

Filicide: A Literature Review



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The National Confidential Inquiry into Suicide and Homicide by People with Mental Illness
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EXECUTIVE SUMMARY

In 2005, Mrs. Madeleine O'Neill killed her 9 year old daughter Lauren, and then took her own life. Mrs. O'Neill had been diagnosed with depression and had been under the care of mental health services in Northern Ireland. In response to the publication of the O'Neill Independent Inquiry (WHSSB & EHSSB, 2007) into the deaths of Madeline and Lauren O'Neill, the Department of Health, Social Services and Public Safety Northern Ireland (DHSSPSNI) commissioned the National Confidential Inquiry into Suicide and Homicide by People with Mental Illness (NCI) to compile a literature review on filicide.

Filicide is the killing of a child by his or her parents. Within the literature there is no single definition of filicide, specifying the age or the relationship of the parties involved (i.e. inclusion or exclusion of stepparents). Without clearly defined parameters, it is difficult to interpret and compare research findings. The lack of clarity also makes it problematic for policy makers to translate the literature in order to inform health and social care workers on assessment of risk.

This literature review brings together findings from numerous studies in the UK and internationally.

Comparing child homicide rates using data from the World Health Organisation, Northern Ireland has a higher rate of child homicide compared to other countries in the UK, with the exception of infant homicides. Although research into child homicide usually includes victims up to the age of 18 years, analysis in this report has been broken down into 3 age categories: infants, preschool children and children of school age. International research consistently reports that infants are at greater risk of filicide than children in other age groups, with infants being particularly vulnerable to maternal filicide in the first few months of their lives. The first few months following childbirth is an important time for intervention, with the health professional's active involvement with new mothers. The deaths of preschool children are more often associated with child abuse and neglect. The number of filicides in school children is lower than the other age group. Data from the National Confidential Inquiry for England and Wales has shown that children are more likely

to be killed by their father than their mother, but the predominant gender of the perpetrator varies between countries. The majority of perpetrators are biological parents, however a fifth of filicides are committed by the child's stepfather. Financial difficulties and alcohol and drug misuse are common associated features of these incidents.

Explanations as to why a parent might kill their own child have been examined and categorised into typologies. The circumstances under which these tragic incidents occur include mercy killing or altruism, having an unwanted child (including neonaticide), accidental filicide, retaliation or revenge against a spouse and mental illness. Incidents that also involve the perpetrators death, (filicide-suicide), are very rare and are more often motivated by altruism. In cases like that of Madeleine and Lauren O'Neill, the parent's suicidal feelings are often extended to the child, because they do not want to leave them behind.

Many of the risk factors presented in this report are common to families across the United Kingdom. As such it would be unrealistic to presume that all filicides are preventable. However, there are valuable lessons to be learned from these cases. Health workers who have contact with mothers in the early stages of pregnancy, as well as those in contact post-natally, and clinicians who are caring for patients with mental illness who have children, all have a responsibility not only to their patient, but also in safeguarding the children.

PREFACE

The aim of the literature review is to provide a summary of the key research studies undertaken into cases of filicide, both in the UK and internationally. Six key questions have been asked: How common is filicide? Who commits filicide? Who are the victims of filicide? What are the circumstances surrounding filicide? Is there a link to suicide? Can filicide be prevented?

In Northern Ireland, 14 child homicides were reported between 2002 and 2007 (Hall, 2007), it is not clear how many of these were filicide. On average there are 32 filicide incidents per year in England and Wales (NCI, unpublished data). Although these incidents may be infrequent, they do have a devastating impact on family and friends of the deceased. Reviewing the literature on filicide should inform potential interventions not only with these rare events, but the wider issue of violence towards children.

1.0 AIMS

The purpose of the literature review on filicide is to:

- Outline the key areas of debate
- Examine the findings from research conducted in this field
- Outline any issues relevant to Mental Health and Social Care services
- Increase health and social care services knowledge of any potential links or associations between parental mental health disorders and filicide.

2.0 METHOD OF UNDERTAKING THE LITERATURE SEARCH

Descriptions of filicide date back to biblical times, however, most of the research has been in the last 20 years. Therefore, this literature review shall primarily focus on articles from within this period. The analyses were based on an extensive search of electronic databases available through the University of Manchester. The databases included PubMed (Medline) (years 1980–2008), PsychINFO (1985–2008), the Psychology and Behavioral Sciences Collection, Web of Science (1956–2008), CINAHL (1982–2008), Criminal Justice Abstracts, Criminology: A SAGE Full-Text Collection, Sociological Abstracts, and Sociology: A SAGE Full-Text Collection.

Search terms included "filicide," "infanticide," "neonaticide", "familicide", "fatal child abuse", and "child homicide". The key words were also used in a search of the University 'book' catalogue.

Reference lists from publications were also cross-referenced, with particular focus on recent reviews of filicide, notably Stanton & Simpson (2002); Friedman et al (2005) and Bourget, Grace & Whitehurst (2007).

Inclusion criteria

- Cases of completed filicide
- 2. Studies where attempted filicide also formed part of the sample
- 3. Studies of both maternal and paternal filicide
- 4. Publications in the English language
- 5. Peer reviewed journal articles
- 6. Articles published prior to 1990 were excluded to ensure that current and salient data were presented (with the exception of some early influential papers).

Homicide is the unlawful killing of another human being. The term filicide denotes a form of homicide in which a parent kills his or her own child. Researchers have described specific subgroups based on the age of the victim at the time of death (table 1).

The term neonaticide was first coined by Resnick (1970) and refers to the killing of a newborn under 24 hours old. These are rare events most commonly perpetrated by teenagers. Characteristics of these homicides include women unattended by health professionals at the birth, often alone in delivering a child. Denial of the pregnancy is a common characteristic and, though not usually mentally ill, mothers are often reported to experience dissociative states (Spinelli, 2001).

The term infanticide has been used to describe the killing of an infant less than 12 months old, with the relationship between the child and perpetrator commonly unspecified (Flynn et al, 2007). The English legal definition, adopted by many commonwealth countries such as Australia, Canada and New Zealand, is more precise. In law, infanticide is considered a distinct act of homicide alongside murder and manslaughter. With the Infanticide Act 1922 amended in 1938, English law took into account the unique mitigating circumstances which differentiate this act from other killings. In this context, infanticide applies only to women who have killed their own child as a consequence of the effects of childbirth. It is not possible, therefore, for a man to be charged with infanticide.

Filicide incorporates both neonaticide and infant homicide but specifies that the homicide was perpetrated by either or both parents. There is a lack of clarity as to the inclusion of step-parents or primary care givers. Liem and Koenraadt (2008) included step, foster and adoptive parent, whereas Friedman (2005) only included biological parents. The age range for filicide victims varies from study to study. Some authors include children aged under 18 (Wilcynski 1997), whilst other researchers only include victims under 16 years old (d'Orban, 1979). Although they do not explicitly state an age limit, in Bourget and Gagne's study, the victims age

ranged between 4 weeks to 13 years (Bourget & Gagne, 2002) whilst Resnick (1969) included an upper age limit of 20 years. The problem with this variation in victim age means that studies cannot easily be compared with each other. In many studies the age limit appears to be dictated by the sample itself, as the victims are usually younger children under 6 years (McKee, 2006); 28 months (d'Orban, 1979); 34 months (Bourget & Bradford, 1990); 36 months (McKee & Shea, 1998); 40 months (Crittenden & Craig, 1990), and 41 months (Resnick, 1969).

It is important to recognise that the criteria used to define filicide are often unreported in papers, making comparative analysis problematic. Currently, therefore, there does not appear to be a universally adopted definition of filicide.

