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Circumstances Preceding Homicide-Suicides Involving Child Victims: A Qualitative Analysis

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Abstract

Homicide-suicide incidents involving child victims can have a detrimental impact on survivors of the violence, family members and friends of the decedents, and other community members, but the rare occurrence of these acts makes using quantitative data to examine their associated antecedents challenging. Therefore, using qualitative data from the 2003–2011 National Violent Death Reporting System, we examined 175 cases of homicide-suicide involving child victims in an effort to better understand the complex situational factors of these events. Our findings indicate that 98% of homicide-suicides with child victims are perpetrated by adults (mostly parents) and propelled by the perpetrators' intimate partner problems, mental health problems, and criminal/legal problems. These events are often premeditated, and plans for the violence are sometimes disclosed prior to its occurrence. Findings provide support for several theoretical perspectives, and implications for prevention are discussed.

Keywords

Homicide-suicide; murder-suicide; filicide

Introduction

Homicide-followed-by-suicide (hereafter referred to as "homicide-suicide") is defined as the act of killing one or more individuals and then committing suicide (Bossarte, Simon, & Barker, 2006; J. Logan et al., 2008; Marzuk, Tardiff, & Hirsch, 1992). Each year, homicide-suicide incidents account for 1,000 to 1,500 lost lives overall, about 13% of which are those of children (Marzuk et al., 1992; Violence Policy Center, 2012). While these numbers are small, the severity of this type of violence attracts considerable media attention and has a profound psychological impact on community members where they occur. This is particularly true when the incidents involve child victims.

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The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

Most homicide-suicide incidents involve a male perpetrator killing a current or former female intimate partner (Bossarte et al., 2006; J. Logan et al., 2008; Marzuk et al., 1992); however, many children die each year in homicide-suicide incidents (Bossarte et al., 2006; J. Logan et al., 2008). Child victims in homicide-suicide incidents are most often the children or stepchildren of the perpetrator (Bossarte et al., 2006; Bridges & Lester, 2011). Some child victims are children of a girlfriend or boyfriend of the perpetrator. Further, sometimes, child victims are unrelated, and occasionally even unknown, to the perpetrator. Incidents that involve only child victims are often referred to as filicide-suicide, and incidents that involve multiple family members (which most often include children) are called familicide-suicide. While a homicide-suicide incident with child victims can have a long-standing impact on survivors of the violence, family members and friends of the decedents, and other community members, the rare occurrence of these acts makes it challenging for researchers to use quantitative data to examine their associated risk factors and antecedents.

One study, Logan et al. (2013), explored the characteristics of 129 homicide-suicide incidents, using 2003–2009 data from the National Violent Death Reporting System. This study found that 69% of child victims were under 11 years of age, 58% of child victims were killed with a firearm, 76% of perpetrators were males, and 75% were parents/caregivers. Logan and colleagues also discovered that the majority of incidents were precipitated by adult intimate partner problems: 81% of incidents with paternal perpetrators and 59% with maternal perpetrators were preceded by parental relationship discord. Additionally, approximately half (52%) of the maternal-perpetrated incidents were believed to be precipitated by maternal psychiatric problems. Other studies that have explored the characteristics of filicide alone have also found that many child deaths have resulted from intimate partner retaliation and acute psychoses, and these studies typically indicated that female perpetrators portrayed psychiatric illness more frequently than male perpetrators (Bourget, Grace, & Whitehurst, 2007; Hatters Friedman, Hrouda, Holden, Noffsinger, & Resnick, 2005; Krischer, Stone, Sevecke, & Steinmeyer, 2007; Resnick, 1969; West, Friedman, & Resnick, 2009). Further, Resnick (1969) developed a renowned typology of filicide, which specifies five distinct classes, including: 1) altruistic filicide in which a parent kills a child out of perceived altruism, believing the death to be in the best interest of the child; 2) acutely psychotic filicide where a parent kills a child in response to a psychotic or otherwise mentally ill state of mind; 3) unwanted child filicide in which the child is killed because he/she is viewed as a hindrance to the parent; 4) accidental filicide where the child is killed unintentionally as a consequence from child abuse; and 5) spouse revenge filicide where a parent kills a child in a vengeful act against a spouse or partner.

The nature of violence involved in filicide and its potential connection to prior child abuse usually prompts an in-depth investigation and/or child fatality review by law enforcement officials, medical examiners, and other professionals who might be able to shed light on the incident. Studying these incidents can provide relationship- and circumstance-related insights, which could inform initiatives that seek to prevent child maltreatment by creating safe, stable, and nurturing relationships and environments. Because the records of these incidents, such as narratives from investigator reports and documentary evidence such as suicide notes, are rich in qualitative data, qualitative analyses can provide granular details that can promote further refinement and tailoring of family violence prevention initiatives.

This study is a continuation of the previous quantitative study by Logan et al. (2013). The current study builds upon previous findings by attempting to further establish the context of homicide-suicides with child victims and identify additional precipitating circumstances using detailed, inductive qualitative research methods, which is a logical extension of the prior quantitative research. Conducting this qualitative research fills a void left by the quantitative study, allowing us to better understand the complex dynamics of homicide-suicide incidents that involve child victims.

Methods

Data Source and Data Collection Procedures

This study used 2003-June 2011 data from the National Violent Death Reporting System (NVDRS), which captures details on violent deaths using data from coroner and medical examiner reports, toxicology reports, various law enforcement records, and death certificates. NVDRS includes information on all homicides, suicides, legal intervention deaths, unintentional firearm deaths, and deaths of undetermined intent in the 18 states[1] in which it is implemented (Centers for Disease Control and Prevention, 2008; Paulozzi, Mercy, Frazier, & Annest, 2004; Steenkamp et al., 2006). For each violent death event, the system captures details on victims, suspected perpetrators and their relationships to the victims, weapons involved, and circumstances leading up to the injury event (Paulozzi et al., 2004). All information is linked by incident in NVDRS so that violent events that involve multiple victims can be examined simultaneously. The NVDRS has been described in further detail elsewhere (Centers for Disease Control and Prevention, 2008; Paulozzi et al., 2004).

