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ANNE KAUPPI

*Filicide, Intra-familial
child homicides in
Finland 1970-1994*



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1970-1994*

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ABSTRACT

Information for the 25-year period from 1970 to 1994 concerning all deaths certified as homicide or with an undetermined cause of death in Finland for children aged 15 years or younger was obtained from Statistics Finland. There were 200 child homicides committed by parents and the main categories were neonaticides (a parent killing the child after giving birth alone, after a concealed pregnancy) (n= 56), filicide-suicide (a parent killing the child or even the whole family and then committing suicide) (n=75) and other filicides (n=69). For the main categories, nearly 60% were committed by mothers. The age of maternal victims was significantly lower than the age of paternal victims. Filicide-suicides were perpetrated by fathers in 71% of all cases.

More detailed information was available in 65 cases of other filicides. The victims were mostly healthy children and well-taken-care-of, except in cases caused by battering.

Mental health distress was reported by the maternal perpetrators in 74% of all cases while the paternal perpetrators abused alcohol and/or were violent towards other family members in 45% of all cases. Examined perpetrators reported traumatic childhood experiences, especially emotional abuse, parental alcohol abuse and domestic violence. Psychosis or psychotic depression was diagnosed for 51% of maternal perpetrators and personality disorder for 67% of the paternal and 41% of the maternal perpetrators.

The 65 cases were categorized and the *Parental schizophrenic psychosis and filicide*, *Parental non-determined psychosis and filicide*, *Parental depression and filicide* and *Parental depression and attempted filicide-suicide* categories were mostly committed by mothers due to altruistic motives. The *Single fatal battering of the child* cases were often committed by a young parent and the victim was often a boy. In the *Recurrent fatal battering of the child* category the victims were youngest of all the categories and either a crying infant or over 2 years old, whom the parent interpreted as disobedient. The perpetrators were diagnosed as having a personality disorder. The *Domestic violence and filicide* cases were committed by a father, who aimed to kill the mother due to impending marital break-up and jealousy.

National Library of Medical Classification: Child Psychiatry

Medical Subject Headings: Filicide, Child Homicide, Infanticide, Child Abuse

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TIIVISTELMÄ

Tätä kuvailevaa rekisteritutkimusta varten kerättiin kaikki lapsiin kohdistuneet henkirikokset ja epäselviksi jääneet tapaukset Suomessa vuosina 1970-1994. Muiden kuin vanhempien surmatekojen poistamisen jälkeen aineistoksi jäi 200 kuolemantapausta. Aineisto voitiin jakaa kolmeen pääryhmään: 1. *Lapsen surmat* (n=56), (lapsen surmaaminen 24 tunnin sisällä synnytyksen jälkeen). 2. *Laajennetut itsemurhat* (n=75), joissa vanhempi surmaa myös itsensä. 3. *Muunlaiset lapseen kohdistuneet surmat* (n=69). Lapsen surmasi äiti yli 60%:ssa tapauksista ja äitien uhrin olivat tilastollisesti merkittävästi nuorempia kuin isien uhrin. Laajennetut itsemurhat olivat usein isien tekemiä (71%).

Muunlaisista lapseen kohdistuneista surmista pyydettiin poliisi- ja oikeudenkäynti-asiakirjat, mahdolliset sosiaalityön- ja terveydenhuollon asiakirjat sekä tekijän mielentilalausunnot (65 tapausta).

Uhrin olivat useimmiten terveitä ja hyvin hoidettuja lapsia, paitsi ne lapset, jotka kuolivat pahoinpitelyn seurauksena.

Äidit kärsivät mielenterveyshäiriöistä (74%), kun taas isät käyttivät päihteitä (45%) ja/tai olivat väkivaltaisia perheenjäseniään kohtaan (45%). Tutkitut vanhemmat olivat kohdanneet omassa lapsuudessaan tavallista enemmän henkistä väkivaltaa, vanhempien alkoholin väärinkäyttöä ja perheväkivaltaa. Oikeuspsykiatrisissa tutkimuksissa 51%:lla äideistä todettiin psykoottinen häiriö tai psykoottitasoinen masennus, kun taas 67%:lla isistä voitiin todeta persoonallisuushäiriö.

Aineiston tapaukset ryhmiteltiin seitsemään ryhmään: *Vanhemman skitsofreeninen psykoosi ja lapsen surmaaminen, vanhemman määrittelemätön psykoosi ja lapsen surmaaminen, vanhemman masennus ja lapsen surmaaminen sekä vanhemman masennus ja laajennetun itsemurhan yritys* -ryhmissä useimmiten tekijänä oli äiti ja motiivina oli lapsen pelastaminen pahalta. *Lapsen kuolemaan johtava yksittäinen pahoinpitely* -ryhmän tapaukset olivat useimmiten nuorten vanhempien tekemiä. *Toistuvan, kuolemaan johtavan pahoinpitelyn*-ryhmässä uhrin olivat joko vauvoja, joita kyvytön vanhempi ei kyennyt rauhoittamaan tai yli kaksivuotiaita lapsia, joiden käytöksen persoonallisuushäiriöstä kärsivä vanhempi tulkitsti tottelemattomuudeksi. *Perheväkivalta ja lapsen surmaaminen* -ryhmässä isä aikoi surmata lapsen äidin, koska tämä oli eroamassa tai eronnut isästä, mutta tilanteessa surmansa sai vain lapsi tai sekä äiti että lapsi.

Luokitus: Lastenpsykiatria

Yleinen suomalainen asiasanasto: Lapsen kohdistuneet henkirikokset, lapsen pahoinpitely

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Joensuu, May 2012

Anne Kauppi

List of the original publications

This dissertation is based on the following original publications:

- I Tuija Vanamo, Anne Kauppi, Kari Karkola, Juhani Merikanto, Eila Räsänen
Intra-familial child homicide in Finland 1970-1994: incidence, causes of death and demographic characteristics.
Forensic Science International 117(3):199-204, 2001.
- II Anne Kauppi, Kirsti Kumpulainen, Tuija Vanamo, Juhani Merikanto, Kari Karkola.
Maternal depression and filicide – case-study of ten mothers.
Arch Womens Mental Health 11: 201-206, 2008.
- III Anne Kauppi, Kirsti Kumpulainen, Kari Karkola, Tuija Vanamo, Juhani Merikanto.
Maternal and Paternal Filicides: A Retrospective Review of Filicides in Finland.
J Am Acad Psychiatry Law 38(2): 229-38, 2010.
- IV Anne Kauppi, Tuija Vanamo, Kari Karkola, Juhani Merikanto.
Fatal child abuse: a study of 13 cases of continuous abuse.
Mental Illness 4(1): 5-9, 2012.
- V Kauppi A, Vanamo T, Karkola K, Merikanto J, Kumpulainen K.
Filicide – The intention of the parent and provoking factors in a family's living conditions.
Submitted

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Abbreviations

CT	Computed tomography
Dc	Death Certificate
DSM	Diagnostic and Statistical Manual
EU27	European Union (27 countries)
F	Court and medical records and/or Mental examination
Fa	Forensic Auopsy report
fMRI	Functional magnetic resonance imaging
GDP	Gross domestic product
ICD-10	International Classification of Diseases
IQ	Intelligence quotient

1 Introduction

The incident when a parent kills her or his own child is rare but still distracting. The rate of child homicide in Finland has been high compared to many other European countries but during recent decades the rate has declined. Filicides in Finland have been connected to parental depression, suicides and a reduction in welfare spending. Alcohol abuse and domestic violence have also been associated in the context of filicide. The recent unfortunate cases in Finland also articulate that there is an inexplicable fluctuation in rates and that we still need to be aware of the possibility of filicide.

Child Psychiatrists are often obligated to evaluate the safety of the child and the possibility of abuse or even filicide. Clinicians in child psychiatry for 0-3 year-old children and social workers are especially faced with this question, since the situations in baby-families may be very critical.

This study was designed by a multi-professional research group. MA Tuija Vanamo is a Social Worker, Dosent Kari Karkola is a specialist in Forensic Medicine and the second supervisor, Docent Juhani Merikanto is a specialist in Child Surgery and the late Professor Eila Räsänen was a Child Psychiatrist. My principal supervisor in Child Psychiatry has been Professor Kirsti Kumpulainen. The members of the research group have been included due to their knowhow in their specific fields and their clinical experience. They have collected the sample, designed the study, co-written and reviewed the published articles.

The original aim was to also study early interaction between abused children and their abusive parents and inflicted injuries in the hospitals. The research topic proved to be very difficult, since cases were not detected in the hospitals or the parents did not want to be involved in the study. The sample of the fatally abused or other filicides was intended to be secondary material for the study. Since only a pilot sample of the abused children was accomplished, the whole study was based on the second sample and the records available. We were not permitted to interview the perpetrators and the child psychiatric perspective had to be constituted from existing records, which were based on the history of the perpetrator and varied in quality. The studies in this field are mainly published by forensic, forensic psychiatric and psychiatric researchers.

The study design of this material was not uniform since original aim was to produce only one publication. The material consists of records of several court sessions even during years and the narration changes during the procedure. For example previous battering of the child was detected in autopsy but also revealed by the parent during the process.

The categorization of the cases aims to produce different depictions of the situations how authorities could see the situation in the family and recognize the risks.

The child psychiatric focus lies in family conditions, the mental health of the victim and the parent, childhood traumas of the parent and how the parenting becomes 'overprotective' or 'underprotective'. The differences in maternal and paternal filicides are discussed and concentrated upon, especially with respect to postpartum depression and recurrent battering, since they are most likely distinguishable and preventable. Categorizing the sample gives us more details and qualitative data within the category and a better picture of the characteristics of the victim, of the parent and of the difficulties the family is experiencing.

Although all filicides are unlikely to ever be prevented, information on the pathways may help us to understand the difficult situation the family is living in and maybe to prevent some assaults.

2 Review of the Literature

The literature search was performed by a librarian in the Kuopio University Hospital Medical Library Information Service. The search was updated with the PubMed database several times. The keywords in the search were: child homicide, filicide, infanticide, neonaticide, child abuse, domestic violence and postpartum depression.

2.1 DEFINITIONS

Child homicide can be murder, manslaughter or the killing of a child.

Filicide is a child homicide committed by a parent (*filia/filius* means own daughter/son and *occidere* is a homicide or manslaughter in Latin). Infanticide denotes a filicide in the first year of life, although the term also has medico legal implications and applies mainly to the killing of a child under the age of 12 months by a mother who has not fully recovered from the effects of pregnancy, giving birth and lactation and suffers some degree of mental disturbance (Bourget et al. 2007).

The term neonaticide was coined by Resnick (1969;1970) who described the murder of an infant within the first 24 hours of life.

Filicide-suicide refers to the murder of the child and the parent's suicide afterwards, whereas family annihilation or familycide is a term used to mean the murder and suicide of all the family members (Hatters Friedman et al. 2005). Child battering and physical abuse refer to pain or injuries, which are intentionally inflicted. Fatal abuse indicates battering or physical abuse that causes the death of the child.

Terms in Finnish Law: *Tappo* – intentional killing, sentenced to at least two years; *Murha* – a more cruel intentional killing, sentenced maximum to life; *Surma*- a killing which occurs under attenuating circumstances and is sentenced from four months to ten years; *Lapsen surma*- a woman who kills her child when she is exhausted or anxious after giving birth, sentences from 4 months to four years; *Pahoinpitely ja kuolemantuottamus*- fatal battering, sentences of a maximum of two years (Suomen rikoslaki § 21: 1-5, 8).

2.2 FREQUENCY

Child homicides are most often, in over 60% of all cases, committed by the parent of the child (Somander and Rammer 1991; Hatters Friedman et al. 2005). Children are at greatest risk on the day of their birth (MMWR 2002) and this risks remains especially high during the first 4 months of life (Overpeck et al. 1998). Thereafter, the risk decreases steadily, whereas the rate for extra familial child homicides increases, particularly so for the teenagers (Jason 1983; MMWR 1997).

The estimated global rate of child homicide in the age group 0-17 years is 1.92 for girls and 2.93 for boys per 100,000 inhabitants. The USA has the highest rates of child homicide (8.0/100,000 for infants, 2.5/100,000 for pre-school children, and 1.5/100,000 for school-age children) (Hatters Friedman et al. 2005).

The European Union does not have any homogenous, comparable data regarding lethal violence and caution must be used in making cross-national comparisons (Friedman and Resnick 2011). Cause-of-death statistics and national criminal statistics can be used to assess the frequency of homicides in different countries but more detailed national data on the characteristics of homicides are less comparable, due to legal and definitional differences. Differences are especially evident with suicides, accidental deaths, drug and alcohol related and unknown causes (Jouglu et al. 1998), and the rates for child murder are probably underestimates, as they often are considered as accidents or deaths of natural causes (Pinheiro 2006; McClain et al. 1993; Jenny and Isaac 2006), or there are inaccurate coroner rulings, and some bodies are never discovered (Brookman and Nolan 2006; Ewigman et al. 1993). (The mean clearance rate for homicide in Finland is 92% (1995-2004)(Crime Statistics, Finland)). In addition, the under-recording can be due to battering or abuse and has been found to be as high as 58.7 percent in Herman-Giddens et al's (1999) North Carolina study.

Gardner compared the filicide rates of developed countries in his early studies in 1991 and found a lot of variability. The homicide rates of children under the age of one were over five times greater in Finland and Austria than the rates in Italy and Sweden. The United States and New Zealand had the highest homicide rates for children aged 1 to 4, where as Ireland and Italy had the lowest. Gardner argued that high rates correlated with low welfare spending, changes in family structures and also with changes in the society that led to escalation of violent crime during the mid-1960s to 1980s. Gardner claimed that nations with higher rates of illegitimate births, teen births, and divorce had higher child homicide rates and the proportion of births to teenage mothers especially correlated with filicides.

The rates of filicides have also been found to parallel suicide rates rather than murder rates (Lester 1974; Putkonen, Amon et al., 2009) and countries with well-developed health-care tend to have a lower risk for fatal violent crime overall (Granath et al. 2011).

The rate of infanticides in Finland (filicides of newborn babies and children under the age of 1) have declined strongly since the 1950s and Janne Kivivuori (2007) argues that the new abortion law, changed attitudes towards single parenting, and better social welfare and medical care have affected these rates. The rates of filicides are presented in figure 1.

In recent studies, the rate has been 5.9 / 100,000 children under the age of 18 during the period 1995-2005 in Hanna Putkonen et al's registry-based study in 2009. During 2003-2006, the rate for child homicides of children under the age of one was 30.4 per million infants and 4.4. per million children from 1 to 14 years of age. The rates in Sweden during the same period were 7.4 and 1.9. The rate for all homicides in Finland during the period was 2.34 per 100,000 inhabitants, and in Sweden 0.98 (Granath et al. 2011).