Table 1: Definitions of filicide

Term	Definition
Neonaticide	The killing of a newborn under 24 hours old.
Infanticide (general definition)	The killing of an infant under 12 months old.
Infanticide (English legal definition) ¹	Women who have killed their own child as a consequence of the effects of childbirth.
Filicide	The murder of a child by its parents (upper age limit unspecified).

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¹ Infanticide: a woman who causes the death of a child under 12 months while "the balance of her mind was disturbed by reason of her not having fully recovered from the effects of giving birth to the child or by reason of the effect of lactation consequent upon the birth of the child" (Criminal Statistics, 2001).

4.0 BACKGROUND

The phenomenon of child killing can be traced back through the centuries (Moseley, 1986). Archaeologists, for example, found evidence of child sacrifice dating back to 7000 AD (Warren & Kovnick, 1999). This practice was also recorded in early Greek and Roman civilisations (Lambie, 2001). Under the Roman law of 'Patria Potestas', fathers were given the right to commit infanticide, but it was a punishable act for mothers. The term the 'Medea Complex' was coined by Stern in 1948 and denotes spousal revenge. It originates from the Greek play 'Medea' by Euripides, which describes the story of a jealous wife who punishes her husband by killing their children.

Russia became the first country in 1647 to consider a more lenient penalty for women who killed their child. Legal distinctions between murder and infanticide were similarly adopted across Europe by 1888 (Oberman, 2004). In England, the first law to address infanticide was enacted in 1624 in 'An Act to Prevent the Destroying and Murdering of Bastard Children' (Lambie, 2001). The law made concealment of pregnancy, if the baby was subsequently found dead, liable to punishment by the death penalty. As juries were reluctant to convict mothers, who would subsequently face execution, the statute fell into disuse and was subsequently repealed in 1803. With the population explosion in the mid-nineteenth century, the infant mortality and infant homicide rates increased. The Poor Law 1834 was enacted to "make girls realise the harsh consequences of sexual delinquency so they would guard their chastity and bastardy would decline" (Schwartz & Isser, 2000). However, it contributed to the rising number of neonaticides. Single mothers no longer received aid from their local parish and had to live in a 'poor house' (Schwartz & Isser, 2000).

Following a public outcry, foundling homes were established to care for abandoned infants. In 1922, an Infanticide Act was passed, creating a special class of homicide for mothers who killed newborn children, later amended in 1938 to include babies less than 12 months old. The Act abolished the death penalty for this crime and reduced the charge of murder to manslaughter due to the mitigating circumstances

of hormonal imbalance caused by breastfeeding. With a law specifically designed for women who were suffering from abnormality of mind caused by lactation, a woman's culpability was reduced; however, this did not apply to men. The Act enshrined the notion that women who killed infants must have been mentally ill to do so, when in fact there is still no proven link between lactation and mental disorder (Lambie, 2001). Although the cause of mental illness following childbirth may be unclear, the ICD-10 classification of Mental and Behavioural Disorders groups postnatal, postpartum depression, puerperal psychosis as behavioural syndromes associated with physiological disturbances and physical factors, such as childbirth. Such disturbances following childbirth have been referred to as a 'biopsychosocial illness' triggered by many factors such as bio-chemical (hormones), psychological, emotional and social changes (Nelson, 1991). Although postpartum mental illness is recognised as a defence in English Law, verdicts of Infanticide are rarely given. Courts more often find the offenders to be guilty of Manslaughter Section 2 on the grounds of diminished responsibility (Homicide Act, 1957).

The reasons for child killing have also been explored over the years and across religions, cultures and societies. In summary, infant killing has historically been described in two contexts, firstly the killing of a child with disabilities and secondly, the killing of a healthy unwanted child (Moseley, 1986).

The practice of killing newborns with congenital abnormality has long been recorded in African and Eskimo societies (Garber, 1947). Daly and Wilson (1988) explained child killing in evolutionary terms, stating that women who killed a child were more likely to do so if the child had a defect, to ensure the strongest survived.

The killing of unwanted healthy children has been studied in several countries. In many societies sex selection has been a predominant factor in the killing of newborn females. Kaku (1975) quoted in Warren and Kovnick (1999), reported that Japanese girls born in 1966 'the year of the fire horse' were considered to be bad luck, and in that year there was a 57% increase in neonatal mortality. In South Asia and China there still exists a culture of 'son preference'. The ratio of males to females in China and India is much higher than the rest of the world, which researchers claim is an unnatural imbalance (Oberman, 2003). In many societies, children were killed if they

were considered a burden or where resources were scarce. This has been recorded in African, Australian and Canadian societies, where tribes killed one twin if they were unable to support both (Emery, 1985). Furthermore, in poor regions of Japan, infanticide or abandonment was culturally accepted as it was often impossible to raise more than one or two children, and therefore was considered as a means of birth control (Kuono & Johnson, 1995).

Establishing a rate of child homicide or filicide is problematic, both in the UK and internationally. Not only do countries use different reporting and classification systems, but also the age groups reported are not comparable. However, there are consistent global findings that children under 1 year are more at risk than any other age group (Friedman, 2005).

There are a number of difficulties in accurately reporting prevalence rates and making international comparisons. McKee (2006) reported three main obstacles. Firstly, to accurately determine the true rate of child homicide, relies on the discovery of the victims remains. Determining an accurate rate in rural communities and third world countries is even more problematic. In 1998, the US Department of Health and Human Services' Administration for Children and Families (USDHHS) reported 31,000 newborns were abandoned in hospitals or other public places. The mortality rate was high, 32% of those abandoned in non-hospitals settings did not survive. It is difficult to accurately predict the number of abandoned babies whose remains are never found. Secondly, on discovery of the victim, the cause of death needs to be determined. This is a complex and contentious process. Bacon (2004) estimated that 10% of sudden unexpected deaths in children were undetected homicide. Procedures for determining causes of death and post mortem procedures vary, and inevitably intentional injuries and homicides will be missed, particularly in countries with less advanced systems. Ewigman et al (1993), in a study of child abuse fatalities in Missouri, USA, reported that the number of deaths through maltreatment of children up to 5 years old was twice that reported by medical examiners. Thirdly, once a cause of death has been determined, the case needs to be successfully prosecuted resulting in a conviction in order to appear in the official homicide statistics.

With the challenges in detecting and determining filicide, and the complication of inconsistent age parameters, it is likely that the rate of filicide has been underestimated in epidemiological studies (Wilczynski, 1997). Official statistics do

not routinely report rates of filicide. Both national statistics published by health departments on child mortality (accidental or intentional deaths), and crime statistics refer to child homicide, and therefore the two do not correspond.

5.1 UK filicide

Rates for UK filicides are not commonly reported in the literature, numbers and proportions are more commonly presented. Consequently, up to date rates per 100,000 population are unavailable. Using mortality statistics from the Office for National Statistics (ONS, 2008), there were 57 recorded child deaths (0-19 years) due to assault or maltreatment, and 63 where the intent was undetermined (total 120 Most of the latter deaths are later recorded in the first category as homicides, subject to coroner's verdicts. However, the official Home Office Statistics recorded 68 child homicides (victim aged 1-16 years) in 2006/07, of which 33 were filicides. The discrepancy between the figures from ONS and the Home Office could be explained by how these cases are recorded. The ONS mortality statistics are based on the cause of death determined by a coroner, whereas the criminal statistics are based on cases which result in prosecution or conviction for homicide. Numerous cases may, for example, result in a conviction for a lesser offence such as child cruelty, or there may have been insufficient evidence for a successful prosecution. The Confidential Enquiry into Stillbirths and Deaths in Infancy (CESDI), examined 346 Sudden Infant Deaths (SIDS or 'cot deaths') from 1993-1996. It was estimated that the main cause of death in 22 (6%) was maltreatment, and this was a secondary cause in 28 (8%) of cases (Fleming et al, 2000). These results support the National Society for the Prevention of Cruelty to Children's (NSPCC) claims that the true rate of child homicide in the UK is underestimated in both the mortality and criminal statistics (Creighton, 2004).

