REGULAR ARTICLE

Filicide-Suicide: Common Factors in Parents Who Kill Their Children and Themselves

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The purpose of this phenomenological study was to identify commonly occurring factors in filicide-suicide offenders, to describe this phenomenon better, and ultimately to enhance prevention of child murder. Thirty families' files from a county coroner's office were reviewed for commonly occurring factors in cases of filicide-suicide. Parental motives for filicide-suicide included altruistic and acutely psychotic motives. Twice as many fathers as mothers committed filicide-suicide during the study period, and older children were more often victims than infants. Records indicated that parents frequently showed evidence of depression or psychosis and had prior mental health care. The data support the hypothesis that traditional risk factors for violence appear different from commonly occurring factors in filicide-suicide. This descriptive study represents a step toward understanding filicide-suicide risk.

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Several recent cases of filicide, child murder by parents, have drawn national attention to this archetypal tragedy. Specific motives for filicide were initially described by Resnick,[1] classified as (1) altruistic, (2) acutely psychotic, (3) accidental filicide (fatal maltreatment), (4) unwanted child, and (5) spouse revenge filicide.[1] Altruistic filicide is murder committed out of love to relieve the real or imagined suffering of the child. Altruistic filicide may be associated with suicide. For example, a mother who is suicidal may not be willing to leave her child motherless in a "cruel world." Distinct from this, acutely psychotic filicide occurs when a parent in the throes of acute psychosis (e.g., experiencing command hallucinations) kills his or her child with no comprehensible motive. Fatal maltreatment filicide may occur as a result of child abuse, neglect, or Munchausen syndrome by proxy. Parents committing spouse revenge filicides kill children in a specific attempt to make the spouse suffer. Furthermore, filicide may occur within the context of familicide, the extermination of the entire family.

Resnick[1] reported a "relief of tension" after altruistic and acutely psychotic filicides. The expulsion of energy after the child's death explains why some parents who had intended filicide-suicide did not complete the act of suicide. Conversely, other parents, "upon realization of the gravity of their act. . .may attempt suicide even if it was not planned" (Ref. 1, p 79). In the reported literature, a large proportion of filicides are filicide-suicides, with 16 to 29 percent of mothers and 40 to 60 percent of fathers who commit filicide also committing suicide.[2–4] Fathers' higher rates of filicide-suicide are possibly related to the higher male suicide rate in general.[5] In children under five years of age, just over 60 percent are killed by their parents.[6] Meanwhile, the murder rate for U.S. children under five years of age is more than twice the rate of our Canadian neighbors' children of that age.[7]

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While homicide victimization rates increase in the teenage years, significantly fewer teen homicides are committed by parents. A Chicago study found that while filicides are only 2 percent of all homicides, they represented 7.6 percent of homicide-suicides.[8]

Filicide-suicides are often not included in research samples of filicides, because study populations are frequently drawn from jail or psychiatric populations of living parents who have killed.[9,10] However, several studies in other nations have been based on coroners' records of filicides. In a Quebec study,[11] of 27 mothers who killed their children, just over half (n = 15) committed suicide. A Swedish study of death records revealed 43 filicide-suicides in 65 filicide cases.[12] In more than 40 percent of cases, there were multiple homicide victims. A Finnish study of filicide-suicide found almost twice as many fathers as mothers committing filicide-suicides, with fathers tending to kill more of their children than did mothers.[13] Meyer and Oberman noted: "Women who commit infanticide and then attempt to take their own lives are more likely to kill multiple children" (Ref. 14, p 91).

While suggestions have been made for prevention of certain types of filicide, little is known to date about prevention of filicide-suicide. Epidemiologic studies have identified childbearing at an early age and no prenatal care as risk factors for child murder in the general population in the first year of life.[15] There have been multiple studies of filicide that classified types of child murder and further categorized the offender, but little research has focused on identifying commonly occurring factors that may confer risk in the psychiatric population. Resnick[1] noted that three-fourths of the parents had psychiatric symptoms prior to committing filicide and 40 percent had recently seen a physician or psychiatrist. In fact, "some mothers talked openly of suicide and even expressed concern about the future of their children" (Ref. 1, p 80). If multiple commonly occurring factors can be identified in filicide-suicide offenders by clinicians prior to the act, there is hope that some deaths may be prevented.

