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ORIGINAL CONTRIBUTION

Maternal depression and filicide—case study of ten mothers

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Abstract This study describes ten cases of filicides committed by mothers who intentionally killed one or more of their children within 12 months after delivery. The data were collected from police and court records, forensic psychiatric records, autopsy reports, and other medical records. The mean age of the mothers was 28.5 years and of the victims 4 months. The symptoms of depression were clear: an irritable, severely depressed mood with crying spells, insomnia, fatigue, anxiety, preoccupation with worries about the baby's well-being and the mother's caring abilities, suicidal ideation, or even psychotic thoughts. Most mothers had had house calls from the public health nurse or psychologist. The mothers' conditions deteriorated rapidly, and the filicide was committed when the mother was left alone with the baby against her will. The babies were well taken care of, not neglected or abused. The majority of the mothers had felt that their own parents, especially their mothers, were very demanding, rejecting, and emotionally unsupportive. All the mothers had also had traumatic experiences in their childhood or in adulthood.

Keywords Filicide · Postpartum depression · Postnatal depression · Child homicide · Depression

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Introduction

Most studies identify three postpartum adjustment disorders: postpartum blues, postpartum depression, and postpartum psychosis. Postpartum blues is a milder form of depression and usually improves over the first months postpartum without treatment and is detected in 39–85% of women after giving birth (O'Hara et al. 1990; Buist 2006). Postpartum psychosis occurs within 1-4 weeks after childbirth and is suggested to be an overt presentation of bipolar disorder that is timed to coincide with hormonal shifts after delivery (Sit et al. 2006). A major depressive episode after childbirth is referred to as postnatal depression or postpartum depression. Postpartum depression symptoms are similar to those of depression, most often irritable, severely depressed mood with crying spells, insomnia, fatigue, anxiety, poor concentration, and preoccupation about the baby's well-being and the mother's caring abilities (Brockington 1996; Andrews-Fike 1999; Templeton et al. 2003; Buist 2006; Gjerdingen and Yawn 2007).

The time frame reported for postpartum depression has varied across studies, with onset typically from 1 month to 1 year after childbirth. The use of a wider time frame is

derived from epidemiological studies showing women to be more susceptible to depression for at least 6 months after childbirth (Hendrick 2003). Postpartum depression is not defined as a separate entity in the two major international classification systems, the International Classification of Diseases (ICD-10) and the Diagnostic and Statistical Manual-IV (DSM-IV), and the DSM-IV uses the postpartum onset specifier only if onset is within 4 weeks after delivery (World Health Organization 1992; American Psychiatric Association 1994). However, postpartum depression is often used as a separate diagnosis in clinical settings (Ebenhard-Gran et al. 2003). Many studies do not refer only to cases where onset of depression is new, but look at the prevalence of depression in an inconsistently defined period from 4 weeks to 1 year after delivery. In postpartum research, different symptoms are associated with postpartum depression, and the diagnostic categories have not been exactly defined. Psychotic depression, for example, is categorized in some studies as psychosis, in other studies as depression (Riecher-Rössler and Hofecker Fallahpour 2003).

The incidence of postpartum depression varies in the literature from 10–15% up to 28% for women living in poverty (O'Hara et al. 1990; Mechakra-Tahiri et al. 2007; Tannous et al. 2008) and is 13% in Dennis's meta-analysis of earlier studies (Dennis 2005). In the Finnish population, in a study by Tamminen (1990), postpartum depression was found in 9.5% of women right after giving birth, in 5.9% 2 months after delivery and in 8% 6 months after delivery (Tamminen 1990), and in a study by Hiltunen (2003) was found to be 16.2% immediately after delivery and 13% 4 months postpartum.

The etiology of postpartum depression is not clear, but many studies suggest that hormonal fluctuation, biological susceptibility, and psychosocial stressors are the factors involved (Andrews-Fike 1999).

Maternal depression has been found to correlate with problematic lives affected by a multitude of negative factors: low socioeconomic status, low level of maternal education as well as younger age of the mother (Mandl et al. 1999; Templeton et al. 2003). Depression may also be related to lack of social support, life stress, and marital conflicts (Hagen 1999; Rougé-Maillart et al. 2005).