5.2 International filicide

Friedman (2005) found that, compared to other developed nations, the USA had the highest rate of child homicide for infants, preschool children, and school age children at 8 per 100,000 (under 1 year), 2.5 per 100,000 (age 1–4 years), and 1.5 per

100,000 (age 5–14 years). The number of infant homicides in Canada was less than half that in the USA at 2.9 per 100,000.

A child homicide rate of 0.6 per 100,000 in children under the age of 15 in Sweden was recorded by Somander and Rammer (1991). This figure represented both intrafamilial and extra-familial homicide. However, the rates describing child homicide can not be directly compared with filicide studies, as the rate of child homicide will inevitably be higher than the filicide rate.

Table 2 compares international rates of child homicide by age group. It is important to note that the rate of filicide for those below 1 year is calculated by the number of live births per 100,000 populations. In countries where the numbers of live births are low, single cases of infanticide may generate a high rate, as is the case with Luxembourg. Therefore caution should be taken when comparing data from countries with small populations.

Table 2: Age-specific rate of child homicide, (published by WHO, 1988 and 1989); Unnithan, 1996.

Below 1 year*		1-4 years	1-4 years		5-14 years		Homicides of all ages (inc.	
(per 100,000 live births)		(per 100,000 po	(per 100,000 population)		(per 100,000 population)		adults	
						(per 100,000 po	pulation)	
Luxembourg	21.73*	New Zealand	2.50	U.S.	1.19	U.S.	8.55	
New Zealand	9.47	U.S.	2.31	Belgium	0.81	UK N. Ireland	6.84	
U.S.	7.17	Switzerland	2.01	UK N. Ireland	0.77	UK Scotland	3.22	
Austria	5.68	UK N. Ireland	1.83	New Zealand	0.74	Finland	2.68	
Japan	5.33	Ireland	1.57	Ireland	0.57	New Zealand	2.23	
Finland	4.99	UK Scotland	1.56	Germany	0.57	Canada	2.21	
Switzerland	4.98	Finland	1.55	Canada	0.50	Belgium	2.13	
Belgium	4.27	Japan	1.34	France	0.49	Iceland	2.00	
Australia	4.10	Belgium	1.30	Australia	0.45	Australia	1.96	
Canada	4.06	Canada	1.17	Japan	0.43	Israel	1.79	
Portugal	3.28	Denmark	0.94	Norway	0.36	Norway	1.43	
UK Eng/Wales	3.03	Australia	0.82	UK Scotland	0.32	Portugal	1.35	
UK Scotland	3.02	Germany	0.82	Denmark	0.31	Luxembourg	1.34	
Germany	2.95	Sweden	0.78	Switzerland	0.27	Italy	1.26	
Sweden	1.95	France	0.74	UK Eng/Wales	0.23	Austria	1.22	
Norway	1.85	UK Eng/Wales	0.73	Netherlands	0.22	Switzerland	1.21	
Denmark	1.78	Austria	0.57	Italy	0.21	Sweden	1.18	
France	1.72	Netherlands	0.28	Sweden	0.20	Ireland	1.13	
Netherlands	1.07	Israel	0.26	Finland	0.16	France	1.08	
Italy	0.71	Portugal	0.19	Portugal	0.13	Germany	1.07	
Iceland	0.00	Italy	0.08	Austria	0.11	Denmark	1.05	
Ireland	0.00	Iceland	0.00	Israel	0.11	Netherlands	0.93	
Israel	0.00	Luxembourg	0.00	Iceland	0.00	Japan	0.75	
UK N. Ireland	0.00	Norway	0.00	Luxembourg	0.00	UK Eng/Wales	0.60	

^{*} The high rate for Luxembourg is an anomaly. There was one infanticide case, the rate is exaggerated by low number of live births.

6.1 Gender of perpetrator

Homicide is a crime perpetrated predominantly by men. Women are overrepresented in cases of filicide and the literature is dominated by studies of maternal filicide. Few studies have exclusively focused on paternal filicide (Campion et al 1988; Marleau 1999; Adinkrah, 2003; Bourget & Gagne, 2005). The largest study of paternal filicide was by Bourget and Gagne (2005) who examined 77 cases. Studies examining maternal and paternal filicides together are limited. Where they have been undertaken, few have compared characteristics by gender and there have been conflicting findings.

Some authors have found that paternal filicides are more common; 52% (Wilcynski & Morris, 1993); 55% (Liem & Koenraadt, 2008); 57% (Dawson & Langan, 1994), and 65% (Somander & Rammer, 1991). In contrast, others have reported a higher proportion of female perpetrators; 53% (Goetting, 1988), 67% (Resnick 1969). The difference in prevalence of male and female perpetrators could be explained by the samples studied. Resnick (1969), for example, reported that 67% of the sample were female. However, the sample was drawn from newspaper reports over a period of 200 years, and the papers may have disproportionately reported killings by females as such cases are often deemed more newsworthy (Sorenson, 1998). Others have looked at specific samples, such as Liem and Koenraadt (2008), who examined records from a psychiatric hospital between 1953 and 2004.

Data from the National Confidential Inquiry in the UK showed the proportion of male perpetrators to be higher (64% v 36%; NCI, unpublished).

Numerous studies have found that the gender of the perpetrator is associated with the age of victim. Neonaticide, for instance, is almost exclusively perpetrated by mothers, and therefore the inclusion of neonaticide in filicide studies will inevitably increase the rate of maternal filicide (Marks & Kumar, 1996). It is commonly asserted that the victims of paternal filicides are older children (Bourget & Gagné, 2005; Marks

& Kumar, 1996). This has also been supported by the NCI (unpublished data). Furthermore, where infants were the victims, a high proportion of perpetrators were men (66%, Flynn et al, 2007). Therefore as the NCI study was based on a national sample, this increases the reliability of the finding that more men commit filicide compared to women.

6.2 Age of perpetrator

In d'Orbans (1979) study of maternal filicide, the mean age for mothers was 24.6 years (range 21 - 40). Similarly, Bourget and Bradford (1990) reported a mean age of 27.3 for women perpetrators. In a review of 39 studies Freidman et al (2005) confirmed that in infanticide cases, mothers were usually in their early 20's and that mothers committing neonaticide tended to be younger women, sometimes in their teens. However, Spinelli (2001), in possibly the largest systematic investigation of 16 cases of neonaticide, found a mean age of 24 years.

In the US, Overpeck et al (1998) cited age as being an important risk factor. By linking birth and death certificates for all births in the USA (1983-1991), the findings are based on a large representative sample. The authors found that having children at a young age was strongly associated with infant homicide. If the mother was under 17 years and already had a child, there was a relative risk of 10.9. Seventeen percent of the homicides in Overpecks' sample were committed by mothers who were either less than 17 years old or who had two or more children by the age of 19. In paternal studies the mean age of the perpetrators has been reported as 32 years (Marleau et al, 1999), 30 years (Adinkrah, 2003) and 26 years (NCI). An age range of 25-35 was reported by Resnick (1969).

