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Child Murder Committed by Severely Mentally Ill Mothers: An Examination of Mothers Found Not Guilty By Reason of Insanity*

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ABSTRACT: Forensic hospital records of 39 severely mentally ill mothers adjudicated Not Guilty by Reason of Insanity for filicide (child murder by parents) were analyzed to describe characteristics preceding this tragedy and to suggest prevention strategies. Almost three-quarters of the mothers (72%) had previous mental health treatment. Over two thirds (69%) of the mothers were experiencing auditory hallucinations, most frequently command hallucinations, and half (49%) were depressed at the time of the offense. Over one third (38%) of the filicides occurred during pregnancy or the postpartum period, and many had a history of postpartum psychosis. Almost three-quarters (72%) of the mothers had experienced considerable developmental stressors, such as death of their own mother or incest. Maternal motives for filicide were predominantly "altruistic" (meaning murder out of love) or "acutely psychotic" (occurring in the throes of psychosis, without rational motive). Psychiatrists should perform careful risk assessments for filicide in mothers with mental illnesses.

KEYWORDS: forensic science, filicide, child homicide, infanticide, parenting

Children in the United States are at greater risk of death by homicide than children in other developed nations (1). Maternal filicide, child murder by mothers, constitutes a portion of these deaths, and has occurred since ancient times (2) yet there is a paucity of literature regarding prevention of these tragedies. Filicidal motives include: "altruistic," "acutely psychotic," "accidental" filicide (fatal maltreatment), "unwanted child," and "spouse revenge" filicide (3). "Altruistic filicide," murder out of love, may occur in the context of psychotic or non-psychotic rationales. For example, "altruistic filicide" may occur to alleviate the child's "suffering," whether actual suffering or suffering perceived within delusions. Alternatively, an "altruistic filicide" may precede planned maternal suicide so that the child would not be abandoned. An "acutely psychotic" filicide occurs when a psychotic mother kills her child with no comprehensible (non-psychotic) motive, or based on delusional deific decree. Fatally battered children and severely neglected children die "accidentally" as the end result of abuse or neglect, and "unwanted children" are often killed soon after birth. Medea is the prototype of a mother committing "spouse revenge filicide", killing her child in a specific attempt to make the child's father suffer. Filicide secondary to severe child neglect or abuse remains more frequent than filicide related to an Axis I mental illness (4). However, consideration of filicidal potential in mentally ill mothers by their psychiatrists is critical for potential prevention of this tragedy.

Abundant theories exist regarding psychiatric underpinnings of maternal filicide. Rodenberg (5, p. 45) hypothesized that filicidal mothers may possess an "insufficient ability to establish a mature giving relationship with the child and this may have its roots in the mother's relationship with her own parent." Harder (6) suggested a parental over-identification with the child, with underlying hostility and rejection. Other considerations include: a suicidal mother considering her child as an extension of herself, "motherlessness" in the mother, personal histories of incest, displaced aggression, and over-identification with an "over-loved" child (3).

However, little is known about the prevention of filicide committed by mentally ill mothers (7), and there is a dearth of research focused on identifying specific risk factors. Nor has research comprehensively described the backgrounds of mentally ill mothers who kill their children. An association between maternal filicide and early parental separation or discord, multiple sources of stress, and suicidality was found among British mothers with a psychiatric

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disposition (8). More recent psychiatric studies of maternal filicide offenders in the United States (7) have noted frequent psychosis, depression, suicidality, and prior use of mental health services. Psychiatric samples of maternal filicide offenders from abroad have further noted mothers' personal histories of abuse (7).

Based on our review of the extant literature, this exploratory study investigated commonly occurring characteristics among mentally ill mothers who committed filicide and were found Not Guilty by Reason of Insanity (NGRI). Common factors were hypothesized to include: prior contact with mental health services, depression, past suicide attempts, and psychotic features including command hallucinations or specific delusional themes involving the children. We hypothesized that these mothers would frequently have minimal social support and difficult developmental histories. We also hypothesized that filicide motives would most frequently be "altruistic" or "acutely psychotic."

