

Filicidal Mothers and the Impact of Psychosis on Maternal Filicide

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The objective of this study was to examine a sample ($n = 55$) of filicidal mothers to compare those with and without psychotic symptoms at the time of the filicide. Clinical data were gathered through retrospective chart review of filicidal women referred for criminal responsibility/competence to stand trial evaluations from 1974 to 1996 at Michigan's Center for Forensic Psychiatry. Most (52.7%) women had psychotic symptoms at the time of filicide. Women with psychosis were more likely than those without to have a history of substance abuse; to have past and ongoing psychiatric treatment; and to be older, unemployed, more educated, and divorced or separated. They were less likely to be first time mothers or to have had prior contact with Children's Protective Services. The psychotic mothers more often confessed, attempted suicide at the time of the filicide, used weapons, killed multiple children, and expressed homicidal thoughts and/or concerns about their children to psychiatrists and family before the filicide. Psychotic women were as likely as nonpsychotic women to have used alcohol or illegal drugs at the time of the filicide.

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Mothers who kill their children can mystify, disgust, anger, and fascinate the public and the medical and legal professions. Maternal filicide has been described for centuries in many different cultures.^{1–6} In the United States, the Federal Bureau of Investigation Uniform Crime Report noted 471 children murdered by their biological parents in 2001.⁷ This statistic is lower than the more than 1,000 child fatalities caused by parents through neglect or abuse reported by other agencies.^{8–11} Some researchers believe these numbers underestimate the true number of homicides involving children because of difficulty in distinguishing homicides from phenomena such as accidents or sudden infant death syndrome.^{8,9,12}

In stark contrast to general homicide patterns, in which male perpetrators predominate (approximately 88%),¹³ filicide patterns show equal numbers

of mothers and fathers killing children.^{13,14} Filicidal mothers typically kill young children (75% of their victims are aged less than six years) and are as likely to kill boys as girls.^{8,14} Children less than one year of age have the highest rate of maternal filicide.^{8,13} Beating and suffocation are the methods most commonly employed by women to kill their children.⁸ Multiple researchers have noted the prevalence of serious mental illness, particularly depression and psychosis, among filicidal mothers.^{4,15–23}

Research on filicidal mothers has placed an emphasis on categorization of offenders.^{4,15,16,20,23–26} The first extensive report of filicidal parents in 1969 by Resnick¹⁵ reviewed 131 case reports from the international literature (88 mothers, 43 fathers) and introduced the idea that there are five categories of reasons that filicidal parents commit murder: altruistic, psychotic, accidental, spousal revenge, and unwanted child. Resnick^{15,25} also distinguished neonaticide as the murder of a child less than 24 hours of age. Resnick's classification system is reminiscent of that for overall homicide proposed by Gibson and Klein in 1961,²⁷ which categorized general homicide, not filicide alone, by motive into four groups (mercy, insanity and/or suicidal despair, violent rage, and quarrels). Researchers on maternal filicide after Resnick have focused on categorization of filicidal women and offered typologies based on their inter-

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pretations of the perpetrator's motive, clinical situation, or source of impulse to kill.^{20,23,24,26} A summary of the categories that have been proposed appears in Table 1. The categorization provides a starting point for beginning to examine an emotionally evocative and complex phenomenon.

While the approach of categorizing filicidal women based on motive was pivotal when introduced by Resnick and remains important today, it has some limitations. Clinical classification based on motive is inherently subjective because it calls for a retrospective non-data-based decision regarding subject categorization. This decision to some degree involves the researcher's projection of self onto a supposed situation. To date, no existing study has examined inter-rater reliability with specific cases, making comparisons within or between studies difficult. Further, there may be an overlap between categories, making the assignment of filicidal women to a specific category challenging. The existence of altruism as a pure motive for filicide in these cases is controversial. One author noted, "I think there is no doubt that the statement 'that it was best for the children' is only an expression of the fact that the perpetrator himself/herself thought that the infanticide was the best way out, that is to say that the act was ego-syntonic" (Ref. 28, p 237). Labeling filicidal women with dramatic category names (e.g., retaliatory, spousal revenge, altruistic) could give an impression of deviation from scientific and clinical objectivity. These labels, once appended to the defendant in a court of law, may have unintended consequences in sentencing.²⁴ Finally, the categories are only indirectly linked to diagnoses and do not necessarily differentiate on the basis of symptoms of serious mental illness.