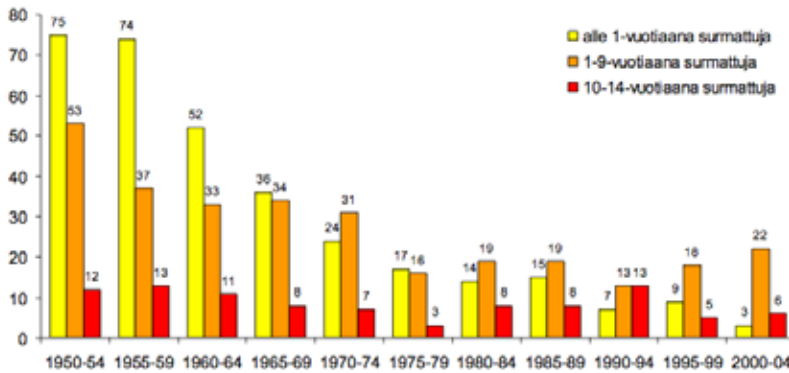


Figure 1: The rate of filicides in Finland 1950-2004 (Kivivuori 2007; by permission)
 Yellow: 0-1 year old victims, orange: 1-9 years old victims, red: 10-14 years old victims

2.3 HISTORY OF CHILD ABUSE AND FILICIDE

Filicide cases have been documented all over the world. In indigenous cultures filicide was a form of preserving the integrity and size of the population (Moseley 1986). Anthropologists have also described tribes in Africa who kill abnormal, deformed children, even born as twins. The Nuer-tribe believed that deformed children are hippo babies, born to a human by mistake and were returned to water again (Douglas 1966).

In ancient times, fathers had the right to rule over the child's life. For example, according to Roman law, the father had absolute authority over the lives of his children (*patria potens*) and he was able to kill those who were deformed or unwanted. Greek (Spartan) culture also had a custom to have infants examined by the elder men of the community. The kingdom of Theba and the Jews were exceptions, since filicide was punished by death in Theba and the Jews believed the child was a gift from God.

The Christianity spreading to the Roman Empire changed attitudes and laws (Livson 1958) and in 374 AD, murdering a child was considered the equivalent to all other homicides (Montag and Montag 1979). In the 16th and 17th centuries, in France and England, filicide was a crime punishable by death and the parent, most often the mother, was guilty until proven innocent (Wrightson 1971). In 1507, an old Germanic law also saw neglect as punishable (Livson 1958).

Finland belonged to Sweden during the years 1150-1809. On the grounds of old Swedish law, the killing of one's own child was only fined, but later it became equal to any other homicide. The law about a child murder (murder of a new born) was passed in 1655, and women were punished by death. In 1734, neglect that led to the

death of a child also became punishable but the King Kustaa III pronounced in 1779 that only deliberately done neglect was punished. These laws were in force until 1863, although Finland became a part of the Russia in 1809. The death penalty was turned to exposition to Siberia in 1826. Since 1866, the killing of a child was seen as a less punishable crime since the circumstances were often difficult for the mother as the killed child was most often born extramarital. The neglect of a helpless child or other person became criminal in the new law of 1884. After Finnish independence, the legislation adapted to the infanticide laws of Europe (The British Infanticide Act 1922) and the laws (1957) considered women to be in an exceptional state after giving birth (Livson 1958). The Finnish law sentences the killing of the child in exceptional conditions only minimum four months and maximum four years (21.4.1995/578).

Factors related to filicide in newly industrialized countries seem completely unrelated to factors related to filicide in westernized countries. Even today the dowry system and the low status of women promote prenatal screening and sex-selective abortions, neglect and the filicide of female newborns in India. Filicides are often committed by midwives who charge an additional rate for killing female offspring, or other women in the family by poisonous plants (for example, tobacco juice), suffocation or choking by feeding the baby rice in its husk. The female infants may also be fed nothing but water. The sex ratio is 927 females to 1000 males and in some parts of India even 774/1000 among children aged 5-9. Women who commit neonaticide in India do not conceal their pregnancies, nor are they single or isolated as in developed countries (Oberman 2003).

The preference for male infants also leads to sex-selective abortions and killings of female newborns in China, where the risk of death for girls is almost three times that for boys during the first 24 hours of life (Hesketh and Xing 2006; Wu et al. 2006).

In summary, the modern reasons for filicide includes the inability of the mother to care for the child, illegitimacy, greed for power or money, the manipulation of family size or composition, and massive fear or denial (Pitt and Baley 1995). Filicide is also associated with the status of the women, the attitudes and laws concerning contraceptives, abortion, and women being raped or bearing an unwanted baby (Oberman 2003).

2.3.1 History of filicide research

The earliest studies of filicide were run as early as in the beginning of the 1900s. The samples studied and the orientation of the researchers have influenced the outcome during the century. The following chapter depicts the main studies, orientations and results of international filicide research.

The first studies published were mainly case-studies of convicted, filicidal women. The results showed an extreme view of traumatized and violent parenting (Lambie 2001).

Kempe et al published the famous, medical study of a battered child syndrome in 1962. He depicted cases where the injuries of the child were inflicted by the parent

and caused even the death of the child. Kempe et al offered a psychopathological model and saw the causes to be a defect in the structure of the parental character. His findings were consistent with other research at that time, which saw the abuse as associated with the perpetrator's character traits: impulsive, immature, depressed, self-centered, hypersensitive, having pervasive anger, dependent, egocentric, narcissistic, demanding, psychosomatically ill or having a perverse fascination with the punishment of children.

Harden (1967) emphasized the importance of the perpetrators' own relationship with their parents, and saw it as a cause for an insufficient ability to establish a mature and giving relationship with their children. Psychoanalytic studies suggested transference psychosis or transference distortions that affected parental reality and caused misinterpretations of the child. The abusive behavior was seen as a result of the physical punishment and abuse, emotional and psychological abandonment in the parent's own childhood causing personality and character traits, poor control and a neurological state leading to child abuse (Gelles 1973).

Tanya (1969) as referred to by Bourget and Labelle (1992) argued that the perpetrator often had a history of extreme parental violence and severe emotional deprivation during childhood. The perpetrator had an inability to express aggression, which produced an overload of aggressive impulses and led to explosive and uncontrolled discharges or an ego weakness that permits the open expression of primitive violence, altered consciousness, and an absence of guilt and remorse. Based on the murderer's immediate psychological state, Tanya formed three different categories of homicide: dissociative, psychotic and egosyntonic. Egosyntonic homicide causes no significant internal conflict to the perpetrator and is in harmony with the murderer's self-image, whereas dissociative homicide occurs against the murderer's conscious wishes. Psychotic homicide comprises those cases in which the killing can be attributed to impairment in reality testing in the presence of delusions or hallucinations.

Since the early, psychiatric and psychoanalytic oriented studies were conducted with clinical samples, the childhood history of abuse was the clearly distinguishing feature of the studied abusive parents. Intergenerational transmission theory, which claims that abuse experienced in one's childhood or witnessed violence were more likely to be involved in intra-familial violence as adults became a widely used explanation for abuse (Kempe et al.1962; Straus et al. 1980).

Resnick (1969;1970) provided the first comprehensive review of 155 existing case reports of child murder by parents and was the first to create categories, which was an important contribution towards organizing the field. Several other researchers have used Resnick's categories and terms and have created their own categorization as well, which will be discussed in the section 2.4.

Gelles (1973) criticized the early medical oriented psychopathological model because the results were inconsistent and contradictory, and a clear profile of the psychopathology had not been defined. He argued that the data was misleading, since it was collected from cases that medical and psychiatric practitioners had in their clinics. The studied samples had not been compared to any non-abusive

parents either. There was also an overrepresentation of the lower-classes of the population and parents with limited education and financial means. The perpetrators of abuse and filicide were also found to be mostly female.

Gelles presented his sociological model of abuse, in which he saw abuse as a result of the psychopathic state of the parent, the model of aggression and values the society was offering, the social position of the parent, and the stress the parent was experiencing in life or relationships. The abuse was seen as a multi-dimensional phenomenon, all of which affected the critical situation of the child. He also claimed that as unemployment and the social class of the family were important contextual variables, and the strategies to prevent child abuse should aim at alleviating these factors.

Garbarino (1977) emphasized the imbalance of stress and support as a cause for filicide in his studies in the 1970s. Along the same line, Cicchetti and Rizley (1981) suggested grouping factors into potential factors that increase the probability of maltreatment, and compensatory factors, which decrease the risk. Garbarino (1981) argued in his studies that in families where parents had fewer personal resources to draw on, where they were isolated from support systems, and where family size exceeded resource capacity, child abuse was most common.

Daly and Wilson (1988) agreed that certain types of family structures increase children's vulnerability to victimization. In particular, children with young parents, step-parents, or many young siblings faced risks of violence and homicide. Their study examined the influence of family structure in relation to the levels of child homicide, when measured at the societal level in developed countries. They also associated risk family structures with a lack of external resources and child homicides occurring in those countries where governments spend less on social programs.

Fiala and LaFree (1988) tested hypotheses derived from four structural perspectives on child abuse: economic stress, social disorganization, culture of violence, and social isolation. They compared in this context less-developed and more-developed countries and found that none of the societal-level risk factors predicted child homicide in the less-developed countries. In the more-developed countries, rates associated with a low level of government spending on social programs, high proportions of women in the labor force, and low proportions of women in college and in professional occupations. Never-the-less, their study involved rates for a single year, and since the numbers are small, the rates may fluctuate from year to year.

Garner (1990) repeated the study with homicide rates over five year intervals between 1965-1984 and verified the Fiala and LaFree study's argument. Garner even argued that the level of social welfare spending is an important predictor of infant and child homicide. In addition, countries with a history of more deadly war experiences faced higher violence and more child homicides. The mechanisms that are assumed to link welfare spending and female labor force participation with filicides were economic stress, social isolation and lack of social support, which cause changes in the family structures.

Jay Belsky (1980) extended the sociological and family structure theory to an ecological structure model, where he also included family members' psychological resources as an important factor affecting the balance of resources for coping with stressors and the level of violence.

Earlier analyses saw filicide as a continuum of violence from mild and infrequent to severe and frequent and child homicide represents extreme case of child abuse (Gelles and Straus 1979). An important step in the filicide research was conducted by Gelles (1991), who argued that child abuse and child homicide are distinct forms of violence.

Bourget and Bradford (1987) and Bourget and Labelle (1992) saw that reported cases included mostly women who were seriously mentally ill, who usually committed 'abnormal' filicides or homicides without a motive, or the reported families had difficult backgrounds and stress. They argued (1992) that depressive disorders, such as major depression and postpartum endocrine changes or disturbances, should also be considered in the discussion of reasons for filicide, as they were often associated with extended suicide acts.

Somander and Rammer studied filicides in Sweden (1991) and found that most parents had a personality disorder and the homicide was often the final result of interpersonal conflicts, psychological stress, or unhappiness, in combination with mental disorder.

Later studies in 2000 have emphasized the mental health of the parent and multi-dimensional factors that can cause stress in the family. Filicidal mothers were studied closely but studies of fathers also emerged. Studies indicate that the perpetrators of filicide are often psychotic (Friedman and Resnick 2011; Hatters Friedman et al. 2007; Lewis and Burce 2003; Nielssen et al 2009; Valenca et al. 2011), depressed (Krisher et al. 2007; Dil et al. 2008), suicidal or are diagnosed as having a personality disorder (Somander and Rammer 1991, Putkonen, Amon et al, 2009), or low intelligence with personality disorders (Farooque and Ernst 2003).

Friedman and Resnick (2011) emphasize though that in addition to psychiatric history, risk factors may include a history of violence, victim characteristics, situational factors, social milieu, and demographics. Dynamic risk factors may include acute symptoms of mental illness, poor coping skills, the feeling of being overwhelmed, and poor parenting skills. Swinson et al (2011) also argue that drug and alcohol misuse may trigger or exacerbate psychosis and increase the probability of offence. Child abuse is also often present in the context of filicides (Kajese et al. 2011), as well as neglect (Sidebotham et al. 2011).

Studies of child homicides or attempted homicides in Finland have been conducted by Haapasalo and Petäjä (1999), which is based on Sonja Petäjä's pro gradu-research on filicidal mothers (1997), and by Hanna Putkonen et al's (2009; 2009; 2011). Janne Kivivuori and Martti Lehti from The National Research Institute of Legal Policy, Finland has published several studies of homicides in Finland (Kivivuori 2007; Granath et al. 2011). Studies of physical abuse of children have been conducted by Heikki Sariola (1990), Eija Paavilainen (1998) and Sanna-Mari Humppi and Noora Ellonen (2010). Minna Nikunen has also studied how filicide-suicides are discussed in public in Finland (2005).

2.4 CATEGORIES OF FILICIDES

2.4.1 Categories

Filicide is a heterogeneous phenomenon and as the research history points-out, a uniform profile of the perpetrator, victim or family conditions is not achievable. The sample studied and the basis of the classification affects the results; verified child abuse and underlying factors (Stanton and Simpson, 2006).

Resnick (1969;1970) proposed a classification based on the motive of the filicide and classified the filicides as *altruistic*, *acute psychosis*, *unwanted child*, *accidental or child maltreatment* (accidental was changed to maltreatment in later work with Hatters Friedman 2007) and *spousal revenge*. *Altruistic filicide* is committed with the motive of relieving the child of real or most often imaginary suffering, and usually involves a suicide attempt by the parent. *Acute psychotic filicides* involves severely mentally ill parents who kill the child in a state of mental psychosis. The psychotic or delirious mother kills her child without a comprehensive motive, for example a mother may follow command hallucinations to kill or see the child as someone else. *Accidental deaths*, later named fatal maltreatment filicides, are unintentional, due to a single or recurring battering and are a result of cumulative child abuse and neglect or even Munchausen syndrome by proxy. The parent abuses the child when trying to keep the child calm or when ensuring the child's obedience. Often there is no real bad behavior by the child, and the parent interprets, for example, bedwetting as a sign of disobedience or the child looking at the parent as a criticism or complaint. In the *unwanted child* filicide category, the victim is born unwanted, and is a burden or a hindrance to the uncertain and incapable parent, who often conceals the pregnancy and gives birth in secrecy. *Spousal revenge* filicide is rare and occurs when a mother kills her child specifically to emotionally harm that child's father (Resnick 1969; Hatters Friedman and Resnick 2007).

Scott categorized filicides by the impulse to kill (Scott 1973) and D'Orban (1979) later modified it. D'Orban segregated two categories for abusive maternal behavior: *Battering mothers*, who kill the child, in a sudden, impulsive act associated with the loss of temper and *mothers who kill unwanted children* by neglect or aggression. Unlike in Resnick's classification, neonaticides formed their own category.