An evolutionary explanation proposed by Daly and Wilson (1988) argued that mothers who kill their children when they are young, still have time to reproduce and therefore the value placed on the baby is not as great as it would be for an older mother who may find it difficult to conceive later in life. However, it is also the case that a large proportion of women have children between the ages of 20-30 and therefore we may expect to see a higher frequency of homicide within this age group.

6.3 Marital status

There are varying conclusions on marital status with the proportion of those being married, or in a long term relationship, ranging between 44% and 88% (NCI; Resnick, 1969). Women committing neonaticide are reportedly more often single (Meyer & Oberman, 2001). Adinkrah (2003) reported that all paternal filicide perpetrators in the study (n=6) were married to the child's mother at the time of the filicide. Marleau et al (1999) in their sample of 10 cases, reported 4 were married, 1 was cohabiting and 5 were separated from the victims mother. Resnick (1969) reported that all but one of the sample of 43 male offenders were married (98%). Data from the NCI found 82% of male offenders were married or co-habiting. The variation between samples may be due to different methods of sampling, small sample sizes, and also the year the study was carried out (as for example more people were married in the late 1960s than currently, Office for National Statistics, 2007)

Daly and Wilson (1988) suggested that stepfathers presented a higher risk than biological fathers. Liem and Koenraadt (2008) found that 18 (23%) of the 79 fathers committing homicide were stepfathers. Likewise, Somander and Rammer (1991) found 4 (18%) of the 22 paternal non-suicide filicides were perpetrated by a stepfather or foster father. Data from the NCI show 48 (30%) of the 162 paternal filicides were committed by stepfathers. Therefore, the proportion of stepfathers was high, compared to the number of children living in stepfamilies in the UK (10%), (ONS 2005). However, the majority of filicides were perpetrated by biological fathers.

6.4 Socio-economic status

Meyer and Oberman (2001) reported that 90% of mothers neglecting their children lived below the poverty line. Unemployment, lack of financial resources and impoverishment were also features commonly reported in filicide cases (Liem & Koenraadt, 2008). Wilcynski (1997) recorded nearly two thirds of filicidal mothers had housing difficulties and problems supporting their family financially. In a comparison of English and Australian data, Wilcynski (1997) also reported 70% and 56% respectively were unemployed, and 70% of the English sample were coded as

'working class'. In Crittenden and Craig's (1990) study of child homicide, 93% lived in low income neighbourhoods. In studies of paternal filicide, socio-economic data is less frequently reported. Marleau et al (1999) and Campion et al (1988) reported that most had not completed high school and were unemployed or receiving benefits.

6.5 Ethnicity

Data from the NCI shows that 53 people (21%) who committed filicide were from a black or minority ethnic group, including 30 (12%) Black African/Caribbean, 18 (7%) Asian (Indian sub-continent) and 5 (2%) other ethnicity. We were unable to ascertain if the individuals were born in the UK or overseas. Further analysis is required to explore whether inferences can be drawn on specific risks for minority ethnic groups, particularly in cultures referred to earlier, such as India and China. The key characteristics of filicide and child homicide are presented in table 3.

Box 1: Key demographic characteristics of filicide offenders

- Filicide is more likely to be perpetrated by men.
- Men more often commit infant homicide.
- Neonaticide is almost exclusively committed by women.
- The average age of perpetrators is 25 years old.
- The majority of filicides are perpetrated by biological parents, a third of paternal filicides are committed by stepfathers.
- Unemployment and financial difficulties are common.
- A fifth of offenders are from a minority ethnic group.

Table 3: Characteristics of filicide and child homicide studies

Year	Author	Filicide definition	Country	Sample	Age of victim	Number of
						perpetrators
1969	Resnick	Maternal & paternal	International	World literature 1751-1967	0-20 years	131
1979	d'Orban	Maternal	England & Wales	Remand prisoners including attempted filicide 1970-1975	0-16 years	89
1990	Crittenden & Craig	Child homicide	Dade County, Florida, USA	Recorded child homicides 1956-1986	0-12 years	171
1991	Somander & Rammer	Maternal & paternal	Sweden	Population survey Intra and extra familial homicides 1971-1980	0-14	79
1994	Dawson & Langan	Maternal & paternal	USA	1988	All filicide (including over 18)	285
1997	Wilcynski	Maternal & paternal	London	Director of Public Prosecution case files, from 1984	0-18 years	48
1998	McKee & Shea	Maternal	USA	Case review of perpetrators assessed in forensic 0-12 years psychiatric hospital (years unspecified)		20
1999	Marleau et al	Paternal	Montreal, Canada	Forensic hospital 1982-1994	2 months-13years	10
2001	Meyer & Oberman	Maternal – neonaticide	USA	Newspaper 1990-1999	<24 hours	37
2002	Bourget & Gagne	Maternal	Quebec, Canada	Coroners files 1991-1998	1 month-13 years	27
2003	Adinkrah	Paternal	Fiji	Police, medical files, newspaper and interviews with key personnel July 1993–August 1996	2 months-13years	13
2004	Dean	Child homicide and infanticide	New Zealand	Police files 1990-1999	0-14 years	87
2005	Friedman	Maternal & paternal filicide-suicide	Cleveland, Ohio, USA	Filicide-suicide from coroners records 1958-2002	0-17	30
2005	Bourget & Gagne	Paternal	Quebec, Canada	Coroners files 1991-2001	0-35 years	60
2008	Liem & Koenraadt	Maternal & paternal	Utrecht, Netherlands	Forensic psychiatric hospital 1953 – 2004 (including attempted filicide)	All filicide (including over 18)	161

7.1 Gender of victim

In cases of neonaticide no significant differences in the gender of the victim were found (Marks & Kumar, 1993; Silverman & Kennedy, 1988 or 1993; Lucas et al, 2002). In these incidents, it has been suggested that there was no emotional attachment to the newborn, and the gender of the victim is not a factor in the homicide. The role of the victims' gender in infanticide is also uncertain. Marks and Kumar's (1993) study of infanticide in England and Wales, showed a significantly higher proportion of male babies were killed when compared with the general population birth rates (61% male v 39% female), whereas Flynn et al (2007) in a study of infant homicide found 54% male v 46% female victims. For filicide cases, the data varies between studies. Somander and Rammer (1991), in a Swedish population study of intra and extra familial child homicide victims under 15 years, found that the sex of victims was not significantly different to the sex of the general However Maguire et al (1993), in a USA population based study, reported that males were 5 times more likely to be the victims of homicide between the ages of 10-19 compared to female children. In England and Wales the NCI data showed that there was no significant difference in the gender of the victims if they were aged less than 1 year or between 1 and 5 years. Although proportionally more females aged 6-15 were victims of filicide, this did not reach significance. It is difficult to draw definitive conclusions when comparing different samples and age groups.

In a study of maternal filicide, Oberman (2003) analysed cross-cultural patterns of child killing. The author examined data from Fiji and India. In Fiji the proportion of neonaticides in maternal filicide was 58%, which is higher than the rate in Western countries. In most societies the proportion of male and females in the population is close to parity with slightly more females. However, in India this figure is inverted with the lowest rates found in poor states of India, at 774 females per 1000 males.

A study by Sen (2001) quoted by Oberman (2003), found that from 600 births in a state hospital in Usilampatti, India, 570 babies died within days, 80% of which were attributed by physicians to maternal filicide.

7.2 Age of victim

It has long been recognised that the risk of homicide decreases as children get older (Resnick, 1969). Christoffel (1984) examined the clustering of child homicide around 3 stages of a childs' life; infancy, early childhood and mid childhood.