A key feature of NVDRS is its inclusion of incident narratives from coroner/medical examiner reports and law enforcement reports. Through interviews conducted with decedents' friends and family, suicide notes, and other available information, law enforcement officials and medical examiners who investigate homicide-suicide incidents identify stressors and life events that potentially contributed to the deaths and submit narratives of this information to NVDRS. These narratives, at a minimum, include information on 1) the number of victims, suspects, and victim/suspects described in the source document; 2) who was injured by whom; 3) the relationship between victim and suspect if the injury was not self-inflicted; 4) where the injury occurred (or the victim was found); 5) additional detail on all precipitating circumstances quantitatively coded in NVDRS; 6) sex and age of person(s) involved; and 7) weapon(s) involved. The law enforcement and medical examiner narratives were specifically selected for qualitative analysis for the current study because they often provide rich contextual information on social dynamics, patterns, and processes that may have increased the potential for fatal violence. Such situational features are not well captured by NVDRS quantitative variables.

[1]In 2014, NVDRS received funding to expand the system to a total of 32 states. Prior to that, the 18 states from which data were collected included AK, CO, GA, KY, MA, MD, MI, NC, NM, NJ, OH, OK, OR, RI, SC, UT, VA, and WI.

Case finding

Data from a total of 18 U.S. states were examined in our case finding and analyses. Incidents were identified using an NVDRS database that was updated through June 2011. Homicide and suicide incidents were first identified by state NVDRS abstractors by either manner of death or external cause of death. Homicide-suicide incidents were defined as suicide incidents in which the perpetrator committed at least one homicide within one calendar day prior to his or her suicide death, and these cases were further selected based on whether the incident included child victims (i.e., individuals under 18 years of age). Between 2003 and 2011, we identified 180 homicide-suicide incidents that involved child victims. We excluded two incidents that had perpetrators who were also under the age of 18 years and three incidents where the perpetrator's age was unknown to obtain a clearer understanding of incidents perpetrated by adults. Our final analysis included 175 homicide-suicide incidents, 175 perpetrators, 83 adult victims, and 253 child victims.

Data Coding and Analysis

NVDRS narratives for homicide-suicide incidents were subjected to content analysis—a set of procedures used to organize information in a standardized format allowing analysts to make inferences about the characteristics and meaning of written and other recorded materials (General Accounting Office, 1996). Our content analyses focused on narratives from law enforcement and coroner/medical examiner reports for each incident and occurred in three steps: 1) coding structure development, 2) iterative codification – a process whereby codes characterizing incidents were developed and revised through a multi-step method involving narrative review, and 3) thematic analysis and interpretation. More specifically, we used the constant comparative method and thematic analysis to reveal aggregate patterns across a number of individual homicide-suicide incidents (Richards, 2005; Strauss & Corbin, 2007).

The operative coding structure consisted of a set of code sets developed in two cycles and refined in a third cycle. Baseline codes and descriptive codes were applied consistent with instructions provided in a common coding dictionary with code definitions, instructions regarding the context of code use, and guiding questions for consideration during coding. This process ensured coding fidelity across three coders. The baseline coding structure was derived from Resnick's filicide typology (1969). Accordingly, the first coding cycle (i.e., baseline coding) involved coding the motive behind the child homicide as one consistent with Resnick's typologies mentioned previously: 1) altruistic filicide; 2) acute psychoses; 3) unwanted child; 4) accidental death; and 5) spousal retaliation. Lastly, we applied codes to capture the social context of the incidents of interest, including homicide-suicide incidents 1) that also involved familicide-suicide (i.e., incidents where a minor was a child of a perpetrator or an intimate partner victim and was killed during an incident of intimate partner violence either accidentally or intentionally), 2) where children were killed by a relative other than a parent (e.g., a brother, uncle, etc.) in a family violence incident, 3) where minors were killed by an adult intimate partner, such as in cases of teen dating homicide, and 4) that involved circumstances that could not be classified using any other baseline codes. These additional codes allowed characterization of the full scope of homicide-suicide incidents involving children with specific emphasis on those within

partnerships and family relationships, while also helping to identify patterns of co-occurrence and correspondence of motive and social context-related circumstances.

The second coding cycle entailed application of descriptive codes devised *a priori*. Broad categories of descriptive codes included codes identifying whether perpetrators had 1) a history of homicidal ideation, 2) a history of adverse life experiences (child abuse, residence in a foster home, sexual violence victimization), 3) diverse family-related stressors (excluding intimate partner problems, but including stressors such as general problems with family members other than intimate partners and history of child maltreatment perpetration), 4) specific types of intimate partner problems, or 5) specific criminal/legal problems or accusations of misconduct. The descriptive code set also included codes indicating whether narratives reported the presence or absence of possible opportunities to prevent homicide-suicide incidents and, if applicable, potential areas for intervention noted in the narrative. These codes were appended to the baseline coding structure to further enrich the resulting characterization of why homicide-suicides involving children may occur. The complete coding structure is available online.

Upon completion of the second coding cycle, coding files from all three coders were compiled and examined for inter-rater agreement. The initial value of agreement was 75% due to slight variations in how coders perceived the circumstances described in specific incidents. As a result the coding team reviewed incidents involving coding discrepancies, discussed justifications for code inclusion or exclusion, and collaboratively decided how the discrepancy would be resolved. The discrepant incidents were then recoded consistent with the decision of the coding team, and a final inter-coder agreement rate of 100% was reached. At this stage, emergent/inductive codes were also compiled, discussed, and collaboratively reduced to a final core set.

Finally, the codification results emerging from the previous processes were subjected to thematic analysis to reveal aggregate patterns crossing individual incidents. This involved examination of patterns of code co-occurrence to suggest larger categories of complex circumstance combinations, reveal relationships among coded phenomena, and relationships between themes represented in the derived categorizations. It also entailed a purposeful interpretative process of meaning exploration with the goal of comprehending the dynamics of various types of homicide-suicides including children as victims (Larkin, Watts, & Clifton, 2006; Reid, Flowers, & Larkin, 2005). From this final coding process, four themes emerged: intimate partner problems; mental health problems; criminal/legal problems; and signs of premeditation. Details on these themes are presented in Table 1. Please note that the characteristics described within each overarching theme are not mutually exclusive. Therefore, one case could involve multiple forms of one type of problem, as well as multiple types of problems.