Seeking help is often delayed due to shame and stigma, and an accurate diagnosis is often not made due to misinterpretation of the symptoms. Untreated postpartum depression can have decidedly long-term consequences not only for the mother but also for the child and the whole family (Riecher-Rössler and Hofecker Fallahpour 2003). In severe depression, apart from the risk of suicide (Appleby et al. 1998), one has to be aware of the risk of infanticide (Brockington 1996) as depression of the mother prior to the filicide has been reported in several studies (Friedman et al. 2005; Kauppi et al. 2008; Somander and Rammer 1991; Bourget et al. 2007).

Finland, like many European countries, has legislation similar to that of the British Infanticide Act of 1922, proposing that women who are vulnerable after giving birth often receive no sentence and are referred for mental treatment (Hatters Friedman and Resnic 2007; Laporte et al. 2005; Spinelli 2005).

This case study describes the onset of depression and its development into a condition whereby the mother "mercy kills" or tries to commit filicide/suicide within 12 months after giving birth to a baby. Demographics, risk and stress factors, childhood traumas that make the mother vulnerable, symptoms of depression, and the consequences of the filicide are investigated in a sample of ten cases.

Methods

Ethical approval for the study was obtained from the Ministry of Social Affairs and Health and the National Research and Development Center for Welfare and Health of Finland. The approval allowed a retrospective study using all the health and legal records including mental state examinations, but no interviews were permitted.

Information concerning all deaths certified as homicide or with an undetermined cause of death in Finland for children aged 15 years and under was obtained from Statistics Finland (a government agency providing national statistics) for the 25-year period of 1970–1994. There were 292 deaths coded by the Finnish version of the ICD-9 as E 960-E 969 (homicides; n=207) and E 970-E979 (death from unspecified cause; n=85) (Fig. 1).

In the Finnish legal procedure, the police investigate all deaths occurring outside hospitals and without known reason, and a forensic autopsy is performed. The death certificate is signed after all investigations for the cause of death have been completed. Occasionally the investigations are not completed when the death certificate is issued and the final cause of death is recorded as undetermined. In this sample, 28 deaths certified as cause undetermined (33%) were caused or preceded by intra-familial violence according to the ruling of the court of justice. Other causes of undetermined deaths in this sample were accidents or suicide of the child (n=24) or children under 2 years old, who were found dead at home but who showed no signs of injury (n=20) or other non-homicide cases (n=13). Extra-familial homicides (homicides committed by other family members than a parent or a step-parent) (n=35) were excluded because our main interest was in intra-familial filicides.

The sample after the exclusions (n=92) included intra-familial filicides (n=200), which were determined to be

