found to be a predictor of severe, potentially lethal violence against siblings in a young offender sample in England (Khan & Cooke, 2008; 2013).

Race, ethnicity and culture: No clear pattern can be found for incidents of siblicide in relation to race. For example, in the study by Underwood and Patch (1999), there was little difference found in the frequency of siblicides in a comparison between African Americans and Caucasian Americans (Underwood & Patch, 1999). On the other hand, other studies have reported that juvenile siblicide offenders were typically White males (Bourget et al., 2017; Peck & Heide, 2012). Likewise, Walsh and Krienert (2014) found higher rate for White victims (n=504) compared to Black victims (n=480), although this difference was only slight. Yet, contrary findings have been reported in a study that found about 33% and 65% of victims and offenders were White and Black respectively (Dawson & Langan, 1994).

Largely overlooked in relation to incidences of siblicide, is the powerful influence of cultural collectivism. In many collectivist honor cultures, a significant proportion of murders reportedly committed in the name of 'honor' have been perpetrated by brothers against their female and male siblings. These so called 'honor' killings have been recorded widely across collectivistic cultures, and are more recently often linked to Middle Eastern, North African, South Asian (MENASA) and Turkish populations both domestically (in countries of origin) and internationally, within diasporic communities (Khan, 2018). For this reason, the association between cultural collectivism and siblicide is an area worthy of far greater investigation. For example, a stringent estimate indicates that upwards of 5,000 females are victim of 'honor' killings globally (Dyer, 2015). In an overview, Khan (2018) reported that one-quarter of all 'honor' killings worldwide are reported to occur in Pakistan alone while in East Turkey, around 25 to 75 'honor' killings are committed per year. In Europe, the United Kingdom has the highest number of 'honor' killings at a rate of one homicide a month (Dyer, 2015). Some of the most widely covered 'honor' killings reported by the British media have involved a brother's murder of his sister as 'punishment' for contravening collectivist cultural expectations embedded in rigid gender codes (Khan, 2018). In one example, Khan (2018) describes the brutal murder of

Ruksana Naz, an unmarried, seven months pregnant, teenage mother of two children - she had, her family claimed, shamed her family by refusing to have an abortion and leave her partner. Her older brother, upon instruction of their mother, strangled her to death while her younger brother helped to dispose of her body.

Dyer (2015, pp. 22-23) describes the attempted 'honor' killing of Afshan Azad, in what the judge called a "prolonged and nasty attack" by her older brother, after he discovered that she was in a relationship with a man from a different religion.

> In their family home, 28-year-old Ashraf Azad overheard his younger sister Afshan, 22, talking on her mobile phone in her bedroom to whom he suspected was her Hindu boyfriend. He threatened her, saying, "watch what I will do" and, as she ended the call, he attempted to hide the mobile phone and its SIM card before grabbing her by her hair, throwing her across the room, and punching her head and back. Ashraf reportedly told his father to "sort your daughter out" and called her a "slag", before pushing her head-first onto her father's bed, where she claimed to have heard the words "just kill her". Her brother then attempted to strangle her. Afshan's mother and Ashraf's wife then entered the bedroom and she was told that she would have to be sent to Bangladesh to get married. According to the prosecutor, "[Afshan's] mother called her a prostitute and asked why she was obsessed with sex. Ashraf then ran downstairs, and Afshan told the court she heard knives rattling in a drawer. Afshan went back to bed but fled the family home through her bedroom window the following morning bruised and swollen from the attack. She then made a statement to police. According to the prosecutor, Afshan fled her home following the attack due to a "genuine fear for her life". Her brother received a six-month prison sentence. Afshan had previously pleaded with the judge to give Ashraf a lenient sentence, writing that she had forgiven her brother and that she didn't want him to be locked up.

The dynamics of honor-based siblicide are entirely different to those of other cases of sibling homicide, in part, due to the family of the victim endorsing and approving the abuse, violence, and even torturous murder to restore family honor (Khan, 2018). Seemingly contradictory, an 'honor' killing victim's kin and community are often the instigators of the

abuse and in many instances, they organize or commit these murders themselves, and thus, sons are often encouraged and lauded for their involvement in 'honor' killings. Cooney (2014, pp. 407) highlights that many 'honor' killings are likely to be "…camouflaged as suicides, accidents, disappearances or deaths from natural cause", further indicating a pressing need to investigate siblicides committed in the name of so called 'honor'.