Methods

A retrospective record review of filicide cases in which a parent was adjudicated Not Guilty by Reason of Insanity (NGRI) was conducted in Ohio and Michigan. Institutional Review Board approval was obtained from Case Western Reserve University/University Hospitals of Cleveland, Michigan's Center for Forensic Psychiatry, and the Ohio Department of Mental Health for four of five subsidiary behavioral health organizations. To be included in the study, subjects must have killed their biological child or children. All minor biological children (under age 18) were included because of their dependent status. With a goal of exploring the common characteristics of parents who killed their children and were found NGRI, we endeavored to include all cases in these two states. (Rather than a national study, the choice of states made this a convenience sample.) Step-children were excluded due to different expectations for their risk profile (9).

Hospital records were evaluated for eight subgroups of factors (Table 1). Data were collected by two authors (SHF and CEH).

TABLE 1—*Factors evaluated through retrospective review.*

Demographics: age of mother, marital status, education, employment, race.
Child and Family Characteristics: domestic violence, abuse of children, child characteristics, social support, childcare, biological father involvement/ step–dad, involvement of Child Protective Services, source of income, custody dispute.
Maternal Mental Illness Characteristics: history of mental illness, Axis I and II diagnoses, age at diagnosis/symptoms, age at first hospitalization, length of mental illness treatment, history of psychiatric admissions, history of and last contact with psychiatry/mental health provider, history of suicide attempts, method, history of postpartum depression or psychosis, auditory hallucinations, command hallucinations, visual hallucinations, delusions and delusional quality, depression, mania.
Maternal Developmental/Psychosocial Characteristics: significant developmental issues, offender abused as child, offender "abandoned" by mother, incest victim.
Legal History: history of charges and type, history of prison, juvenile legal history.
Substance History: alcohol history, drug history, alcohol use prior to offense, drug use prior to offense, intoxication at act.
Maternal Medical and Reproductive History: postpartum or pregnant state, history of abortion, history of head injury, medical problems.
Offense Characteristics: total children in family, 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, conduct and emotional response after filicide, time to reporting.

Maternal filicide motives, described by Resnick (3), were determined by the consensus of authors. Frequencies and measures of central tendency were used to describe the factors. Given this study's descriptive nature, no tests of statistical significance of group differences were planned. When post hoc questions emerged about possible differences between subgroups of the sample, means were compared using t-tests and distributions of categorical data were compared using Chi-square.

In these two states, 44 cases of filicide were identified in which a parent was adjudicated NGRI. Four cases were excluded because information was not available on the mothers. Only one father in the two states was found NGRI for filicide. Because of potentially different factors operating in maternal and paternal filicides, the single father was excluded from analysis. Therefore, the final sample included 39 maternal filicide offenders.

Results

Demographic Data

The mothers ranged in age from 17 to 45 years old at the time of the filicide; their mean age was 28.9 years old (SD: 6.0 years). While 28% of mothers were married, the majority (72%) was not married at the time of the filicide (33% single, 18% divorced, 18% separated, and 3% widowed). The mean length of education was 12.3 years (SD: 2.0 years); 77% of the mothers had completed high school. The majority of the women (56%) either received financial governmental assistance or had no reported source of income. Only a minority of the mothers (18%) was employed. Fifty-one percent of the mothers were black and 44% were white; information about race was not available for the remaining 5%.

