Homicide of Infants: A Cross-Sectional Study

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Objective: To describe the sociodemographic, clinical, and forensic characteristics of people convicted of killing infants, including their outcome in court and the gender differences in these characteristics.

Method: A consecutive case series of people convicted of infant homicide in England and Wales (1996–2001). Information on social demographic and clinical characteristics of perpetrators was collected from psychiatric reports prepared for court. Detailed clinical information was gathered from questionnaires completed by mental health teams for those in contact with mental health services.

Results: Of the 2660 identified perpetrators that were convicted of homicide, 112 (4%) were convicted of infant homicide. Fathers killed 56 infants (50%); mothers killed 35 (31%). Forty-nine infants (44%) were killed within 3 months of birth, and 87 (78%) within 6 months. Seventeen perpetrators (24%) had symptoms of mental illness at the time of the offense. Thirty-eight (34%) had a lifetime history of mental illness. In total, 16 (14%) had been under the care of mental health services. Ten women (29%) were diagnosed with affective disorder, and 25 men (53%) had a history of alcohol or drug misuse. Men were more likely to have previous convictions for violence compared to women ($p = .01$). Most male perpetrators received a custodial sentence (N = 71, 96%), whereas 28 women (74%) received community sentences or hospital disposals.

Conclusions: This study highlights the need for increased perinatal assessment and parenting support to encourage parents to seek help. Further research using a psychological autopsy methodology focusing on criminological and psychiatric antecedents may improve our understanding of why these deaths occur and prevent future tragedies.

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An individual is 4 times more likely to be the victim of homicide in the first year of his or her life than at any other time.[1] The rate of infant homicide in England and Wales is 4.5 per 100,000 live births[2] compared to 8 per 100,000 population in the United States.[3] There has been much public interest in recent years surrounding the killing of infants, highlighting important legal, social, and political issues. The tragic case of Andrea Yates in the United States in 2001 raised questions over the treatment of women suffering from postpartum mental illness and the use of an insanity defense in the court.

In absolute numbers, infant homicide remains rare. Consequently, it has been difficult to obtain high quality data. A recent article by Friedman et al.[3] called for a standardized reporting system in the United States linking data on both perpetrators and victims as opposed to linking birth and death certificates only for victims. The National Confidential Inquiry Into Suicide and Homicide by People With Mental Illness in England and Wales uses such a system. The Inquiry has been collecting national data on all infant homicide perpetrators and victims since 1996, with a particular focus on those with mental health service contact. It provides a unique dataset with a sufficient sample size to study such rare events.

In England and Wales, *homicide* is a collective term used to describe murder, manslaughter, or infanticide. For one to be charged with murder, it must be proved that there was intent to kill or cause grievous bodily harm. If found guilty of murder, a mandatory life sentence is passed, and the perpetrator is imprisoned. The charge of

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manslaughter can be brought if it is considered that there was no intention to kill, or if the defendant was deemed not responsible for his or her actions. In addition, section 2 of the Homicide Act 1957 allows for the defense of manslaughter on the grounds of diminished responsibility if the perpetrator experienced an "abnormality of mind" at the time of the killing.[4] The disposals available to the courts for individuals found guilty of manslaughter include a range of noncustodial sentences, such as hospital orders for those suffering from mental illness. The insanity defense is rarely used (1% of cases, 1996–1999).[5] Infanticide is a victim-specific criminal charge for which only women can be indicted. It is defined in the Infanticide Act 1922 (amended in 1938) as when the "balance of her mind was disturbed by reason of her not having fully recovered from the effects of giving birth to the child or by reason of the effect of lactation consequent upon the birth of the child."[4(p246)]