Offense characteristics: causes, context, settings and weapons

In a global context, siblicide is uncommon and situationally driven with a wide range of factors associated with its incidence. Experienced most broadly, antecedent, triggering or associated factors include alcohol use, stress (Peck & Heide, 2012), rivalry and jealousy (Adinkrah & Jenkins, 2018; Daly et al., 2001; Hashim et al., 2017), disputes resulting from arguments, competition due to lack of resources (Mascoli, 2015; Mouzos & Rushforth, 2003; Peck & Heide, 2012; Underwood & Patch, 1999), and sibling abuse and domestic violence (Flowers, 2013). Based on homicide data during 1988 from 33 counties across the United States, it was found that offenders' use of alcohol was associated with around 50% of siblicides, while offenders' mental ill health was associated with about 18% of the incidents. Economically driven, siblicides have resulted from disputes over money, land, property (Adinkrah & Jenkins, 2018), or when family property is considered not divisible (Daly & Wilson, 1988). Siblicides can also be culturally orientated - for example, some cases reported in Ghana resulted from accusations of witchcraft (Adinkrah & Jenkins, 2018) as well as so-called 'honor' killings (Dyer, 2015; Khan, 2018; Nasrullah et al. 2009).

In isolated case studies, a 17-year-old teenager in France was accused of murdering his younger brother while sleepwalking (Alkassar, Couvez, & Guieu, 2000). Interestingly, Cussen and Bryant (2015) also found that most of the siblicides occurred at midnight.

Some cases of sororicide (Adinkrah, 2017) and fratricide (Hanlon & Odle, 2013) have been part of a multiple-victim family homicide. However, the combination of parricide (the killing of one or more parents) and siblicide seems to be the least frequent type of family homicide (Liem & Reichelmann, 2014). In sample of 238 cases of multiple family homicides, Liem and Reichelmann (2014) found a cluster of 31 cases in which a father and sibling were killed; the sibling offender was typically a white male, aged, on average 27 years, where victims and offenders shared the same home. The authors described a case of a 16-year-old boy who killed his parents and two siblings; he shot them with rifles and hid their bodies underground in the backyard of the house. He had a history of

criminal conduct and conflictual relationship with his parents. Liem and Reichelmann (2014) suggested that when both parents and siblings are killed in familial homicides, siblings may be seen as allies of a dominant and hostile father, and due to this, are perceived as equally responsible and deserving.

In terms of settings, a vast majority of siblicides have occurred at home (Adinkrah & Jenkins, 2018; Cussen & Bryant, 2015; Mascoli, 2015; Shay, 2010). Several studies report that the homes in which these murders occur, there are already signs of interpersonal and family violence. For example, in about 88% of siblicide cases in the study by Mascoli (2015), there were previous reports of violent episodes. This finding aligns with the postulation by Daly and Wilson (1988) that physical aggression manifests itself on a continuum, mounting from minor to major violence. Further support for this view of siblicide comes from Walsh and Krienert (2014, p. 537) who these cases as the result of a "culminating event following a pattern of series of escalating behavior".

Firearms and knives are reported to be the most commonly used weapons in sibling murders. For example, Dawson and Langan (1994) reported that in their study, around 39% of offenders had used a firearm. Underwood and Patch (1999) found in their study of 514 siblicides, about 60% were committed using a firearm, while just under a third of this sample had used a knife or cutting instrument (30%). Other methods used in the murder of a sibling included blunt objects, personal weapons, asphyxiation and strangulation. In another study, in a sample of ten sibling murder victims, seven had been stabbed (Bourget & Gangné, 2006). Similarly, Adinkrah and Jenkins (2018) found in their study in Ghana, just over a third of their sample (34%), siblings were killed with a machete while around 17% had been shot to death with a gun. Other studies have reported similar results, that guns and knife as the most often used weapons (e.g., Cussen & Bryant, 2015; Peck & Heide, 2012; Mascoli, 2015; Walsh & Krienert, 2014). Bourget et al. (2017) also found that the use of knife was consistent with the hypothesis that most cases of fratricide were a result of impulse and without premeditation.