Results

In our study sample, most perpetrators (n=132, 76%) were males with a mean age of 37.7 years (Table 2). There were roughly equal proportions of child victims by sex; child victims

had a mean age of 7.8 years. Other adult victims in these incidents were predominantly female (76%) with a mean age of 35.5 years.

We found that 94 (54%) of our cases were filicide-suicides (i.e., the homicide included only the perpetrator's children and/or step-children as victims), 56 (60%) of which were perpetrated by men. Sixty-four (37%) cases were familicide-suicides (i.e., the homicide included at least one victim who was a perpetrator's partner or family member and was over the age of 18 as well as at least one child victim), with men serving as the perpetrator 92% of the time (n=59). Seventeen (10%) incidents were homicide-suicides where the child victims were unrelated to the perpetrator (Table 2). In the majority of the cases (n=158, 90%), the perpetrators were either a parent or intimate partner of a parent of at least one of the child victims, all of which were committed by men. While the individuals included in our sample experienced myriad problems ranging from relationship problems to both physical and mental health problems to financial and job problems, only the most salient themes we identified are described in detail below. The four overarching patterns and themes with respect to the precipitators of these cases that were discovered included intimate partner problems, mental health problems, criminal/legal problems, and premeditation of homicide and/or suicide.

Intimate Partner Problems

> (IPP: at the time of the incident the perpetrator was experiencing problems with a current or former intimate partner, such as a divorce, break-up, argument, jealousy, conflict, or other discord)

Many (n=107, 61%) of the cases included in this study involved IPP. It was typical for perpetrators to have experienced more than one kind of IPP, such as an argument, a divorce or break-up, *and* intimate partner violence. For example, before killing himself, one man killed his ex-girlfriend who had recently broken up with him because he had perpetrated physical violence against her and her child. She had also recently moved out of their shared residence. Another case narrative described an incident perpetrated by a man who killed his wife, their children, and then himself. He had been going through a divorce, was separated from his wife, and was facing legal charges for his 2 year old daughter's death.

Further, IPPs were often experienced over an extended period of time (e.g., victim and partner were going through a divorce during the previous six months and also frequently argued). However, by coding the temporality of the crises and stressors precipitating cases included in this study (i.e., whether the stressor occurred recently or was an ongoing occurrence), it was apparent that recent arguments and other problems noted by law enforcement or coroners/medical examiners as having been experienced "recently" or within two weeks of the incident served as the immediate triggers for homicide-suicide incidents involving the children. For example, in one filicide-suicide, a woman who killed her autistic son and then herself had received notification the week prior that her husband, who was having an affair, had filed for divorce. Her journal writings indicated that she did not want her husband to gain custody of her son. In another case, prior to killing himself, a male perpetrator committed familicide-suicide, killing his wife and their 8 year old son the day after an argument occurred about the woman's plans for divorce.

Furthermore, in cases that involved IPP, victims were typically children of the couple experiencing IPP. Forty percent of these cases involved another adult (i.e., were considered familicide-suicide or homicide-suicide more generally), and when they did, the other adult was typically the spouse/partner (or ex-spouse/ex-partner) of the perpetrator. Additionally, 27% of IPP-related cases involved custodial issues where the couple experiencing IPP was in the process of a divorce or break-up, and the reasoning behind the filicide-suicide in these cases was deemed to be one parent's desire to deprive the other parent custody of the child(ren).

Mental Health Problems

(MHP: the perpetrator was identified as having a mental health problem such as those listed in the DSM-IV)

Fifty perpetrators (29%) included in this study experienced a mental health problem (MHP). Most (n=39; 78%) of these cases also involved an IPP, such as a divorce/break-up, abandonment issues, or parental custodial issues. It was also common for perpetrators with MHPs to have experienced them for an extended period of time (e.g., chronic depression) as opposed to experiencing acute episodes of psychosis. Further, half of the suicide decedents (n=25) in cases involving MHPs had a history of expressing suicidal ideation, most of whom (n=19, 76%) did so within 2 weeks of the fatal incident. One filicide case that involved recent suicidal and homicidal disclosure involved a woman who killed herself and her 8 year old son using a firearm. The perpetrator was diagnosed with schizophrenia and chronic depression, had undergone an exorcism the week prior to the incident in an effort to "free [her] demons", and she had told her mother the day prior to the fatal incident that she had been hearing voices telling her to kill herself, her husband, and her son. The perpetrator's husband had locked up all of his firearms, except for one, which he indicated was used by the perpetrator for her personal protection.

Finally, 34% (n=17) of the cases believed to involve MHPs indicated that mental health treatment had been sought prior to the incident.

Twelve individuals (7%) in our sample had a known substance abuse or alcohol problem. Nine (75%) of whom also had a comorbid mental health problem, such as depression.

Criminal or Legal Problems

(CLP: at the time of the incident the perpetrator was facing criminal or legal problems (recent or impending arrest, police pursuit, impending criminal court date, etc.) or accusations of criminal misconduct

Precipitating or impending criminal or legal problems (CLP) were involved in 44 cases (25%). Thirty percent (n=13) of these CLP-related cases involved intimate partner violence charges against the homicide-suicide perpetrator. In over half of the cases involving an intimate partner violence charge (n=8, 62%), the perpetrator had disclosed his/her intent of either dying by suicide, perpetrating homicide, or both, by threat to a family member or in a note. All of the CLP cases involving intimate partner violence also involved at least one of

the following co-occurring problems: various kinds of IPP; child maltreatment; being fired from a job; release from prison; or release from a mental institution.

Women were the perpetrators in 18% (n=8) of the cases involving CLPs. In half of the cases (n=4) perpetrated by women, drugs and/or alcohol were indicated as the legal problem that may have contributed to the fatal incident. This is noteworthy, as drug and/or alcohol charges were involved in only four cases total. In several of the female-perpetrated cases that involved CLPs, intimate partner violence (n=2, 25%) and financial problems (n=3, 38%) were also problems believed to have contributed to the homicide-suicides. Additionally, in two of the CLP-related cases perpetrated by women (25%), there was a comorbid history of a diagnosed mental illness.