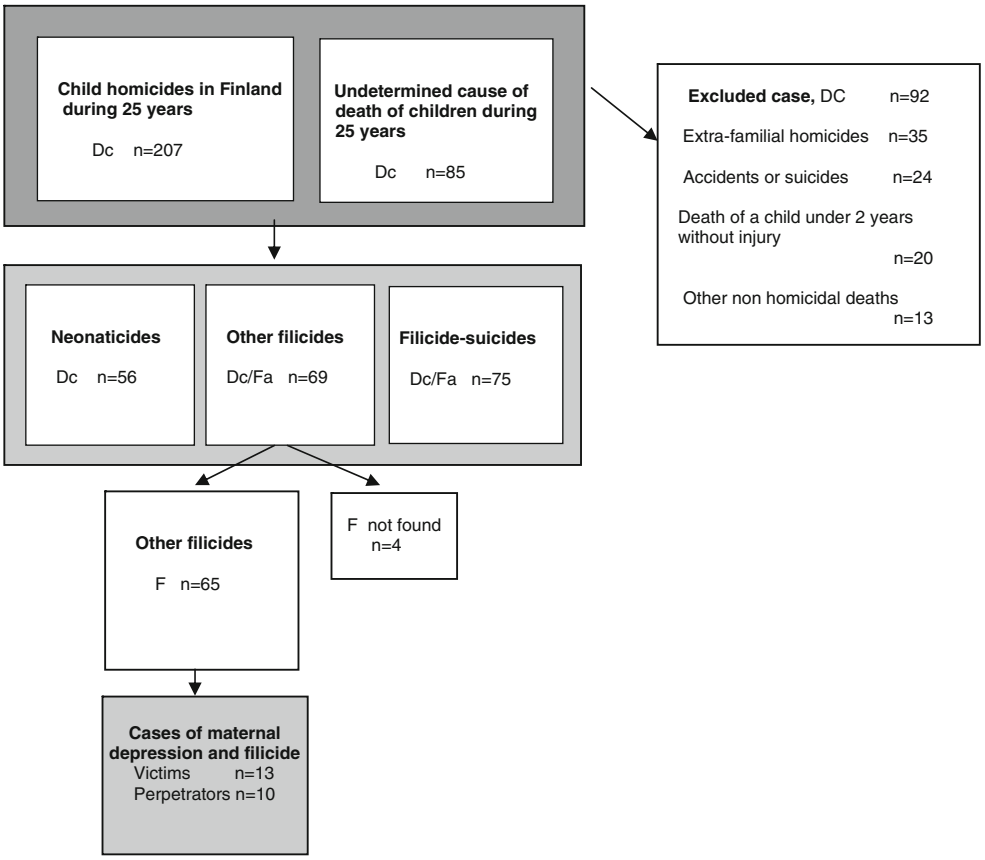

Fig. 1 Sample group after the exclusion of cases. Dc=Death Certificate, Fa=Forensic Autopsy report, F=Court and medical records and/or Mental examination

filicide-suicides (n=75), neonaticides (n=56) and other filicides (n=69).

The data collected from filicide-suicide (a parent commits filicide and then suicide) cases (n=75) were sparse because the court records and mental examinations of the perpetrator were unavailable and the information in the autopsy records was limited. The cases of neonaticides (mother giving birth to a baby in secrecy and killing the baby within 24 h) (n=56 cases) were investigated only on the basis of the death certificates because the main interest of the series of investigations is parental behavior and physical abuse. Out of the remaining 69 cases, for four the files were not found. The required material was available on 65 homicides, committed by 58 perpetrators.

The sample of 65 cases of filicides was studied more closely using retrospective case-review methodology. Data were obtained from medical and forensic records, which included forensic psychiatric examination when required by the court. The forensic psychiatric examination included psychometric tests; interviews with the perpetrator; reports of family members, friends, and teachers; legal documents; and other subsidiary sources. The psychiatrist of the Forensic Psychiatric Department gave a diagnosis according to the Finnish version of the ICD-9 and DSM-III and DSM-III-revised version used in Finland during the time period in question. Demographic data, psychiatric diagnosis, and developmental history were derived from the medical records of the perpetrator if no forensic psychiatric examination had been required.

The medical history of the victim was obtained from the autopsy report and medical and collateral records. Autopsy was performed in every case and included microscopic and blood sample analyses performed by an expert in forensic medicine. X-rays were taken if child battering was suspected.

Out of the sample of 58 perpetrators, all the mothers committing filicide or attempting filicide-suicide after giving birth to a baby and having a diagnosis of depression in the forensic psychiatric examination were selected. When the postpartum period was limited to 12 months, ten cases fulfilled the criteria and were selected as the study sample.

Symptoms of depression prior to the filicide were described in the forensic psychiatric examination data by perpetrators, their close relatives, and the authorities. The mental examination of one mother was declared confidential, but since the mother had been hospitalized shortly before the filicide, information was collected from these records.

Results

Victims

In the group of ten victims born just prior to the onset of the mother's depression, the child was female in six and male in four cases. The youngest baby was only 8 days old and the oldest 8 months. The mean age of these ten youngest children of the family was 4 months. The victims were mostly wanted, well-loved children and healthy. There were no signs of previous abuse, neglect, or signs of illness or disability in the autopsy. Five victims were firstborns and four were the second child of the family (Table 1).

In addition, one mother killed her 4- and 6-year-old children along with the baby (case 10), another the one-year-old sibling (case 8), and one mother tried to kill the older sibling but succeeded only in injuring him (case 1). None tried to kill her husband or any other person.