Previous studies on child homicide have concentrated on cases in which the parents have been responsible for the death of the child (*filicide*). The most-cited works are by Resnick,[6] d'Orbán,[7] and Marks and Kumar.[1] Resnick[6] examined the psychiatric literature on child murder, reviewing 131 cases of filicide. The data were collated from a variety of sources and countries and over different centuries (1751–1967); however, the study is limited by the use of nonstandardized criteria for psychiatric diagnoses. D'Orbán[7] studied 89 women prisoners in an English remand prison (pretrial detainees) charged with murder or attempted murder of their children between 1970 and 1975. A key problem with this sample is that the subjects were drawn from women awaiting trial, and it is unclear how many of these women were eventually found guilty. Despite the acknowledged importance of mental illness and the specific role of puerperal psychiatric disorders in these cases, to our knowledge, no large population-based studies incorporating the sociodemographic and clinical characteristics of the perpetrators of infant homicide have been conducted. Marks and Kumar's 1993 population-based study[1] of infant homicide in England and Wales was unable to provide any details on the mental health status of the perpetrators. In the United States, a study by Overpeck and colleagues[8] provided valuable data on possible risk factors for victims, although they did not link this information to perpetrator characteristics.

This study aimed to establish the rate of infant homicide from 1973 to 2003 in England and Wales by using official records, then conducting a consecutive case series between 1996 and 2001. Using this unique data source, we wished to describe sociodemographic, clinical, and forensic characteristics of perpetrators of infant homicide between 1996 and 2001; describe the outcome in court of perpetrators; and examine the gender differences in the above characteristics. The use of psychiatric reports (prepared by psychiatrists accessing all relevant information, including police and medical notes) as a source of data distinguishes our study from other studies.

We hypothesized that (1) a higher proportion of perpetrators would be men, (2) a higher proportion of women perpetrators would be mentally ill at the time of the infants' death, and (3) a higher proportion of women would receive a noncustodial sentence compared to men.

METHOD

There are a number of terms used to denote child homicide. Infant deaths are classified as *neonaticide* (which is the killing of a baby less than 1 day old) or *filicide* (which is the killing of a child by a parent). *Infanticide* has become a generic term for the killing of all infants, not just by their mother, but by their father or nonrelatives. However, the criminal charge of infanticide in England has strict criteria only applicable to women. More than 20 countries worldwide have these laws, but the United States does not. Throughout this paper the term *infant homicide* will be used in an attempt to avoid any confusion with the legal definition of infanticide. Infant homicide includes all victims of homicide who were younger than 12 months old when killed, regardless of the relationship with the perpetrator or outcome in court. The findings are presented by sex of perpetrator rather than by parental status. Any differences between sexes are highlighted in the text.

Longitudinal Data

National longitudinal data of all homicide convictions and offenses across a 30-year period were compiled using criminal statistics.[9] The data illustrate the number of recorded homicides per year by their outcome in court and the number of victims who were younger than 1 year old.

National Confidential Inquiry Data

The National Confidential Inquiry was established to examine the clinical care and treatment provided to homicide offenders who had been under the care of mental health services. The study has been based at the University of Manchester in the United Kingdom since 1996 and is funded by the British Government (Department of Health). We obtain information on all homicides in England and Wales from the Homicide Index at the Home Office. These records include people who were convicted of murder, manslaughter, or infanticide. Psychiatric reports prepared before the trials were obtained mainly from court files but also directly from the authors of the reports. Records of previous offenses were obtained from police files. Those perpetrators who were in contact with mental health services at any time prior to the homicide were identified, and a questionnaire was sent to the

Table 1. Longitudinal Data of Infant Homicide in England and Wales, 1974–2003

Year	Number of Offenses Recorded as Homicide	Number of Offenses Recorded as Homicide (victim aged under 1 year)	Rate of Infant Homicide per 100,000 Population in England and Wales	Rate of Homicide per 100,000 Live Births
1974–1976	1457	109	0.07	5.96
1977–1979	1435	76	0.05	4.21
1980–1982	1605	78	0.05	4.06
1983–1985	1555	76	0.05	3.95
1986–1988	1709	86	0.06	4.22
1989–1991	1699	68	0.05	3.26
1992–1994	1778	78	0.05	3.84
1995–1997	1858	76	0.05	3.91
1997/1998–1999/2000[a]	1937	99	0.07	5.23
2000/2001–2002/2003	2603	100	0.06	5.50

[a]Recorded homicide data collection method changed from calendar year to financial year in 1998; therefore, 1997/1998 will include homicide cases from the previous year. Live birth figures have been adjusted for financial years.

consultant psychiatrist responsible for their care. The following data are available to the Inquiry and were collected in 3 stages:

1. Homicide Index. The Homicide Index compiles data on all homicide perpetrators and provides demographic information on the perpetrator and victims, as well as details about the offense, sentencing, and outcome in court. The data set selected includes only those convicted; it does not include those suspected by the police or suspects who died by suicide before arrest. Records of previous offenses were obtained from the Police National Computer in all cases.
2. Psychiatric reports. Psychiatric reports are prepared for either the prosecution or defense by forensic psychiatrists who had access to all the past medical records, witness statements, and police records and so can form a full picture of the perpetrators. We have excluded from the main analysis cases in which the perpetrator died by suicide following the homicide. As the perpetrator died shortly after the incident, no psychiatric reports were prepared for court, and, therefore, there were limited data available on those cases. The diagnoses are made in accordance with *International Classification of Diseases, 10th Revision* (ICD-10) diagnostic criteria.[10] The following information was extracted from the reports: demographic characteristics, clinical history, and mental state at time of offense.
3. Clinical data. Details of each homicide perpetrator were submitted to the main mental health hospital providing inpatient and/or community mental health services to people living in the perpetrator's district of residence. When hospital records showed that contact with services had occurred at any time, the person became an "Inquiry case." For each Inquiry case, the psychiatrist was sent a questionnaire and asked to complete it in conjunction with other members of the mental health team. The questionnaire included information on demographic characteristics, clinical history, history of violence, aspects of care, details of final contact with services, and respondents' views on prevention of the index offense.

Ethical Considerations

The Inquiry has been granted exemption under section 60 of the Health and Social Act (2001)[11] and is authorized to use confidential and patient identifiable information without informed consent in the interest of improving patient care. This has enabled the Inquiry to gather information on all homicide perpetrators when records are available. To protect the individuals, data are anonymized and only reported in an aggregated format.

Statistical Analysis

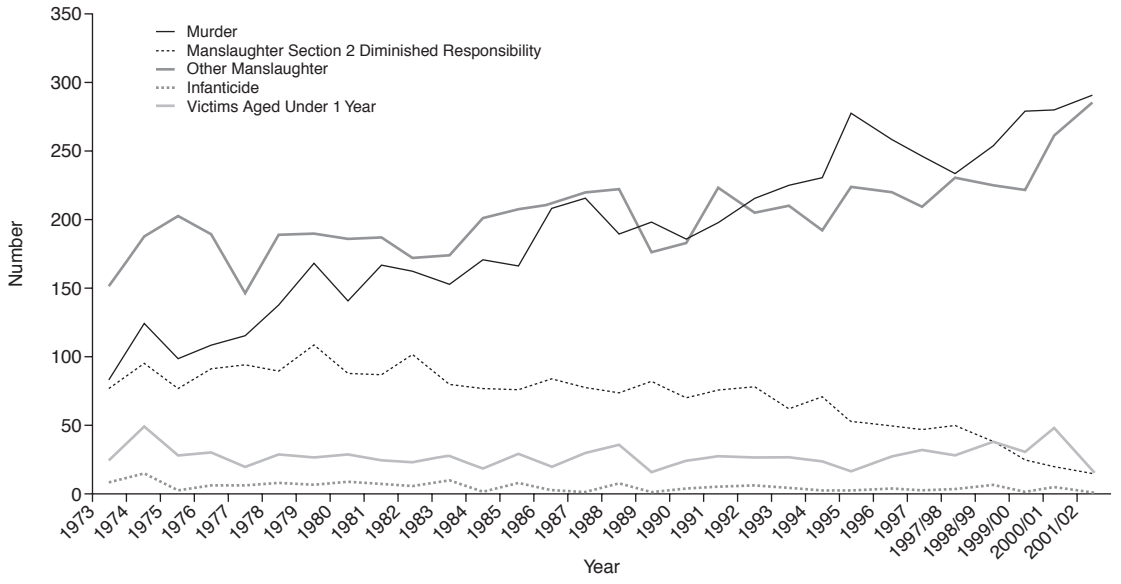
Pearson's χ^2 and 2-sample t test with significance levels set at 5% were used to compare characteristics between women and men convicted of infant homicide. If an item of information was not known for a case, the case was removed from the analysis of that item; the denominator in all estimates is, therefore, the number of valid cases for each item. When numbers were small, Fisher exact tests were used.