Based on a synthesis of the literature, the authors investigated the existence of commonly occurring characteristics shared by filicide-suicide offenders: severe mental disorder (schizophrenia, schizoaffective disorder, bipolar disorder, or major depressive disorder), prior contact with a mental health professional, severe depression, past suicide attempts, psychotic features, poor social support, and an abnormal relationship with the child. Furthermore, specific delusional themes (delusions regarding the children or the family) may be related to filicide-suicide. Knowledge about common characteristics may help clinicians in their risk assessments.

The authors also hypothesized that motives for filicide-suicide would most likely be altruistic or acutely psychotic, because parents who had fatally abused a child, had an unwanted child, or sought revenge on a spouse would be less likely to kill themselves after having killed their children. In all three of these scenarios, the offending parents would be less likely to merge their own fate with that of their children. The parent may fail to commit suicide because, in the case of fatal maltreatment, the child usually has been neglected or abused but unintentionally killed; in the case of an unwanted child, there is a lack of identification with the child; and in the case of spouse revenge, there may be a desire to remain alive to take pleasure in the vengeance.

Methods

To investigate phenomenologically the commonly occurring factors in parents who kill their children and then themselves, a retrospective review of records in coroners' cases of filicide-suicide was conducted. Institutional Review Board approval was obtained from Case Western Reserve University/University Hospitals of Cleveland. Subsequently, the office of the Cuyahoga County Coroner (the county encompassing the Cleveland, Ohio, metropolitan area) granted access to their complete files of parents who committed "homicide abated by suicide." Records encompassed 1958 through 2002. Inclusion criteria for the study were parents who killed their biological children (under age 18) and committed suicide within 24 hours. Files of stepparents who killed a stepchild and then themselves were not included in the analysis because of the potential of identifying different risk factors.[16]

Data sources available for all subjects included the coroner's official reports; various police reports including interviews with relatives, neighbors, and employers; autopsy results; and toxicology results. In addition, some files included pertinent hospital records, newspaper clippings about the incident, and if applicable, the suicide note. The data sources were searched for approximately 50 factors (comprising eight subgroups of factors) identified through a re-

Table 1 Factors Coded in the Study: Eight Subgroups of Factors

Demographics: parent sex, age of parent, marital status, employment, race
Legal history: history of charges, history of prison, juvenile legal history
Substance history: alcohol history, drug history, alcohol use prior to offense, drug use prior to offense, intoxication during act
Offense characteristics: total children, children in filicide, child age, child sex, description of motive, description of filicide act, other victims, accomplice, method, previous attempts at filicide, length of consideration of filicide
Illness characteristics: history of mental illness, diagnosis, age at diagnosis/symptom onset, age at first hospitalization, length of mental illness treatment, history of psychiatric admissions, last contact with psychiatry/mental health services, history of suicide attempts and method, auditory hallucinations, command hallucinations, visual hallucinations, delusions and quality, depression, mania
Family characteristics: domestic violence, abuse of children
Offender developmental/psychosocial characteristics: social support, childcare, biological father involvement/stepfather, involvement of child protective services, source of income, custody dispute, school problems
Offender medical history: history of *postpartum* depression or psychosis, *postpartum* or pregnant state, medical problems

view of the literature. The factors included demographics, legal history, substance use history, offense characteristics, illness characteristics, family's characteristics, offender's characteristics, and offender's medical history (Table 1). In addition, based on the classification of filicide motives established by Resnick,[1] a consensus of the authors regarding motive was reached in each case. (If there was not sufficient information about the offender's mental state around the time of the crime, the motive was labeled as inconclusive.) These results were then analyzed for commonly occurring factors in families in which filicide-suicide occurred, and especially for commonly occurring factors in the parent who killed the child. Familicides were also evaluated as a distinct subgroup.