7.2.1 Infants

The most at risk age group for homicide are children aged 12 months or under (Marks & Kumar,1996). Data from the NCI showed that in 55% of all filicides, victims were aged under 1 year. According to the NSPCC (2003), in England & Wales infants are four times more likely to die from non-accidental injury in the first year than at any other time in their lives, and even this number is considered to be an underestimate of the number of babies dying by homicide. Within the first year, the first 3 months is the time of most risk with over 40% of infants being killed during this period (Flynn et al, 2007).

7.2.2 Early childhood

Crittenden and Craig (1990) in a sample spanning 30 years from Dade County, USA, reported that the rate of child homicide decreased with increasing age of the victim, and the proportion of children killed by parents decreased as the child grew older (the eldest victim in this study was 12 years old). The authors stated that 78% of young children (0-5 years) were killed by parents. Preschool children (1-5 years) in England and Wales account for 35% of filicides (NCI unpublished). The risk for children in early childhood decreases, and authors found that deaths for this age group are more commonly associated with child abuse and neglect (Christoffel, 1984; Silverman & Kennedy, 1988).

7.2.3 Mid childhood

Data from the NCI suggest that children aged 6-16 constitute 10% of all filicide cases. These children are less physically vulnerable as they are more robust and capable of defending themselves. Crittenden and Craig (1990) found that of all children killed aged 6-12 years, parents were responsible in 53% of cases. School attendance may also be protective, with greater levels of vigilance for signs of maltreatment. Deaths in children in this age group are often a result of neglect or lack of supervision (Scrimshaw, 1984 quoted in Crittenden & Craig, 1990).

7.3 Method of filicide

The most common cause of death for neonates is suffocation (27%), drowning (22%) and exposure (14%) (Crittenden & Craig, 1990). In a 30 year study in Dade County, Florida, Crittenden and Craig (1990) reported that infants (65%), toddlers (63%) and pre-school children (38%) were more often killed by beatings, whereas children over 5 years more commonly died from gunshot wounds (61%). Similarly, in Sweden, Somander and Rammer (1991) reported that over 50% of preschool children (aged 0-7 years) met significantly less violent deaths (e.g. strangulation or smothering, drowning, poisoning or gassing) whereas 70% of school age children up to the age of 15 were more commonly killed by violent methods (e.g. firearm, stabbing, hitting/kicking or burning). In both of the above studies, the samples included extra-familial cases. The proportion of victims killed by strangers, acquaintances and other family members was higher in school age children. Thus it is inconclusive as to whether filicides in older children are more violent in these 2 studies. The methods of homicide also relate to the country where the study was undertaken, for example, in the USA the use of firearms as a method of homicide is higher than in the UK.

Box 2: Key characteristics of victims of filicide

- Inconclusive evidence as to whether the gender of the victim is significant.
- Infants are most at risk.
- Deaths in preschool children are commonly associated with child abuse and neglect.
- School age children are more often killed by strangers, acquaintances or extended family members.
- Fathers more often kill older children.

Several authors have proposed typologies as a means of classifying filicides according to actual or perceived motives and/or 'source of impulse'. Resnick (1969) was the first to propose a classification system, the basis of which was the perpetrators motivation. 'Source of impulse' was the basis of Scott's (1973) typology, which was adapted subsequently by d'Orban (1979). They categorised the origin of the offence as emanating either from the parent, the child or situational factors (Bourget et al, 2007). Typologies have been added to and adapted over several years. A comparison is presented in table 4. The main circumstances and motivations for filicide are outlined below.

8.1 Altruistic / mercy killing

Resnick (1969) found that almost half of filicides (64, 49%) were motivated by altruism, and the author described two distinct types. Firstly, filicide to relieve suffering. In these cases children are the subject of a 'mercy killing' with no secondary gain for the parent (14, 11%). Resnick (1969) used the example of a mother killing her son who suffered from an encephalitic illness. Secondly, filicide associated with suicide, which is a form of altruism when the parent desires to take their own life but will not abandon their child (50, 38%). Wilcynski (1997) referred to 'secondary altruistic killings' in which the pressure of motherhood and an obsession with the child's health and wellbeing induced by postnatal depression, culminated in the belief that the mother was not good enough. d'Orban's (1979) coded suicidal women as mentally ill mothers rather than altruistic. Only those cases where the victims suffering was 'real' (and not a delusion) were considered to be a mercy killing (1, 1%). This classification was refined by Bourget and Gagne (2002) where, in a study of 27 maternal filicides, none of the cases were considered to be mercy killing, the majority being considered as mentally ill.

8.2 Unwanted child

This category consisted of children who were considered unwanted by their parent(s). Resnick (1969) found 18 (14%) cases from the total filicide sample. The reasons given were illegitimacy and arguments over paternity. However, he did not include neonaticide as he referred to filicide as the "murder of a child after its role in the family has been more firmly established". d'Orban (1979) stated that unwanted children can be either killed by passive neglect or active aggression (9%). Unlike Resnick, d'Orban described neonaticides as a separate group in her typology (12%). More recently Bourget and Bradford's (1990) classification of filicide combined neonaticide and unwanted-children.

Neonaticide cases are characterised by mothers who do not have the emotional capacity to be able to cope with the impending pressures of motherhood, often having been in denial with little preparation for the delivery of the child. The homicide often occurs as a result of inaction or when the mother attempts to conceal the newborn, rather than in a conscious attempt to kill the child (Wilcynski, 1997). Studies of neonaticide concur that this phenomenon is more prevalent in young mothers who were afraid, often of their parents, and were unable to take responsibility for the pregnancy. A variation on this scenario was proposed by Wilcynski (1997) who described a situation where the child was wanted at conception but unwanted after the birth, either because of their physical characteristics or the burden of responsibility. McKee (2006), whilst acknowledging the occurrence of neonaticide, also included in the unwanted child category, mothers who after the birth become detached, ambivalent, resentful and exhausted, and subsequently killed the child.

8.3 'Accidental' filicide

This classification depicts parents who unintentionally kill their child in an impulsive act. Typically the deaths occur as a reaction to the victims' behaviour often when attempting to discipline the child. d'Orban (1979) referred to this group as 'battering mothers' and found this group to be the most prevalent in her sample of filicide

cases (40%). At the extreme end of the continuum, Wilcynski (1997) described cases where discipline resulted in a fatal assault following a loss of control and fit of temper. In the wider context of filicide it also incorporates child abuse and maltreatment and neglect. Bourget and Gagne (2002) recorded 3 (11%) accidental filicides, whilst Liem and Koenraadt (2008) reported 40 (26%). The wide range of proportions of accidental death can be explained by different sources of the sample (prison sample used by d'Orban, forensic hospital Liem and Koenraadt (2008)), and the difference in inclusion criteria between samples.

Sexual and ritual abuse is not commonly a feature of filicide cases (Wilcynski, 1997). This is more often reported in cases where the perpetrator was not a family member (Jason & Andereck, 1983). However, these studies are dated and though the detection of sexual abuse has improved over the past 20 years, it is not routinely reported in filicide research and is almost certainly under-reported. Bourget and Bradford (1990) included Munchausen Syndrome by Proxy as a form of accidental filicide. This is a condition by which a parent seeks attention from medical professionals for their own gratification by intentionally harming their child. This condition was also recognised by Wilcynski (1997) and McKee (2006), but such incidents are very rare.