Influence of psychopathology

Siblicide perpetrated by a sibling with a mental illness are not common. Indeed, most of the people with mental illness are not aggressive and do not engage in violent conduct. Yet there are cases in which siblicide offenders have presented with some form of mental illness. For example, in France in the fourteen-year period between 2000 and 2014, Valiente-Moro (2015) analyzed a sample of 90 homicides offenders who were diagnosed

with schizophrenia (n=85) and schizoaffective problems (n=5). Of these murderers, 43 were intrafamily homicides, while five had committed siblicide (4 fratricides and 1 sororicide). Bourget and Gangné (2006) found in a sample of eight siblicide offenders that two had schizophrenia or other psychosis and one had depressive disorder. Similar findings have been reported in comparable studies (e.g., Adinkrah & Jenkins, 2018; Ewing, 1997).

In an analysis of 72 adolescents' homicide cases that took place over 9 years in the state of Michigan, United States, 15 were familial homicides - 9 were fratricides, 4 were matricides and 1 was a case of siblicide (Cornell, Benedek, & Benedek, (1987). In the only siblicide that had occurred, the aggressor, a psychotic adolescent, was described how … "this youth had undergone a progressively deteriorating course in which he became increasingly withdrawn, hostile, and preoccupied with religious and paranoid delusions. He stabbed his younger brother with a knife believing that he was carrying out a religious commandment to kill the Antichrist (p. 21). In another case description, (Leal & Valença, 2016) described a brother who had been diagnosed with schizophrenia and had murdered his brother with a shearing tool. The authors described this perpetrator as a male, single, aged 49 years old who thought that his brother was the devil who had power over him.

Substance use

In several studies, the presence of alcohol in either or both the siblicide victim or offender, have been reported. Cussen and Bryant (2015; p. 6) explain that "alcohol and drug use can alter the circumstances of the incident by affecting the judgement of the victim and/or offender or by incapacitating the victim in some way (intentionally, or not)". Their research found that in a sample of 37 incidents, 21 involved the use of alcohol in the victim and 27 in the offender; in 17 cases, alcohol was present in both the victim and offender. Regarding drugs abuse, the rate was lower - presence of drugs was found in 10 victims and in three offenders. Likewise, Lamothe (2016) reported that in 14 of the 22 siblicides in their study, alcohol and or drug was present in victim or in the offender, while Adinkrah and Jenkins (2018) found, in their analysis of 18 sororicide cases in Ghana that three sibling offenders were under the influence of alcohol or marijuana.

In Underwood and Patch's (1999) study, 40 cases were alcohol related. Alcohol was present in six of the 10 fratricide cases analyzed by Bourget and Gangné (2006), and

in 40 cases from a sample of 996 sibling homicides that occurred between 1991 and 1995 (UCR data, 1999). Shai (2010) found the presence of alcohol in two of three siblicides. More recently, in a sample of 28 cases of fratricide, 21% of offenders were under the influence of alcohol (Bourget et al., 2017). Some authors have argued that the use of some substances such as alcohol and drugs are underestimated in some reports (Parker & Auerhahn, 1999), and suggest that the accuracy of these figures is considered with caution.

Influence of Developmental Disorders

It is claimed that homicides committed by people with autism or Asperger syndrome "can be the result of an autistic individual's special interests and idiosyncratic fixations" (Ghaziuddin, 2005; p. 223). However, siblicide by people with intellectual disabilities is another largely understudied area, so it is not possible to make firm assertions (Faccini & Saide, 2010). The authors described a case of a middle-aged man who, when living and working with is older brother, killed him after an argument. The sibling offenders' background was characterized by father-son violence and separation from other family members, including his wife and children. Faccili and Saide (2010) consider that these occurrences may result from the "lockage" that is the perception that there is no other way of get out of the situation except killing the other.

Although rare, there are few cases reported were siblicide has been perpetrated by a sibling with Autism. Recently, in 2015, Sabuncuoglu, Irmak, Demir, Murat, Tumba and Yimaz described siblicide case, when a child with Autism threw their 18-month-old sister out of the window. Sabuncuoglu, Irmak, Ucok Demir, Murat, Tumba, and Yilmaz (2015) describe a siblicide case that had occurred in Turkey, in which a child diagnosed with Autism had thrown his sibling out of a window- an act termed as defenestration.