In the present study, we sought to characterize filicidal women with psychotic symptoms and to assess potential differences and similarities between these women and women without psychosis at the time of the filicide. We have selected the presence of psychotic symptoms at the time of the offense to divide the sample, as the concept of categorization based on symptom presentation is a basic tenet of the medical profession. The presence of psychosis and severity of psychotic symptoms have implications for treatment, prognosis, and preventive efforts for filicidal women. Psychosis, as a binary variable with relatively clearly demarcated parameters, provides a useful basic division point for research on mater-

nal filicide. Structured instruments with proven inter-rater reliability and proven validity exist for the diagnosis of psychotic disorders and measurement of negative and positive symptoms.²⁹⁻³² These instruments would provide a useful framework for future comparisons between populations of filicidal women and would allow longitudinal assessment of disease progression and severity in psychotic illnesses in filicidal mothers.

The goal of this study was to assess potential differences between psychotic and nonpsychotic filicidal women in relation to their demographic characteristics, history, and offense patterns. We hypothesized that there would be differences in these categories based on the presence or absence of psychosis at the time of the filicide. Some of these differences in psychotic women compared with nonpsychotic women include older age, a higher likelihood of having comorbid substance abuse diagnoses, a higher likelihood of receiving ongoing psychiatric treatment, a history of psychiatric hospitalization, a lesser likelihood of having contact with child protective services, a tendency to use different methods to kill their children, and a tendency to voice concerns about their children and/or homicidal ideation toward their children before the filicide.

Methods

Sample

The study sample consisted of 55 women evaluated from 1974 to 1996 at the Center for Forensic Psychiatry (CFP) in Ann Arbor, Michigan, for the murder of their biological children. This study was approved and supervised by the Center for Forensic Psychiatry. Data were collected and analyzed in an anonymous manner. The sample was drawn from the entire state of Michigan and represented all cases referred to the CFP. Referral for these evaluations is not automatic, but occurs when attorneys raise the issue of competency and/or criminal responsibility. All of the women lived in Michigan at the time of the alleged offense. Demographic data for all cases were collected by chart review. The sample does not include all women who killed their children in Michigan during this period, only those referred to a forensic hospital.

In the literature, neonaticide has been typified as a distinct subcategory of filicide.^{15,20,25,26} Because this study did not categorize based on motive or the vic-

Table 1 Overview of Categorization Systems for Filicide and General Homicide

	Gibson & Klein	Resnick	Resnick	Resnick	Scott	D'Orban	Bourget and Bradford	Bourget and Gagne
Year	1961	1969	1970	1973	1979	1990	2002	
Focus	Homicide	Parental filicide	Maternal neonaticide	Parental filicide	Maternal filicide	Parental filicide	Maternal filicide	
Sample	NA	88 (women) 43 (men)	34 (neonaticide) 42 (filicide)	NA	89 (women) 4 (men)	9 (women) 4 (men)	27 (women)	
Country	Great Britain	World literature	World literature	Great Britain	Great Britain	Canada	Canada	
Basis	Motive	Motive	Motive	Source of impulse to kill	Motive	Clinical situation	Motive, intent, mental illness	
Categories	Insanity and suicidal despair	Acutely psychotic	Acutely psychotic Neonaticide Filicide	Gross mental pathology	Mentally ill	Pathological Altruistic Homicide-suicide	Mentally ill With intent/without intent Mentally ill	Associated/not associated with substances Predictable/unpredictable
	Mercy	Altruistic Suicide-related Relieve suffering	Altruistic Suicide-related Relieve suffering Neonaticide Filicide	Mercy	Mercy	—	Mercy With intent Not mentally ill	Associated/not associated with substances Predictable/unpredictable
	Violent rage	Accidental	Accidental Neonaticide Filicide	Stimulus arising from victim (battering; loss of temper)	Battering	Accidental Battering Others	Fatal abuse Without intent Not mentally ill	Associated/not associated with substances Predictable/unpredictable
	Quarrels	Spousal revenge	Spousal revenge Neonaticide Filicide	Stimulus arising from outside victim (displaced anger; loss of love object)	Retaliating	Retaliating	Retaliating With intent Not mentally ill	Associated/not associated with substances Predictable/unpredictable
	—	Unwanted	Unwanted Neonaticide Filicide	Unwanted Assault Neglect	Unwanted	—	—	—

Table 1 (continued)

	Gibson & Klein	Resnick	Resnick	Scott	D'Orban	Bourget and Bradford	Bourget and Gagne
Categories (continued)	—	—	—	—	Neonaticide	Neonaticide Unwanted	—
	—	—	—	—	Paternal	—	—
	—	—	—	—	—	—	—

Other-unknown
With intent/without intent
Mentally ill
Associated/not associated with suicide
Not mentally ill
Predictable/unpredictable
Associated/not associated with substances

tim's age, but rather differentiated based on presence of psychosis, neonaticide was included in the sample of 55.