Spinelli (2004) classified filicidal women, and the first category is women who commit a *neonaticide* after a concealed pregnancy. The second category involves *women who killed their children in conjunct with a violent and abusive male partner*. The third category involves *infants who died as a result of the mother's distraction or preoccupation with other tasks*. The fourth group comprises *women who discipline the child in an abusive way*. The fifth category is *infanticides*, which are committed *purposefully* due to mental illness, such as schizophrenia, postpartum depression or postpartum psychosis.

As earlier researchers categorized mainly maternal filicides, Bourget and Bradford (1990) added *paternal filicide* as a separate category. The other categories were *pathological filicide* (the perpetrator having a major psychiatric illness),

accidental filicide (unintended death caused by abuse), *retaliatory filicide* (the murder of a child to punish a spouse), and *neonaticide* (unwanted pregnancy and killing the child after the birth).

Bourget and Gagné (2002; 2005) included parental motive, intent, and psychiatric illness to form categories.

Sidebotham et al (2011) emphasized the importance of neglect in their categories. *Infanticide and covert homicide* indicates very young infants, which are killed shortly after a concealed pregnancy and birth. *Severe physical assaults* include deaths caused by severe physical violence without neglect. The most common cause of death is inflicted head injury or the shaking of the baby. *Extreme neglect/deprivation abuse* is caused by extreme neglect. *Deliberate/overt homicide* is where the intent of the parent is to kill the child and often it includes suicide or other family members. The last category includes *deaths related to but not directly caused by maltreatment*. This includes the unexpected death of the infant with clear concern regarding the parents' care. The studied sample was based on child welfare records and did not include mental examinations of the perpetrators.

2.4.2 Neonaticides

Studies on filicide report a higher incidence of maternal filicide, as neonaticides are almost always committed by mothers (Resnick 1969; 1970; Marks and Kumar 1993; Somander and Rammer 1991; Lucas et al. 2002). Mothers who commit a neonaticide are often younger, not married and the mothers are unable to reveal the pregnancy to anyone because of the stigma and shame. Extramarital paternity may also be the reason for neonaticide among married women (Resnick 1969; 1970; Friedman and Resnick 2009). Neonaticide has been seen as an alternative to an abortion and liberalization of abortion has decreased the rate, although currently the relationship between neonaticide and abortion is inconclusive (Pitt and Bale 1995).

Perpetrators often demonstrate abnormal personalities with immature, impulsive, or antisocial characteristics (d'Orban 1979). Marleau et al (2004) suggest that in most cases the mother either is in a dissociative state or has a clear intent to get rid of an unwanted child after the concealed pregnancy. Spinelli (2001; 2002; 2004; 2005) who speaks strongly for the psychiatric reasons argues that psychiatric evaluations of neonaticidal women often reveal profound denial and dissociative states that often associate with a history of early abuse and chaotic family life in the primary family. These mothers report experiences of depersonalization surrounding the birth, such as watching themselves deliver with 'not much pain.' Many experience a brief dissociative psychosis (Spinelli 2001; Spinelli 2004).

Women who have committed a neonaticide are seldom hospitalized or convicted. It has been speculated that this trend is due to the failure of the accused to fit the societal stereotype of a murderess, that they seldom commit another crime, and that they are also less psychotic than other filicidal mothers (Pitt and Bale 1995).

2.4.3 Filicide-suicides

Attempted or successful filicide-suicides are a less studied category because of the difficulty to collect information after the death of the perpetrator.

Filicide-suicides are most often committed by the genetic fathers (Shackelford et al. 2008). Wilson and colleges (2005) described two different kinds of filicidal fathers in the context of familicide: the angry husband with a grievance against his wife, who kills to put an end to the marriage, and the non-hostile, hopeless father who kills in order to save the family from perceived doom.

The perpetrators are older and more educated, and use more physical violence in the offence than perpetrators in other filicide categories. The motives are often altruistic or psychotic and the perpetrator frequently shows evidence of depression or psychosis (Hatters Friedman et al. 2005; Logan 2008). They are also diagnosed with personality disorder, are suicidal or faced with divorce or custody over the child/ren more often than perpetrators of partner homicides (Liem and Koenraath 2008). Domestic violence frequently precedes filicide-suicides (Liem and Koenraath, 2008) and according to Hatters Friedman et al's study (2005), paternal perpetrators often attempt to kill their wives but child abuse is rarely found prior to the filicide-suicide. Family related matters are found to proceed, especially with mothers (Gupta and Singh 2007). Filicide-suicides are mostly committed with a firearm (Logan et al. 2008) and there are often multiple and older victims (Shackelford et al. 2008).

2.4.4 Other filicides: Altruistic filicides and fatal child abuse

Altruistic filicide is committed by a depressed parent, usually the mother, who kills the child out of love; she believes death to be in the child's best interest, for example in a situation when the mother is suicidal and may not wish to leave her motherless child to face an intolerable world alone. Mentally ill filicides are committed by a psychotic parent, usually by a psychotic mother, who may believe that she is saving her child from a fate worse than death (Resnick 1969). Victims are usually well taken-care-of and families protective, whereas studies indicate that accidental, fatal child abuse filicide (the parent didn't mean to kill the child), perpetrators and victims, differ from other filicide categories.

Abusive perpetrators are defined as young, immature, uneducated and have violent and chaotic backgrounds, and often the victims have been separated from the parent, have developmental disorders and are neglected (Schlosser et al. 1992; Rougé-Maillardt et al. 2005).

The real incidence of child maltreatment and abuse is difficult to estimate (Palusci et al. 2010). Studies have found 21% (Sidebotham et al. 2011) to 59% (Nielssen et al. 2009) of fatal abuse cases among all the child homicide victims of the sample. Henry Kempe et al (1962), who originally coined the term battered child syndrome, assumed the battering would escalate and cause the death of the battered child in 11 per cent of all cases. Sabotta and Davis (1992) found that children reported to service agencies for suspected child abuse had a three-fold greater risk of death. On the other hand, almost 30% of child maltreatment

fatalities in England 2005-2009 were known to child protection services (Sidebotham et al. 2011).

The child is often a victim of multiple non-fatal episodes of abuse for disciplinary reasons (Weekes-Shackelford and Shackelford 2004) and often prior to the fatality the perpetrator has given warning signals to professionals and members of their personal network by alerting them to the abusive incidents (Hatters Friedman and Resnick 2007).

Recent studies indicate that child maltreatment and neglect exists with child abuse but maltreatment itself is seldom coded but has been detected even in 40% of cases and may cause the accidental, covert death of a child (Sidebotham et al. 2011).

2.5 VICTIMS

Studies describing the victim are few and mainly describe characteristics of an abused child. The fatal abuse is associated with prematurity, underweight, and less healthy babies (Gardner 1991). The victim is also often the first-born and in many cases the only child of the family (Schloesser et al 1992; Lucas et al. 1999). The assault often happens in a situation when the child is crying and the perpetrator is alone with the child (Lucas et al. 1999). After the neonatal period, filicides are often a result of the parental attempts to control child behavior (Crittenden and Craig 1990).

In altruistic filicides, the child is described as being over-loved and considered an extended part of the self or a focus of paranoid delusions. Parents may even compensate for a murderous feeling by displaying over-possessiveness or concern about their child being harmed by others or the parent may also fear harming their children, and show unrealistic concern about a child's health (Friedman, Horwits et al. 2005; Friedman, Hrouda et al. 2005).

Marleau and colleges (2004) cited ethnographic and anthropological studies from the 1970s, which found women committed more neonaticides after giving birth to a girl, correlating to the high male/female ratio in those societies. Sociological studies argued that the higher numbers of female victims correlates with an intention to reduce population growth, to serve to increase the reproductive success of individuals, to increase the male population since male work is valued more or it happens because of the obligation to provide a dowry for brides. Psychological theories have explained the high female/female ratio with the mother wanting to save the daughter from the same course of victimization that they themselves have experienced.

In relation to male victims and fathers, it has been suggested that fathers were more involved with fatal physical abuse and that fathers may see their sons as stronger and less vulnerable than they are and boys are maybe more active and defiant of paternal authority (Marleau and Laporte 1999). Fathers and stepfathers often commit filicides when the victims are older (Resnick 1969; Bourget and Bradford 1990, Bourget and Gagné 2005; Harden 1967) and boys are especially overrepresented among the older victims (Somander and Rammer 1991; Lucas et al.

2002). Many studies report equal numbers of both sexes (Kunz and Bahr 1996; Bourget and Labelle 1992; Brewster et al. 1998; Hicks and Gaughan 1995), and Gartner's (1991) meta analysis of filicides in developed nations found no differences between the rates of male and female victims.

2.6 MATERNAL FILICIDES

Anthropologist Jill Korbin (1986) studied 9 incarcerated women and found that the violence was not a one-time-assault, but the exit point of a continuum of abusive interaction. Several risk factors were also found. Professionals had seen several of these children prior to the fatality and some of them were even suffering from maltreatment. The results of the study gave an extreme view of the phenomenon, but have been often quoted. Oberman claims in his review (1996) that filicidal mothers were often socially isolated and victims of domestic violence or often had relationship problems. Disadvantaged socioeconomic backgrounds, primary responsibility for the child and persistent crying of the child were sometimes contributing factors for the filicide. Often mothers were also mentally ill and devoted to their child.

Stanton and Simpson et al (2000; 2001; 2002; 2006) carried out a study of filicidal women as well and published several studies. The study published in 2000 described key issues of motivation for the filicide, primarily driven by delusional misinterpretation that their acts were appropriate and loving. These mothers had made a strong investment in providing the child with good mothering, rather than ambivalence and neglect. The qualitative study of three convicted women claimed that these women had an intense attachment to her child and the fear of losing the child led to the fatality (Stanton et al. 2000).

Furthermore, Susan Hatters Friedman et al (Friedman, Horwitz et al. 2005; Friedman, Hrouda et a. 2005) confirmed that maternal motives for filicide were predominantly altruistic (meaning murder out of love) or acutely psychotic (occurring in the throes of psychosis, without rational motive). A lack of social and marital support, economic difficulties (Gauthier et al. 2003), family stress, young age, immaturity, and unrealistic expectations of motherhood had also been found to be causes of psychosocial stress (Rouge-Maillart et al. 2005). Neglectful or abusive mothers were also often substance abusers, whereas neonaticidal mothers were often considered to be young, unmarried women with unwanted pregnancies who receive no prenatal care (Hatters Friedman and Resnick 2007). Most of the mothers (72%) had experienced considerable developmental stressors, such as the death of their own mother or abuse (Haapasalo and Petäjä 1999).

The psychosocial profile of maternal perpetrators shows very biased results and should be considered inside categories.

2.7 PATERNAL FILICIDES

Studies carried out on paternal filicides are sparse and suggest that fathers who kill

their children are, on average, in their mid thirties, the mean age of their victims is five years and often they have multiple victims (West et al. 2009; Bourget and Gagné 2005). Bourget and Gagné (2005), classified fathers who committed filicide and found that 64 percent were mentally ill, 25 percent committed fatal child abuse, and 4 percent committed retaliatory filicide (where the aggression is primarily focused against the mother). Fathers may also have a stressful situation in life, e.g. marital disharmony, and they use excessive corporal child-control (Adinkrah 2003). They are mostly unskilled or semi-skilled, being employed in low-wage occupations (Somander and Rammer 1991; Mensah 2003; Marleau and Laportte 1999; Adinkrah 2003).

Filicidal fathers often have a history of drug and alcohol abuse and a history of domestic violence (Bourget and Gagné 2005; West et al. 2009) and they often kill in reaction to threatened separation or divorce (Liem and Koenraadt 2008) or financial problems (Marleau et al. 1999).

In West et al's (2009) meta-analysis of paternal filicide studies, 18-65 percent of fathers also assault, attempt to kill, or kill their wives. The motive for the filicide is often jealousy or misperception of the child's behavior (the father believing the child prefers the mother), or the filicide is preceded by domestic quarrels. Fathers are also often intoxicated at the time of the crime, and often they have a substance abuse problem.

Studies also indicate, that filicidal fathers have experienced stress during their childhood, often exposure to domestic violence, parental abuse, separation from their parents, and parental death.

The method of killing involves more wounding violence, battering, shooting and stabbing. After being tried for the crime, fathers are more frequently incarcerated (64%) than hospitalized.

2.8 MENTAL DISORDERS OF THE PERPETRATORS

Several studies have raised the importance of parental mental health as an important factor. Resnick (1969), for example, found as many as 75 percent of perpetrators to be suffering from psychiatric symptoms and in Bourget's and Gagné's samples (2002; 2005), 85 percent of mothers and 56 percent of fathers were reported to have been diagnosed with a major depressive disorder, schizophrenia, or other psychosis. Lewis et al (2003) found most women to be psychotic at the time of filicide. Schizophrenia was detected even in 61 percent of a Turkish forensic examination sample of filicide perpetrators (Karakus et al. 2003).

In a Finnish-Austrian population study, non-psychotic depression was significantly more common in Finland (35%) than in Austria (9%) and it has been found to be a clear risk factor for filicide (Brockington 1996) and suicide (Appleby et al. 1998), especially with the perpetrators who suffered from more severe depressive-anxious symptomatology, as well as more impulsiveness and hostility (Putkonen, Amon et al. 2009).

Postpartum mental disorders and depression are of the less studied, 'modern'

reason for filicide and significant parental disorders, since filicides of infants are over-represented and mostly committed by mothers. Most studies identify three postpartum adjustment disorders: postpartum blues, postpartum depression and postpartum psychosis (O'Hara et al. 1990; Buist 2006).

Postpartum depression is not defined as a separate entity either and the ICD-10 or the DSM-IV and the DSM-IV use the postpartum onset specifier only if onset is within four 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 to new onset cases only, but look at the prevalence of depression in an inconsistently defined period from 4 weeks to 1 year after delivery.

The incidence of postpartum depression varies in the literature from 10 to 15 percent and up to 28 percent for women living in poverty (O'Hara et al. 1990; Mechakra-Tahiri et al. 2007; Tannous et al. 2008) and 13% in Dennis's (2005) meta-analysis of earlier studies.

In the Finnish population, postpartum depression was found in 9.5 percent of women right after giving birth, in 5.9 percent two months after delivery and in 8 percent six months after delivery (Tamminen 1990). A later study by Hiltunen (2003) confirmed that 16.2 percent immediately after delivery and 13 percent four months after suffered from postpartum depression.

The etiology of postpartum depression is not defined, 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: a low socio-economic status, a low level of maternal education and a younger age of the mother (Mandl et al. 1999; Templeton et al. 2003). Depression may also be related to a lack of social support, life stress and marital conflicts (Hagen 1999; Rouge-Maillard et al. 2005).