Data were examined with descriptive statistics (means ± standard deviations for continuous variables and percentages for categorical variables). Statistics were computed for the sample as a whole, for fathers, and for mothers. When appropriate and when sample size permitted, means were compared using t tests, and categorical distributions were compared by using the chi square test. Because of the small sample size and the exploratory nature of the study, statistical tests of significance were frequently unfeasible.

Results

Data from the Cuyahoga County coroner shows an average of 3,200 coroner cases per year, of which approximately five percent are reported as homicides.[17] Thirty cases of filicide-suicide were identified, resulting in a sample comprised of 10 (33%) mothers and 20 (67%) fathers who had committed filicide-suicide over the time period. In most cases, data were not available for all 50 variables.

Demographic Data

The parents ranged in age from 25 to 52 years (mean age, 36). The fathers (mean age ± SD, 38.2 ± 8.8 years), were significantly older than the mothers (mean age, 31.8 ± 5.7 years, $t = -2.369$, $p < .026$). Sixty percent of the mothers and 75 percent of the fathers were white; the remainder were African-American. Seventy percent of mothers and 80 percent of the fathers were married and cohabiting with their spouses, and an additional 20 percent of the mothers and 10 percent of the fathers were separated from their spouses. One single mother, one single father, and one divorced father completed the sample. Fifty-five percent of fathers and no mothers had been in military service. Thirty percent of the mothers and 90 percent of the fathers were employed at the time of the filicide-suicide. Thirty percent of the fathers had recently experienced a decrease in status at work (such as demotion or decreased hours available) or loss of a job. (Data were unavailable regarding changes in work status for 65% of the fathers.)

Legal and Substance History

One (10%) mother and five (25%) fathers had been charged with previous crimes. The mother's and three of the fathers' previous crimes involved physical assault. (Police reports usually note previous arrests, and documented percentages are probably representative, though these data were not recorded in 73% of files.) Ten percent of the parents had a documented history of alcohol or drug abuse. Coroners' records did not consistently report the presence or absence of substance abuse history. The percentage of those with a substance abuse history is considered an underestimate, as fluid samples taken at autopsy revealed that 27 percent (three mothers and five fathers) had used alcohol or other substances prior to the filicide-suicide. (Two parents did not have tests for alcohol or substances.)

Child and Family Characteristics

The 30 parents were responsible for the deaths of 51 children, ranging in age from 3 months to 17 years and for the death of one nearly full-term fetus *in utero*. Seven additional children were attacked but survived. Excluding the unborn child, the mean age of the filicide victims was 7.1 years. Thirty-three (65%) victims were girls; 18 (35%) were boys. The mean age of the children who survived attacks was 8.4 years; four (57%) of the survivors were girls and three (43%) were boys. The age range of the 20 children killed by their mothers was 3 months to 11 years (mean, 5.8 years). The age range of the 31 children killed by their fathers was 6 months to 17 years (mean, 7.9 years). The difference in the mean ages of the children killed by fathers versus mothers was not significant, nor was there a significant difference in the sex of the children killed by fathers versus mothers.

The mean number of children (less than 18 years of age) in the perpetrators' families was 2.2, and the mean number of children killed in the filicide-suicide was 1.9. Eighty percent of parents killed or attempted to kill all of their offspring up to age 18, including 7 (70%) of the mothers and 17 (85%) of the fathers. (One father attempted to kill his 21-year-old in addition to another child, and another father did not harm his 18- and 20-year-old offspring. These adult children are not included in subsequent discussion, because the focus of this investigation was on children younger than 18.) The eight children (four boys, four girls) who were neither killed nor attacked ranged in age from 5 to 17 years (mean, 12 years). This mean age was significantly higher than the mean age of the 58 children who were attacked and/or killed (mean, 7.2 years; $t = -2.916$, $p < .005$). Medical problems were noted in five (10%) of the filicide victims. Two of the children with severe medical illnesses (one life-threatening and one not life-threatening) were apparently singled out as victims, because both had siblings who were not attacked.