Twelve of the 44 cases (27%) involving CLPs involved a victim's acquisition of or an attempt to acquire a protective order through the judicial system, with eight of the 12 protective orders (67%) having been filed within 2 weeks of the homicide-suicide. Overall, 5 of the 12 (42%) protective orders were filed because of custodial issues involving children of the perpetrator. In two cases, protective orders were denied. In one of these cases, the protective order was denied after the perpetrator, who killed himself and his toddler son, had threatened to kill himself and his children on multiple occasions – a fact reported in the protective order application. The perpetrator in this case also had sexual harassment charges with non-family members pending against him and was the suspect in the sexual assault of his five-year old daughter from a previous marriage. In 42% (n=5) of the cases involving active protective orders, the orders were being violated at the time of the homicide-suicide. In one of these cases, the perpetrator had just been released from jail, where he was being held for domestic violence charges and violating a protective order. He again violated the protective order upon release from jail when he went to his father-in-law's house, where he raped, beat, and shot his wife, and then shot her father and her young stepbrothers prior to shooting himself and burning the residence.

Other common CLPs involved a recent arrest or impending arrest (n=11, 25%), recent incarceration (n=7, 16%), child maltreatment (n=6, 14%), and alleged sexual misconduct (n=5, 11%) typically against a family member, family friend, or coworker. Finally, 18 cases (41%) involved multiple CLPs. For instance, one case involved a 45 year old woman who killed herself and her 9 year old daughter using the carbon monoxide exhaust from her car as the fatal weapon. The perpetrator had recently spent time in court related to a driving under the influence (DUI) charge and arrest; she also had been under investigation for child maltreatment related to her alcohol abuse and was also facing other unspecified legal problems.

Signs of Premeditation and Moments of Potential Intervention

(evidence of possible missed prevention opportunities)

Twenty-seven (15%) perpetrators disclosed their intentions to perpetrate homicide and then die by suicide; however, many of these disclosures occurred immediately before committing the act, thus significantly limiting the time available to intervene. For example, in seven (26%) cases, a witness called 911, but the police could not arrive in time to intervene. In six

of these cases, the perpetrator disclosed intent to a 911 dispatcher during the incident to ensure the victims would be found. In one incident, the perpetrator called 911 and stated, “I just killed my children, I plan to kill more, and then kill myself.” While most cases did not involve direct disclosure of intention, 36% of cases (n=63) did involve nearby witnesses, welfare checks conducted by law enforcement to ascertain an individual’s safety, and, in five (7%) cases involving premeditation, restraining orders were either in place, filed, or denied. However, there still was not enough time to successfully respond in most of these cases. Almost none of the nearby witnesses, including some police officers, were in a position to react quickly enough to prevent the violence from occurring. Furthermore, nearly all police welfare checks resulted in officers discovering the bodies of the victims or officers having standoffs with the perpetrators after they had killed the victims.

Of those who did disclose homicidal intent, 11 perpetrators (41%) disclosed their intentions in timeframes that provided sufficient time to intervene. Among these cases, records indicated that the disclosure occurred days prior to the event, the perpetrator had a recent failed homicide or suicide attempt following the disclosure, the perpetrator sent multiple text messages to various individuals, ranging from friends and family members to the victims themselves, disclosing his or her intentions over a period of time, or the perpetrator stated his or her intentions to a therapist. However, there was no evidence suggesting that actions were taken to effectively address these behaviors despite their alarming, disconcerting nature. In fact, of the 12 protective orders that were filed or obtained, only three (25%) came in cases where homicidal intent had been disclosed previously, and two (17%) cases with protective orders referred to a history of suicidal ideation.

Forty-two (24%) perpetrators left suicide notes. Twenty-nine of the 42 (69%) perpetrators wrote notes detailing plans to commit all violent acts (i.e., the homicides and suicides), as opposed to leaving only suicide notes expressing remorse for having perpetrated homicide. Additionally, four (10%) notes included descriptions indicating that the perpetrator was very angry with his/her intimate partner. Of these cases, two of the notes also described the perpetrators’ intent to commit homicide, while the other two specified only intense anger against an intimate partner. NVDRS data did not contain a description for the note contents in 11 (26%) of the cases.

Discussion

Much controversy exists in violence prevention and criminological literature as to whether homicide-suicides are sparked by homicidal anger, are an extended suicide (i.e., the homicide serves as a means to an end characterized by suicide), or are a distinct act of violence (Haines, Williams, & Lester; Manning, 2014; Van Wormer & Odiah, 1999). Many studies define homicide-suicide events as distinct acts of violence, differing from other homicides by way of perpetrator demographic and mental health characteristics (e.g., homicide-suicide perpetrators are more commonly depressed compared to homicide perpetrators) and differing from other suicides by the motives behind the violence (e.g., homicide-suicides are often the result of escalated intimate partner violence). There are four discernible perspectives or views regarding the nature of these incidents. First, some believe the perpetrator’s final act of suicide is out of remorse (Gillespie, Hearn, & Silverman, 1998;

Palermo, 1994; Stack, 1997). A second perspective is that the perpetrator's motive for homicide is a frustrated personal relationship and that the following suicide is a result of the loss of the frustrating, but nonetheless nurturing, relationship (Henry & Short, 1954; Stack, 1997; Wolfgang, 1958). A third view is that the final suicide act was planned from the beginning and that the preceding homicides would not have occurred had the perpetrator not planned on killing him or herself (Berman, 1979; Selkin, 1976). Lastly, others conclude that the desire to die by suicide is the perpetrator's propelling force and view the homicide(s) preceding the suicide as an ancillary action (Milroy, 1998). Our findings support evidence for each perspective and suggest these perspectives are not necessarily competitive in nature but applicable depending on the extant circumstances. Therefore, we should not commit the epidemiologic study of homicide-suicides to one perspective, but instead should recognize all perspectives to improve the understanding of these acts of violence and better (Cavanagh, Carson, Sharpe, & Lawrie, 2003; Isometsä, 2001; Zouk, Tousignant, Seguin, Lesage, & Turecki, 2006)inform prevention strategies (Bridges & Lester, 2011; Flynn et al., 2009; Liem & Nieuwbeerta, 2010; Roma et al., 2012; Wolfgang, 1958).