In this study, whether psychosis was present was based on a chart description of symptoms (e.g., delusions, hallucinations, and disorganization of thinking and behavior) at the time of the filicide. Diagnoses were also recorded. In all instances of diagnoses of psychotic disorder, psychotic symptoms were documented.

Psychotic and nonpsychotic women were compared in three areas: maternal history and demographics, characteristics of the victims, and characteristics of the filicide.

Data Analysis

Chi-square tests were used for categorical data and one-tailed *t* tests were used for interval data for significance of differences (*p* < .05) between the psychotic and nonpsychotic groups. Logistic regression was performed to assess which variables were most predictive of membership in the psychotic group.

Results

Description of the Sample

A summary of demographic description of the sample is presented in Table 2. There were 29 (52.7%) women in the psychotic group and 26 (47.3%) in the nonpsychotic group. The ages of the women ranged from 17.0 to 47.0 years, with a mean of 28.2 ± 7.8 years and a median of 28.2 years. Women in the psychotic group were older than nonpsychotic women (*t* = -2.13, *df* = 53, *p* < .04). Although slightly more than half of the sample was white, skin color did not distinguish the two groups. About three-quarters of the women were single, and psychotic women were more likely to have been married (i.e., married, divorced, or separated), whereas nonpsychotic women were less likely to have been married ($\chi^2 = 6.44, df = 1, p < .02$).

More than half of the sample had completed high school, with the psychotic women more likely to have a high school or higher level of education ($\chi^2 = 8.41; df = 1, p < .04$). Age was not significantly associated with educational level. Nonpsychotic women were more likely than psychotic women to be employed ($\chi^2 = 4.04, df = 1; p < .04$).

About half of the sample was raised in single families and had suffered sexual abuse, but these variables

Table 2 Description of the Sample

Variable	Psychotic (<i>n</i> = 29)		Nonpsychotic (<i>n</i> = 26)		Overall (<i>n</i> = 55)	
	52.7%	%	47.3%	%		%
Age (years)*	Mean 29.8 (SD = 6.2) Range: 21–45	52.7	Mean 25.8 (SD = 7.7) Range: 17–47	47.3	Mean 28.2 (SD = 7.1) Range: 17–47	100
Ethnicity						
White	14	48.3	16	61.5	30	54.6
African American	14	48.3	9	34.6	23	41.8
Other	1	3.4	1	3.8	2	3.6
Marital status						
Married	8	27.6	8	30.8	16	29.1
Divorced/separated†	15	51.7	5	19.2	20	36.4
Single	6	20.7	13	50.0	19	34.5
Education						
Less than high school‡	10	34.5	14	53.8	24	43.6
High school graduate	10	34.5	12	46.2	22	40.0
Some college‡	5	17.2	0	0.0	5	9.1
College graduate‡	4	13.8	0	0.0	4	7.3
Employment*	6	20.7	12	46.2	18	32.7
Physical/sexual abuse history	14	48.3	13	50.0	27	49.1
Raised in single family	18	62.1	13	50.0	31	56.4
First-time parent*	12	41.4	17	65.4	38	69.1
Legal history	5	17.2	4	15.4	9	16.4

* Indicates $p < .05$ on one-tailed t test.

† Indicates $p < .05$ on 2 times 2 chi-square comparisons.

‡ Indicates $p < .05$ level on Fisher's exact test.

did not differ by group membership. Nonpsychotic women were more likely to be first-time parents ($\chi^2 = 7.8$, $df = 1$, $p < .04$). Few women in either the psychotic or nonpsychotic group had a legal history, and in no instance was the prior offense violent.

Psychiatric History of Sample

A summary of psychiatric data gleaned from the subjects' charts appears in Table 3. The most commonly recorded diagnoses were Schizophrenia, Major Depressive Disorder with Psychotic Features, and Personality Disorder. Within the psychotic group, 18 (62.1%) women had command hallucinations; 23 (79.3%) had paranoid delusions (e.g., their children were going to be harmed by an external force, their children were at risk due to unfit mothering); 15 (51.7%) believed their children were dangerous (e.g., that they were possessed or were "monsters"); and 26 (89.7%) had auditory hallucinations. Four women had comorbid personality disorders and Axis I psychotic pathology.