Child and Family Characteristics

The 39 mothers attempted to kill 54 of their 91 children, and succeeded in killing 46. Mothers attempted to kill 1.4 (SD: 0.6) of their 2.3 (SD: 1.4) children. The majority (56%) attempted to kill all of their children. The mean age of the child victims who were attacked or killed was 3.7 years; (SD: 3.7 years) median age 3.0 years; range birth, 1 case, through 16 years). The mean age of children killed was 3.4 years. However, the mean age of children spared (neither attacked nor killed) was 9.0 years (SD: 4.6; range 3 weeks to 17 years). The children who were attacked or killed were, on average, significantly younger than the children who were spared ($t = 3.034$, $p = .007$). Twenty-five girls and 21 boys were killed, while four girls and three boys survived an attempt on their lives; the sex of one victim was not documented. Three mothers killed sets of twins, ranging in age from 9 days to 3 years. Thirty percent of the victims were infants under one year old. One child had a severe medical illness. Only one mother attacked additional victims, her husband and their 20-year-old offspring. No mother had an accomplice.

All but one of the mothers (97%) was the primary caregivers of the children they killed. Only about half (56%) of the fathers were involved in their children's lives. Records noted previous abuse and/or neglect of their children for 18% of the mothers and documented Child Protective Services (CPS) involvement for 15%. A considerable proportion of the records, however, included no information about the presence or absence of past abuse and neglect (unavailable in 33% of the records) and/or CPS involvement (54%). There were ongoing custody issues in one quarter (26%) of the cases. One child had only recently been returned to the mother's custody; another three mothers had other children previously removed

from their custody by foster care or fathers. In contrast, one quarter of the mothers (26%) had supportive husbands or family documented in their records.

Maternal Mental Health Histories

Almost three-quarters (72%) of mothers had previous mental health care; 59% had seen a psychiatrist, while 13% had counseling. Half of the mothers (49%) had been psychiatrically hospitalized previously. Of the 32 mothers who reported their age when they began to experience psychiatric symptoms, the mean age at onset was 25.0 years (SD: 8). Mothers had been in mental health treatment for a median length of one year prior to the filicide, (range 0–17 years); mothers had reported 4.4 years of symptoms on average. The most recent contact with a mental health provider ranged from two years prior to hours before the filicide. Several mothers made recent psychiatric visits or psychiatric emergency room visits, and one mother made six psychiatric emergency visits in the preceding month.

Almost half of the mothers (44%) had previous documented suicide attempts, and there was evidence that 56% of the mothers planned suicide along with their filicide. Half of the mothers in this sample (49%) made a suicide attempt immediately following the filicide. Of those mothers, 53% used the same method for the filicide as for their unsuccessful suicide attempt.

At least half (49%) of the mothers were depressed at the time of the filicide (information about the presence or absence of depression was not included in 36% of the records), and at least 13% were manic (information about the presence or absence of manic symptoms was not included in 69% of the records). Sixty-nine percent of the mothers were experiencing auditory hallucinations, and 78% of these mothers (21/27) described command hallucinations, often regarding killing their children. At least a quarter of mothers (26%; 10; data unreported in 8 cases) experienced visual hallucinations. Three-quarters (74%) of mothers were delusional at the time of the filicide; two-thirds (66%) of the delusions involved their children (19/29). Most delusions (93%; 27/29) were persecutory in nature. Frequently, delusional thinking involved the beliefs either that their children were possessed by the devil or demons, that the mothers themselves were God or religious figures, or the belief that their children would be raped, abused, murdered, or forced into servitude.

Maternal Psychiatric Diagnoses

Over four-fifths of the women (82%) were diagnosed with either a psychotic disorder or a mood disorder with psychotic features. Mood disorders were reported in approximately half (51%) the mothers. However, 10% of the women were not diagnosed with any Axis I mood or psychotic disorder (including 3 of the 4 women in this sample opined Criminally Responsible by court-appointed evaluators, yet found NGRI). Forty-one percent of women were diagnosed with a personality disorder or traits, including 10% with Borderline Personality Disorder. Four women (11%) had Borderline Intellectual Functioning; none were mentally retarded.