Our findings also provide evidence in support of the theory that homicide-suicides are indeed distinct acts of violence. As previously reported by Logan et al. (2013), homicide-suicide incidents, particularly those involving children, are mostly perpetrated by white males; they involve the deaths of family members as opposed to unrelated victims; and they often result in the death of more than one victim – all characteristics that differentiate homicide-suicides from homicides. Additionally, these incidents are different in nature from suicides in that our results indicate the rate of known mental health problems was low (28%) among our sample, as opposed to suicides, which are often characterized by very high rates of mental health problems (Cavanagh et al., 2003; Isometsä, 2001; Zouk et al., 2006).

The predominant characteristic that emerged from the current study was the presence of IPPs between parents, often with a triggering event such as an argument or crisis. In most cases, couples that were already experiencing chronic conflict also experienced acute stressors of separation, divorce, and child custody issues. It appears that in the midst of these tumultuous life events, perpetrators experienced intense emotion that they were unable to regulate, ultimately resulting in not only their death, but the death of a child and often an intimate partner (or former intimate partner). Multiple forms of premeditative disclosure (e.g., suicide notes, disclosure of homicidal and suicidal intent) that preceded the incidents indicate that, in some cases, suicides were planned and the precipitating homicides occurred in response to stressful circumstances and crises – related to IPPs in 61% (n=107) of cases – and may have been considered a necessary act of violence to be committed prior to the suicide.

Further, in 17% (n=29) of cases, the motivation behind filicide-suicides in particular was to deprive one parent custody of a child(ren); less than half of these tragedies involved killing the intimate partner. Again, these findings support the hypothesis that the homicide may have been ancillary to the suicide and that the child's homicide was an act of perceived altruism. That is, the perpetrators believed the homicide was paramount to protecting their child from living with the intimate partner. This study, like others (e.g., Bossarte et al., 2006; Campanelli & Gilson, 2002; Roma et al., 2012), reveals that separation, revenge, divorce,

and child custody issues are risk factors in homicide-suicides involving children. Given these findings, system-level programs that better monitor and moderate the unique circumstances and stressors associated with these changes in family life may help reduce tensions and conflicts that could lead to fatal violence. One such program, *Promote Health*, implemented in the Monroe County, New York judicial system is an assessment that screens adult court clientele for both suicidal behaviors and a number of associated risk factors, including interpersonal and intimate partner violence, alcohol and drug use, mental health problems, and lack of social support (Cerulli et al., 2014; Rhodes, Lauderdale, He, Howes, & Levinson, 2002; Rhodes et al., 2001). Additionally, screening for family violence has been cited as a common secondary prevention strategy and may also help to prevent lethal violence, particularly if conducted during and following divorce proceedings or mediation. The Domestic Violence Evaluation (DOVE) is one screening tool that has demonstrated effectiveness in predicting male partner violence against women following separation. The tool also provides a safety plan, which links intimate partner violence prevention interventions with level of risk, presence of violence predictors, and types and levels of violence in an effort to mitigate the likelihood of future violence (Ellis & Stuckless, 2006). The Danger Assessment (DA) has also been used to assess the likelihood battered women face of being killed by their abusive partners or ex-partners (Campbell, Webster, & Glass, 2009), and has been recommended previously as a potential strategy to identify high-risk women in need of preventive intervention (Smith, Fowler, & Niolon, 2014). Identification of individuals at risk for mental health problems, suicide, interpersonal violence and related problems through programs such as *Promote Health* and tools like DOVE and the DA may increase referral to appropriate services, which could in turn help involved parties to adapt constructively given impending changes in important social identities, roles, and relationships. Such programs could also prove instrumental in breaking the sequence of negative interactions that often jeopardize the health and well-being of family members by providing environments, social arrangements, and skills that will promote more effective coping and problem resolution. Little research exists testing whether strategies like these work to prevent violence. Rigorous evaluation of these types of programs will prove useful in determining their level of effectiveness at preventing adverse health outcomes, including severe and fatal violence.

In addition to IPPs, we found that CLPs were common precipitators of homicide-suicide incidents involving child victims. When CLPs were a precipitating circumstance, almost half were related to IPPs, and in almost half of those cases, intimate partner violence was an ongoing issue in the relationship. An arrest was pending in 25% of cases involving CLPs, and in 18% of such cases, the perpetrator had recently been incarcerated. These findings highlight that IPPs, particularly those involving intimate partner violence, can create legal problems that significantly worsen already fractured and dysfunctional relationships. Further, studies conducted to examine whether protective orders are effective in preventing violence between those specified in the order report a wide range (i.e., 23% to 70%) of protective order violations (Carlson, Harris, & Holden, 1999; DeJong & Burgess-Proctor, 2006; McFarlane et al., 2004; Tjaden & Thoennes, 2000). Our results also support previous research demonstrating that the legal system is not perfect given that protective orders were violated. Also, we found incidents where restraining orders were denied despite previous

reports of serious violent histories and/or disclosures of homicidal-suicidal intentions among perpetrators by the victims. These findings suggest there is room for improvement with regard to making restraining/protective orders effective at preventing severe family violence. Taken together, the findings from studies regarding protective orders suggest that in particularly volatile cases, all systems with a stake in preventing and stopping intimate partner and other family violence must anticipate that violence can escalate significantly following arrests and other legal proceedings (e.g., filing for divorce) and therefore should proactively implement effective, proven measures for discouraging perpetration and safeguarding those who could be harmed. It is likely that multiple sectors, including the education, judicial, and healthcare systems, could benefit from implementing screening tools and programs such as DA, DOVE, and *Promote Health* to identify risk factors for and interrupt severe violence before it occurs. Few programs exist that have demonstrated effectiveness in preventing intimate partner violence, and those that do are typically implemented in healthcare settings and have limited reach. Thus, more research in this area is needed to evaluate whether tools and programs like those described above would be effective, particularly if implemented in the criminal/legal sector.