8.4 Retaliation/spousal revenge

In this typology, the perpetrator seeks retaliation against a spouse or partner, often as a result of a breakdown in a relationship followed by feelings of rejection or jealousy, triggered by proof or suspicion of infidelity. The anger is subsequently displaced onto the child who becomes the 'instrument of revenge', to punish the spouse and attempt to make them suffer. Overall retaliation filicide is rare, with reports including 5 (4%) (Resnick, 1969); 9 (10%) of a female sample (d'Orban, 1979); and 14% (Liem & Koenraadt, 2008). This type of filicide is almost exclusively perpetrated by men (Daly & Wilson, 1988; Wilcynski, 1997). However, Wilcynski (1997) cited a case where a mother felt growing resentment towards her partner for having all the childcare responsibility and subsequently committed filicide. Wilcynski (1997) also identified another consequence of jealousy within a relationship resulting

in filicide. In this scenario the filicide occurred because the perpetrator became jealous of the affection the child was receiving from the mother, which was interpreted as a threat to their sexual relationship. In addition, the child could also be the object of resentment because they are viewed as a financial impediment. Jealousy in stepparents was also reported because the child was not their biological offspring. The part played by the child was also raised as they may reject the perpetrator because of abuse or illness (McKee & Shea, 1998).

8.5 Mental illness

Mental illness has long been reported as an important factor in filicide. Resnick's (1969) study highlighted a high frequency of depression (71% in mothers, 33% in fathers) and 60% were psychotic. He considered those with psychotic features as a separate and distinct group. 'Acutely psychotic' filicides were described as severely mentally ill perpetrators with symptoms of psychosis, who killed under the influence of auditory hallucinations and/or delusions. Resnick's sample was based on reviewing world literature from 1751 to 1967, and included 13 articles not published in the English language. Therefore, there were no reliable standardised criteria to discern diagnoses both between countries and over time. As such the validity is d'Orban (1979) found that 80% of the sample had a history of questionable. psychiatric illness. The most common diagnoses were personality disorder (43%), acute reactive depression (21%) and psychotic illness (16%). In 41% of cases the perpetrators had previously required inpatient or outpatient treatment. Mental illness was not considered to be a key feature of all homicides, however, as only 27% were classified in her typology as 'mentally ill mothers', it is not clear how she created this category when proportionally more were diagnosed with mental illness. As the sample was taken from a group of women on remand and included attempted filicides, these findings are not generalisable to all filicide cases. The use of a prison population perhaps explains the high rate of personality disorder as compared to other samples. Bourget and Gagne's (2002) study of 27 maternal filicide perpetrators looked at coroner's records over an 8-year period in Quebec. They found a 'psychiatric motivation' in 85% of cases, with most having previous treatment for depressive disorders (67%) or psychosis (15%). Using the same method to study 60 paternal filicides, Bourget and Gagne (2005) found 31% had major depressive disorders and 10% schizophrenia and other psychosis. The reliability of these studies is supported by the use of coroner's records. However, the inclusion of detailed medical history, particularly psychiatric records, is variable. From a sample of 254 filicides, the NCI showed affective disorder to be the most common diagnosis (38, 23%) followed by personality disorder (27, 16%) and schizophrenia (21, 13%). Over a third were mentally ill at the time of offence (54, 35%), including 19 (13%) who were psychotic.

Webb et al (2007), studied deaths in children using the Danish national register. They found a markedly higher risk of homicide in children and young adults whose parents had previously been admitted to a psychiatric inpatient unit. The relative risk of homicide for children aged 1-4 years was 9.80 (Cl 4.91-19.57), and for those age 5-15 years it was 5.12 (Cl 2.51-10.55). The findings show an elevated risk for the offspring of parents with severe mental illness who had previously required hospitalisation. The researchers did not find excess risk in parents who had schizophrenia compared with other diagnoses.

In a population study of Swedish child homicide, Somander and Rammer (1991) found 35% of the sample had received psychiatric treatment in a hospital environment. A further 12% had previous contact with a psychiatrist or psychologist. Similarly the NCI study found that 10% of filicide perpetrators had been in contact with services within a year of the offence, with significantly more women being seen. In a study using coroners records in Cleveland, Ohio, Friedman et al (2008) compared filicide-suicide, filicide-attempted suicide, and filicide (non-suicide) and found that 70% of mothers and 30% of fathers had previous contact with mental health services.

Friedman et al (2008) reported that data from the records based on accounts from neighbours and friends suggested 20% of mothers and 40% of fathers had significant on-going thought or mood disorders. Depression was common in all groups, and was present in 57% of the total sample, with psychosis and delusional symptoms reported in 27%. However, few completed filicide-suicides were 'delusional' compared to cases of filicide only. The explanation for the distinction

was given as delusional mothers being less able to 'plan and execute the dual acts of filicide and suicide' (pg 288). Also it has been suggested in those parents with psychosis that either made a non-fatal attempt or no attempt, "the filicide alone may have provided sufficient release of tension to drain the physical and emotional energy required for successful suicide". The data were extracted from coroner's records' which included psychiatric reports and an unspecified number of 'pertinent' hospital records. These are reliable data sources. However, the diagnoses reported were also based on interviews with relatives, friends and employers which may have introduced bias into these findings. The study period (1958-2002) also included cases over 40 years old, which may have impacted on the standardisation of diagnostic criterion. Previous studies examining mental illness in filicide cases have used various definitions of mental illness. They have also been based on small, selected samples and are not representative.

Box 3: Typology of filicide	
Typology	Summary description
Typology	Summary description
Altruistic / mercy killing	Filicide to relieve the suffering of a sick child. This
	type of homicide has also been associated with
	suicidal parents, who wish to take their own life, but
	will not abandon their child.
Unwanted child	In these cases death is usually caused by passive
(Neonaticide)	neglect or active aggression. The most common
	type is neonaticde, where young mothers lack the
	emotional capacity to cope or to take responsibility
	for the pregnancy. They are commonly afraid of
	parents' reaction and are often reported to be in
	state of denial.
Accidental filicide	Impulsive actions leading to the death of the child,
	either through attempts to disciple, loss of self
	control/child abuse and neglect. It can also include
	Munchausen Syndrome by Proxy.
Retaliation/spousal revenge	Usually resulting from a relationship breakdown, the
	child becomes the focus of the perpetrators
	revenge, and becomes the object of their retaliation.
	Resentment and jealousy are common
	characteristics in this type of filicide.
Mental illness	Depression is commonly associated with filicide in
	both men and women. Infanticide is often
	association with post-partum disorders. Psychotic
	parents' reportedly experience auditory
	hallucinations or delusions about the child or their
	ability to care for him/her.

Table 4: Distribution of filicide typologies

Type of filicide	Resnick (1969) Total=131	D'Orban (1979) Total=89	Bourget & Gagne (2002) Total=27	Bourget & Gagne (2005) Total=77 (victims)	Liem & Koenraadt (2008) Total=161
Altruistic/mercy killing Associated with suicide To relieve suffering	64 (49%) 50 (38%) 14 (11%)	1 (1%)	0	0	43 (27%)
Mentally ill *Psychotic filicides	*28 (21%)	24 (27%)	23 (58%)	49 (82%) *28 (36%)	*32 (20%)
Unwanted child	18 (14%)	8 (9%)	0	0	-
Accidental/Battering /fatal abuse	16 (12%)	36 (40%)	3 (11%)	19 (25%)	42 (26%)
Spouse revenge/retaliation	5 (4%)	9 (10%)	0	2 (3%)	23 (14%)
Neonaticide	-	-	-	-	9 (6%)

8.6 Limitations of typologies

It is important to state that parents kill children for various reasons and it is misleading to consider filicide as having a single motivation or cause. In reality the individual circumstances of any homicide are complex. Although typologies aid the description and comparison of events by grouping common characteristics together, they are limited as the classification systems do not meet all of the characteristics of these cases. Guileyardo and Prahlow (1999) attempted to address this by devising a typology with 16 classifications including euthanasia, postpartum mental disorder and drug and alcohol abuse. However, cases are often multi-dimensional and do not ascribe to just one category. Resnicks' (1969) typology was based on a literature review and 'perceived' motivation rather than clinical assessments on a population sample. Scott (1973) also noted that such classifications based on retrospective files are unsuitable as the acts are so primitive - "sophisticated motives such as revenge and altruism may be quite inappropriate". The categorisation of the filicides into a typology also requires the researcher to make subjective decisions, therefore standardisation from study to study may be compromised. A further limitation is that if the perpetrator were assessed pre-trial, the motivation put forward may be to influence a legal defence. The major limitation of studies using typologies is that they are using widely different samples with no standardised inclusion criteria.