Only six percent ($n = 3$) of the filicide victims were infants, between one day and one year old. Only one mother who committed filicide was in the *postpartum* period. Thirty-six percent ($n = 18$) of the filicide victims were of preschool age (1–5 years). Forty-eight percent ($n = 24$) of the filicide victims were of elementary school age (6–12 years), and 12 percent ($n = 6$) were teenagers (13–17 years). Attempts made on the lives of infants or of preschool children were invariably successful in the filicide-suicides. In contrast, among schoolchildren, some filicide attempts were not successful. Five surviving children either directly witnessed, reported, or viewed the scene of the filicide-suicide, causing a risk of trauma and PTSD among these survivors.

Filicide-Suicide Offense Characteristics

Sixty-five percent of the fathers attempted to kill their wives as well as their children, whereas no mothers attempted to kill their husbands. In all, 55 percent of the fathers, but none of the mothers, attempted familicide, that is, annihilation of the entire family.

The large majority (73%) of parents killed their children by shooting, including 7 (70%) mothers and 15 (75%) fathers. Other methods—sometimes used in combination—included beating (10%), drowning in a car (7%), suffocation (7%), stabbing (7%), arson (3%), carbon monoxide poisoning (3%), and strangulation (3%). All but four of the parents (87%) used the same method to kill themselves as they had used to kill their children. No parent had an accomplice or attempted to dispose of evidence.

While previous domestic violence in the household was noted in records of three mothers and three fathers, the filicide-suicides did not appear to be the culmination of abusive parent-child relationships; coroners' investigations uncovered a history of child abuse in only one father and in none of the mothers. (Sixty percent of records did not note the presence or absence of domestic violence, and 77% did not specifically note child abuse. However, because of the nature of the deaths, investigators would have been likely to comment on the prior violence, if it had occurred.) No parent had made a previous recognized attempt at filicide. All of the mothers were primary caregivers, as was one father. Two fathers did not have custody of the children or live with the children. One mother of two was in the midst of a custody dispute with the father that involved only one of the children (whom she believed would be in danger from the father). She killed only the child involved in the dispute and herself.

Information was available on 17 subjects concerning the likely length of time that the parents considered suicide and/or filicide prior to acting. The length of time of consideration of filicide-suicide ap-

Table 2 Parental Mental Illness

	Maternal Filicide-Suicide (n = 10)	Paternal Filicide-Suicide (n = 20)	Total Filicide-Suicide (n = 30)
Mental illness			
Total	90% (9)	75% (15)	80% (24)
Saw counselor/psychiatrist/medication	70% (7)	30% (6)	43% (13)
Evidence against	10% (1)	15% (3)	13% (4)
Unknown	0	10% (2)	7% (2)
Previous admissions to psychiatric hospital	20% (2)	10% (2)	13% (4)
Previous suicide attempt	20% (2)	5% (1)	10% (3)
Delusional	20% (2)	20% (4)	20% (6)
Psychosis	30% (3)	25% (5)	27% (8)
Depression	70% (7)	50% (10)	57% (17)

Data are the percentage of the total group (n).

peared to range from a complete lack of deliberation of the filicide (one parent first shot himself and then shot a child who was roused by the noise) to several weeks. Indirect evidence of planning included the fact that several of the parents had purchased or obtained guns within several days to several weeks of the filicide. One parent indicated in a note that she had been contemplating suicide for a month. In another situation, a parent purchased a sympathy card addressed to the surviving parent. Apparently in preparation for filicide-suicide, one parent who killed a child with a chronic medical condition, sent her nonimpaired child to stay with a relative prior to the act.

Parental Psychiatric Histories

For most (80%) of the parents, available information suggested a history of psychiatric contacts and/or ongoing symptoms of a mood or thought disorder (Table 2). Forty-three percent of the parents (70% of the mothers; 30% of the fathers) had known previous contact with a psychiatrist or other mental health professional, and another father was known to have been on psychiatric medication. Four of these parents (two mothers; two fathers) had previous psychiatric hospitalizations. Although information about the date of the most recent mental health contact was not generally available, two files noted that the parents had been seen by mental health professionals within 24 hours of the filicide-suicide. Information in the coroners' records (for example, descriptions provided by family members or neighbors) strongly suggested significant mood or thought disorder in an additional 20 percent of the mothers and 40 percent of the fathers.