Perpetrators

The mean age of the ten mothers was 28.5 years. Eight mothers lived in rural areas and two in smaller cities. The level of education was low and only three mothers worked as white-collar workers (Table 2). All mothers were married.

Table 1 Psychosocial factors of the perpetrator and the victim

Factor	Values
Sociodemographic profile of the victim	
Mean age of the victim	4 months (95% CI: 2.1-5.9)
Female	6 (60%)
A "wanted child"	7 (70%)
The only child of the family	5 (50%)
The second child of the family	4 (40%)
Sociodemographic profile of the perpetrator	
Mean age of the perpetrator	28.5 years (95% CI: 24.9-32.0)
Living in rural surroundings	8 (80%)
Skilled worker	7 (70%)
White-collar worker	3 (30%)
Married	10 (100%)
Current stress-provoking factors	
Difficulties in marriage	2 (20%)
Domestic violence	1 (10%)
Care-taking relationships with parents	3 (30%)
Previous mental disorder	3 (30%)
Difficult birth	4 (40%)
Lack of support	5 (50%)
Parental traumatic experiences and losses in the childhood	
Separation from the parent	5 (50%)
Emotional abuse	7 (70%)
Parent alcoholic and violent	4 (40%)
Parent mentally ill	3 (30%)

One mother had a violent and jealous husband (case 8) and one mother an unfaithful (case 9) husband; both of these mothers were very distressed because of the husband's behavior and lack of support. Other mothers reported good relationships with their husbands. However, three mothers were stressed because of the absence of the husband due to military service (case 6), residence abroad (case 2), or being away on business (case 1). Moreover, three mothers had very close relationships with their own parents who required a great deal of care (cases 3, 4, 10).

Two mothers who had faced major stress in their marriage reported no traumatic experiences in their childhood.

Trauma and loss in adult life were mentioned as a cause of stress in four cases, including miscarriage (case 1), abortion (case 5), sudden death of the first husband (case 3), and suicide of own father (case 6).

The majority of the perpetrators had experienced very demanding parenting and lack of emotional support. They were also daughters with a lot of responsibility for their childhood families and some still carried this responsibility at the time of the filicide. One perpetrator had had an alcoholic father and three an alcoholic and violent father in their childhood family (cases 5, 6, 7, 8). Three perpetrators had a mentally ill parent (cases 1, 3, 8). Five perpetrators had experienced separation from their parents, especially from their mothers (cases 1, 3, 7, 8, 10). The perpetrators had often felt that their own mothers were emotionally distant, demanding or rejecting.

Two perpetrating mothers had had previous postpartum depression after giving birth to the first child in the family (cases 5, 7). A third had had a period of depression after a miscarriage. Four mothers had experienced a very traumatic delivery and killed the baby when it was very young (cases 2, 3, 4, 7).

All the mothers had several symptoms. These are listed in Table 2.

Filicide and forensic psychiatric examination

The motive of the filicide was altruistic in all cases, and six mothers tried to commit suicide (cases 1, 2, 6, 7, 8, 9).

Four mothers drowned their babies, two suffocated them, one cut the baby's throat, one pushed the baby under a car, one banged the baby's head against the wall, and one mother killed her two children by setting fire to the house.

All the mothers had a diagnosis of depression: post-partum depression in one case, major depression in two cases, chronic depression in one case, and psychotic depression in four cases. Information about the diagnosis was missing in one case. One diagnosis was immature and dependent personality.

The mother was deemed not responsible for her actions by reason of insanity in eight cases, and one mother was