> An 8-year-old boy with autistic disorder was admitted because of aggression, violence, and poor behavioral control. Prior to the admission, he was seen by the author who is child neurologist and, after rigorous neuroradiologic and metabolic work-up, no abnormal neurological condition was detected… In order to seek a second opinion about the diagnosis, the child was admitted during a visit to Istanbul. The parents, both of them in their mid-thirties, were first cousins. There was an older 11-year-old sister. The history of the patient revealed uneventful

> pregnancy and ordinary vaginal birth. The child's early development was delayed and, consequently, a diagnosis of autistic disorder had been given. The child was attending a special school for autistic children and a center for special education for 4 years at the time of admission. Previous trial of Risperidone 0.75mg daily was discontinued as a result of severe sedation. The child was reported to be on a trial of Cortexin, which is not officially licensed in Turkey. In psychiatric assessment, lack of speech and communication was observed. The father was constantly trying to control the child's sudden anger outbursts and he had facial bruises left by the child's punching. Mental disability along with autistic features presented that the child had no preconception of consequences of his behavior. On the Modified Turkish Version of Autism Behavior Checklist (ABC) the child's score was 42, indicating a clinical condition of low functioning autism. The most tragic part of the case history was the death of 18-month-old young sister after being thrown out of the window by the patient, about 11 months before the latest admission. The injured child spent an overnight in the intensive care unit and eventually died as a result of intracranial haemorrhage. It was reported that the child with autism was not under the influence of any medication at the time of the incident. Afterwards, a criminal investigation was initiated. The child was identified as the main suspect, yet the investigation was dismissed on the grounds of incompetence due to insanity and being below the age of criminal responsibility. Consequently, the file was closed (p. 2).

Previously, Mukaddes and Topcu (2006) reported a case study of a 6-month-old sister also killed after being thrown out of the window by her 10-year-old sister, who had a diagnosis of Autistic Disorder, a history of epilepsy and was exposed to physical abuse frequently. In this particular case, there were clear risk factors for violence, including physical abuse, lack of parental supervision and negative feelings by their mother. The authors argued that "a severe intellectual disability coupled with a lack of appropriate environment, supervision and treatment program as well as the existence of neglect and physical abuse in this case led to the homicidal act" (Mukaddes & Topcu, 2006; p. 494).

Influence of Family Systems

Siblings, as a subsystem, influence and are influenced by others family subsystems, including parent-to-child, parent-to-parent subsystems. Hoffman and Edwards (2004)

have argued that the characteristics of parents' relationship with a child and the sibling relationship combined can help explaining incidents of sibling violence. For example, parental differential treatment (Kowal & Kramer, 1997), parental abuse (Graham-Bermann et al., 1994), financial difficulties and financial stress, harsh discipline (Tippett & Wolke, 2015) have been found to be associated with sibling aggression.

It is also worth noting, that studies of youth at higher risk for violence in which potentially lethal and intentional physical acts of violence (e.g., weapon use) have been reported against brothers and sisters. The most robust risk factors included animal abuse and physically assaulting school staff (Khan & Cooke, 2008). These might be useful markers in childhood for future severe aggression against siblings, that may be life threatening.

More broadly, the normalization of sibling aggression by family members can contribute to its maintenance. Khan and Rogers (2015) summarize that physical aggression used against siblings is commonly accepted and treated as symptomatic of most sibling relations. This normalization leads to minimization based on the idea that conflict between siblings, including physical aggression, is character building. Parents may not always be motivated to intervene when brothers and sisters use physical acts of aggression against one another, thus vicariously reinforcing its personal, familial and social acceptability and the use of often used to describe such acts as 'rivalry' and 'horseplay' (Kettrey & Emery, 2006).

The siblicide research is far less evolved and much more limited thus, any efforts to identify reliable risk factors associated with lethal form of sibling violence is challenging. Yet, it can be assumed that potential risk factors for siblicide are unintentional (accidental) siblicide, neglectful parental behavior, firearms being left within reach of children (Ewing, 1997). Other factors underpinning incidents of siblicide may include sibling abuse, substance abuse, domestic violence (Flowers, 2013), and when siblings live together in adulthood (Salmon & Hehman, 2014).