Hippocrates already described postpartum psychosis, 2000 years ago, as a kind of madness caused by excessive blood flow to the brain. Marcé described in 1858 in his textbook postpartum disorders, including agitation, delirium, bizarre and changing delusions, and distortion of memory for acute episodes. Wild mania was followed by severe melancholia. Postpartum psychosis, as it is understood today, 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). The symptoms are unusual, delirium-like and disorganized psychotic symptoms; such as tactile, olfactory, and visual hallucinations. The mother may be compelled to commit violent acts and this biologically driven state presents itself as a toxic organic psychosis complicated by affective mood changes (Spinelli 2002).

Other psychotic disorders are also common among the perpetrators and their victims are usually older children (Scott 1973; Bourget and Bradford 1990; Bourget and Labelle 1992; Bourget and Gagné 2002; Bourget and Gagné 2005; Harden 1967; Dil et al. 2008). The offspring of psychiatric inpatients have an overall higher risk

of death by homicide (Webb et al 2007; Swinson et al. 2011; Laurensen et al. 2011).

Personality disorder, one of factors raised in recent studies, has been found to be the most common diagnosis in Swedish, Finnish and Austrian samples (Somander and Rammer 1991; Putkonen, Amon et al, 2009; Putkonen et al. 2011). In Somander's and Rammer's study in Sweden, the perpetrators were examined by a forensic psychiatrist in a forensic inpatient clinic, and this may account for the large numbers of diagnosed mental disorders. Personality disorder was detected for almost all perpetrators in the Swedish study. The fluctuation in the results may also be due to the classification system, since previously only one main diagnosis was used for psychiatric disorders, and in the presence of a major mental disorder, personality disorders were not diagnosed. Studies on different diagnostic instruments have found that personality disorders cannot be diagnosed purely on the basis of direct questions or diagnostic questionnaires but need clinical observation and interpersonal interaction over time (Eronen et al. 1999; 2000).

Personality disorder is an important construct in explaining overall criminal behavior and has especially been linked to violent criminality. Characteristics of psychopathy form a particular pattern of interpersonal, affective, and behavioral symptoms. Egocentricity and impulsivity, lack of empathy and remorse, as well as shallow and labile affects are typical personality traits (Putkonen et al. 2009).

Putkonen's, Weizmann-Henelius et al's study (2009) compared homicide and filicide offenders and suggested that intra-familial filicide perpetrators are a distinct group of homicide offenders; they do not have a previous criminal record, and are more socially competent, and are not psychopaths, antisocial or alcohol abusers/dependent. Criminal responsibility was often considered to be lower in comparison to other homicide offenders. Filicides in Finnish homicide sample were associated more with suicidal behavior.

Papapietro and Barbo (2005) claimed in their psychoanalytic studies that the perpetrators' failure to develop sufficient object relational capacities in infancy may have impaired the capacity for intra- and extra-familial interpersonal relationships, which further impedes the ongoing development of ego functions to cope with stress and anxiety, out of which arises the structural problems and patterns of a personality disorder. Because of their deficient infant-parent experiences from childhood, such parents do not have the necessary psychological parent-infant paradigms from which they can derive the needed guidance to care for and protect their child. Researchers also suggest that the lack of object constancy and a positive concept of the primary parent cause measurable neurological dysfunction of the frontal lobes, which causes a decrease in impulse control and an inability to cope with stress.

Previous studies have used court verdicts such as diminished responsibility as a proxy measure of mental disorders. Swinson et al's study (2011) argues that this does not reflect the real prevalence of mental disorders.

2.9 LEGAL AND FORENSIC PROCEDURES

2.9.1 Legal and forensic procedures in the U.S.A. and Europe

The British Infanticide Act of 1922 allows mothers to be charged with manslaughter rather than murder if they are suffering from a mental disturbance. The law was originally based on the outdated concept of lactational insanity, but the public's desire to excuse mothers caused reluctance to alter the law after lactational insanity was discredited. Infanticide laws often reduce the penalty for mothers who kill their children aged up to one year, based on the principle that a woman who commits infanticide does so because the balance of her mind is disturbed by reason of her not having fully recovered from the effect of giving birth to the child. Women convicted of infanticide in England sometimes do not have significant mental illness as technically required by the law (d'Orban 1979), and they often receive probation and are referred to mental health treatment rather than incarceration (Oberman 1996).

Finland is one of the 24 countries (Australia, Austria, Brazil, Canada, Colombia, Germany, Greece, Hong Kong, India, Italy, Japan, Korea, New Zealand, Norway, Philippines, Sweden, Switzerland, Turkey and United Kingdom), which has legislation similar to that of the British Infanticide Act (Hatters Friedman and Resnick 2007; Laporte et al. 2003; Spinelli 2005). The legal definition varies among countries (Hatters Friedman and Resnick 2007).

In the U.S.A. a psychotic mother killing her children receives a very hard sentence (Discussion around Andres Yates-case: Spinelli 2005; Hatters Friedman and Resnick 2007) and postpartum disorders and filicide have aroused discussion about the responsibility of the filicidal mother, and the overall mental state filicides are committed in (Spinelli 2004; Valenca et al. 2011), as well as the differences in the legal procedures in each nation as to how perpetrators are held accountable for their actions.

Oberman (2003) argues that since a filicide is a rare phenomenon, it is often treated as an exception, rather than recognizing the patterns that link these cases, as well as the extent to which these crimes are linked to social expectations for motherhood. Women convicted of substantially equivalent crimes, such as neonaticide, receive sentences that vary from probation to life imprisonment.

Margaret Spinelli has strongly spoken out for mothers, stating that if they are mentally ill they should be cured, not sentenced and not held responsible for their actions. She also sees legal procedures as a reflection of social and cultural norms governing motherhood. Many researches have disagreed with her ideas of mental illness (Resnick and Hatters Friedman 2003).

While men were apparently able to avoid prosecution for child murder in the earlier decades, the infanticide law benefits only female perpetrators. This may be problematic, as psychiatric symptoms can certainly also be present in men following the birth of a child (West et al. 2009). Opponents of infanticide laws point out that fathers are granted far less leniency and some feminists even

criticize the law for pathologizing childbirth (Oberman 2003). Nevertheless, Marks and Kumar (1993) reported that men committing filicide were more likely than women to be imprisoned for the same offence.

2.9.2. Finnish legal and forensic procedures

In Finland, most of the perpetrators (85%) (Pajuoja 1995) undergo a detailed forensic examination that includes physical examinations, brain CT or fMRI study, EEG, laboratory tests, structured psychological tests, and structured diagnostic interviews during a period of 4 to 8 weeks, usually in a psychiatric or forensic psychiatric hospital. The psychiatric examination includes data obtained by court order from physicians and hospitals, schools, social welfare offices, the military, prisons, and the crime registers, in addition to questionnaires completed by parents, siblings, teachers and employees. The diagnoses and the responsibility for one's actions by reason of insanity is evaluated according to the reports of the diagnostic instruments and clinical observation (Pajuoja 1995; Eronen 2000; Putkonen A. 2007). The senior psychiatrist of the Forensic Psychiatric Department gives a diagnosis according to the Finnish version of the International Classification of Diseases, ICD-9 or Diagnostic and Statistical Manual, DSM-III and DSM-III-revised version, used in Finland during the time period in question and ICD-10 used nowadays.

As a forensic psychiatrist in a forensic inpatient clinic examines the perpetrators, it may account for the larger numbers of diagnosed mental disorders. A borderline personality disorder, unlike other personality disorders, may lead to a finding of diminished responsibility in Finnish forensic psychiatric examinations, as psychological functioning, that is the ability to control one's behavior and understand the consequences, may be decreased. Each case is evaluated separately by examiners of The National Institute for Health and Welfare (Suomen Mielenterveyslaki 1990/2009).

3 Aims of the study

The aims of this study is to describe filicides committed by parents in Finland. We depict the potential factors that may increase the probability of filicide; the family structure, the characteristics of the victim, the personal resources of the parent, the imbalance of stress and support, intergenerational transmission of fragile and violent parenting, the mental health and the responsibility of the parent and sentences.

The aims for sample 1 and 2 (Study 1 and 3) was to answer the following research questions:

1. Are there specific characteristics in child homicides in Finland and are there any explanations for the high rates?
2. Are there differences in filicides committed by maternal and paternal perpetrators?

The aims for sample 3 (Study 2, 4 and 5) was to answer the following research questions:

3. How does parental mental health and factors causing stress or reducing the capability of the parent affect the parenting?
4. Are there specific symptoms of depression seen with mothers who kill the child within the first year after giving birth?
5. Are abusive and previously violent perpetrators and their victims distinct to other cases?

4 *Material and Methods*

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

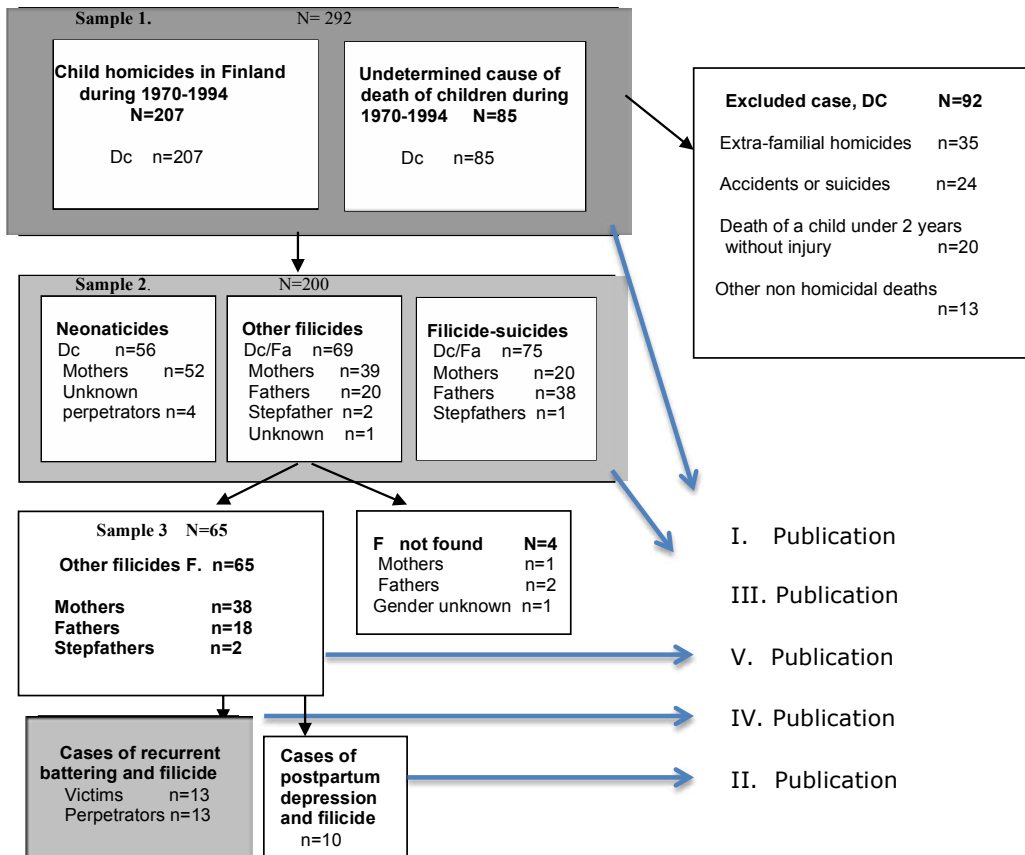
In Finland, the police investigate cases of death in which the circumstances indicate a possibility of non-natural death or if a person dies without being treated by a doctor recently and in those cases, a forensic autopsy is performed. Occasionally the certificate of death is issued before all evidence of the circumstances has been clarified in a police investigation or in court and cases certified as undetermined can include homicides. Cases which were other than parental filicides were excluded and the demographic data of the sample of 200 were studied, and a more detailed study was completed on the sample of 65 cases. The data were examined with descriptive statistics using SPSS-statistics (means, standard deviation, 95% confidence interval, and the percentage for categorical variables); however because of the small sample size, statistical tests of significance were frequently not feasible. A description of the samples and the exclusion of cases are presented in figure 2.

The sample of 65 cases of filicides was studied more closely. Data were obtained from police and court records, and medical and forensic records, which included forensic psychiatric examination when required by the court.

The diagnoses and the responsibility for one's actions by reason of insanity are evaluated by the reports of the diagnostic instruments and the clinical observation. The senior psychiatrist of the Forensic Psychiatric Department returns a diagnosis according to the Finnish version of the International Classification of Diseases, ICD-9 and Diagnostic and Statistical Manuals, DSM-III and DSM-III-revised, which were in use in Finland during the period of review. Demographic data, psychiatric diagnosis and developmental history were derived from the medical records of the perpetrator if the forensic psychiatric examination was not required.

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

For the first publication, one researcher (T.V.) coded the demographics and for the rest of the publications the other researcher (A.K.) coded the demographics in SPSS-statistics program. The psychosocial profile and demographics of the victim and the perpetrators and diagnoses, responsibility and sentences were presented, comparing maternal and paternal filicides, postpartum depression, recurrent battering cases within categories.



Dc= Death Certificate

Fa= Forensic Autopsy report

F = Court and medical records and /or Mental examination

Figure 2. Samples and publications

For qualitative analyses, each case was read and the motivation for the homicide, the immediate factors provoking it and the parent's life-stress factors preceding it were defined. Certain cases were similar when studied by these factors (meaning units) and categories were formed to distinguish the similarities and differences of the cases (Strauss and Corbin 1994). Researchers have suggested categorization as a means of gaining more precise information (discussed in the 2.4). The categories of previous studies were not feasible since it is important to distinguish the special features of the Finnish cases. The samples of other studies are also different and affect the categorization. By categorizing the cases, we have described different pathways towards filicide and the characteristics of the perpetrators and victims, although statistical significance cannot be estimated because of the small sample sizes.

The names of the categories describe the situation of the parent as could be defined by a professional by the symptoms and behavior of the parent at the time before the assault and are not in the diagnosis given in the mental examinations. The characteristics of the perpetrator, including the childhood traumatic factors and the victim's characteristics are defined. The categories do not describe the type of violence used or cause of death.

The categories are presented in the table 1.

The cases were set into categories. To ensure validity, members of the research group read ten randomly chosen cases and each of them categorized the cases according to the units and categories. The level of agreement was 87 percent. Two researchers (A.K. and T.V.) who read the case descriptions and discussed the categories tested the reliability. The researchers reset the sample into categories.

4.1 ETHICAL ISSUES

Ethics 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 of all the health and legal records, including mental state examinations, but no interviews were permitted. The death certificates are health care records but police and court records, which include mental examinations of the parent, are public and available in court archives. The material includes very intimate information about the victim, the perpetrator, the family and even the relatives. The members of the family are not aware of this research since the records were made for other purposes. The ethics of justice and ethics of health care represent opposite poles (Botes 2000), but as this is a medical research ethical issues are evaluated carefully since the examined persons were not able to decide, were their biographical documents are used for (Willems and Houtepen 2004). The unnecessary identifiable information is deleted and the biographic information is respected even though the perpetrators have committed a crime. The more detailed information of the cases is published over 20 years after the fatal assault took place.