RESULTS

Longitudinal Data

Table 1 presents the number of offenses currently recorded as homicide and the number of infant victims during the period from 1974 to 2003. Despite the number of homicides increasing 3-fold, the number of infant victims has remained relatively constant, with an average rate of 0.06 per 100,000 population per year. Convictions for infanticide have also remained constant as a proportion of the total homicide conviction in England and Wales, at 5% (Figure 1).

Figure 1. Number of Homicide Convictions by Verdict and Year of Conviction[a]



[a]Data collection methods changed from calendar year to financial year in 1998; therefore, 1997/1998 will include cases from the previous year.

Table 2. Social Demographic Characteristics of Perpetrators Convicted of Infant Homicide and Their Victims[a]

	Women (N = 38)			Men (N = 74)			Total (N = 112)				
Characteristic	Median		Range	Median		Range	Median		Range	χ^2 (df = 1)	p Value
Age of perpetrator, y	24		14–45	25		16–40	24		14–45	0.83	.05
	N	Valid %	95% CI	N	Valid %	95% CI	N	Valid %	95% CI		
Marital status											
Married/cohabiting	16	48	31 to 66	43	84	71 to 93	59	70	60 to 80	12.30	< .01
Not currently married	17	52	34 to 69	8	16	7 to 29	25	30	20 to 40		
Employment status											
Employed	18	58	38 to 74	15	32	20 to 48	33	42	33 to 53	4.32	.04
Unemployed/long-term sick	14	44	26 to 62	31	67	52 to 80	45	58	47 to 69		
Criminal history											
Convictions for violence	1	3	0 to 14	19	26	16 to 37	20	18	11 to 25	8.98	.01
No violent convictions	36	97	86 to 100	54	74	62 to 84	90	82	75 to 89		
Gender of victim											
Male	17	45	29 to 62	44	59	47 to 71	61	54	45 to 64	2.19	.14
Female	21	55	38 to 71	30	41	29 to 53	51	46	36 to 55		
Age of victim											
< 24 h	7	18	6 to 31	1	1	0 to 4	8	7	2 to 12	11.03	< .01
l d to 6 mo	22	59	44 to 75	57	77	67 to 87	79	71	63 to 80	3.71	.05
> 6 mo	8	22	8 to 35	16	22	12 to 31	24	22	14 to 29	0.00	1.00

[a]Variables taken from psychiatric reports were not available on all perpetrators. Valid percentages given.

Total Homicide Sample

The Inquiry was notified of 2660 homicide convictions in England and Wales during the 5 years from April 1996, including 25 cases in which the defendant was found unfit to plead or not guilty by reason of insanity. In the total sample of convicted homicide perpetrators, the ratio of women to men was 1:9. Women were more likely to kill their own son or daughter (all ages) compared to men (25% vs. 5%, p < .01). During the same period, 6 perpetrators died by suicide after killing an infant. Filicide-suicides were more common; in total, we recorded 39 offenses in which at least 1 victim was a child aged between 1 and 16 years.

Description of the Case Series of Perpetrators Convicted of Infant Homicide

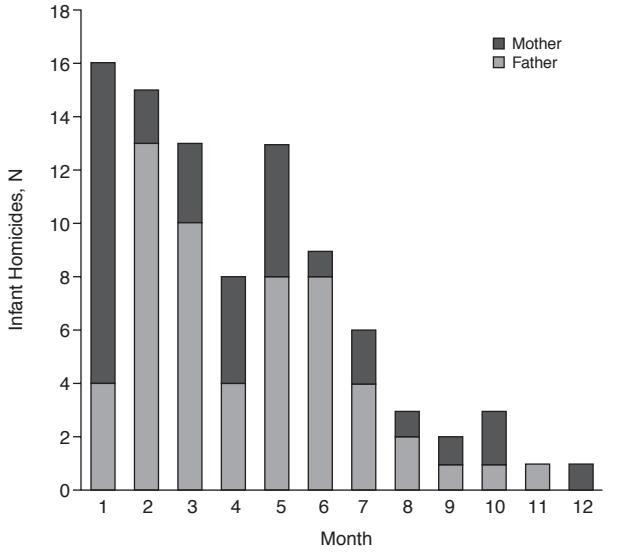
One hundred twelve people killed an infant (4% of all homicide convictions). Thirty-eight (34%) were women and 74 (66%) were men, a ratio of 1:2. Female and male infants were equally as likely to be victims (N = 61, 54% vs. N = 51, 46%, respectively). The majority of perpetrators were reported as the infants' parents; 56 infants (50%)