There was evidence of depression or depressive symptoms (from psychiatric reports and interviews with family, neighbors, and coworkers) in 57 percent of the parents (70% of the mothers, 50% of the fathers), and of psychosis in 27 percent (30% of the mothers, 25% of the fathers). Two mothers (20%) and four fathers (20%) were clearly delusional in the time prior to the filicide. All of the fathers' delusions were of the paranoid type, and three of the four delusions involved their families. The mothers' delusions concerned family and marriage. One additional mother had expressed strong, but not clearly delusional, concerns to others about the future. Only 10 percent of the parents had a previous documented suicide attempt, but information about suicide attempts was not known for the rest of the sample. Some evidence against prior psychiatric disturbance was found in 10 percent of the mothers' and 15 percent of fathers' records, such as multiple descriptions of the parent as having no mental illness, behaving normally at work, or being "jovial," though this certainly could underestimate the true rate of mental illness in this population. Seven percent of records did not include enough information to infer presence or absence of mental illness.

Motives in Filicide-Suicide

The majority (70%) of the motives for filicide-suicide were identified as altruistic, that is, the parents (90% of the mothers and 60% of the fathers) were motivated by the desire to alleviate real or imagined suffering in their children (Table 3). The altruistic category was subdivided into psychotic altruistic and non-psychotic altruistic. For example, a psychotic altruistic motive would include taking a child's life because of the delusional belief that the child was in acute danger of a worse fate. Alternately, a non-psychotic altruistic case would be taking the

Table 3 Motive for Filicide-Suicide

	Maternal Filicide-Suicide (n = 10)	Paternal Filicide-Suicide (n = 20)	Total Filicide-Suicide (n = 30)
Altruistic	90% (9)	60% (12)	70% (21)
Psychotic	10% (1)	20% (4)	16% (5)
Nonpsychotic	80% (8)	40% (8)	53% (16)
Acutely psychotic	0	10% (2)	7% (2)
Inconclusive	10% (1)	30% (6)	23% (7)

Data are the percentage of the total group (n).

life because of a belief that a severely medically ill child would be better off. Psychotic beliefs about their children's actual or potential suffering formed the basis of the altruistic motive of nearly one-fourth of these parents (16% of the entire sample), while the remaining three-fourths (53% of the entire sample) were not psychotic.

Acutely psychotic motives were evident in seven percent of the sample (both fathers) and included cases of no comprehensible motive when the parent was known to be psychotic at the time—for example, killing in a frenzy of psychotic agitation. No motive could be ascertained in 23 percent of cases. The records did not reveal specific common precipitants.

Discussion

The parents in our study who killed their children and themselves appeared overall to have high rates of mental illness. The motives were primarily altruistic and occasionally acutely psychotic. As expected, there was a lack of evidence of fatal maltreatment, unwanted children, or desire for revenge on a spouse in these filicide-suicides. The finding that the most common motive for filicide-suicide was altruistic was similar to the results in a smaller study.[18] We further separated altruistic cases into psychotic altruistic and non-psychotic altruistic cases. While some parents clearly killed due to a psychotic belief that the child was suffering, other parents killed when the child was truly suffering from a severe disease. Furthermore, some killed out of "love" when there was real evidence that the family did not have financial means to support themselves. In some altruistic filicides, the parent was depressed and the primary goal was an extended suicide (which would also include the children) rather than a homicide.

Previous research has noted that the risk of filicide peaks in the first year of life, with rates declining during the preschool-age years and reaching a nadir during the elementary school age.[15,19] In contrast, in our study of filicide-suicide, rates were lowest in infancy, rose during the preschool years, and peaked during elementary school years. This difference in age of those at risk is likely related to the filicidal motives. Early in life, motives are often related to an unwanted child and fatal maltreatment.[9,20]

In the report of Somander and Rammer[12] from Sweden, the average age of children in filicide-suicide was 6.5 years, and 70 percent of the perpetrators were fathers. This was virtually identical to the average age of children in our U.S. study (6.8 years and 67% fathers, respectively). Of a sample of six Australian mothers who committed filicide-suicide, Alder and Polk noted "these mothers are older, ranging in age from 18 to 35 years, with four of the mothers being in their early thirties. Their children also tend to be older than in the other circumstances in which mothers kill their children. . .with an average age of 4 years" (Ref. 19, p 47). Women in our filicide-suicide sample killed on average two children, with an average age of 5.8 years.