Many studies find mental illness, substance abuse, and alcohol use pronounced in regard to suicides (Cavanagh et al., 2003; Miles, 1977; Stack, 2000). Surprisingly, we found that in filicide-suicides, perpetrators were more likely to experience conflict with their partner than to have a documented mental illness. This is an important finding given that many evidence-based suicide prevention strategies focus on treating mental illness and reducing alcohol and substance abuse (e.g., Lester, 1999; Ludwig & Marcotte, 2005; Simon, Savarino, Operskalski, & Wang, 2006; Wasserman & Varnik, 1998). Our findings indicating that such prevention strategies may be ineffective in preventing filicide-suicides where stressful life events may be more likely to contribute to the decision to take one’s life than a MHP or substance abuse problem. Further, of the cases where mental illness was documented, in over three quarters, the cause cited in narrative reports was IPPs (e.g., “[Perpetrator] had a history of depression and anxiety with previous statements of suicide/homicide if his spouse followed through with their divorce”). For those with mental illness, it was common to have experienced the illness for an extended period of time (e.g., chronic depression). These findings indicate that in the midst of complicated, stressful interactions, and low coping resources, existing mental health conditions could be exacerbated in ways that result in behaviors that harm oneself and others. Further, half of the decedents in cases involving MHPs had expressed suicidal ideation and approximately one quarter had expressed homicidal ideation; additionally, such ideation was typically expressed within two weeks of the fatal incident, indicating a lack of impulsivity with respect to the filicide-suicide and lending support to the theory that the perpetrator planned his/her suicide and considered the homicide(s) an ancillary action.

In our study, there were a small number of cases where the perpetrator disclosed intent with sufficient time to respond; unfortunately, interventions were not successfully initiated (e.g., disclosure occurred at least days prior, there was a recent failed suicide attempt, disclosure of intentions via text messages multiple times over a period of time, disclosure to a therapist, inability to obtain a restraining order, inability to get someone to reach out). This finding indicates a possible need for efforts that raise awareness regarding possible signs that fatal

violent behavior could be perpetrated, that stress the need to take such signs seriously, and that describe actions that can be taken when the signs are observed. Perpetrators left suicide notes in one quarter of the identified cases. Of those, most perpetrators wrote notes detailing plans to commit both homicide and suicide. Meanwhile others left notes expressing remorse for having perpetrated homicide, providing some support for the perspective those suicides immediately following homicides are carried out because of the perpetrator's feelings of guilt or remorse. Almost a quarter of the notes left indicated the perpetrator committed the act for what they perceived to be altruistic reasons (e.g., "I need to protect my child"; "note stated she was making sure children are in a place where she could no longer disappoint them; etc.). In these cases, it was clear that the perpetrator believed killing his/her child would protect the child from long-term harm. Again, these findings provide support for the theoretical perspective that the suicide was planned initially and that the associated homicides were ancillary to the suicide, or necessary acts of perceived altruism to be carried out prior to the perpetrator's suicide.

Prevention Implications

The continued use of violent death surveillance data may help to improve identification of potential precipitators and treatment of potential victims and perpetrators of filicide-suicide incidents. Improved data gathering can inform targeted interventions to better address the various dynamics of filicide-suicide.

Efforts to more readily identify potentially volatile cases in legal and medical systems may help to prevent fatal violence. Further, dissemination of studies like the current one to medical, legal, and research professionals may also help to inform action and violence prevention strategies. A de-escalation of legal proceedings and more awareness of the increased risk of victimization, especially in highly contested and hostile divorces, are of critical importance in preventing these kinds of deaths during relationship dissolutions. Continued investigation and evaluation research into this area, particularly regarding the violence prevention strategies that are ultimately implemented, is essential. Only then can we know what types of legal, medical, and community-based services can work together to prevent fatal family violence.

The findings from this study further highlight that intimate partner violence, mental health problems, and criminal/legal problems are not only problems facing adults, but that all of these issues, particularly when combined with or experienced by volatile individuals, can have spillover effects that can lead to the possible consequence of child fatality. Additionally, these findings highlight the need for prevention strategies that not only address acute or situational intimate partner problems and relationship discord or mental health and criminal/legal problems, but that also aid in the adoption of constructive, healthy tactics for handling conflict before maladaptive coping occurs. Comprehensive prevention frameworks such as the CDC's Dating Matters, an approach intended to improve intimate partner relationships at an early age (e.g., improve intimate partner communication and conflict resolution), might help build appropriate relationship skills before maladaptive or violent coping skills develop.[2] While this program is largely aimed to prevent teen dating violence it might also help build a foundation of positive relationship skills that can be carried into

adulthood. The Essentials for Childhood Framework, which aims to create and foster safe, stable, and nurturing relationships and environments for youth may also serve as effective models for preventing not only child maltreatment, but also other forms of violence across the lifespan including filicide-suicide. Broadly implementing such frameworks and prevention strategies in communities will help to interrupt the cycle of violence and other negative health outcomes present in the lives of many individuals.

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References

Berman AL. Dyadic Death: Murder-Suicide. Suicide and Life-Threatening Behavior. 1979; 9(1):15–23. DOI: 10.1111/j.1943-278X.1979.tb00899.x [PubMed: 432903]

Bossarte RM, Simon TR, Barker L. Characteristics of homicide followed by suicide incidents in multiple states, 2003–04. Inj Prev. 2006; 12(Suppl 2):ii33–ii38. DOI: 10.1136/ip.2006.012807 [PubMed: 17170169]

Bourget D, Grace J, Whitehurst L. A review of maternal and paternal filicide. J Am Acad Psychiatry Law. 2007; 35(1):74–82. 35/1/74 [pii]. [PubMed: 17389348]

Bridges FS, Lester D. Homicide–suicide in the United States, 1968–1975. Forensic Science International. 2011; 206(1–3):185–189. DOI: 10.1016/j.forsciint.2010.08.003 [PubMed: 20813473]

Campanelli C, Gilson T. Murder-suicide in New Hampshire, 1995–2000. Am J Forensic Med Pathol. 2002; 23(12198350):248–251. [PubMed: 12198350]

Campbell JC, Webster DW, Glass N. The danger assessment validation of a lethality risk assessment instrument for intimate partner femicide. J Interpers Violence. 2009; 24(4):653–674. [PubMed: 18667689]

Carlson MJ, Harris SD, Holden GW. Protective orders and domestic violence: Risk factors for re-abuse. Journal of Family Violence. 1999; 14(2):205–226.