Table 3. Clinical Characteristics of Infant Homicide Perpetrators

	Women (N = 38)			Men (N = 74)			Total (N = 112)				
Characteristic	N	Valid %	95% CI	N	Valid %	95% CI	N	Valid %	95% CI	χ^2 (df = 1)	p Value
Lifetime diagnoses											
Schizophrenia and other delusional disorders	4	12	0 to 16	1	2	0 to 9	5	6	0 to 11	3.26	.07
Affective disorder	10	29	9 to 32	4	8	0 to 23	14	17	9 to 25	6.25	< .01
Personality disorder	4	12	0 to 16	5	10	3 to 27	9	11	4 to 18	0.04	.85
Substance dependence	1	3	0 to 6	4	8	0 to 23	5	6	0 to 12	1.01	.32
Any lifetime diagnosis	20	53	36 to 69	18	24	15 to 36	38	34	25 to 43	8.97	< .01
History of alcohol or drug misuse	8	26	10 to 41	25	53	39 to 67	33	42	31 to 53	5.73	.02
Previous service contact											
Any contact with psychiatric services	9	24	11 to 40	7	9	4 to 19	16	14	8 to 21	4.15	.04
Contact in the last year	5	13	4 to 28	1	1	0 to 7	6	5	1 to 10	6.90	.02
Mentally ill at time of offense[a]											
Any symptoms	11	41	22 to 61	6	13	5 to 27	17	24	14 to 33	7.03	< .01
Psychosis	2	7	0 to 24	2	4	0 to 15	4	6	0 to 11	0.28	.63
Depression	10	37	19 to 58	5	11	4 to 25	15	21	12 to 31	6.62	.01
Puerperal disorder											
Postnatal blues	1	3	0 to 15	…	…	…	1	1	0 to 4	…	…
Postnatal depression	3	9	2 to 24	…	…	…	3	4	0 to 8	…	…
Puerperal psychosis	2	6	0 to 20	…	…	…	2	2	0 to 6	…	…
Dissociative state	3	9	2 to 24	…	…	…	3	4	0 to 4	…	…

[a]Symptoms are not mutually exclusive.

Figure 2. Parents Who Killed Their Infant by Age of Victim



were killed by their father, and 35 (31%), by their mother; stepfathers were responsible in 9 cases (8%).

Social Demographic Characteristics of Perpetrators of Infant Homicide and Their Victims

The median age of both women and men perpetrators was similar: 24 and 25 years, respectively (Table 2). Less than half of the women were married/cohabiting, compared to over three quarters of men. A quarter of men had previous convictions for violence, compared to 3% of women. Forty-nine infants (44%) were killed within the first 3 months, and more infants were killed in the first 6 months than the second 6 months of their lives (N = 87, 78% vs. N = 24, 22%). Mothers were more likely to kill within the first month of their infants' lives compared to fathers (N = 12, 34% vs. N = 4, 7%; p < .01) (Figure 2).

Neonaticide

Eight people (7%) killed babies younger than 24 hours (neonaticide). Seven (88%) were women, and they were significantly younger than other mothers who killed an infant (median age, 21 years [range, 14–25] compared with median age, 24 years [range, 18–44], p = .01). Five were unmarried, which was a significantly higher proportion than other infant homicide perpetrators (71% vs. 26%, p = .012). Psychiatrists reported that a dissociative state was experienced at the time of the offense in 3 cases.

Mental Illness

One third of perpetrators had been diagnosed with a psychiatric disorder prior to the homicide (N = 38, 34%). One quarter of the offenders (N = 19, 23%) were considered to be suffering from a serious mental illness (affective disorder or schizophrenia and other delusional disorders) before the offense (Table 3). The most common diagnoses were affective disorder and personality disorder. One quarter of perpetrators were diagnosed with psychiatric symptoms at the time of the offense, most commonly depression. Less than one fifth had any lifetime contact with psychiatric services (women more commonly than men), but only 6 (5%) had been in contact with mental health services in the 12 months prior to the offense.