Table 1. Items and categories

	Filicide categories	Motivation of filicide	Immediate provocative factors	Parent's life-stress factors
	Parental schizophrenic psychosis and filicide	Sudden reaction, motivation unknown or psychotic	Psychosis	Diagnosed schizophrenia, several periods of psychosis in life history
	Parental non-determined psychosis and filicide	Sudden reaction, motivation unknown	Reduced or loss of reality and anxiety	Husband or child causing stress by being too demanding for the parent's ability to cope
	Parental depression and filicide	Altruistic, mercy killing of the child. Parent sees the child as too weak or too good	Depression and distorted thoughts of being not good enough or not deserving to be a parent	Parent is stressed by imagined loss of control and unresolved matters
	Parental depression and attempted filicide-suicide	Attempted filicide-suicide Parent sees the child as too weak or good	Depression and parent's experience of failure. Inability to meet the demands	Parent is stressed by imagined loss of control and unresolved matters. Marital discord
	Single fatal battering of the child	No intention to kill the child	Parent helpless and feels the child is too demanding or an obstacle	Parent is young or in a demanding situation
	Recurrent fatal battering of the child	No intention to kill the child	Parent helpless and has a poor control of life Recurrent battering for 'disciplinary' reasons	Long-term difficulties. Often alcohol abuse, domestic violence
	Domestic violence and filicide	No intention to kill the child. Intention to harm the spouse in an outburst of jealousy	Parent's imagined or real threat of losing the mother of the victim	Long-term difficulties, alcohol or drug abuse, domestic violence

5 Summary of the Results

The results presented provide the global figures for the whole sample of 292 cases of child homicides and undetermined deaths (Sample 1). Sample 2 includes 200 cases of intra-familial filicide cases. Sample 3 presents the 65 cases that are studied more closely. The demographics of the victims and perpetrators are studied by maternal and paternal cases. Finally, the cases are broken down into categories and inside these categories maternal postpartum depression and recurrent battering of the child are discussed in more detail.

5.1 CHILD HOMICIDES AND UNDETERMINED DEATHS: SAMPLE 1

In this sample, 28 deaths certified as undetermined were caused or preceded by intra-familial violence, according to the ruling of the court of justice (33% of 85 undetermined cases). The 292 child homicides and undetermined cases during a 5-year period indicated no uniform trend. However, the total death rate decreased considerably after the first 5-year period, 1970-1974. Especially high numbers of neonaticides and filicide suicides took place during this first period. A continuous fall occurred only in the number of neonaticide cases during the 25 years. The number of neonaticides fell from 20 cases (24%) of all cases in the period, 1970-1974 to 5 (11%) in 1989-1994. The number of filicide-suicide cases (25 in the first period), fell during the periods in 1975-1989, only to rise again to 20 cases in the period 1990-1994.

In 68 percent of the cases, the perpetrator was a parent or a step-parent of the child. There were eight other intra-familial child homicides. In five cases, the perpetrator was the brother, in one case a grandmother, and in two cases an aunt (In the first original article the number of intra-familial cases is 201; one case where the perpetrator killed also a sister's child simultaneously was considered as two parental cases. In later publications the other case was excluded, as it was not committed by a parent). Three of the extra-familial perpetrators were baby-sitters, two were boyfriends and six were age mates. The age of the victims of extra-familial and undefined offenders was higher than the average age of all victims.

In the undetermined category, 24 children over 10-years-old were found dead in circumstances where an accident or a suicide was the most likely explanation. Most of these children died by hanging or by gunshot. Only one of these children was a girl. The other major group in this category consisted of 20 children under 2-years-old who were found dead at home but had no signs of injury. Twenty-eight deaths classified as undetermined were caused or preceded by intra-familial, parental violence. The relationship of the perpetrators to the victims is described in table 2.

Table 2. Relationship of the perpetrator to victim in deaths classified as homicides and undetermined deaths

Relationship	No	%
Parents	200	68
Other intra-familial	8	3
Sibling	5	1
Other relative	3	1
Extra-familial	17	6
Age mate of the child	6	2
Boyfriend	2	1
Baby-sitter	3	1
Other Extra-familial	6	2
Other homicides, perpetrator unknown	10	3
Death classified as undetermined	57	20
Total	292	100

5.2 PARENTAL FILICIDES: SAMPLE 2

The sample of 200 included all the filicides committed by parents, which is on an average 8 cases per year, and 5.7/100,000 for children under one year and 0.8/100,000 for children under 15 years.

The main categories are presented in table 3.

Table 3. The frequency of filicides in main categories

	Frequency	%
Neonaticides	56	28
Filicide-suicide	75	37,5
Other filicides	69	34,5
Total	200	100

The distribution of cases during the 25-years is presented in the figure 3.

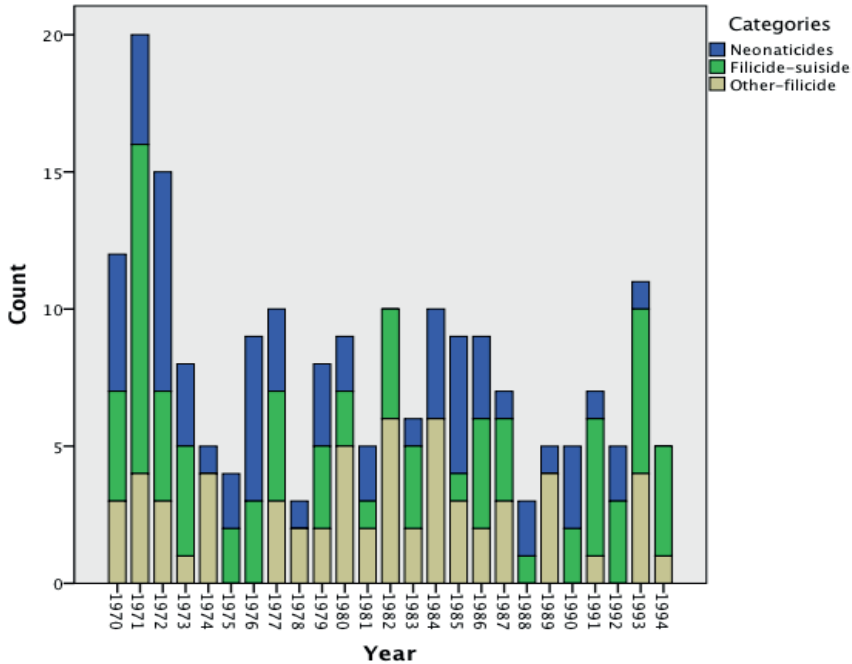


Figure 3. The main categories in the studied time period

The data collected from filicide-suicide cases 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 were investigated only on the basis of the death certificates, because the main interest of the series of investigations is in parental behavior and physical abuse. The files were not found in 4 of the remaining 69 other filicide cases. The required material was available for 65 homicides.

In sample 2, 117 were maternal, and 78 were paternal (stepfathers $n=3$). The sex of the parent was unknown in five cases (the infant was found dead and the parent was unknown in four neonaticides and the files of one other filicide was not found and the sex of the perpetrating parent was not determined in the death certificate.)

The mean age of the victims in the sample of 200 was 3.2 years (SD 3.8, 95% CI = 2.6–3.7) and the mean age of the maternal victims, 1.6 years (SD 2.7, 95% CI = 1.1–

2.1), was significantly lower than the mean age of the paternal victims, 5.6 years (SD 4.0, 95% CI = 4.7–6.5) ($t = -8.28, p = .000$). Of the victims killed during the first year of life, 90 percent were killed by the mother, whereas 54 percent of the paternal victims were older than 5 years. The relationship between the sex of the victim (50% female) and the sex of the perpetrator was not significant ($X^2 = 1.6, p = .242$). The mean age for the main categories is presented in figure 4.

The mean age of the victims of maternal and paternal filicides is presented in the figure 5.

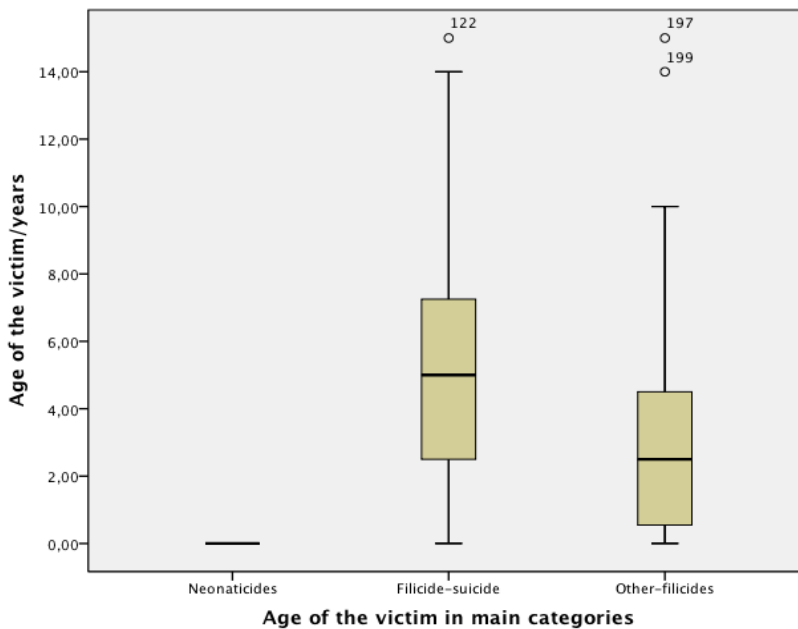


Figure 4. *The mean age of the victim for the main categories*

5.2.1 Neonaticides n=56

Biological mothers perpetrated 52 neonaticides. In 4 other cases, the perpetrator was unknown but presumably the mother. The victim was female in 57 percent of all cases. The pregnancy was concealed, and the infant was born at home and killed

immediately in almost all the cases. Sixty percent of the cases occurred in the period between 1970 and 1979, and sixty percent took place in rural areas. (The population in Finland has lived in the rural areas, but in the beginning of 1970s there was a great immigration to urban areas. During the later decades, the rates have fluctuated slightly and in 1995, 64% of the Finnish population lived in urban areas, which is a low proportion compared with other Western countries (UN Economic and Social Council 1999)). No other information was available on the death certificates. The location the filicides occurred is presented in the figure 6.

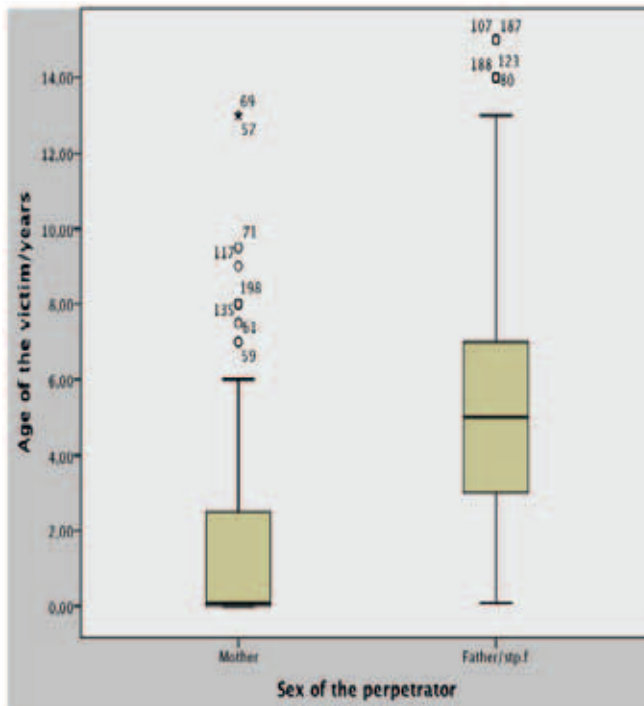


Figure 5. The mean age of the victims in maternal and paternal filicide cases.

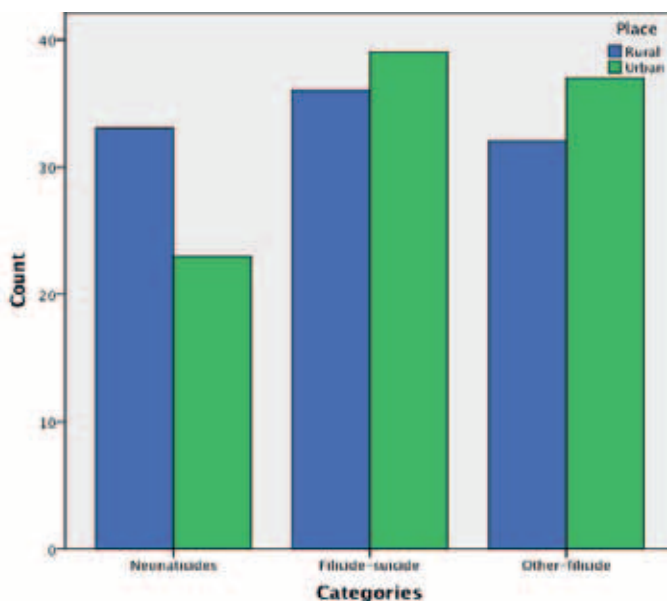


Figure 6. The location of the filicides

5.2.2 Filicide-suicides n=75

The filicide-suicide sample included 22 cases with 20 biological mothers as the perpetrators (2 mothers killed both of their two children) and 53 cases with 38 biological fathers and 1 stepfather as the perpetrators. Ten fathers killed two children and two killed three children. Furthermore, nine fathers killed all the family members. The perpetrator groups killed an equal number of male and female victims.

The mean age of the maternal victims was 4.0 years (SD 4.2, 95% CI = 2.2–5.9) and the age of the paternal victims was 6.4 years (SD 3.7, 95% CI = 5.3–7.4) ($t = -2.39$, $p = .019$). Shooting with a firearm was the most common cause of death (56%) in paternal filicide-suicide cases, whereas maternal cases had an equal number (25%) of poisoning, drowning, and stabbing. The filicide-suicide occurred in urban areas in 77 percent of the maternal and 43 percent of the paternal cases. No other data concerning the perpetrators and the victims were available.

5.2.3 Other filicides n= 65

In 92 percent of the maternal and 80 percent of the paternal assaults only one child died. Two mothers tried to kill all their children, but succeeded in killing only the youngest child, two mothers killed more than one child. One child was battered at the age of 4 months and stayed severely handicapped and died as 8 years old (coded as 4 months old).

Thirty percent of the fathers and five percent of the mothers were under the influence of alcohol at the time of the filicide. Mothers killed their children by drowning (33%), strangulation (31%), or banging the child against a hard object (21%). The most common methods of killing by fathers were banging the child against a hard object (36%) and strangulation (28%); a firearm was used by 17 percent of the paternal perpetrators.