Psychotic women were more likely to have a history of psychiatric hospitalization ($\chi^2 = 24.8$, $df = 1$, $p < .01$) and ongoing outpatient treatment ($\chi^2 = 0.52$, $df = 1$, $p < .04$). They were also more likely to have made suicide attempts ($\chi^2 = 7.90$, $df = 1$, $p <$

.01) and to have reported past homicidal ideation toward their children ($\chi^2 = 12.45$, $df = 1$, $p < .01$). Age was not significantly associated with past suicide attempts. Psychotic women were more likely than nonpsychotic women to have a history of substance abuse ($\chi^2 = 8.61$, $df = 1$, $p < .03$).

Characteristics of the Filicides

A summary of characteristics of the filicides appears in Table 4. In this sample, 55 mothers killed 71 children (41 girls and 30 boys). Gender of victim was not significantly associated with maternal psychosis. Ten cases involved a mother killing two children, and three cases involved a woman killing three children.

The victims' ages ranged from less than 1 hour to 17 years (mean = 3.9 ± 4.4 years, median = 2.8 years). Victim age was not significantly associated with maternal psychosis. In all instances, the minor children were living with their biological mothers who were their primary caretakers.

Psychotic women were more likely than nonpsychotic women to kill multiple victims ($\chi^2 = 7.32$, $df = 1$, $p < .03$), attempt suicide at the time of the homicide ($\chi^2 = 14.16$, $df = 1$, $p < .01$), and describe their child as "wanted" ($\chi^2 = 30.72$, $df = 1$, $p <$

Impact of Psychosis on Maternal Filicide

Table 3 Psychiatric History of the Sample

Variable	Psychotic (n = 29)		Nonpsychotic (n = 26)		Overall (n = 55)	
	52.7%	%	47.3%	%		%
Diagnosis*						
Schizophrenia†	14	48.3	0	0.0	14	25.5
Schizoaffective†	4	13.8	0	0.0	4	7.3
Major depression, psychotic†	10	34.5	0	0.0	10	18.2
Postpartum state	1	3.4	1	3.8	2	3.6
Dysthymia	0	0.0	1	3.8	1	1.8
Major depression, nonpsychotic	0	0.0	2	7.7	2	3.6
Bipolar affective disorder, manic	2	6.9	0	0.0	2	3.6
Personality disorder†	4	13.8	14	53.8	18	32.7
Adjustment disorder	0	0.0	4	15.4	4	7.3
No diagnosis	0	0.0	3	11.5	3	5.5
Impulse control disorder	0	0.0	1	3.8	1	1.8
Borderline intellectual function/mild MR	3	10.3	2	7.7	5	9.1
Past psychiatric hospitalization‡	25	86.2	13	50.0	38	69.1
Ongoing outpatient treatment‡	26	89.7	6	23.1	32	58.2
Past violent behavior toward family	6	20.7	10	38.5	16	29.1
Past suicide attempts‡	22	75.9	9	34.6	31	56.4
Past substance abuse‡	14	48.3	7	26.9	21	38.2
Family history of mental illness‡	19	65.5	11	42.3	30	54.5

MR, mental retardation.

* Diagnoses include comorbid pathology for subjects.

† Indicates $p < .05$ on Fisher's exact test.

‡ Indicates $p < .05$ on 2 times 2 chi-square comparisons.

.01). They more commonly voiced concerns about their children to family ($\chi^2 = 22.21, df = 1, p < .01$) and their psychiatrists ($\chi^2 = 15.7, df = 1, p < .01$)

less than two weeks before the homicides. About one-third (31.9%) of the overall sample reported severe conflict with the fathers of their children before the