9.0 IS THERE A LINK TO SUICIDE?

in males in the general population (Collins et al, 2001).

There are few studies of filicide-suicide. A study by Stack (1997) reported that filicide constituted 2% of all homicides, but that they represented 7.6% of homicide followed by suicide. Hatters Friedman et al (2005) showed between 16%-29% of maternal filicides died by suicide and between 40-60% of fathers took their own life. The higher rate of filicide-suicide in fathers has been attributed to the higher suicide rates

In Bourget and Gagne's (2002) sample of 27 mothers who committed filicide, 56% completed suicide, with a further 15% attempting suicide. In a later study, Bourget et al (2007) reported on cases of filicide in Canada in 2004 in which 22% of perpetrators died by suicide following the homicide. The rates reported in previous literature vary considerably. However, using a population-based sample, unpublished data from the NCI showed that over an eight-year period, 17% of perpetrators who committed filicide subsequently took their own life.

Gross (2008) stated that approximately 60% of child victims of filicide-suicide were aged between 1-6 years, which is consistent internationally. Friedman et al (2008) found the average child's age was 6.8 years and 67% were killed by fathers. Somander and Rammer (1991) found that the average age of the child victim in filicide-suicide cases was older (6 years, 5 months) than in filicide only (3 years, 5 months), and most often perpetrated by fathers (70%). Friedman et al (2008) reported that 50% of mothers and 60% of fathers who committed filicide-suicide had altruistic motives. Suicide was not associated with neonaticide, the killing of unwanted children or retaliation, battery or psychosis (Alder and Polk, 2001; Bourget and Gagne, 2005).

Mental illness (particularly depression and psychosis) has been reported as an important factor in these cases (Resnick, 1969). Hatters Friedman (2005) found evidence of depression in 50% of filicide-suicide fathers and 25% with symptoms of psychosis. In cases of homicide-suicide, Rosenbaum (1990) conducted a psychological autopsy, reviewing medical records and interviewing relatives and

friends of the deceased. They showed that 75% of perpetrators were depressed. However, Flynn et al (2009) found that few perpetrators of homicide-suicide were in contact with mental health services in the year before the offence (14, 7%).

The literature also suggests that suicide is more often associated with the death of multiple victims. Somander and Rammer (1991) found that 42% of the filicide-suicide cases in their sample involved multiple victims. They also found that women only killed their children whereas men often also killed a spouse. The probability of homicide-suicide was found to increase as the age of the victim increased. Lucas et al (2002) found where the victim was of preschool age (1-4 years) 13% of the parents took their life following the filicide, compared with 50% of incidents where the children were between 4-15 years old.

Whilst personal attachment towards family members, marriage and parenthood are usually protective factors for suicide, this is not the case in filicide-suicides (Friedman, 2008; Gross, 2008). Therefore the risk profile for filicide-suicide and suicide are different. Known suicide risk factors such young age, substance misuse and impulsivity, are not associated with filicide-suicide. Unfortunately there is limited literature on this phenomenon.

Box 4: Key characteristics of filicide-suicide

- Around a fifth of filicide perpetrators take their own life.
- Men more commonly die by suicide following filicide compared to women.
- The child victims of filicide-suicide have an average age of 6 years, which is older than filicide only victims.
- Filicide-suicide incidents commonly involve multiple victims.
- The incidents are strongly associated with perceived altruism and mental illness.

10.0 CAN FILICIDE BE PREVENTED?

Filicide is rare and the circumstances under which filicides occur are complex. The literature outlined above aimed to describe the key characteristics of these tragic incidents. Developing strategies for intervention and prevention are based on the information gleaned from the previous literature and research. National research projects incorporating larger sample sizes should enable all facets of filicide to be investigated.

10.1 Child abuse

Child abuse and neglect is an important contributory factor to child homicide. Following the publication in 2003 of the Lord Laming report into the death of Victoria Climbie, child protection issues have been a high priority for the Government. A range of initiatives to safeguard children have been introduced, including The Children's Act 2004, Every Child Matters and interagency guidance, but despite improvements, a recent collaborative agency report (Gilbert, 2008) noted there are still areas of concern. In 'The Protection of Children in England: A Progress Report', Lord Laming highlighted the scale of the task with 37,000 children subject to care orders, of which 60,000 are under the care of local authorities, and 29,000 children subject to protection plans (Laming, 2009). The report recognises that not every child's death can be prevented, but where the child is known to services, every available resource should be used to protect them. Therefore, if we can find a way to reduce child abuse and violence in the home then there may be a reduction in filicide.

In response to the publication of "Our Children and Young People – Our Shared Responsibility" (Inspector of Child Protection Services in Northern Ireland, 2006), child protection services in Northern Ireland have undergone a process of substantial reform. In addition, work is currently underway to establish a Safeguarding Board for Northern Ireland (SBNI), which will be independently chaired in each Health and Social Care Trust area. The SBNI will ensure safeguarding practice is consistent and co-ordinated to provide better outcomes for vulnerable

children. The introduction of a single assessment framework for children in need (Understanding the Needs of Children in Northern Ireland - UNOCINI), aims to simplify data capture and analysing, and also make the identification of risk easier.

10.2 Mental illness

Mental illness has been recognised as an important factor associated with child homicide. In a recent interagency report, 50 'serious case reviews' involving child homicide and serious abuse were analysed (Gilbert 2008). The findings showed that 14 of the 50 cases (28%) involved perpetrators with mental health problems. Mental health services have a responsibility under the legislation for child protection, and the report highlighted that the long waiting lists for mental health and substance abuse services put a strain on collaborative working and impacted on the quality of care and the concept of inter-agency co-operation.

Friedman et al (2008) surveyed 220 psychiatrists regarding their knowledge of maternal filicide and found that psychiatrists underestimated the extent to which depressed mothers had thoughts about harming their child. Under half (90, 47%) reported asking suicidal or psychotic mothers specifically about filicidal ideation. However, some clinicians expressed fear that by raising the question they may introduce an idea that was not considered previously. In the UK, Sanders et al (2000) interviewed a random sample of patients admitted to a medium secure unit. The patients were questioned on thoughts of self harm and interpersonal violence in the week prior to interview. The results showed that 47% had thoughts of self harm, and the treating team had asked about such thoughts in 94% of cases. However, 30% had recent violent thoughts, but treating clinicians had only made inquiries in 13% of cases. Although not all patients act on these thoughts, some do, and this finding highlights that routinely asking about violent thoughts is as important as asking about suicidal ideas.