Maternal Personal and Developmental Histories

Over one-third of the mothers (38%) reported that they had themselves been physically or sexually abused during childhood; information about abuse history was not recorded for 36%. About half (49%; unreported in 33%) had been "abandoned" in some way by their own mothers, either by death (7), divorce, or removal from maternal custody. Two mothers (5%) were incest victims. Other individual developmental issues included having alcoholic parents, a sister's murder, and being kidnapped. In sum, three-quarters of the mothers (72%) were noted to have experienced considerable stressors during their developmental years. One-quarter (23%) of the mothers reported that as adults, they were victims of domestic violence; information about domestic violence history was unavailable in 48%.

Legal History

Only four mothers (10%) had previously been arrested as adults, two of them for violent crimes. None had been incarcerated. Four mothers (10%) had juvenile arrests, including one who was subsequently arrested as an adult.

Substance Use History

Half (49%) of the mothers had a history of drug and/or alcohol abuse or dependence. One quarter (26%) of the mothers had a history of alcohol abuse or dependence, but only 10% (4) were actively abusing alcohol around the time of the filicide. Forty-one percent of the mothers had a drug history; 15% (6) were actively abusing drugs around the time in question. Within 24 hours prior to the filicide, three (8%) used alcohol, and five (13%) used drugs, but only three women (8%) were intoxicated when they killed their children (one with alcohol and two with marijuana).

Maternal Medical History

Thirteen percent (5) of the mothers had histories of head injury or CNS disorder.

Maternal Reproductive History

Thirty-eight percent of the mothers were pregnant or in the postpartum year. One mother was not prescribed antipsychotic medication because she was pregnant. Twenty percent (8) of the mothers had documented histories of postpartum depression, while 23% (9) had histories of postpartum psychosis. (In two of these mothers, the postpartum psychosis was following the birth of another child.) The rate of postpartum psychosis history among mothers in our sample was significantly higher than the general population (Chi-square = 1022.585, $p < .0001$). This was calculated using the generally reported upper limit of postpartum psychosis rate of 0.2%. (10) However, rates of postpartum psychosis are expected to be somewhat higher among women with histories of affective and psychotic disorders. Twelve mothers (31%) had a past abortion; data about abortions was unavailable for 64%.

Filicide Motives

The filicide motives were evident in 95% of the cases. Over half (54%) of the mothers killed for "altruistic" reasons; most (85%) of the "altruistic" motivations were psychotic. For example, a common psychotic "altruistic" motive was killing to prevent the child from being tortured, such as by a demon. A non-psychotic "altruistic" motive included a mother who planned suicide-filicide, so that her child would go to Heaven. One third (33%) of mothers evidenced an "acutely psychotic" motive; they were psychotic and had no readily comprehensible motive. Several "acutely psychotic" filicides involved paranoid mothers hearing command hallucinations to kill. Two cases (5%) were the end result of fatal maltreatment, and one case (3%) was in the "unwanted child" category. Four mothers were found NGRI despite court-appointed experts opining

that the mothers were criminally responsible; included in this group were the latter three cases.

Women had considered killing their children ranging from several years up to only minutes prior to the filicide. Many mothers who reported shorter lengths of consideration prior to the filicide reported acting in response to sudden command hallucinations or delusions of reference. At the opposite end of the spectrum, one mother made multiple suicide attempts to avoid years of filicidal thoughts. Two mothers (5%) acknowledged prior unsuccessful attempts at filicide: one on her two year old child, five months previously; the other the previous day on her six year old child. Two mothers revealed that previously other biological children had died of SIDS (Sudden Infant Death Syndrome).

Methods of Filicide

The most common method of filicide, used by 24% of the mothers, was suffocation. Thirteen percent of the mothers shot their offspring, and 79% used other violent means, such as drowning or stabbing. Only 8% of the mothers used only non-violent methods (such as carbon monoxide poisoning).