Table 4 Characteristics of Offense

Variable	Psychotic (n = 29)		Nonpsychotic (n = 26)		Overall (n = 55)	
	52.7%	%	47.3%	%		%
Multiple victims*	10	34.5	3	11.5	13	23.6
2*	8	27.6	2	7.7	10	18.2
3	2	6.9	1	3.8	3	5.5
Confession†	23	79.3	9	34.6	32	58.2
Substance abuse at time of filicide	9	31.0	7	26.9	16	29.1
Suicide attempt at time of filicide*	20	69.0	4	15.4	24	43.6
Previous family contact‡	25	86.2	6	23.1	31	56.4
Previous police contact‡	5	17.2	1	3.8	6	10.9
Previous psychiatric contact‡†	17	58.6	2	7.7	19	34.5
Past contact with Children's Protective Services†	10	34.5	16	61.5	26	47.3
Child described as "wanted"*	24	82.8	2	7.7	26	47.3
Methods of filicide						
Beating*	1	3.4	6	23.1	7	12.7
Burning	1	3.4	1	3.8	2	3.6
Drowning	5	17.2	2	7.7	7	12.7
Gun/knife*	12	41.4	2	7.7	14	25.5
Medication overdose	1	3.4	0	0.0	1	1.8
Neglect*	0	0.0	7	26.9	7	12.7
Smothering*	2	6.9	8	30.8	10	18.2
Strangling*	5	17.2	0	0.0	5	9.1
Overdosing	2	6.9	0	0.0	2	3.6
Past homicidal ideation toward child voiced*‡	15	51.7	2	7.7	17	30.9

* Indicates $p < .05$ on Fisher's exact test.

† Indicates difference at the $p < .05$ level on 2 times 2 chi-square comparisons.

‡ Indicates contact within two weeks before the filicide when concerns about child were voiced.

Table 5 Model of the Strength of Association of Variables to Membership in the Psychotic Group

Variable	Coefficient	SE	Wald	df	p	Odds Ratio	95% CI [‡]
Past Children's Protective Services' contact*	-3.88	1.56	6.17	1	0.01	0.02	0.00-0.44
Family contact [†]	3.69	1.45	6.47	1	0.01	39.67	2.31-675.80
Past homicidal ideation toward child*	3.76	1.63	5.33	1	0.02	42.84	1.77-1037.89
Suicide attempt at time of filicide	1.88	1.26	2.22	1	0.14	6.52	0.56-76.38
Marital status	0.95	0.60	2.51	1	0.11	2.58	0.80-8.33
Employment	1.68	1.60	1.11	1	0.29	5.37	0.24-121.93

* Indicates significance at $p < .025$ in logistic regression.

[†] Indicates contact within two weeks of the filicide to express concerns about child.

[‡] Confidence interval.

filicides. This parameter did not differ in the presence of psychotic symptoms. Use of substances at the time of the filicide did not differ significantly between the two groups.

Psychotic women were more likely than nonpsychotic women to confess immediately after the homicide ($\chi^2 = 11.26$, $df = 1$, $p < .01$). Four women in the psychotic group and four in the nonpsychotic group contacted the police after the filicide. Three women in the nonpsychotic group and four in the psychotic group contacted the father of the victim(s). Psychotic women contacted family members other than the father of the victim(s) more often than nonpsychotic women ($\chi^2 = 6.93$, $df = 1$, $p < .01$) after the filicide. Three women in each group said someone else had killed their children.

Psychotic women were less likely than nonpsychotic women to have had contact with Children's Protective Services ($\chi^2 = 4.03$, $df = 1$, $p < .04$), although one-third of the psychotic women had had some contact. Most of the referrals of psychotic women were for neglect rather than physical abuse of children. Nonpsychotic women were more likely to beat their children to death ($\chi^2 = 5.21$, $df = 1$, $p < .03$) and less likely to use weapons ($\chi^2 = 59.00$, $df = 1$, $p < .01$) than psychotic women. In each instance of a nonpsychotic woman's beating her child to death, there was a history of physical abuse of the child. Nonpsychotic women were responsible for all deaths attributable to neglect. Deaths due to neglect related to starvation (two cases), lack of supervision during bath time (three cases), and not obtaining medical care (two cases). In four of the neglect cases, the mothers had documented histories of physical abuse. Psychotic women were more likely to be incompetent to stand trial ($\chi^2 = 21.3$, $df = 1$, $p < .01$) and to be deemed not guilty by reason of insanity ($\chi^2 = 34.02$, $df = 1$, $p < .01$) than nonpsychotic women.

Logistic Regression

Logistic regression was performed to identify which variables were most statistically predictive of membership in the psychotic group. Because of sample size limitations, the regression was performed in two phases. Variables found to differ significantly between psychotic and nonpsychotic women were first grouped into the following categories: offense characteristics (confession, method of filicide, suicide attempt at time of the offense, and more than one victim), demographic characteristics (age, marital status, educational level, employment status, and first-time parent), psychiatric history (family psychiatric history and past substance abuse, suicide attempts, and psychiatric hospitalization), and preoffense behavior-related variables (past homicidal threats toward children, contact with Children's Protective Services, contact with mental health providers to express concern about children within two weeks of homicide, and contact with family to express concern about children within two weeks of homicide). Variables found significant ($p < .05$) in these regressions (past homicidal threats toward children, contact with Children's Protective Services, contact with family to express concern about children within two weeks of the filicide, marital status, suicide attempt at time of filicide, and employment) were then placed into an additional overall logistic regression.