Table 4. Outcome in Court and Disposal of Infant Homicide Perpetrators

	Women (N = 38)			Men (N = 74)			Total (N = 112)				
Characteristic	N	Valid %	95% CI	N	Valid %	95% CI	N	Valid %	95% CI	χ^2 (df = 1)	p Value
Outcome in court											
Murder	3	8	2 to 21	20	27	17 to 39	23	21	13 to 28	5.63	.02
Manslaughter section 2 diminished responsibility	4	11	3 to 25	3	4	0 to 11	7	6	2 to 11	1.80	.18
Other manslaughter	13	34	20 to 51	51	69	57 to 79	64	57	48 to 66	12.35	< .01
Infanticide	18	47	31 to 63	0	0	…	18	16	9 to 23	…	…
Disposal											
Imprisonment	10	26	13 to 43	71	96	89 to 99	81	72	64 to 81	60.81	< .01
Hospital/restriction order	6	16	6 to 31	1	1	0 to 7	7	6	2 to 11	8.93	< .01
Community-based sentence	22	58	41 to 74	2	3	0 to 9	24	21	14 to 29	45.42	< .01

Women were significantly more likely than men to have affective disorder (N = 10, 29% vs. N = 4, 8%; p < .01) or to have mental illness at the time of the offense (N = 11, 41% vs. N = 6, 13%; p < .01). Men were more likely than women to have a history of alcohol or drug misuse (N = 25, 53% vs. N = 8 26%; p = .02) (Table 3). Postnatal depression was specified in only 3 cases, and 2 psychiatrists recorded a diagnosis of puerperal psychosis.

Outcome in Court

Less than one quarter of all perpetrators (N = 23, 21%) of infant homicides were convicted of murder. Women were significantly less likely to be convicted of murder compared to men. Nearly two thirds of all perpetrators (N = 71, 63%) were convicted of either manslaughter section 2 diminished responsibility or other manslaughter (Table 4). Women were proportionally more likely than men to receive a diminished responsibility verdict, but this was not statistically significant. An infanticide verdict was received by just less than half of all women convicted of infant homicide. Men were significantly more likely than women to receive a prison sentence, whereas women more commonly received a community-based sentence or hospital order. Figure 3 examines the perpetrators' outcomes in court based on whether or not they were considered to be mentally ill at the time of the homicide. None of the women but 4 of the men who were mentally ill at the time of the homicide were sentenced to prison. Seven women (44%) who were not found to be mentally ill at the time of the homicide received a mental health disposal (either manslaughter section 2 diminished responsibility or infanticide) compared to 1 man (3%). Of the 7 women, 4 (57%) had no lifetime history of mental illness.

The sentencing of perpetrators convicted of infant homicide contrasted with other homicide perpetrators. Analysis of data from the 5-year period showed that perpetrators of infant homicide were significantly less likely than perpetrators of all other homicides to be convicted of murder (21% vs. 50%, p < .01). There was no difference between the 2 groups in the proportion of convictions for manslaughter section 2 diminished responsibility, but perpetrators of infant homicide were more likely to receive a verdict of other manslaughter (57% vs. 41%, p < .01).