After the filicide, the mothers' behaviors varied and included calling husbands or family, notifying neighbors or police, undertaking other psychotic actions, and, in one case, reporting a dead child as kidnapped. For mothers who themselves reported the filicides, the time until reporting ranged from immediately after the deaths to 24 hours to 12 days later. The mothers' emotional responses to the filicides varied from feeling calm to incoherence, to behaviors including praying, attempting suicide, and preventing resuscitative efforts.

Discussion

This study evaluated a large number of factors among mothers who killed their children and were found NGRI. Mothers were frequently unmarried, high school educated, unemployed primary caregivers in their late 20s. Just over half attempted to kill all of their children. Almost one-third of the child victims were infants under one year old. The mean age of children who were killed was preschool-age (3.4 years). Almost half of the mothers had previous suicide attempts, and over half (56%) had planned joint filicide-suicides. One half of the mothers had been previously psychiatrically hospitalized; 72% had received prior mental health care. Mothers frequently experienced command hallucinations and delusions about their children. The perpetrators often were victims of domestic violence, abusive childhoods, or abandonment in childhood. Often mothers had histories of alcohol or drug abuse. One-third were pregnant or postpartum, and several had postpartum psychosis histories. Mothers in this NGRI sample most often killed their children for "altruistic" or "acutely psychotic" reasons. The length of the contemplation of filicide ranged from minutes to years.

Though there was a wide range of maternal ages, the mean age of these mentally ill mothers who killed their children was the late 20s, similar to international studies (11–13). Most mothers were, in addition to their mental illness, dealing with stressors, such as single parenting and unemployment. Meyer and Oberman (4) also found that mothers who commit filicide were undergoing multiple stressors. Further, stressors are more likely to be perceived as insurmountable among depressed mothers (14).

Mothers tended to kill children who were younger, and spare older children. The mean age of child victims was in the preschool age range, and almost one-third were infants. Many countries outside the United States have infanticide statutes with less severe punishments only for mothers who kill children under age one (15). However, two-thirds of children killed by these severely mentally ill mothers were over age one, and most mothers would thus be ineligible for consideration under infanticide statutes. Interestingly, three mothers in this sample killed their twins. Perhaps twins are at greater risk from mentally ill mothers related to additional strain associated with raising twins (16). Children were physically healthy, except one. No filicide was committed as euthanasia. A majority of mothers attempted to kill all of their children.

Approximately one in six children had been abused or neglected in the past, with subsequent CPS involvement. A Canadian study (17) similarly found that 10% of parents committing filicide had CPS involvement. The majority of families, then, were unknown to protective services. They were much more likely to be known to mental health professionals; almost three-quarters of mothers had previous mental health care, with half being previously hospitalized. Several had recently been treated by mental health professionals; it is not known whether they were queried about having filicidal plans.

At least half of the mothers were depressed at the time of the filicide, and over two-thirds of the mothers were experiencing auditory hallucinations. The majority of the hallucinations were of a commanding nature. Three-quarters of mothers were delusional at the time of the filicide, with most delusions involving their children. Again, it is unknown whether the specific nature of their delusions was delineated by their psychiatrists.

Most mothers were diagnosed with a psychotic disorder or a mood disorder with psychotic features. In addition, consistent with previous psychiatric studies of maternal filicide (8,18,19), a substantial minority were diagnosed with a personality disorder or traits. Several (11%) were diagnosed with Borderline Intellectual Functioning, yet none had mental retardation. d'Orban (8) found 4% of filicidal mothers had "subnormal" IQ's below 70, and many had IQ's less than 90. [Several studies with different aims (20–23) included portions of the current sample from Michigan"s Center for Forensic Psychiatry, and are therefore not included in this section comparing our study results with other studies.]

Three-quarters of the mothers experienced major stressors in their developmental years. This is consistent with other literature (3,5,6,24). Half of the mothers were "abandoned" by their mothers in one way or another during childhood. Over one-third of the mothers were themselves abused during their childhood. Several suffered other tragedies. Multiple international studies have documented previous abuse of the filicidal mother (8,24–26).