5.2.3.1 Victims

The sex of the victim was male in 58 percent of all cases; mothers killed their sons in 55 percent and fathers in 65 percent of the cases. The mean age of the maternal victims was 2.2 years (SD 2.1, 95% CI = 1.6–2.9), and the mean age of the paternal victims was 4.2 years (SD 4.4, 95% CI = 2.3–6.1) ($t = -2.37, p = .021$).

The number of victims among first- and second-born children was equal. Fathers killed the first-born child in 74 percent of the cases. In three cases of maternal filicide and in two cases of paternal filicide, the child was from the mother's previous relationship. Delay in the development of the child was found in three cases, and one of them was suspected to be mentally retarded. The victim was born prematurely in two of the maternal and three of the paternal cases. Early separation of the infant from the perpetrating parent, caused by the infant's premature birth or by the child being taken into care, was found in 10 percent of the maternal and 30 percent of the paternal filicides. Battering caused most of these filicides.

Physical abuse preceding the filicide was found in nine (21%) maternal and four (17%) paternal cases, but no sexual abuse was detected. Neglect preceding the filicide was obvious in nine maternal and two paternal filicides but was detected only in one autopsy, however.

5.2.3.2 Perpetrators

In this sample of 65 filicides, 38 (66%) perpetrators were the biological mothers of the victims, whereas of the male perpetrators ($n = 20$; 34%), 18 were biological fathers and 2 were stepfathers. All the perpetrators were white, originating from the Finnish population, except one mother, who was Roma (a small ethnic minority in Finland).

The mean age of the mothers was 27.9 years (SD 6.7, 95% CI = 26–29.7) and the mean age of the fathers, 29.4 years (SD 7.9, 95% CI = 25.7–33.1) ($t = -1.25, p = .216$).

Fifty three percent of the mothers and 65 percent of the fathers lived in urban areas. Eighty-four percent of the mothers and 70 percent of the fathers were married or cohabiting, and the rest were single parents or divorced. Seventy-one percent of the mothers and 75 percent of the fathers were semi-skilled or unskilled workers and of low socio-economic status.

The records of occupations and education were insufficient and detailed classification of the occupations was not feasible.

5.2.3.3 Psychosocial stress, mental health distress and childhood traumas of the parent

When interviewed by a psychiatrist and a psychologist in the forensic psychiatric unit, the maternal perpetrators often reported stress caused by marital discord and the violence of the spouse, while paternal perpetrators were reported to be jealous in 50 percent of cases. Mental health distress preceding the assault was reported in 74 percent of the maternal perpetrators, but in only 10 percent of the paternal perpetrators. Furthermore, in 45 percent of the cases, the fathers abused alcohol. They were violent to other members of the family in 45 percent of the cases.

Traumatic childhood histories, determined in the mental examination, were frequent among perpetrators. Physical abuse was reported in 14 percent of maternal and 13 percent of paternal childhood histories; however, emotional abuse (traumatic childhood experiences or/and adverse family interaction) as a traumatic factor was found in 67 percent of the maternal and the paternal cases. Alcohol abuse by a parent and domestic violence, as well as mental illness of a parent, were also major factors (55% of the maternal and 74% of the paternal perpetrators). Moreover, the death of a parent experienced in childhood, especially the death of the father among male perpetrators, was frequent (40%). Anti-social behavior in adolescence and adulthood was frequent among the male perpetrators.

Information was missing in two maternal and five paternal cases.

5.2.3.4 Diagnosis, diminished responsibility by reason of insanity and legal proceedings against the parent

Psychosis or psychotic depression was diagnosed in 51 percent of the maternal cases and 20 percent of the paternal cases, while personality disorder, most often with borderline features such as immaturity, impulsiveness, and poor control of affect, were the most often diagnosed features, alone or with the co-morbidity of depression or alcoholism, in 67 percent of the paternal and 41 percent of the maternal perpetrators. The intelligence tests revealed that the perpetrators were of average intelligence. Only three mothers and one father of the examined perpetrators had an IQ less than 85.

Not being responsible for one's actions by reason of insanity was recorded for 76 percent of the maternal perpetrators, and 69 percent were not sentenced, whereas fathers and stepfathers were deemed not to be responsible for their actions by reason of insanity in 18 percent of the cases and to have diminished responsibility in 65 percent. The sentences pronounced by the court are discussed in the publication III.

5.3 PARENTAL MENTAL HEALTH AND SITUATIONAL FACTS

For further examination, the 65 cases were set in categories, based on the motive of filicide, immediate provocative factors and the parent's life-stress and mental state

factors as described in the chapter 4. The sex of the victims for different categories is presented in figure 7 and it demonstrates the dominance of female victims in the attempted suicide-filicide category and the dominance of male victims in the battering categories.

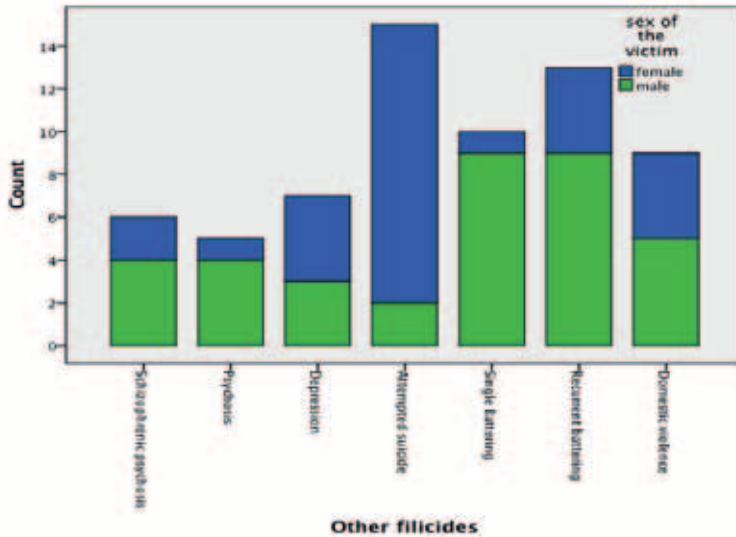


Figure 7. The sex of the victims in categories.

5.2.1 Parental schizophrenic psychosis and filicide

The perpetrator had one or more previous periods of psychosis, mental health treatment, and a diagnosis of schizophrenia.

Four of the five perpetrators had difficulties in close relationships, economic problems, or suffered from the real or imagined threat of losing the child. The parent had delusions about a war that could be prevented if the child was 'sacrificed', the child suffering from delusions, or the parent being poisoned. Two parents had previously had suicidal and filicidal ideas and attempts. The conditions were strongly affected by the parent's mental illness and decreased ability to cope with demands. One father killed also his wife.

All five perpetrators had had traumatic childhood experiences. Three female perpetrators had been separated from their mothers or from both parents or were adopted. Two perpetrators were physically abused and three had witnessed mental illness in the family. The relationship with the parent of the same sex was affected by loss of the parent, the parent's mental illness, or the parent being alcoholic or violent.

The filicides were committed by stabbing (33%), strangling (33%), drowning, or throwing the child out of the window.

All the perpetrators had been receiving ongoing mental health treatment. All of the perpetrators were diagnosed as being not responsible for their actions by reason of insanity and were referred for mental health treatment, except for one, who committed suicide during the mental examination.

The victims were healthy; in one case, the birth of the victim was difficult for the mother. One child was born extramaritally.

Case

A well-educated mother had been abandoned by her own mother when she was four years old. Two years after she married, she suffered a miscarriage, and one year later started to show signs of psychosis. She was hospitalized for two months and diagnosed as schizophrenic. One year later she gave birth to a son and, soon after, displayed symptoms of depression and anxiety. When the baby was three months old, the mother tried to commit filicide-suicide by jumping from a balcony with the child. She was taken to a psychiatric inpatient clinic, where she tried to commit suicide. When the child was 21 months old, the mother made a visit home from the hospital. She was calm and took good care of her son. While reading the newspaper, she noticed a call for new foster-care homes and had the compulsive thought that her son should be given to a foster-home or sent to God. Shortly afterwards, when the husband was making breakfast, the wife threw the child out of the bedroom window.

5.3.2 Parental non-determined psychosis and filicide

All five female perpetrators committed filicide in a mental state in which their sense of reality was reduced and the filicide was not planned, nor was there any clear motive. The mother was paranoid or manic, or even thought that 'the child is a kitten' or 'by killing the child everything begins again from scratch, and bad things will vanish'. Four mothers also experienced confused, suicidal ideas. The perpetrators had had no previous condition of psychosis or depression, apart from one who had previously been treated for mild manic and depression symptoms. The perpetrators were very anxious and had psychotic thoughts prior to the filicide, and three of them had experienced stress caused by the child being unwanted and too demanding for the mother to take care of. Two of the perpetrators had also experienced stress caused by the pair-relationship.

Two perpetrators had no major traumatic factors in their history. One perpetrator

had had a father who had abused alcohol and had been violent, while two had mentally ill mothers. One perpetrator had lost her beloved father, just before she had given birth to the victim.

None of the perpetrators was undergoing mental health treatment at the time of the filicide. One mother had called the family counseling clinic, but had had to wait for weeks for an appointment.

The filicides were committed by strangling (40%), drowning (40%), or throwing the child out of the window.

All of the perpetrators were deemed not responsible for their actions by reason of insanity and were diagnosed with psychosis, and one with borderline psychosis. Perpetrators were referred for mental health treatment.

Three children were born unwanted; two to a single mother. One child repeatedly had respiratory infections and one mother claimed that both the birth and also the child's behavior were difficult.

Case

A married mother with a 9 month-old son. She had mainly positive childhood experiences, and her relations with her parents were good. During a period of one month she became nervous and agitated and had thoughts about her husband being unfaithful. She argued that she had received a phone call in which another woman claimed that she was pregnant by the mother's husband. She suspected that her husband had only married her to have the baby and was afraid that he would take the son and marry the other woman. She became more anxious and had suicidal thoughts, but, without warning, she threw the child from the balcony.

5.3.3 Parental depression and filicide

The motivations for the filicides were altruistic: a mercy killing of the child or children. The perpetrators thought that 'The child will no longer need to suffer', 'the child cries because I'm not good enough', 'everything is my fault', and 'something needs to be done; I cannot live like this any longer'. The immediate provocation was exhaustion and all the perpetrators displayed symptoms of depression (depressive thoughts, insomnia, hopelessness, etc.) prior to the filicide. The parent's and other people's high demands had caused the preceding stress. Two perpetrators had experienced a major loss in the sudden deaths of their spouses. Three of the perpetrators still had very demanding and binding relationships in adulthood with their own parents. One of the five perpetrators reported having undergone no significant traumatic experiences in her childhood, but claimed that she had learned to consider others first and to get along in life by herself. Three viewed their childhood relationships with their parents as very intrusive, humiliating, and were denied negative emotions, or they lacked emotional support. Three had experienced multiple traumas in childhood; a mentally ill parent, a parent who abused alcohol and was violent, or physical abuse.

One mother had received treatment at an inpatient clinic two months prior to the

filicide, and also appointments with a psychologist and home help for weeks, even at night-time. Three mothers had frequent contact with the health-care nurse and these mothers expressed their reluctance to stay alone with the infant.

The filicides were committed by drowning (57%), strangling, or banging the child's head against a hard object.

All of the perpetrators were deemed to be not responsible for their actions by reason of insanity and diagnosed with major depression or psychotic depression, three of them were found to be co-morbid with a personality disorder. Perpetrators were referred for mental health treatment.

The seven victims were healthy. One mother claimed that her child cried a lot, one claimed that her child was not eating properly, and two mothers had suffered complications during pregnancy.

Case

A married woman had two children, a two year-old and a two week-old. After the birth of her first-born, the mother suffered from postnatal depression for six months. She needed medication, psychological counseling, and a lot of support to get over the depression. The mother had no friends or close relatives. She had also had an abortion a year earlier, which she still felt guilty about. After giving birth to the second child, the mother did not want to take care of the child or to return home from the hospital. At home her depression continued; she was anxious, trembling, and sleepless, and could not eat. She asked the health-care nurse to take the baby for a while, but refused to accept the home help service that was offered to her. Her thoughts started to recur and bother her. She was convinced of her inability to be a good mother and that her infant was not receiving sufficient care. She became obsessed with killing the child, and suffocated the infant in the bathtub.

5.3.4 Parental depression and attempted filicide-suicide

All the perpetrators had shown symptoms of depression prior to the filicide, and the motivation for the filicide or filicides was primarily to commit suicide and to inflict a mercy-killing on the child or children as the parent felt the child was too good to live.

Female perpetrators dominated in this sample (10 out of 12). (In the original material dealing with 200 parental filicides, we found 75 cases of successful filicide-suicide committed by paternal perpetrators in 66 per cent of all cases.)

The living conditions clearly indicated marital difficulties in nine of the 12 cases. Stress related to income was evident in two cases while two parents had to take care of the infant alone as a result of their husbands' military service or residence abroad.

One perpetrator reported no traumatic experiences in the past. Four perpetrators reported one traumatic factor in their childhood; a mentally ill parent, a parent who had abused alcohol, or a lack of emotional support. Seven perpetrators had had two

or more traumatic experiences, usually a parent who had abused alcohol and who practiced domestic violence. Three had a mentally ill parent and five had lost a parent or a sibling. Six perpetrators were depicted as having taken responsibility for others, being submissive to or dependent on their parents. One perpetrator had had previous inpatient treatment and four had had mental health counseling, and four had expressed suicidal thoughts.

The filicides were committed by drowning (47%), shooting, setting the house on fire, strangling, suffocating, stabbing, or causing a traffic accident.

The diagnosis in their mental examination was most often depression or psychotic depression. Three were co-morbid, suffering from personality disorders. One perpetrator was found to have a non-determined psychosis, one had a personality disorder with depression, while one had no specific diagnosis but displayed a tendency to become depressed in stressful situations.

All of the perpetrators were deemed not to be responsible for their actions by reason of insanity and were not sentenced to imprisonment, apart from two fathers, who were deemed to have acted with diminished responsibility and received sentences of 12 and 6 years.

There was no exceptional concern for the health or behavior of the two male and thirteen female victims. One child had temper tantrums possibly because of the depression of the perpetrator. Two mothers claimed that the infant had not been eating properly, while two mothers had had a difficult birth and two had had difficulties in breastfeeding. Two children had been born unwanted.

Case

A woman was married with two children. In her childhood her father had abused alcohol, was violent, and did not take proper care of his family. She assumed considerable responsibility for her childhood family and hated her father. The father later died of alcohol poisoning. When she married, she decided not to have children, but nevertheless subsequently bore two children. She took proper care of the children, but the marriage was unhappy because her husband was too dependent on his parents. The wife and husband argued over their use of money and about the husband spending too much time helping his parents. When the husband cancelled a family vacation that they had planned, the wife took the children and moved back to her parents' house. Two weeks later she returned and found the husband staying with his own parents. They couldn't resolve the disagreement, and the depressed mother tried to poison her children and herself with carbon monoxide, but did not succeed. Three days later she gave both children an overdose of medicine and suffocated the younger of them, her 2½ year-old daughter, in the bathtub. While packing alcohol, medicine and a knife in her bag in order to commit suicide, she noticed that the older child was still breathing. She abandoned her suicide attempt and called the police. She was diagnosed as depressed and agitated, and she herself demanded a heavy penalty for her actions.