Cavanagh JT, Carson AJ, Sharpe M, Lawrie SM. Psychological autopsy studies of suicide: a systematic review. Psychol Med. 2003; 33(3):395–405. [PubMed: 12701661]

Centers for Disease Control and Prevention. National Violent Death Reporting System (NVDRS) Coding Manual Version 3. National Center for Injury Prevention and Control, Centers for Disease Control and Prevention; Atlanta, GA: 2008. Online at http://www.cdc.gov/violenceprevention/pdf/NVDRS_Coding_Manual_Version_3-a.pdf

Cerulli C, White AM, Chin N, McLaughlin N, Nichols-Hadeed C, Santos E, Caine E. Unlocking family court's potential for public health promotion. Buffalo Journal of Gender, Law, and Social Policy. 2014; XXII(Special Symposium Issue):49–69.

DeJong C, Burgess-Proctor A. A summary of personal protection order statutes in the United States. Violence Against Women. 2006; 12(1):68–88. [PubMed: 16314662]

Ellis D, Stuckless N. DOMESTIC VIOLENCE, DOVE, AND DIVORCE MEDIATION. Family Court Review. 2006; 44(4):658–671. DOI: 10.1111/j.1744-1617.2006.00117.x

Flynn S, Swinson N, While D, Hunt IM, Roscoe A, Rodway C, Shaw J. Homicide followed by suicide: a cross-sectional study. The Journal of Forensic Psychiatry & Psychology. 2009; 20(2):306–321.

General Accounting Office, U. S. Content analysis: A methodology for structuring and analyzing written material. Washington, D.C: 1996.

Gillespie M, Hearn V, Silverman RA. Suicide following homicide in Canada. Homicide Studies. 1998; 2(1):46–63.

Haines J, Williams CL, Lester D. Murder-suicide: A reaction to interpersonal crises. Forensic Sci Int. S0379-0738(10)00215-X [pii].

[2]Details can be viewed at http://www.cdc.gov/violenceprevention/datingmatters/

Hatters Friedman S, Hrouda DR, Holden CE, Noffsinger SG, Resnick PJ. Filicide-suicide: common factors in parents who kill their children and themselves. J Am Acad Psychiatry Law. 2005; 33(4): 496–504. 33/4/496 [pii]. [PubMed: 16394226]

Henry, AF., Short, JF. Suicide and homicide: Some economic, sociological and psychological aspects of aggression. Vol. 91442. Free Press; New York: 1954.

Isometsä ET. Psychological autopsy studies – a review. European Psychiatry. 2001; 16(7):379–385. http://dx.doi.org/10.1016/S0924-9338(01)00594-6. [PubMed: 11728849]

Krischer MK, Stone MH, Sevecke K, Steinmeyer EM. Motives for maternal filicide: results from a study with female forensic patients. Int J Law Psychiatry. 2007; 30(3):191–200. DOI: 10.1016/j.ijlp.2007.03.003 [PubMed: 17449099]

Larkin M, Watts S, Clifton E. Giving voice and making sense in interpretative phenomenological analysis. Qualitative Research in Psychology. 2006; 3(2):102–120. DOI: 10.1191/1478088706qp062oa

Lester D. Effect of changing alcohol laws in Iceland on suicide rates. Psychol Rep. 1999; 84(3 Pt 2): 1158.doi: 10.2466/pr0.1999.84.3c.1158 [PubMed: 10477936]

Liem M, Nieuwbeerta P. Homicide followed by suicide: a comparison with homicide and suicide. Suicide and Life-Threatening Behavior. 2010; 40(2):133–145. [PubMed: 20465348]

Logan J, Hill HA, Black ML, Crosby AE, Karch DL, Barnes JD, Lubell KM. Characteristics of perpetrators in homicide-followed-by-suicide incidents: National Violent Death Reporting System—17 US states, 2003–2005. American journal of epidemiology. 2008; 168(9):1056–1064. [PubMed: 18794221]

Logan JE, Walsh S, Patel N, Hall J. Homicide-followed-by-suicide incidents involving child victims. Am J Health Behav. 2013; 37(4):531–542. [PubMed: 23985234]

Ludwig J, Marcotte DE. Anti-depressants, suicide, and drug regulation. J Policy Anal Manage. 2005; 24(2):249–272. DOI: 10.1002/pam.20089 [PubMed: 15776534]

Manning J. The social structure of homicide-suicide. Homicide Studies. 2014; doi: 10.1177/1088767914547819

Marzuk PM, Tardiff K, Hirsch CS. The epidemiology of murder-suicide. JAMA. 1992; 267(23):3179–3183. [PubMed: 1593740]

McFarlane J, Malecha A, Gist J, Watson K, Batten E, Hall I, Smith S. Protection orders and intimate partner violence: An 18-month study of 150 Black, Hispanic, and White Women. American Journal of Public Health. 2004; 94(4):613–618. [PubMed: 15054014]

Miles CP. Conditions predisposing to suicide: A review. J Nerv Ment Dis. 1977; 164(4):231–246. [PubMed: 321725]

Milroy CM. Homicide followed by suicide: remorse or revenge? Journal of Clinical Forensic Medicine. 1998; 5(2):61–64. DOI: 10.1016/S1353-1131(98)90054-2 [PubMed: 15335539]

Palermo GB. Murder-suicide—An extended suicide. International Journal of Offender Therapy and Comparative Criminology. 1994; 38(3):205–216.

Paulozzi LJ, Mercy J, Frazier L Jr, Annest JL. CDC's National Violent Death Reporting System: background and methodology. Inj Prev. 2004; 10(1):47–52. [PubMed: 14760027]

Reid K, Flowers P, Larkin M. Exploring lived experience. Psychologist. 2005; 18(1):20–23.