Table 2 Symptoms and stress factors of the mother

Symptoms	Case number										Percentage or mean
	1	2	3	4	5	6	7	8	9	10	
Depressed mood	+	+	+	+	+	+	+	+	+	+	100%
Anxiety	+	+	+	+	+	+		+	+	+	90%
Crying spells				+							10%
Emotional lability	+						+				20%
Inability to have warm feelings	+		+		+						30%
Fatigue							+	+	+	+	40%
Preoccupation with worries about the baby's well-being	+		+	+	+	+					50%
Preoccupation about own ability to be a mother	+	+	+	+	+	+					60%
Obsessional thoughts about harming the baby				+		+					20%
Poor concentration	+								+		20%
Insomnia	+	+	+	+	+	+					60%
Psychotic thoughts	+		+	+	+		+			+	60%
Suicidal thoughts	+	+		+	+	+	+	+	+	+	90%
Filicidal thoughts		+			+						20%
Onset of symptoms after the birth (months)	4	1	0	0	0	6	0	3	6	6	2.6 months
The age of the victim (months)	5	2	5	0	1	7	1	4	7	8	4 months
Previous depression	+				+		+				30%
Ongoing treatment for depression	+	+	+	+	+		+				60%
Difficult birth		+	+	+			+				40%
Marital crises and difficult family relationships								+	+	+	30%
Childhood traumas and emotional abuse	+	+		+	+	+	+	+		+	80%
Traumas and losses in adult life	+		+		+	+		+			50%

deemed to have diminished responsibility in the forensic psychiatric examination (information found for nine cases). None of the mothers were convicted in court.

Discussion

In this study we present a sample of ten mothers who had symptoms of depression prior to committing filicide within 1 year after giving birth to the child.

The main results of the study indicate that the baby was wanted, healthy and not difficult to take care of, but the feeling of being responsible for the well-being of the baby, the present life situation, and depression increased the feeling of inability to cope with life and parenting.

Three mothers had onset of depression due to crises in the family, and their symptoms were mostly depressed mood, fatigue, anxiety, and suicidal ideation. The remainder of the mothers had rapid onset of depression without specific preceding causes. These mothers had even more obvious and clearly expressed symptoms: depressive mood, insomnia, anxiety, preoccupation with worries about the baby's well-being, preoccupation about their own ability to be a mother, and suicidal ideation.

Comparison to earlier studies of mentally ill mothers reveals several similarities. Friedman et al. (2005) studied a sample of 39 mentally ill mothers and found that they were suffering from depression and hallucinations and experiencing considerable stressors in their lives, including in their childhoods. Almost 50% of the mothers studied had been abandoned in childhood by their own mothers, as was the case in the mothers in our study. The mothers also had limited education and poor social support.

In this study, six out of ten mothers had had visits from a mental health nurse or a psychologist, but often the symptoms got worse very rapidly and the severity of the symptoms was not detected. The mothers told their husbands or the authorities of a reluctance to be left alone with the baby. Being left alone with the baby increased anxiety and hallucinations about the baby developed within days. The mothers claimed "to see the signs of mental illness in the baby's eyes," that "the baby was too good to live in this bad world," or that "the baby would be ruined because of bad mothering."

The treatment of depression may empower the mother but the conditions must also be evaluated and concrete help provided by taking care of the baby, if necessary also during the night. If the mother feels helpless and tired, empowerment and treatment may activate her without changing the stress and may lead to suicidal and filicidal behavior, as has also been argued by Stanton et al. (2000).

Clinicians should pay attention to depressed parents and directly elicit suicidal or even filicidal ideations (Friedman et al. 2008). Support and treatment should be given without

delay because the crisis in the family may exacerbate within days.

In Finland the child psychiatric departments and public health services have developed psychiatric units for children under 3 years old and their parents to support early interaction and offer rapid interventions for families in distress. Counseling other family members and helping them to recognize the symptoms of depression may help to prevent fatal consequences (Wilen and Mounts 2006).

The limitations of the study include its retrospective nature and the inconsistency in quality and quantity of the data. The sample consists of only ten cases, which limits the conclusions, comparisons, and statistical significance.

Conclusion

Early screening for childcare stress, and support and advice by health visitors in the early postpartum period could help identify women at risk of depression (Honey et al. 2003). The mothers in this study had clear symptoms, especially insomnia, preoccupation with worries, and many of them revealed their depressive and even suicidal thoughts to their husbands and healthcare personnel. The fatality often took place in a situation when a mother was left alone, although the mothers had clearly stated their reluctance to be left alone with the baby. Intensive and rapid support is needed, especially if the mother has already given up hope and is reluctant to receive help.

More attention should be paid to mothers' own experiences of motherhood and traumatic experiences in childhood.

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