The Swedish report[12] detailed a relatively low rate of criminal history (<10%), abuse of substances (16%), and intoxication during the act (28%). They noted "explicit indications of problems: in the partner relation. . .custody of children. . .economics . . .as well as a desire to save the child from a cruel world" (Ref. 12, p 49). Four of Alder and Polk's six mothers had previously attempted suicide and had consulted a psychiatrist. They "believed that only a mother could properly care for her children, and that as the mother they were ultimately responsible for the well-being of their children" (Ref. 19, p 52). Our study also showed evidence of a high rate of altruistic motives for filicide-suicide. As in our study, neither the fathers nor the mothers in the Australian study had significant histories of abusing the children.

Twice as many fathers as mothers committed filicide-suicide in our study. This is in keeping with findings in previous studies and the higher male suicide rate. Two-thirds of fathers attempted to kill their wives, while no mother attempted to kill her husband. This may be related to a more proprietary attitude of men toward the family.[21] The sample spans many years before the women's liberation movement when men were likely to be the only breadwinners.

The most frequent method of filicide-suicide was by shooting, a method that is likely to succeed in both filicide and suicide. Similarly, in U.S. newspa-

per reports of homicide-suicides, 90 percent of perpetrators used firearms.[22]

Familicide

Dietz described familicide perpetrators as:

> Family annihilators, usually the senior man of the house, who is depressed, paranoid, intoxicated or a combination of these. He kills each member of the family who is present, sometimes including pets. He may commit suicide after killing the others, or may force the police to kill him [Ref 23, p 482].

Our sample is consistent with this description. Of the 11 men who attempted to kill the entire family, 5 were depressed, 3 were paranoid, and 2 had alcohol in their systems.

A North Carolina study of homicide-suicide included seven cases of familicide-suicide.[24] None of the men had histories of domestic violence, while three had histories of mental illness, and two had criminal histories. Of our sample of 11 men who committed familicide-suicides, 2 had a known history of domestic violence, 5 had utilized mental health services, and 2 had criminal histories. Morton and colleagues noted familicide-suicides were often "preceded by a range of factors including severe depression and suicidal ideation in the perpetrator, ongoing marital conflict, perpetrator anger over separation, and illness in the victim and perpetrator's child" (Ref. 24, p 97). Our sample showed many of the same themes, with the addition of financial stressors.

Perpetrators of familicide have been classified as accusatory killers or despondent killers.[21] Accusatory killers had a grievance against their wives and often a history of violence. The despondent killer is described as "a depressed and brooding man, who may apprehend impending disaster for himself and his family, and who sees familicide followed by suicide as 'the only way out'" (Ref 21, pp 287–8). Our data showed more altruistic killings—that is, committed by despondent killers rather than accusatory ones—though occasionally characteristics of both types were seen.

Suggestions for Prevention of Filicide-Suicide

Over three-fourths of our filicide-suicide offenders had evidence of mental illness. Less than two-thirds of those with mental illness had been in mental health treatment. Outpatient treatment rates of severely mentally ill adults in an epidemiologic study were similar, with 59 percent being treated in the past year.[25] Similarly, the Quebec maternal filicide study[11] noted that while 85 percent had evidence of psychiatric motives, only half had spoken with others (including doctors, police, and family members) regarding their problems. A study of maternal filicide offenders who did not commit suicide, but were referred for psychiatric evaluations, noted that over two-thirds had previously been psychiatrically hospitalized, and over half were in outpatient treatment. The majority had expressed concerns about the children to their families, and over one-third had voiced concerns to their psychiatrists.[10] A small qualitative study of maternal filicide offenders who did not commit suicide revealed that although depressed mothers had filicidal thoughts for days to weeks, psychotic mothers reported having no warning.[26]