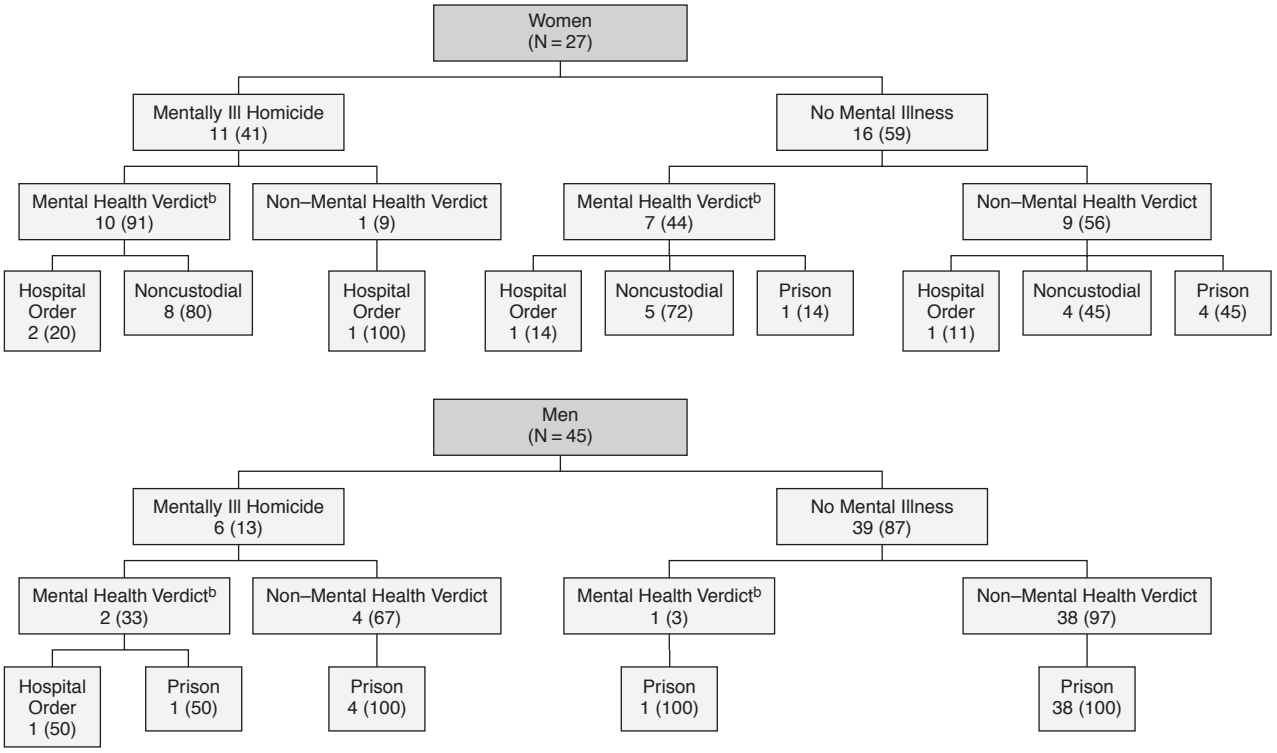
DISCUSSION

This study represents the largest and most detailed population survey available to describe the clinical, service-related, sociodemographic, and criminological characteristics of people who have killed an infant. Infant homicide is rare, and rates have remained constant over the past 3 decades. To place it in context, the most common cause of death in perinatal infants in developed countries is sudden infant death syndrome[12] with a rate of 0.5 per 1000 live births in the United States[13] and 0.3 per 1000 live births in England and Wales.[14]

In our sample, two thirds of infant homicide perpetrators were men. Forty-four percent of infants were killed in the first 3 months of their lives. One third of perpetrators with a psychiatric report had a lifetime history of mental illness. This is consistent with the rate of mental disorder found in the general population.[15] The most common diagnosis was affective disorder. Over one fifth had shown symptoms of mental illness at the time of the offense, but less than one fifth had lifetime contact with mental health services. Women were more likely than men to have mental illness at the time of the offense, but few were under the care of psychiatric services.

Like other studies, our study found that perpetrators of infant killing are more likely to be the infant's parent, with proportionally more fathers than mothers.[1] The median age of offenders in years was early to mid-20s.[1] Our findings are also consistent with previous studies[16] on neonaticide; the psychiatric reports reveal that perpetrators were young, unmarried mothers experiencing a dissociated state at the time of the homicide. The sentencing and disposal results in our study are also consistent with other studies.[17] In contrast to other research,[18] our findings do not confirm that the relationship of the perpetrator had no bearing on the age at which the infant was killed. We reported that mothers more often killed within the first month (including neonaticide), and proportionally more

Figure 3. Outcome in Court for Women and Men With and Without Mental Illness at the Time of the Homicide (from psychiatric reports)[a]



[a]Information regarding mental illness at the time of the offense was available on 72 of the 82 perpetrators with psychiatric reports. All values are given as N (%).
[b]Not guilty by reason of insanity, manslaughter section 2 diminished responsibility, and infanticide.

men than women killed infants aged between 2 and 3 months.