Most mothers had no prior criminal history. This is not surprising because many were loving mothers who killed their children for "altruistic" reasons, rather than as part of a pattern of antisocial or self-serving behavior. Canadian studies of filicide offenders found similarly low percentages of previous criminal history (17,27). Surprisingly, half of the mothers had histories of drug or alcohol problems. While substance problems have been prominent in filicidal mothers who were subsequently incarcerated (27,28), substance problems have been less often noted in women with psychiatric dispositions (27). However, drugs and alcohol did not appear to play a direct role in most of the murders as only 8% of mothers were intoxicated at the time. Substance abuse may have been an attempt to cope with high stress levels in these mothers.

Over one-third of the mothers were pregnant or in the postpartum year when they killed their children. The postpartum is the highest risk period in a woman's lifetime for development of a mental illness (29). One fifth had a history of postpartum depression and over one-fifth of mothers had a history of postpartum psychosis. Eleven mothers were psychotic, and in the postpartum year. While the rate of postpartum depression in this sample is similar to generally

accepted rates, the rate of postpartum psychosis was markedly higher than the population rate of 0.1–0.2% (10). Similarly, an Irish study documented that 16% of filicidal mothers with a psychiatric disposition were diagnosed with somewhat vague "puerperal causes" (30, p. 9). It was unlikely that children in our study were unwanted by mothers unable to generate a strategy for coping with an unwanted pregnancy, as over 30% had previous abortions. This is similar to overall US abortion rates; 43% of women will have had an abortion by age 45 (31).

Most of these mentally ill mothers killed for "altruistic" reasons. The majority of the "altruistic" motivations included psychotic reasoning. In addition, one third of the mothers killed for "acutely psychotic" reasons. This, taken together with the prevalence of psychotic diagnoses, strongly suggests the importance of asking psychotic mothers about delusions involving their children.

The length of consideration of filicide ranged from minutes to years. Our qualitative impression was that response to command hallucinations and other psychotic ideas was associated with shorter lengths of consideration, whereas depression was associated with somewhat longer contemplation. (This distinction was, however, not able to be calculated statistically.) Another retrospective interview study of six mentally ill women who had killed their children noted that depressed women had considered filicide for a period of days to weeks while psychotic mothers felt they had no warning (14). However, psychiatrists may have some warning if they ascertain maternal delusions about their children or the presence of command hallucinations.

Suggestions for Prevention of Filicide by Mentally Ill Mothers

Mentally ill mothers are the type of filicide offenders with whom psychiatrists could potentially have the greatest opportunity for prevention. One third of these mothers were pregnant or postpartum. Psychiatrists, obstetricians and pediatricians should screen for psychiatric symptoms in postpartum women. Mothers seeking help for depression or psychosis warrant prompt response from the mental health system. Depressed or psychotic mothers should be asked if they have thoughts or fears of harming their child. Thoughts of harming the child should be taken seriously and explored in context. Mothers with delusions about their children, suicidal thinking or acute psychosis should be evaluated for filicidal risk. Clinicians should inquire about parenting capacity issues and child discipline procedures to screen for mothers needing education or referral in these areas. Increased awareness of parenting problems by mental health clinicians could help decrease the risk of fatal maltreatment by mentally ill mothers as well.

Our findings support Guileyardo and colleagues' suggestions (32) that maternal fears of harming the children and delusions about the children suffering are indications for psychiatric hospitalization. A lower threshold for psychiatric hospitalization should be considered for mothers who are psychotic or severely depressed, if there are concerns about additional factors putting their children at risk. Psychiatrists must consider the risk of filicide when they evaluate suicide risk. Also, though three-quarters of these mentally ill mothers had previous psychiatric treatment, one-quarter did not, despite mental illness, arguing for increased education of the community and availability of mental health care.