Results of the overall multiple logistic regression performed to ascertain which variables were most predictive of membership in the psychotic group appear in Table 5. Filicidal mothers were more likely to be in the psychotic group if they had voiced homicidal ideation toward their children at least two weeks before killing them, voiced concerns about their children to their family within two weeks of the

filicide, or had no past involvement with Children's Protective Services.

Cases

The following composite cases illustrate the complexity of, and potential difficulties in, assessing motive in maternal filicide.

Case 1

A 28-year-old woman with a three-year history of schizophrenia burned her two children, a four-year-old boy and a six-month-old girl, to death by setting their bedroom on fire and locking them in. Her husband was an alcoholic who physically abused her. The week before the filicides, the couple had a severe conflict because of her discovery that he was having an affair. On the night of the filicide, he stormed out of the house and told her he would "never come home again." Her family reported she had been exhibiting increasing paranoia and distractibility the month before the filicides. They believed this was secondary to stress in her marriage. She had asked her family to take the children to "keep them safe" but then rescinded her request. At the time of the filicide, she reported hearing two male voices screaming at her to send her children to God so they would be safe. She said she believed they would be better off in heaven than they would be living in a family where they could be abused. At the time of her arrest she stated, "They have achieved blessed rest. My husband will miss them. He will be hurt. I want to see his face."

Case 2

A 24-year-old single woman with a history of sexual abuse in childhood strangled her 3-year-old daughter. The pregnancy was unplanned and, at the time of birth, the mother considered putting her up for adoption because the father did not want contact with her or the child. The child had severe cerebral palsy, was incontinent, and had begun to suffer recurrent episodes of aspiration pneumonia requiring multiple hospitalizations and intubations. In the month before the filicide, the mother had been fired from her job and had become increasingly withdrawn. Friends and family said she had repeatedly stated that she could not continue to care for her daughter and that her daughter might be better off dead. In the weeks preceding the filicide she had worsening insomnia, became unable to eat, and began to have dissociative episodes. She reported feel-

ing overwhelmed at the level of care her daughter required and came to believe her daughter was suffering from being in her care. In an initial statement to emergency personnel, she stated she killed her daughter to relieve her daughter's suffering and attempted suicide at the time of the filicide to be with her. In a later statement given to the police, she said, "I don't really remember it. I guess it was just that I was tired of her. It must have been I wished she had never been born. She couldn't breathe. I didn't want her to go back on the machine if she got sick. I wanted to give her away."

Case 3

A 26-year-old mother of three children, aged 2, 4, and 5 years, beat the youngest to death. She had a history of contact with Children's Protective Services. Her two eldest children had been placed in foster care for suspected physical abuse. They were returned to her custody because it was believed her husband had hit them. The couple separated briefly but moved into the same house after the birth of the two-year-old. The woman had a history of alcohol abuse and borderline intellectual functioning. In the week before the filicide, she had a severe argument with her husband and moved into her mother's house with the children. She had lost her job two weeks before and had no income. Her husband said he would not contribute money for the children unless she lived with him. The morning of the filicide, her husband went to her mother's house to tell her he wanted custody of the two-year-old. The child, the only daughter, was the woman's favorite. The couple began to argue, and the man punched the woman in the eye. The police were called and the husband was arrested. The woman became hysterical and remained upset throughout the afternoon. In the morning, she called emergency medical services to report her two-year-old was "sick." When they arrived, they found the child dead as the result of a severe beating. The woman stated at the police station, "I was so mad. There's not enough money and I can't pay for all three of the kids. I didn't want her with my husband. I hate him. She wouldn't stop screaming. It's not the first time I hit her. I don't know why." Her husband, out on bond, arrived at the station distraught because his daughter was dead. He stated to one officer, "She did it to get back at me. We both loved the baby. She was our favorite."

Discussion

This study confirms that filicidal mothers with a history of psychosis at the time of the filicide differ significantly from those without psychosis on a number of demographic and historical variables, offense characteristics, and variables related to behavior on or around the time of the filicide. The study is among the first of which we are aware to describe a relatively large sample of filicidal mothers in the United States.