The early work of Resnick[1] reported that three-fourths of parents who committed filicide showed evidence of psychiatric symptoms prior to their deed, and a full 40 percent of these parents were seen by a doctor shortly before the filicide. In our study, 43 percent of parents who committed filicide-suicide had used mental health services. Two of the 30 had used mental health services less than a day before the tragedy. Another third of our sample had not been seeing mental health providers but family or survivors indicated that they had significant symptoms of mental illness. To enhance recognition, diagnosis, and treatment of mental illness among parents, educating the community about symptoms of mental illness is suggested. Doing so could help to further the goal of prevention of filicide-suicide.

Traditional risk factors for violence are different from commonly occurring factors for filicide-suicide. For example, young adult age and substance abuse (well-known violence risk factors) were not evident in our findings. This is not surprising in view of the fact that the primary motive was altruism, rather than loss of control. Considering differences between filicide-suicide and suicide alone, marriage and responsibility for parenting, often considered as protective factors against suicide, were (not unexpectedly) frequent in filicide-suicides.[2] Clinicians should be alert to the possibility of filicide in depressed and psychotic parents. Depressed and suicidal parents should be directly questioned regarding the fate of their children in the event of their suicide. Appropriate treatment should be initiated and safety measures taken. The clinician should also determine whether any child is "over-loved," considered an extended part of the self, or the focus of paranoid de-

lusions. Parents may "compensate for murderous feelings by displaying over-possessiveness or concern about their child's being harmed by. . .others" (Ref. 3, p 204). Another recent study[28] documented thoughts of harming their infants or young children in 41 percent of depressed mothers. Indications for parental psychiatric hospitalization, substantiated by our study, include: "parental fears of harming their children, unrealistic concern about a child's health, [and] delusions regarding the child suffering. . ." (Ref 27, p 292). Loss of work or demotion should also be considered in depressed paternal breadwinners. Psychiatrists and pediatricians should screen for psychiatric symptoms in parents.

Limitations

Because much of the filicide research has been conducted in jail or hospital settings, the use of a coroner sample allows access to a subpopulation (filicide-suicide) not typically examined. The authors recognize, however, the limitations inherent in a retrospective coroner record review. Our assessment of mental illness relies on variable recording processes by various police jurisdictions within the county. Therefore, the rates of mental illness based on recorded psychiatric symptoms within the coroner's files are likely to be conservative. We were not able to obtain significant data regarding length of symptoms, last psychiatric visit, length of psychiatric symptoms, presence of hallucinations or manic symptoms, abuse or abandonment of offenders during their own childhoods, history of head trauma, and history of postpartum depression or psychosis. The amount of investigation conducted by the authorities into several of the factors evaluated in this study was variable. For example, if the entire family was killed, there may have been less collateral information about mental state and psychiatric history available to those who investigated the deaths, and therefore the data may have been absent from the records. Data presented cannot be considered a "profile" of parents who commit filicide-suicide. Often, parents seen in psychiatric practice have multiple similarities to this sample and do not harm their children. Considering the magnitude of harm in filicide-suicide, we believe that currently it is better to be over-inclusive and more attentive to risk. Records that were accessible did not point to specific common precipitants; however, future studies should be designed to illuminate these factors. Another limitation, common to many filicide studies, is the lack of a comparison group of parents who did not commit filicide. Future studies should consider utilizing a control group (e.g., parents who commit suicide but not filicide).

Conclusions

The phenomenon of completed filicide-suicide is different from other types of child murder. In this study, older children were more often victims than infants, and most parents displayed evidence of depression or psychosis. Parents with suicidal thinking or with delusions involving their children should be fully evaluated for filicidal risk. Further efforts should be made to educate the public and non-clinical professionals such as police and clergy about symptoms of mental illness and available resources. Though not allowing statistical comparison, this sample of 30 cases represents a considerable sample size because filicide-suicide is relatively rare. The current study is a preliminary phenomenological inquiry into common factors for completed filicide-suicide. Future research may delineate specific risk factors for filicide-suicide.

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