Theoretical perspectives:

Sibling rivalry, jealousy and the death wish of a sibling were themes explored by Sigmund Freud (Sherwin-White, 2007). In particular, sibling rivalry was thought to be influential in occurrences of siblicide (Marleau, 2005). From the same psychoanalytical school of thought, Alfred Adler's theories of individual psychology centered on the idea

that birth order effects were influential on the nature of sibling relations and the way in which brothers and sisters interacted with one another, as well as others (Marleau, 2005). Adler's efforts to categorize the distinctive traits of sibling groups in relation to birth order were ambiguous and speculative, yet he "…regarded firstborns as "power-hungry conservatives," middle borns as competitive, and youngest children as spoiled and lazy" (Sulloway, 2001, p. 45). The idea that firstborns are domineering tyrants while siblings born later are either over-eager or idle is largely unsupported by the literature. Despite this, it is interesting to note that Adler thought firstborns felt "dethroned" with the arrival of younger siblings - he considered these groups to be constantly embroiled in a power struggle; this conflict was thought to center around the eldest child, fighting to protect their superior position against usurping younger siblings (McHale, Updegraff, & Whiteman, 2013; Sulloway, 1996; 2001). From this perspective, these tempestuous conditions lay the foundations for hostile relations in which in siblicide may occur.

From an alternative and empirically supported perspective, Walsh and Krienert (2014) proposed that siblicide was easier to understand when perceived in the context of the general strain theory and the cumulative sequential strain model. From these perspectives, it is possible to understand how cumulative experiences of hostile interactions between siblings may result in siblicide. These authors suggest that siblings are often raised in family environments characterized by continually evolving dynamics – these can be related to age, gender-based status, differential parental treatment of their children, and in some cases, parental favoritism. Imbued in this is the nature and style of a parent's interactions with their children. These are salient factors highlighted by two key psychological theories. Firstly, attachment theories that emphasize that a lack of affection and secure bonding between siblings may lead to negative and hostile interactions between these children, including severe violence (Hoffman & Edwards, 2004). Similarly, social learning theories that consider the way in which siblings acts towards each other to be a reflection of the ways in which they have observed and learned to behave by watching their parental caregivers conduct their interpersonal interactions. As Hoffman and Edwards (2004, p. 190) claimed "…sibling violence and abuse are characteristics of the parents' relationship, characteristics of the parent-child relationship, characteristics of the sibling relationship, individual attitudes and characteristics, sibling verbal conflict, and the dependent variables of physical violence and psychological abuse". This environment inevitably sets the scene for competitive

behavior between siblings, including hostility, rivalry, jealousy, and other factors that can amplify strain – these factors contribute to and underpin occurrences of sibling conflict, as well as expressions of aggression in its most extreme form, lethal sibling violence.

Evolutionary psychological perspectives have also been used to understand siblicide (Michalski et al., 2007). In the main, sibling conflict can be seen as a result of rivalry stemming from limited parental resources, including attention, time, and money (Salmon & Hehman, 2014). From evolutionary perspectives, age, birth order, gender, and genetic relatedness may help explaining the occurrence of siblicide. For example, as seen earlier in this chapter, in some instances, older siblings were more likely to kill younger sibling (Sulloway, 1996). Also, that most incidences of the siblicide were perpetrated by males (Salmon, 2012). Salmon (2012) argued that the Sulloway´s hypothesis may apply to children, and that "In later life, younger siblings become more likely to be perpetrators of siblicides than older siblings because of an opportunity to secure resources (e.g., inheritance) that might otherwise be left to favored older siblings" (Michalki et al., 2007; p. 236). In fact, siblicide offenders most of the time are younger when compared with the victim (Salomon, 2012). Daly et al. (2001) also found similar findings with a high number of cases were of a younger sibling killing an older brother or sister. However, these results are not always this way. For example, a study by Marleau (2005) examined 113 cases in which 92 sibling aggressors were older that the victim, but most of the aggressor were under 18 years.

Likewise, "siblings may be less likely to kill a full sibling ... because the evolutionary "fitness cost" associated with the death of a full sibling... are higher than the fitness costs associated with the death of a sibling-in law" (p. 232). In order to test this, Russell et al. (2012) explored data in a sample of approximately 11,000 homicides in Chicago, in the period from 1870 to 1930. They found that a full sibling killed a sibling compared to 14 victims of half-siblings and step-siblings. The authors argued that full siblings seem to have more costs associated with the death of a full sibling, when compared with half-siblings and step-siblings, for the same reasons, the last two kind of siblings seems to kill more than one victim. According to Michelki et al. (2007), a sibling may see parental investment in non-genetically related siblings as a futile investment – this can lead to jealousy and hostility toward their half-sibling. It seems "due to more severe sibling competition, childhood injuries are predicted to increase as genetic relatedness decreases" (Tanskanen, Danielsbacka, & Rotkirch, 2005; p. 177).