The composite case examples illustrate the difficulty with subdividing filicidal women according to the various categorization systems in the literature. In Case 1, the mother had documented schizophrenia and reported auditory hallucinations but killed her children when she was enraged with her husband. She identified the altruistic psychotic motive that her children would be better off in heaven but then said she could not wait to see her husband's face after the homicides. It could be argued that the woman killed her children because of altruism, a desire to exact revenge, or acute psychosis or other mental illness, depending on which one of five systems of categorization is used and one's perspective. Similarly in Case 2, a mother under severe socioeconomic stress killed her child, who was truly suffering physically. She offers an altruistic motivation for the filicide but also states that her child was unwanted at birth and at the time of the filicide. This case could arguably be classified as filicide of an unwanted child or a mercy (altruistic) filicide. In case 3, a woman with an admitted history of battering beat her child to death after a violent argument in which her husband threatened to take the child. Her statement that she did not want her husband to have the child despite feeling overwhelmed by caring for her could be interpreted to mean she was trying to hurt her husband by killing the child. Or she could be viewed as not wanting the child. Alternatively, she could be argued to have killed the child because she had a long-standing pattern of battering when angry and under stress.

Challenges in placing maternal filicides into single categories underscore the importance of looking at the context of each case. Researchers have described the phenomenon of revenge or retaliatory maternal filicide in which a woman kills her child to harm someone else—most commonly, the father of the child.^{16,17,20,23–26} The revenge motive is reportedly rare.^{15,16,20,23,24,26} In our sample, we did not see

a case in which revenge was a clear single motive. Many of the cases in our sample involved women with multiple, severe stressors, including financial problems, housing problems, ongoing domestic violence, worsening mental illness, limited social support, conflict with family members other than sexual partners, and serving as primary caregiver for at least one young child. These stressors have been identified as motivating in studies of maternal filicide.^{16,20,23,26} Perhaps because of or in addition to these stressors, one in three women in the sample (psychotic and nonpsychotic) had severe conflict with the father of their children within days of the filicide. The existence of such a conflict should not be viewed as evidence of a revenge-based motive. The complex interaction of multiple psychosocial stressors precludes a conclusion that, because a woman had fought with the father of her child or had found out that he was unfaithful before the filicide, her motivation in killing her child was revenge. Particular care should be exerted before complex motivations such as revenge are attributed as a sole motive to women acting in a primitive, regressed, potentially psychotic state.

Context is also critical to understanding the complex behaviors surrounding a maternal filicide. What appears to be rational behavior may be revealed as a product of psychosis, on further examination. For example, one might suggest that when a woman confesses or expresses regret that she killed her child, she recognizes that what she did was wrong. Instead, some confessions may be representative of underlying psychotic illness that interferes with full appreciation of wrongfulness. The psychotic women in our sample were more likely to confess than nonpsychotic women, but were also likely to believe the homicide was justified, because of delusional thinking. The delusional thinking could be based on factors such as believing that their children were dangerous, inherently flawed, or at risk; that they, the mothers, were unfit in some way; or that they had helped the world or remaining family members by killing their children. It was not uncommon for these women to express sorrow, fear, or regret that they had killed their children in the face of maintaining that their children had died for the best. As another example, it might be argued that women who call the police after killing their children know inherently that what they did is legally wrong. In our sample, some women experienced such psychotic disorganization that they called the police because they could

not figure out what was wrong with their children or who had killed them. This underscores the fact that, while patterns exist in maternal filicide, evaluation of cases individually within context is critical.

Filicidal mothers with psychosis were more likely than those without to have a history of substance abuse. Chart review showed dual diagnoses (alcohol or drug abuse/dependence with Axis I or II mental disorders) in about one-third (35.7%) of the women in our overall sample and substance use at the time of the filicide in one of four women. Comorbidity of drug- and alcohol-related disorders with certain mental disorders in the general community has been noted to be high.³³⁻³⁷ Despite this association, studies of filicidal women have often not addressed substance use.^{15,17,24,25} The explanation for this failure is not clear, but may have resulted from the data's being from other countries,^{15,17,24,25} the underreporting of addiction, or the use of obsolete data sets.^{15,24,25} Gaining knowledge about substance use in filicidal women is important.²³ Ongoing or recent use of substances could affect factors such as mood stability or degree of psychosis. It could also make treatment more challenging and worsen prognosis.^{38,39}

Although psychotic women were more educated than nonpsychotic women, they were less commonly employed. The pattern of unemployment with higher educational level suggests a possible decline in functioning over time, consistent with psychotic disorders. Women in the psychotic group had been divorced or separated more often than nonpsychotic women. This was independent of the age difference between the groups. Marriage at the time of the filicide was less common than in previous studies for the overall group. This difference might be explained by the fact that the studies are a generation old or more,¹⁵ from other countries,^{4,20,26} or from different areas of the country¹⁶ or that they have a limited sample size.^{16,20} For better understanding of this finding, examination of divorce rates over time and geographic area would have to be evaluated. Further data on socioeconomic status and changes in socioeconomic status before the filicide would help develop understanding of the role unemployment and marital dissolution may play as contributing stressors.