Resnick PJ. Child murder by parents: a psychiatric review of filicide. American Journal of Psychiatry. 1969; 126:325–334. [PubMed: 5801251]

Rhodes KV, Lauderdale DS, He T, Howes DS, Levinson W. "Between me and the computer": Increased detection of intimate partner violence using a computer questionnaire. Annals of emergency medicine. 2002; 40(5):476–484. [PubMed: 12399790]

Rhodes KV, Lauderdale DS, Stocking CB, Howes DS, Roizen MF, Levinson W. Better health while you wait: a controlled trial of a computer-based intervention for screening and health promotion in the emergency department. Annals of emergency medicine. 2001; 37(3):284–291. [PubMed: 11223765]

Roma P, Spacca A, Pompili M, Lester D, Tatarelli R, Girardi P, Ferracuti S. The epidemiology of homicide–suicide in Italy: A newspaper study from 1985 to 2008. Forensic Science International. 2012; 214(1):e1–e5. [PubMed: 21764533]

Selkin J. Rescue Fantasies in Homicide-Suicide*. Suicide and Life-Threatening Behavior. 1976; 6(2): 79–85. DOI: 10.1111/j.1943-278X.1976.tb00672.x [PubMed: 941206]

Simon GE, Savarino J, Operskalski B, Wang PS. Suicide risk during antidepressant treatment. American Journal of Psychiatry. 2006

Smith SG, Fowler KA, Niolon PH. Intimate partner homicide and corollary victims in 16 states: National Violent Death Reporting System, 2003–2009. American Journal of Public Health. 2014; 104(3):461–466. [PubMed: 24432943]

Stack S. Homicide followed by suicide: An analysis of Chicago data. Criminology. 1997; 35(3):435–453.

Stack S. Suicide: A 15-Year Review of the Sociological Literature Part I: Cultural and Economic Factors. Suicide and Life-Threatening Behavior. 2000; 30(2):145–162. DOI: 10.1111/j.1943-278X.2000.tb01073.x [PubMed: 10888055]

Steenkamp M, Frazier L, Lipskiy N, Deberry M, Thomas S, Barker L, Karch D. The National Violent Death Reporting System: an exciting new tool for public health surveillance. Inj Prev. 2006; 12(Suppl 2):ii3–ii5. DOI: 10.1136/ip.2006.012518 [PubMed: 17170168]

Tjaden, PG., Thoennes, N. Extent, nature, and consequences of intimate partner violence: Findings from the National Violence Against Women Survey. National Institute of Justice; Washington, DC: 2000.

Van Wormer K, Odiah C. The psychology of suicide-murder and the death penalty. Journal of Criminal Justice. 1999; 27(4):361–370.

Violence Policy Center. American Roulette: Murder-Suicide in the United States. 4. Washington DC: 2012. http://www.vpc.org/studies/amroul2012.pdf [Accessed 2/24/2015]

Wasserman D, Varnik A. Suicide-preventive effects of perestroika in the former USSR: the role of alcohol restriction. Acta Psychiatr Scand Suppl. 1998; 394:1–4. [PubMed: 9825011]

West SG, Friedman SH, Resnick PJ. Fathers who kill their children: an analysis of the literature. J Forensic Sci. 2009; 54(2):463–468. DOI: 10.1111/j.1556-4029.2008.00964.x [PubMed: 19187457]

Wolfgang M. An analysis of homicide-suicide. Journal of Clinical and Experimental Psychopathology and Quarterly Review of Psychiatry and Neurology. 1958; 19:208–221.

Zouk H, Tousignant M, Seguin M, Lesage A, Turecki G. Characterization of impulsivity in suicide completers: clinical, behavioral and psychosocial dimensions. J Affect Disord. 2006; 92(2–3):195–204. DOI: 10.1016/j.jad.2006.01.016 [PubMed: 16545465]

Table 1

Common antecedents of homicide-suicides with child victims. Note: Categories are not mutually exclusive.

Homicide-Suicide Antecedents	n	%
Total Incidents	**175**	**100.0**
Themes		
1. Intimate Partner Problems	**107**	**61.1**
Intimate partner violence	43	24.6
Divorce or break-up	44	25.1
Arguments	28	16.0
Custody problems related to child(ren)	29	16.6
2. Mental Health Problems	**50**	**28.6**
Substance abuse problems	12	6.9
Substance abuse problem *and* diagnosed mental illness	9	5.1
3. Criminal/Legal Problems	**44**	**25.1**
Domestic violence charges	15	8.6
Sexual misconduct	5	2.9
Child maltreatment	6	3.4
Drug or alcohol-related charges	4	2.3
Protective order filed/obtained	14	8.0
Arrest or pending arrest	11	6.3
Recent release from incarceration	8	4.6
4. Evidence of Premeditation	**71**	**40.6**
Left a note	42	24.0
Disclosed homicidal intent	27	15.4
Disclosed suicidal intent	37	21.1

Table 2

Homicide-suicide perpetrator and victim characteristics and circumstance characteristics

Characteristics	n	%
Total Incidents	**175**	**100.0**
Total Homicide Victims	**336**	
Adult Homicide Victims	83	25.9
Child Homicide Victims (<18 years of age)	253	74.1
Total Perpetrators	**175**	
Male	133	76.0
Female	42	24.0
Mean (Standard Deviation) Age of Perpetrators, years (n=175)	**37.7 (10.4)**	
Child Homicide Victim's Sex (n=253)		
Male	135	53.4
Female	118	46.6
Mean (Standard Deviation) Age of Child Homicide Victims, years (n=253)	**7.8 (5.1)**	
Adult Homicide Victim's Sex (n=83)		
Male	20	24.1
Female	63	75.9
Mean (Standard Deviation) Age of Adult Homicide Victims, years (n=83)	**35.5 (13.2)**	
Filicides	**94**	**53.7**
Perpetrated by male	56	59.6
Perpetrated by female	38	40.4
Familicides	**64**	**36.6**
Perpetrated by male	59	92.2
Perpetrated by female	5	7.8
Homicide-suicides with child victims unrelated to perpetrator	**17**	**9.7**
Perpetrated by male	17	100
Victim's Relationship to Perpetrator		
Spouse/partner (or ex-spouse/partner)	64	18.8
Child/stepchild	223	65.6
Other family member or friend	30	8.8
Stranger unknown to perpetrator	23	6.8
Resnick's Typologies		
Altruistic filicide	10	5.7
Unwanted child filicide	6	3.4
Accidental filicide via child abuse/neglect	4	2.3
Acutely psychotic filicide	50	28.6
Spousal revenge filicide	70	40.0