5.3.4.1 Postpartum depression and filicide in parental depression categories

The categories of parental depression and parental depression and attempted filicide-suicide included ten mothers who had an onset of depression during the first year after delivery. Symptoms of depression prior to the filicide were described in the forensic psychiatric examination data by perpetrators, their close relatives and the authorities. The mothers' symptoms were: 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 thoughts or even psychotic thoughts. The cases of post-partum psychosis were not included unlike in many studies of post-partum disorders. Most mothers had had house calls from the public health nurse or psychologist. The mothers' condition deteriorated rapidly and the filicide was committed when the mother was left alone with the baby against her will.

The victims were mostly wanted, well-loved children and healthy. All mothers were married, two of them 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 his military service, residence abroad or being away on business. Moreover, three mothers had very close relationships with their own parents who required a great deal of care.

Trauma and loss in adult life were mentioned as a cause of stress in four cases, including miscarriage, abortion, sudden death of the first husband, and suicide of one's own father.

The majority of the perpetrators had experienced very demanding parenting and a 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 and three an alcoholic and violent father in their childhood family. Three perpetrators had a mentally ill parent. Five perpetrators had experienced separation from their parents, especially from their mothers. The perpetrators had often felt that their own mothers were emotionally distant, demanding or rejecting.

The motive of the filicide was altruistic in all cases and six mothers had tried to commit a suicide. All the mothers had been diagnosed with depression: postpartum depression in one case, major depression in two cases, chronic depression in one case and psychotic depression in four cases. Information about the diagnosis is missing in one case. Other diagnoses were immature and one was found to have a dependent personality in one case.

The results are discussed more detailed in the original publication II.

5.3.5 Single fatal battering of the child

The perpetrator in five cases was the mother, in four of them the father, and in one case a stepfather. Three of the perpetrators were single mothers and three of them were under 18 years of age.

The motive was unknown, or an outburst of anger, and two of the perpetrators were even jealous of the child's attention from or relationship with the other parent.

The perpetrators were often incapable of solving their conflicted situations in their pair relationship or were helpless and unable to cope with a crying infant. Three perpetrators were under the influence of alcohol, and three had exceptional family conditions that included alcohol abuse and domestic violence.

Four perpetrators were abused emotionally in their childhood, while two had two or more traumatic experiences involving parental alcohol abuse and violence or parental mental illness and suicide. Three perpetrators had lost a parent in their teens.

The filicides were caused by throwing the child (30%), strangling, pushing the child down against a mattress, hitting the child, throwing a stone at the child, giving the child narcotics, and the child accidentally drowning in the bathtub.

Three assaults were considered to have been committed by a very young person who did not fully comprehend the fatal situation, while in the case of two of them the death was considered to be partly accidental, i.e., involuntary manslaughter.

Only one perpetrator had undergone mental health treatment previously. The six perpetrators who were examined were diagnosed with a personality disorder or immature personality in 4 cases, while two of them were psychotic. Three of the perpetrators were found not responsible by reason of insanity, and three were considered to be with diminished responsibility. Three perpetrators were not sentenced, while the others received sentences of 1 to 10 years.

Nine of the ten victims were male. Two victims were born prematurely, three within a previous relationship of one of the parents, and one extramaritally. Two of the children were ill and crying a lot at the time of the assault. One child was battered at the age of 4 months and was left severely mentally retarded and died later in an institution.

Case

A seventeen-year-old woman spent her childhood with no emotional support and passed many days alone at home since the age of 4 years. Her parents had quarreled a lot. When she was 15 years old, she was raped by eight men, and became pregnant. After an abortion she suffered from depression and started drinking heavily. She became pregnant again and her boyfriend also drank a lot and was violent. When the child was born, the young woman felt helpless and depressed. The baby cried a lot and the mother took him to see a doctor on numerous occasions. The mother even considered giving the baby up for adoption. Once again the baby cried and the mother was unable to pacify him. As a result, she pressed the 6 month-old baby's face into the mattress in order to stop the crying. She had no intention of killing the child.

The mother had an immature personality, suffering from reactive depression and an anxiety disorder. She was sentenced to three-and-a-half years in prison as a young person who was unable to fully comprehend her actions and with diminished responsibility for her actions.

5.3.6 Recurrent fatal battering of the child

Nine of the perpetrating parents were mothers, while three were biological fathers and one a stepfather. In two cases both parents had repeatedly battered the child.

The parents abused the child when they attempted to keep the infant calm (the child under 1 year of age) or to ensure the child's obedience (those from 2½-4years). Frequently, there was no excessive crying or bad behavior on the part of the child, and the parent had interpreted, for example, bedwetting as a sign of disobedience, or, in another case, the child's looking at the parent as if it were expressing criticism or a complaint. Factors such as stress caused by the demands placed on the parent when taking care of the child, lack of social support, and an unstable mental state were evident in most of the cases.

The most common injuries received from previous battering were skin and soft tissue traumas caused by the parent hitting the child with a fist, a stick, or a belt, and head traumas caused by the parent throwing the child against a doorframe or the wall or onto the floor. The child often had numerous bruises and cuts all over its body as a result of frequent battering. In nine cases the injuries caused by the previous battering were very serious, resulting in head traumas and fractures. However, the less critical injuring was longer lasting, the result of cruel and recurrent hitting of the child for 'disciplinary' reasons. The fatal injury was in most cases a head trauma.

The perpetrators were diagnosed with personality disorder in 90% of all cases and an IQ of below 85 was found in two cases.

Three perpetrators were found responsible for their actions and five with diminished responsibility, and their sentences were mostly several years' imprisonment, and in one case even a life sentence.

In nine cases, the victims were male and in four cases female. The victims were either younger than 1 year (46 per cent) or between 2½ and 4 years of age, also in 46 per cent of the cases. Three children had been born prematurely, two suffered from a physical illness, and one was suspected to be developmentally retarded. Two of the victims had been taken into care but were returned to the biological parent/s upon the parents' request only a few months before the fatal assault.

Case

A woman had three children from a previous relationship and the children were in care because of the alcohol abuse of the mother. The mother was cohabiting with an alcoholic and violent man. She became pregnant and the unwanted child was born in the 24th week of pregnancy, weighing less than one kilo and suffering from a congenital heart disease. The child was hospitalized for 5 months and the mother seldom visited the hospital. The hospital recognized that the family needed support. The child cried a lot and the angry and helpless mother beat the child's fingers, pushed him onto the floor, threw him in the air, and finally strangled him. The child had cuts in his mouth caused by having been fed by force, and he suffered from malnutrition. The mother was intoxicated (1.7 promille) when she

caused the death of the child by banging his head against a wall. An autopsy revealed that the victim had suffered a skull fracture, intra-cranial hemorrhage, bruises, cuts, and malnutrition.

The mother had had very difficult childhood experiences, including being the victim herself of physical abuse and alcohol abuse, domestic violence, marital infidelity, and a suicide attempt on the part of her parent. The mother was diagnosed as suffering from a borderline personality disorder and alcohol dependency. It was found that the perpetrator had diminished responsibility for her actions and she was sentenced to 5½ years imprisonment.

5.3.7 Domestic violence and filicide

The motivation for filicide in seven of these cases was considered to be unclear or unplanned, and the child was merely the surrogate target of a violent act.

The immediate provocation was the perpetrator's perception of either an imagined or a real threat of losing his wife or ex-wife. In all cases, the perpetrator was the father of the victim(s). Five perpetrators had also attempted to kill the mother and two succeeded in doing so.

The preceding stress involved long-term difficulties, and in most cases the perpetrator had abused alcohol and had been violent towards his spouse. The living conditions were often relatively poor as a result of the perpetrator's unemployment, violence, and abuse of alcohol or narcotics. Three of the perpetrators had been convicted previously of violent acts, and one had killed his previous wife. Four had been hospitalized in childhood or in adulthood as a result of behavioral and mental symptoms. Five had been anti-social in or since their youth.

The childhood histories of these perpetrators were extremely traumatic, with multiple traumatic factors in five of the seven cases. One of the perpetrators with one traumatic factor had witnessed his father's death in his childhood, and another had been placed in an orphanage as a baby and had never known his mother. Of the other five perpetrators, four had had parents who had abused alcohol, all had suffered from family violence, two had had a mentally ill parent, while three had experienced the death of a parent and two the death of a sibling. Four of the seven perpetrators had lost his father as a child or teenager. Three of those fathers had previously been violent and one was also mentally ill and very suicidal. The other three perpetrators' fathers had been either alcoholic or schizophrenic, alcoholic and aggressive, or categorized as unknown. Three of the perpetrators' mothers were also violent.

The filicides were committed by strangling (50%), stabbing, shooting, or drowning. One perpetrator committed suicide during the mental examination, but had been previously hospitalized and had been known to suffer from psychosis and alcohol dependency. Others had revealed a personality disorder and had been diagnosed with alcohol dependency. One perpetrator had an IQ of 63, while amongst the others one had an IQ as high as 125. Five of the perpetrators were detected with diminished responsibility, while one was considered to be fully responsible. Their sentences ranged from 10 years and 4 months to life.

The nine victims, five female and four male, were healthy. Two of the nine victims had had learning disabilities and investigations had been initiated at the family-counseling clinic.

Case

A young man had had a traumatic childhood history involving the deaths of his two brothers, family violence, corporal punishment, and a very close relationship with his mother, who had no power in the family. He also had several male relatives who abused alcohol and had criminal records. The man had a daughter, and when the child was 9 months old the husband became very jealous and battered the mother of the child. The wife obtained a divorce and the husband was imprisoned as a result of the battering. He attempted suicide and was finally sent to a psychiatric inpatient clinic. When the child was three years old, the father was still very jealous and he believed that his ex-wife had a man living with her. He rushed to her apartment and grabbed a knife: he failed to kill the mother, but killed the child.

The diagnosis reached in his subsequent mental examination was that he suffered from a borderline personality disorder and also had diminished responsibility for his actions. His eventual prison sentence was 10 years 5 months.

6 Discussion

Filicide is a rare event and studies demonstrate the unpredictability and heterogeneity of the context of filicides (Sanders et al. 1999).

International comparisons of the causes of death are often misleading and studies explaining such differences are rare (Jouglu et al. 1998). Autopsy rates, coding and registration practices vary and comparability is mainly based solely on published statistics of the causes of death, which are biased. Even close neighbors like Sweden and Finland have different forensic practices. Undetermined deaths are not included in samples in most studies. In our study, 33 percent of the undetermined deaths were found to be non-accidental, homicides.

6.1 PARENTAL FILICIDES; RESEARCH QUESTION 1

In the sample of 200 cases of neonaticides, filicide-suicides, and other filicides, mothers dominated as the perpetrators. When the sample was divided into subgroups, however, the fathers dominated in the filicide-suicide group and the mothers in the neonaticide and the other filicide groups. Neonaticides and filicide-suicides were especially frequent during the first 5-years period but cases of neonaticide have decreased. The introduction of the more permissive abortion law of 1970 and more open sex education and birth control as well as the improved socioeconomic status of women certified in many scientific fields, have presumably influenced this decrease (Kivivuori 2007). The periods of high numbers of filicide-suicides 1970-1974 and 1990-1994, coincide with marked social changes in Finland, restructuring and rural depopulation and economic depression. Gardner argued that filicides correlate to low levels of welfare spending and changes in family structure. Finland's social expenditure as a share of GDP by function had developed steadily until 1993 and after that the rate has diminished and stayed quite steady in the beginning of this century. The rate is lower than the mean in the EU27 countries and is undisputedly lower than in other Scandinavian countries (Stakes, tilastotiedotteet 2008). The rate of new marriages has declined significantly and the rate of divorces has escalated during the studied time period (Suomen virallinen tilasto, 2008).

Neonaticides were included only in the second sample, as were filicide-suicides. In filicide-suicide cases, information on the family's circumstances, the victims, and the perpetrators was not available, as often all the family members were killed (The healthcare and social work records are mainly kept in archives for only ten years). The lack of information concerning those cases reduces the comparability of the sample with others. In order to emphasize the importance of this largest group, we formed the category of attempted filicide-suicides. Although attempted cases are often committed by mothers and the subsequent cases by fathers, we can form a slight idea of the reasons lying under the sad event.

The mean age of the victims of maternal filicides in the sample of 200 was significantly lower than that of paternal filicides, which stems from the fact that almost all neonaticides are committed by mothers and on the other hand filicide-suicides are dominated by paternal perpetrators and the victims are often all of the children of the family and many of them are in their teens.

6.2 MATERNAL AND PATERNAL FILICIDES; RESEARCH QUESTION 2

The results of the sample of other filicides verified differences in maternal and paternal filicides. Almost all maternal perpetrators in this study reported high levels of stress and a lack of support and resources at the time of the filicide. In general, maternal filicides could be divided into two major categories: altruistic motives with mental disorder and maltreatment. Most maternal perpetrators had altruistic motives and had depression or psychotic illness, supporting earlier findings in other studies of maternal filicides (Somander and Rammer 1991; Hatters Friedman et al. 2005). When compared to other perpetrators, the maternal perpetrators of the altruistic type were older, had a higher level of education, and were mostly employed. They were also in contact with the health-care services and even had ongoing treatment. The rest of the maternal perpetrators in this study were abusive and had features that are frequently reported in abusive parents: being the primary caregiver, caring for a child that is not biologically related to the present partner, having a low income and education level, being in an ongoing abusive relationship, having conflict with family members, and having limited social support (Bourget et al. 2007). These perpetrators were often diagnosed with a personality disorder. In contrast to other maternal filicides, the victims were abused, neglected or had experienced separation from the mother.

Fathers were violent to family members, abused alcohol, and had personality disorders, as verified in other studies (Marleau and Laporte 1999; Cavanagh et al. 2007). The presence of reported significant life stressors included impending marital breakup, jealousy, fear of separation, long-term substance abuse, low education level, and a low socio-economic status.

Emotional abuse in childhood emerged to be a frequent childhood trauma, as well as physical abuse or witnessed domestic violence in the childhood. Corporal punishment was prohibited in Finland in 1984 but attitudes changed slowly. Perpetrators did not necessarily consider their own experiences of corporal punishment as battering and pictured their upbringing as very stern. It is also probable that traumas in the early childhood are not remembered. Few perpetrators who repeatedly physically abused their children reported no childhood traumas except for emotional abuse. No sexual traumas were mentioned, but other studies have connected sexual victimization with perpetrators' childhood experiences, making such a finding statistically probable. Salokangas et al's study (2005) of traumatic childhood experiences in mental health patients in Finland revealed that 38 percent of the control groups members (primary health care patients), reported

neglect by their family, 16 percent reported sexual abuse, and 10 percent described physical abuse. The results were obtained by questionnaire and are not directly comparable; nevertheless, they suggest that in childhood, the perpetrators in this sample were more exposed to emotional abuse, abuse and neglect than are non-filicidal persons.