For those mothers who are not in contact with mental health services, there are opportunities for health visitors and midwives to intervene whilst administering antenatal and postnatal care (Garcia-Moreno, 2009). As the majority of filicide

victims are infants, this contact is important in identifying those at risk. Health visitors and midwifes use the Edinburgh Post Natal Depression Scale regularly, and can assess the onset of disorders. Other screening tools are available but are used to a lesser extent. Clear pathways to care for those considered at risk and guidance for health workers has been provided by the National Institute for Health and Clinical Excellence (The British Psychological Society, 2007). Social workers also have links to mental health teams. In a pilot study currently being undertaken in 10 sites in England, the Nurse-Family Partnership programme aims to assist first time teenage mothers through pregnancy and until the child is 24 months. Vulnerabilities such as mental and physical health problems, experience of domestic violence and homelessness are recognised and addressed. This may give these new parents better outcomes and safeguard potentially vulnerable children.

The features associated with filicide are common but in absolute terms, filicides occur infrequently. Therefore, identifying an effective intervention is problematic. Although, Overpeck (1998) observed some high *relative* risks such as childbearing at a young age, having a second child whilst under the age of 17 and level of maternal education, there still remains low *absolute* risk of filicide. Likewise, there is an elevated risk in patients with severe psychopathology who were previously admitted for inpatient treatment (Webb et al, 2007), but these incidents are rare. Therefore the common factors associated with filicide have low positive predictive value (PNN). Interventions targeted specifically at a small population such as those with severe mental illness would require many patients or a high 'numbers needed to treat' (NNT) to see effective outcomes, which presents a challenge both to policy makers and practitioners in predicting and preventing filicides.

10.3 Wider society

The majority of mentally ill patients pose no threat to their children. A potentially greater reduction in filicide may be achieved by adopting a wider public health approach. In cases of fatal child abuse, a death usually occurs as a result of prior episodes of violence or neglect and families are often known to social services. Prevention and prediction needs a much broader scope to include multiple risk factors such as mental illness, domestic violence, substance misuse, learning and

physical disabilities (in either the parents or the children) (Gilbert, 2008). These risk factors are not uncommon in the general population, making the risk of filicide a difficult event to predict and prevent. Oberman (2003) suggested that the commonality that links maternal filicide is the society in which it occurs. She points to one fundamental similarity across cultures: "in virtually every instance, maternal filicide is committed by mothers who cannot parent their child under the circumstances dictated by their particular position in place and time" (pg 494). As such, future research requires a systematic approach looking at both the precursors and circumstances surrounding filicide.

In countries such as Fiji that have stringent restrictions on contraception, abortion and single parent families, the high rate of filicide must be considered in the context of the community's norms. Likewise the disparity in gender within the populations of India and China has been attributed to sex-selective abortions and homicide, because culturally, within the South Asian communities, son-preference is ingrained. Tackling these beliefs is challenging, but necessary to reduce the number of filicides in these societies.

Box 5: Summary of risk factors for practitioners working in childcare and mental health services

- · Parents having children at a young age
- Prior contact with social services re child abuse and neglect
- Domestic violence
- Social disadvantage / financial instability
- Single parent and lack of social support
- Suicidal ideation extended to child
- Mental illness (depression and psychosis)
- Delusions around the child's health and wellbeing
- Postpartum disorders
- Substance misuse

11.0 LIMITATIONS OF FILICIDE LITERATURE

The quality of the literature on filicide is limited with many inconsistent findings. Firstly there is a concern with the definition and a lack of the criteria used to standardise what constitutes a filicide case. Filicide is used to describe parents killing children, but there is no agreed upper age limit for the victims, the range being 0-35 (Bourget & Gagne, 2005). Because filicides are rare, it is difficult to study a representative sample. The studies published analysed samples ranging from case series in prisons, forensic facilities, district/regional areas and in some exceptions studies based on population data. The inclusion of attempted filicide and overrepresentation of maternal filicide in the literature makes comparisons and estimating rates problematic.

Lack of a denominator makes epidemiological investigation at population level almost impossible. The study by Overpeck (1998) is a rare example of such a study, but it lacked data on parental mental illness. Attempts to include psychiatric registry data from Scandinavia (e.g. Webb et al, 2007) are flawed by lack of perpetrator data.

The use of typologies to classify the motivation of the offender into groups is also not without its problems. A particular area of concern is categorising mental illness, which in some typologies does not include all the cases where mental illness was a factor. Though long reported and recognised as an important feature of filicide, the descriptions and definitions of mental illness in the literature are variable. Definitions should be based on standardised criteria from ICD-10 or DSM IV. It is often uncertain how the diagnoses were determined, which questions the validity of the findings.

12.0 SURVEILLANCE SYSTEM

The National Confidential Inquiry has been based at the University of Manchester in the UK since 1996 and is funded by the National Patient Safety Agency (England and Wales), Scottish Government (Scotland) and the Department of Health, Social Services and Public Safety (N. Ireland). We obtain information on all homicides in England and Wales from the Homicide Index at the Home Office, and from the Justice Statistics Unit in Scotland. Cases include people who have been convicted of murder, manslaughter or infanticide. Psychiatric reports prepared before the trial are obtained mainly from court files, but also directly from psychiatrists. Records of previous offences are obtained from the Police National Computer (PNC). Those perpetrators who were in contact with mental health services at any time prior to the homicide are identified and a questionnaire sent to the consultant psychiatrist responsible for their care. This systematic data collection enables the Inquiry to use this unique sample to describe socio-demographic, clinical and forensic characteristics of homicide perpetrators, for reports, journal articles and routine data requests.

12.1 Data collection difficulties in Northern Ireland

In Northern Ireland, the National Confidential Inquiry receives notification of homicide convictions from the Court Service, as and when cases have been processed by the courts. We ask for information about the perpetrator such as name, address, date of birth, date of offence, date of conviction, and final outcome (murder or manslaughter). The data are manually recorded on a data sheet and forwarded to the Inquiry office. Where a psychiatric report is disclosed in the case and PNC disclosure prints (antecedents of previous offences) available, this information is also sent to the Inquiry. Only in cases where psychiatric reports are received can the Inquiry establish who the victim in each case was, as the court service do not have an official record. It is essential in identifying filicide that we can determine the relationship between offender and victim, and the age of the victim. Without this it is impossible to quantify the number of filicide in Northern Ireland. We

have been unable to establish a robust method of systematic reporting in Northern Ireland.

12.2 Data required to provide a surveillance system in Northern Ireland

We have requested access to data collated by the Police Service Northern Ireland (PSNI). The PSNI collate data on all homicide offences in Northern Ireland. We understand that this data contains information on all suspects charged with the offence and also information pertaining to the victim. If we are granted permission to use this data, it would enable the Inquiry to combine both data sources to compile a homicide Index similar to that operational in England and Wales, and Scotland. With this database we would be able to report information on the perpetrator, victim, offence and court outcome characteristics.

Recommendations

Antenatal and postnatal care:

- Multiagency approach to care provision for mothers who experience mental illness prior to childbirth, to minimise reoccurrence of symptoms
- Frequent visits from health workers to assess parents ability to cope or feelings of being overwhelmed (particularly for young mothers)
- Continuity of health care provider (build rapport and relationship)
- Use of screening tools to assess for depression in new mothers, undertaken at more frequent intervals

Clinicians treating mentally ill patients with children:

- Strengthening of interagency collaboration, and communication between mental health workers and social workers and the patient's family
- Awareness of responsibility to children of mentally ill patients, in accordance with Child Protection Policies
- Improve access to substance misuse services for parents with young children

Training of health professional working with mothers and young children:

- Risk assessment
 - suicidal ideas
 - thoughts about harming their son/daughter

Wider society

- Access to support services in the community, respite care for parents with sick children
- Promote the availability of family planning and advice services for

teenagers and young adults

- Work around removing stigma/fear of reporting incidents to social services
- Systematic surveillance system to monitor cases
- Further research to increase our understanding of these tragic incidents

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