Nonpsychotic women were responsible for the majority (85.7%) of filicides by beating and for all the filicides by neglect or negligence. The mothers in

these cases intended to discipline their children or ignored the danger they placed their children in by starving them, denying them medical care, or exposing them to dangerous situations (e.g., unsupervised bathing). The absence of clear intent to kill has been identified as important in cases of child abuse and neglect.²³ Motive can differ substantially from intent, and both may be discordant with the actions taken by a filicidal woman. For example, a battering mother may intend to spank her child, motivated by a desire to improve her child's behavior, yet brutally beat the child to death because of lack of insight into the dangerousness of the actions. Similarly, a mother who leaves her child in the bathtub while checking on laundry may have no intent to kill, just the motivation of getting chores done, but she allows her child to drown. These cases differ from that in which a psychotic mother intends to kill a child with the motivation of sending the child to heaven and takes the action of cutting the child's throat. An underexplored area of maternal filicide involves women who may intend to kill their children but fail to do so because psychotic disorganization interferes with completing the act or because of the choice of a nonlethal method ("stabbing" the child with the wrong end of a knife or concluding children are dead when they are not). Exploration of nonlethal assaults on children would be beneficial in further understanding variation in motive, intent, and actions taken by filicidal mothers.

Psychotic women in our sample were more likely than nonpsychotic women to have voiced concerns about their children before they killed them. These concerns commonly included the mother's worrying that she would hurt the child, fear that the child was in danger, distress that the child was flawed, or belief that the child was suffering from inadequate care. Most psychotic women in our sample approached family and treating psychiatrists before they killed their children. Expressing concern about children to family within two weeks of the filicide and having voiced homicidal thoughts toward children in the past were the most predictive variables for membership in the psychotic group. The broad confidence intervals for these two variables indicate the limitations of our sample size and the need for future research on larger groups of filicidal women. The concept of retrospectively labeling certain filicides preventable²³ is premature at this point. Data comparing women who kill their children with those who

have similar stressors and diagnoses and do not kill their children would be critical in determining possible predictors of maternal filicide. What is evident from our study is that nearly all psychotic women were in ongoing psychiatric treatment and more than half of the nonpsychotic women had been investigated and were under observation by Children's Protective Services. This does not necessarily mean that treatment professionals failed to recognize what in hindsight might be labeled a predictable or preventable filicide. Clearly, maternal filicide is an event that is exceedingly difficult to predict and prevent.

Our sample size, although among the largest reported for a maternal filicidal population in the United States, limited our ability to assess several variables statistically. Examples include police contact after the homicide, contact with the father of the child after the homicide, and statements that someone else committed the filicide. Further examination of these variables with a larger sample would be of potential interest. Our sample also did not include women of Hispanic, Native American, or Asian heritage. A sample including women from these groups would allow broader exploration of maternal filicide. Our sample included only women referred for forensic evaluation before their trials. It is reasonable to hypothesize that these women have more serious mental illness than those women who are not referred for evaluation, but further research is needed for confirmation.

As tempting as it may be to seek to glean definitive predictive strategies and data points to identify women more likely to kill their children, further research on larger samples of filicidal women is necessary before a robust and reliable set of predictive criteria for maternal filicide can be developed. For a better understanding of the filicidal population, additional research in many populations is needed. These populations include women who kill their children and are in prison, on probation, or on parole; women who kill children and are caught years later; women who kill their children and then themselves;²³ women who attempt but fail to kill children; and women who abuse children. Additional research on women who do not kill children, but have mental disorders and social stressors similar to those women who do is also critical. Areas of future study that are likely to enhance understanding of maternal filicide include identification of specific psychiatric symptoms and symptom constellations associated with fi-

licidal behavior, assessment of specific diagnoses and symptoms with structured interviews, and comparison of risk factors for lethal versus nonlethal child maltreatment.

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