Methodological Issues and Limitations

A sample of NGRI mothers was chosen because those found NGRI are generally mentally ill. According to Ohio Revised Code (33), the mother must have proven that at the time of the commission of the offense, she did not know, as a result of severe mental disease or defect, the wrongfulness of her acts. Michigan's Compiled Laws (34) require that the mother demonstrate that, as a result of mental illness or retardation, she lacked substantial capacity either to appreciate the nature and quality or the wrongfulness of her conduct, or to conform her conduct to the requirements of the law. However, an NGRI sample cannot be expected to include all severely mentally ill mothers, as recent cases remind us (2; e.g., *Texas v. Andrea Yates*). Non-mentally ill mothers may be included in an NGRI sample if the trier of fact finds them NGRI. Other states with different NGRI statutes may include mothers with different characteristics. Furthermore, mentally ill mothers could also fatally maltreat their children, and would then be unlikely to be found NGRI. Some mentally ill mothers complete filicide-suicide (35) and would not be captured in this sample. Half of the mothers in this sample attempted filicide-suicide. Sixteen to 29% of mothers successfully commit suicide after filicide (36).

We planned to assess both maternal and paternal filicide in parents adjudicated NGRI, yet only one such father was found, compared to 44 mothers. Perhaps this is because mentally ill fathers more frequently complete filicide-suicide (35). Indeed, 40% to 60% of fathers commit suicide after filicide (36). However, two Michigan fathers were found GBMI (Guilty but Mentally Ill) though opined to be NGRI by court-appointed evaluators. Currently in the United Kingdom, there is more mercy for mentally ill mothers who kill their children than for their counterpart fathers (37). By a great margin, Redneck's study (3) of the world literature on filicide found less harsh sentencing for mothers than fathers. This was probably true in our sample as well. Further, four mothers included in this study were opined to be criminally responsible by court-appointed forensic evaluators, yet were found NGRI. This was peculiar, especially in light of the rarity of an NGRI verdict generally (38). Maternal filicide may be a crime so inexplicable that many think these mothers must be "insane." If those mothers opined to be criminally responsible had been excluded, the sample would be left with only mothers with "altruistic" and "acutely psychotic" motives.

We considered the possibility of confirmatory bias, as one author (PJR) was the developer of the motive typology in 1969. However, this study was not designed to explore the validity of the typology or to replicate previous research using it. Rather, the typology was used to describe the sample. We further expanded the typology, separating "altruistic" into psychotic and non-psychotic categories. Also, 5% of cases did not conform to the typology. Regarding the possibility of selection bias, our goal was to include all cases ever found NGRI in the states of Ohio and Michigan. However, one of the five subsidiary mental health organizations in Ohio did not participate in this study. While we cannot state that our sample is representative of all cases in Ohio, we can reasonably anticipate that possible cases at the fifth site would be similar to the other sites. Regarding non-response bias, the cases which were not included were cases in which treatment teams felt that the mothers were either too psychotic to approach or would be too bothered by the inquiry. While the goal was inclusion of each case, there were 4 identified cases that investigators were unable to access for inclusion. Based on the 91% included, we are unable to speculate on the similarities or differences in the other 9% not included.

This study was based on record review rather than interview; however, because of the depth of information available from the psychiatric records, this study adds to available information about filicide committed by mentally ill mothers. This study is the largest United States sample of maternal filicide offenders found NGRI to date.

Some other studies have used comparison populations, such as women who murdered persons other than their children (13,22).

However, we chose not to use such comparison groups, because the purpose of our study was to identify possible factors that may differentiate potentially filicidal mothers from other mothers, rather than from other killers. Instead we opted for an exploratory study examining a broad range of factors. These identified similarities need further examination and cannot be considered risk factors, but should be further delineated in future studies. Meanwhile, the similarities suggest factors for psychiatrists to consider in their current evaluations. Future research studies should consider a control group of mothers with similar diagnoses to those who committed filicide, but raised their children to adulthood.

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