The relationship with the parent of the same sex in the perpetrator's childhood seemed to be an important factor. The relationships between maternal perpetrators and their mothers were reported to be cold and rejecting. The paternal perpetrators often had a distant, violent, alcoholic father who died during the perpetrator's childhood or adolescent.

The perpetrators who committed altruistic filicides often had very tied relationships with their parents and traumatic experiences. The parent saw the child as having similar symptoms and threats as she or he was experiencing and 'overprotected' the child. On the other hand, the abusive parents did not seem to have the ability to see the child as vulnerable and needing protection but rather saw the child as equal and even threatening.

6.3 PARENTAL MENTAL HEALTH; RESEARCH QUESTION 3 AND 4

The perpetrators in this study were examined by a forensic psychiatrist in a forensic inpatient clinic, which may account for the large number of diagnosed mental disorders. Personality disorder was diagnosed in almost all the perpetrators in the Swedish study and in 41 percent of the maternal and 67 percent of the paternal perpetrators in this sample. Hanna Putkonen et al (2009 and 2011) reported similar rates of personality disorders (39%/69%) with 31 examined perpetrators during the period 1995-2005. The fluctuation in rates of psychiatric and personality disorders in international studies may be due to the classification system, since, in the past, only one main diagnosis was applied to psychiatric disorders, and in the presence of major mental disorder, personality disorders were not diagnosed. In studies concerning different diagnostic instruments, researchers have found that diagnosis of personality disorders cannot be based purely on direct questions or diagnostic questionnaires but must also include clinical observation and interpersonal interaction over time.

Personality disordered perpetrators often lack empathy and have poor control of their affect and behavior and are less capable of handling everyday life difficulties. They may be vulnerable to stress and rejection because of character pathology and the cumulative emotional and physical stress of parenting plays a significant role in the sudden and catastrophic failure of an already brittle and deficient personality. Perpetrators may have experienced childhood traumas, losses or emotional privations and are therefore vulnerable to psychotic symptoms and unresolved anger that turns into rage.

Mentally ill perpetrators had been in contact with health-care services or had appointments with a psychologist or were even undergoing longstanding treatment. Yet, the dangerous condition of the parent was not detected in time, even though they often voiced their concerns over their children or the delusion that the child was

unsafe, too weak to live, or in danger of being taken away. Those parents had suicidal intentions or even filicidal intentions.

Abusive perpetrators, however, were not receiving treatment or were not in contact with professionals and the signs of the battering or domestic violence were hidden. The abusive perpetrators were not able to read the child's mind and intentions and interpreted the child's behavior as aggressive and disobedient.

The Arizona Child Fatality study claims that although 61 percent of child abuse deaths were considered to be preventable, much of the responsibility for prevention rests with community members (relatives and neighbors) who are aware of the abuse, but often fail to report the family to Child Protection Services (Rimsza et al. 2002).

Categorizing the filicides evokes the potential factors, which may cause stress or make the parenting more fragile. In parental schizophrenic psychosis and other psychosis categories, filicide is more probable but still unpredictable, with no obvious psychotic motives and provoking factors. However, many parents showed distress and worry about the child and their ability to cope with the parental tasks before the fatal incidence.

Perpetrators in parental depression and attempted filicide-suicide categories were affected by the traumatic childhood experiences and the high demands placed on them. 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 had considerable stress in their lives and childhood. Almost 50% of the mothers studied had been abandoned in childhood by their own mothers, likewise the mothers in our study.

The mentally ill and depressed mothers often had symptoms which worsened very rapidly and the severity of the symptoms was not detected. The mothers told their husbands or the authorities of a reluctance to stay with the baby. When left alone with the baby, anxiety and hallucinations about the baby increased within days. The mothers claimed seeing 'the signs of mental illness in their baby's eyes', 'the baby is too good to live in this bad world' or 'the baby is being spoiled because of bad mothering'. In the sample of post partum depression, the mothers had stressors and often a rapid onset of depression without specific preceding causes. These mothers had obvious and clearly expressed symptoms: depressive mood, insomnia, anxiety, preoccupation with worries about the baby's well-being, preoccupation about her own ability to be a mother and suicidal thoughts. Stanton and Simpson (2000) argue that the treatment of depression may empower the mother and activation without decreasing the experienced stress which may lead to suicidal and filicidal behavior. The conditions must be evaluated and concrete help provided by taking care of the baby, also during the night if necessary.

Forensic practices and legislation affect the procedure and, for example, studies conducted outside the United States document mental illnesses more frequently. Most mothers were deemed not responsible for their actions by reason of insanity,

no sentence was handed down, and in most cases they were sent to psychiatric hospitals. These perpetrators were psychotic, depressed, or too young to understand the consequences of their actions.

Mental examination was not required of five male perpetrators who caused their children's 'accidental' violent deaths in a single battering. These offenses may support the stereotypic picture that fathers are more violent and that no forensic psychiatric examination is necessary to eliminate the possibility of mental disorder. On the other hand, a recent Finnish study of the mental disorders of male parricidal offenders showed that matricidal offenders were more commonly found to be psychotic and not guilty by reason of insanity than were patricidal offenders. Personality disorders frequently arose among patricidal offenders (Liettu et al.2009).

6.4 FATAL CHILD ABUSE; RESEARCH QUESTION 5

The child abuse categories were distinct when compared to mentally ill and depressed categories. The abusive perpetrators, who repeatedly battered the child, had an even lower social status, low level of education and no supporting relationships with family and relatives. The victims were younger and more often, especially in recurrent battering cases, born unwanted or prematurely or were in custodial care. The parents who were separated from the child did not seem to have the biological need to protect the child nor did they seem to be attached to the child. The battering took place when the parent was helpless and could not calm the infant down or of unnecessary 'disciplinary' reasons. The parent's distorted interpretation of the child's behavior ('The child is blaming me' 'The child is taking the husband from me') provided an excuse for the parent's outburst of anger and violence and was even a recurrent ritual. The perpetrating parents were diagnosed with a personality disorder, 1/3 of them abused alcohol.

The domestic violence category articulates the importance of interventional help for families with a violent parent. Although the rates for women, who experience domestic violence has decreased since earlier years (Savolainen 2004), on average 45 women are killed by family violence each year in Finland (Honkatukia 2009). Witnessing domestic violence is highly traumatizing and children may also be the targets of the violence.

Apart from the emotional abuse, parental alcohol abuse and domestic violence were common childhood traumatic experiences of the perpetrators in this study. Domestic violence and a parent, who is very vulnerable, when feeling rejected may also be an important underlying factor in filicide-suicides and familicides.

6.5 COMPARISON OF RESULTS TO OTHER STUDIES

This study of the period 1970-1994 (n=200) and Hanna Putkonen's et al's study (2009, 2011) for 1995-2005 (n=66) show similar trends, especially with the characteristics of maternal and paternal perpetrators, rates of alcohol abuse among the perpetrators

and rates of diagnosed personality disorders. The high rate of personality disorders is also associated with the Swedish study of 42 examined perpetrators (Somander and Rammer 1991). The rates presumably derive from the forensic psychiatric methods used in Scandinavian countries. Other comprehensive Scandinavian studies are not available.

The proportion of filicide-suicides was 38% successful filicide-suicides (per death children) and 45% (40% of perpetrators) of attempted and successful filicide-suicides combined. Suicide followed filicide either as an attempt or a fulfilled act was found in 54% of cases in Putkonen, Amon et al's study (2009). The rate was 62% of all cases in the Swedish study for the period 1971-1980 and was especially high during the first 5-years period. The rate has also fluctuated in Finland and may be connected to social and economic changes in Finland. The cases have been sparse during the last century but reached high numbers in recent times. The rate of neonaticides has decreased during the decades in Finland, as it was even 28% in our sample and only 8% in later sample studied. This may partially explain the high child homicide rates in Finland which have been especially high among children under one year.

The perpetrators in Putkonen et al's study had contact with psychiatric health-care prior to the filicide more often than perpetrators in earlier decades in our sample. The overall declined figures may be related to the impact of increased health-care and psychiatric resources.

When compared to other international studies, the rate of maternal filicides has been high in our study but also in later Finnish and Austrian samples (n=88, 1995-2005) (Putkonen, Amon et.al 2009). The cases of fatal child abuse and neglect are fairly sparse, likewise in other Scandinavian studies. Fatal child battering (caused by single or recurrent battering with no intention to kill) was detected in 12% of our sample of 200, 8% in the later Finnish sample, 5% in Austrian and Swedish samples but 36% in a recent British study (for the period 2005-2009) by Sidebotham et al (2011). They also found child neglect in as much as 40% of all cases, which is partly due to the sample studied and the time period studied, when neglect was better acknowledged.

Mental disorders, especially depression, was frequent, over 30% in both Finnish samples but only 9% in the Austrian sample. Substance abuse/dependence and domestic violence were also highly associated with Finnish filicides. Depression, suicidal tendencies, substance abuse and domestic violence are significant issues associated with filicides in Finland and should be carefully considered in clinical settings when the child's safety is evaluated.

The sample and used record affect the results. Sidebotham et al (2011) based their study on records of the multi-agency Safeguarding Children Boards and the mental examinations of the perpetrators were not available. The categories emphasize the violence and the wellbeing of the child, unlike our study where the mental health of the parent and deficient parenting is more dominant. When we compare Sidebotham's (2011) and our categories, the infanticide and covert homicide-category includes neonaticides, the severe physical assaults-category

single and recurrent battering categories, and the deliberate/overt homicide-category includes our categories of parental mental illness and filicide-suicides. The extreme neglect/deprivational abuse-category does not have a category in our sample and deaths related to but not directly caused by maltreatment would include our domestic violence and filicide category, as well as deaths coded as accidental, unintentional causes. Our sample had one distinct case of neglect, which was verified by autopsy but the death was caused by recurrent battering.

When compared to Bourget and Bradford (1990), our classification distinguishes non-determined psychosis, schizophrenic psychosis and mood-disorders and excludes neonaticides and completed filicide-suicides. We argue that classifying mood-disorders, in particular, from other psychiatric disorders is essential for the Finnish sample. If we keep in mind all the successful cases of filicide-suicides, depression and suicidal tendencies seems to be very important factors, which may explain the high rates of filicide in Finland. Our classification differentiates also attempted suicides, as well as domestic violence, which are important issues in Finnish culture.

6.6 LIMITS OF THE STUDY

The research is a qualitative study and although we have followed the good research criterions, we are faced with unresolved questions (Cohen and Crabtree 2008). Mental examinations and court records differ in quality and more structured data is available only in autopsy reports. Despite the many sources of information used in the forensic psychiatric examinations, we only have the information that people were willing and able to provide. The records include data of reported experiences in the victims' and perpetrators' lives, which were not collected for research purposes. The described experiences are interpretation of the perpetrator and an other interpretation is done by the authorities. The third interpretation is conducted by the researcher, who is easily biased because of the emotional contents of the records. The validity and reliability of the categories were tested but categorization may be biased by the overlapping cases. The data about stress, abuse, emotional abuse and traumatic experiences were challenging since they are subjective experiences. The coding was done by one researcher who is professional in child psychiatry and psychotherapy, which may lead to excessed numbers coded. It leads to the fact that results are allusive. Furthermore, forensic and forensic psychiatric diagnostic practices have developed during the 25-year study period, and, for example, sexual and physical abuse were either not reported or detected, although statistically they would be probable.

Data were also limited on neonaticides and filicide-suicides and direct comparison with other studies was hindered. A limited sample with no possibility for comparing successful intervention for prevention can hint at the features, which health-care and social workers must take into account. The 25-year period saw important social changes but also an increase in economic well-being and changes in social and health-care practices.

7 Conclusions and implications for clinical practice and future research

7.1 IMPLICATIONS FOR FUTURE RESEARCH

In filicide research history, we lack systematic epidemiologic studies and filicides are perhaps the least documented deaths. Death certificates give little information about the fatality and they do not document the nature, cause, and prevalence of these deaths or provide information on the relationship of the perpetrator to the child. Child homicides are often recorded as due to other causes and deaths of undetermined nature should be included in research samples so as to achieve more precise figures on the homicides.

Further research should entail systematically, for research purposes, collected data collected via interviews with the perpetrators that would give more precise information about the circumstances of the child and the parenting. Mental examinations are a part of the legal processes and may affect the way the parent values her/his child and family. The break-up of families and increased number of divorces, and the substance abuse of the parents should also be important issues for future research.

7.2 CLINICAL IMPLICATIONS

1 Mothers with postpartum depression in this study had clear symptoms, especially insomnia, preoccupation with worries, and many of them revealed their depressive and even suicidal thoughts and clearly stated their reluctance to be left alone with the baby. More attention should be paid to the mothers' own experiences of motherhood and stress. Intensive and rapid support is needed, especially in the care of the baby.

2 Clinicians should pay attention to depressed, anxious and even psychotic parents and directly elicit suicidal or even filicidal thoughts. Support and treatment should be given without delay because the crisis in the family may exacerbate within days.

3 The parents with personality disorders and substance abuse need early intervention, even during the pregnancy, in order to be able to attach to the child and learn better skills in reading the child's mind and intentions.

4 The safety of the child must also be evaluated carefully and custodial care of the child should be considered also in case of continuous domestic violence. The intergenerational transmission of violence by experienced mental abuse, physical abuse and witnessed domestic violence were important vectors of parental violent behavior verified in this study.

5 Inexplicable injuries or a change in the child's behavior, for example, depression, withdrawal, bedwetting, irritability of the child, or if the child is often absent from daycare without any detected illness, should be carefully examined.

6 Education and sufficient resources of health-care personal is important in the prevention and reduction of domestic violence.

7 Parents may commit a filicide, and especially filicide-suicide, when faced with divorce and/or custody over the child(ren). Another matter of concern is drug misuse, which has been found to be related to the increase in homicide rates, and can be a risk factor in filicides and the 'accidental' violent deaths of infants.

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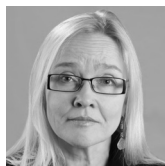
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ANNE KAUPPI
*Filicide, Intra-familial
child homicides in
Finland 1970-1994*



The 200 examined victims were mostly healthy and well-taken-care-of, except in cases caused by battering. Mental health distress was reported by the maternal perpetrators while the paternal perpetrators abused alcohol and/or were violent towards other family members in 45% of all cases. Examined perpetrators reported traumatic childhood experiences, especially emotional abuse, parental alcohol abuse and domestic violence.



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