Implications of this research: intervention and treatment

The research reviewed in this chapter established that sibling homicides are relatively rare yet, when they do occur, they have a substantial impact on families, friends, and communities. Although romanticized tales of siblicide, like the Biblical account of Cain and Abel, are woven into the fabric of history, art, and popular culture, empirical research into this form of domestic homicide is limited; little is known about the extent to which it stems from, or is associated with, non-lethal sibling violence.

It would be helpful, therefore, if academics and practitioners alike explored in more detail the juxtaposition of why sibling homicide is such an uncommon occurrence when sibling violence is reported to be the most common form of family aggression, often resulting in minor wounds and sometimes, serious and life-threatening injuries.

In practice settings, professionals must recognize that sibling violence, even when it is serious and injurious, may be minimized and normalized by family members as well by victims themselves. It should also be noted that, more broadly, physical aggression is a socially accepted and expected feature of all sibling relationships. Practitioners must therefore be alert to the fact that this normalization adds to the damaging and lasting effect that sibling abuse has on victims, and is reportedly linked to anxiety and depression (Hoffman & Edwards, 2004), substance abuse (Button & Gealt, 2010), eating disorders, and suicide attempts (Wiehe, 1997). Thus, it would be valuable for therapists and counselors to explore the psychosocial factors highlighted in this chapter as targets for victim and offender intervention and treatment. These include disclosures of sibling violence combined with psychopathology, development disorders, and substance misuse, in addition to hostile family systems resulting from varying degrees of genetic relatedness and 'honor' abuse in relation to cultural collectivism. While these factors have been associated with sibling homicide, it is also important to keep in mind that siblicide is unlike other forms of domestic homicide and can, as Bourget and Gagné (2006, page 529) note, be "unpredictable until the moment they occur".

Key points

- Sibling relationships are bespoke and complex - so too are the motives that underpin lethal and non-lethal acts of aggression against brothers and sisters.

- Non-lethal physical sibling aggression is the most common form of family violence - it is often minimized and normalized to the extent that it is broadly regarded to be symptomatic of healthy sibling relations.
- There is a significant discrepancy between rates of sibling violence and siblicide - the former is reported to be extremely high and the latter is recorded as particularly low, in contrast with the same incidents committed by other family members.
- Research studies have identified a range of biopsychosocial factors associated with siblicide – these include offender and victim characteristics, offense characteristics, psychopathology, development disorders, substance misuse and the influence of family systems that amplify hostility.
- In clinical and forensic settings, practitioners should be alert to cases in which sibling aggression occurs alongside these potential factors and identify them as risk markers for siblicide - they may also enable effective treatment of siblicide offenders.

Conclusion

This chapter has provided an overview of the current siblicide literature, identifying gaps in the existing body of work area and highlighting areas worthy of further investigation. Clearly, more empirically based studies are needed, in particular, those that explore factors reported to be central to occurrences of siblicides, such as "criminal history, mental health status, work history, education, living situation, family violence history, and specific precursors to each of the events "(Underwood & Patch, 1999; p. 344). There is also a clear need for more research on genetic relatedness and siblicide (Salmon & Hehman, 2014). In part, this will go some way to clarifying the discrepancies with studies on non-fatal but potentially lethal sibling violence (including strangulation and beatings) that report more severe physical aggression being committed against full siblings than with half siblings (Khan et al., 2020). Also, the recognition of cross-cultural differences in expressions of siblicide. For example, a largely overlooked but increasingly recognized form of siblicide common in collectivist cultures, committed in the name of so-called 'honor' (Khan, 2018).

Cross-References

- Sibling Abuse of Other Children
- Cultural Issues and Considerations of Child Maltreatment
- Correlations Among Childhood Abuse and Family Violence, Prevention, Assessment and Treatment from A Trauma Focused Perspective
- Familial/Incestuous Sexual Abuse

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