The discrepancy in sentencing for women and men in this study and others[1,19] cannot be fully explained by the higher prevalence of mental illness in women, though this is clearly a major contributor. The data suggest that proportionally more women than men received a mental health outcome (manslaughter section 2 diminished responsibility or infanticide) even though they were not considered to have been suffering from a mental disorder, based on the diagnoses and recommendations from psychiatric reports (Figure 3). Hedderman and Gelsthorpe[20] studied sentencing patterns for women based on official statistics and the opinions of magistrates and found that a number of factors influenced the sentences passed. These included the offenders' appearance, demeanor and attitude (deferential and respectful), past offending, and social circumstances. These factors help form an opinion of whether the offender is "troubled" or "troublesome." From our findings and others,[20] it appears that women are more often considered "troubled" and receive help rather than punishment.

This study has several limitations. Although our sample was a national consecutive case series of homicide offenders (linked victim data), psychiatric reports were unavailable in about a quarter of cases. Using the reports may introduce information bias toward serious mental illness; more reports were available on women. The information from clinicians was based on clinical judgment rather than standardized assessments. Diagnoses were generally made by clinicians using ICD-10 criteria, but there was no standardized method of establishing diagnosis.

Nevertheless, mental illness was common in our sample, particularly in women perpetrators, which is consistent with previous studies.[6] This finding has important implications for developing services. Early diagnosis and treatment of depression in women postnatally could reduce the number of deaths. An Australian national initiative, beyondblue, has targeted groups most at risk of depression.[21] The Australian Postnatal Depression Program (2001–2005), funded by beyondblue, recently published findings of a 5-year study. They reported that screening and state-based antenatal interventions are both welcomed and efficacious.[21] The Edinburgh Postnatal Depression Scale is an internationally accepted screening tool[22] routinely used to measure depression in the postnatal period. Health visitors or midwives (in the

United Kingdom) usually administer the scale, which is an easy-to-use 10-point questionnaire, to mothers 6 weeks following the birth. It has been validated and proved to be reliable and sensitive in detecting depression. Likewise the Pregnancy Risk Assessment Monitoring System (PRAMS)[23] is a routine survey given to mothers in the United States. Friedman et al.[3] recommended that questions about mental health should be added to this survey. We recommend that health professionals undertaking these assessments should be trained to recognize those most at risk of mental health problems; the use of clinical rating scales cannot be a substitute for clinical assessment.

Parental education programs and sustained antenatal advice would help prepare expectant mothers and fathers for parenthood. Increased resources and promotion of the availability and benefits of these programs are required. Parent support programs, both during pregnancy and following the birth, can provide parenting skills, coping mechanisms, and advice regarding the needs of babies. Developing intervention strategies for neonaticide is more difficult; in these cases, mothers either deny or conceal the pregnancy.[16] Schools have an important role in providing comprehensive sex education programs including contraception advice, teaching the realities of parenthood, and alternative support systems for teenagers who may be too afraid to confide in their parents or general practitioner if they become pregnant. Furthermore, as a response to infant abandonment in the United States, 47 states have now enacted safe-haven legislation.[24] These laws enable mothers to anonymously relinquish the care of their child without fear of legal reprisal.

Research into infant homicide is important. A psychological autopsy approach, which is normally used in suicide research,[25] could help us to understand the mechanisms of infant homicide and how they are related to other factors in a parent's life. Further research should be conducted to examine the impact of caring for other children, difficulties experienced in pregnancy, financial stress, or relationship concerns, which are not always sufficiently detailed in psychiatric reports. It would also be beneficial to examine in more detail criminological and psychiatric antecedents and service contact, which may inform prevention.

CONCLUSION

The number of infants dying as a result of homicide each year is small. As rates of infant homicide have been stable over the last 30 years, it is a public health challenge to affect an impact on these tragic events. A national initiative such as that implemented for depression in Australia would begin to address some of the key issues. Our findings suggest that mothers appear to be most in need of service intervention, which could be achieved through a primary care setting. Parents should be encouraged to seek help and normalize their feelings without the fear of the baby being removed from their care. Further research is also needed, such as a psychological autopsy or case-control study, to determine and detail the psychiatric characteristics of infant homicide perpetrators, causal associations, and risk factors.

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