Research briefing

The impact of abuse and neglect on the health and mental health of children and young people

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Summary

During the past 30 years, the focus on the extent and nature of child abuse and neglect has been coupled with an increasing interest in the impact on children's development, health and mental wellbeing. Child maltreatment is both a human rights violation and a complex public health issue, likely caused by a myriad of factors that involve the individual, the family, and the community. Child abuse includes any type of maltreatment or harm inflicted upon children and young people in interactions between adults (or older adolescents). Such maltreatment is likely to cause enduring harm to the child.

The different forms of abuse and neglect often occur together in one family and can affect one or more children. These include, in deceasing level of frequency: neglect; physical abuse and non-accidental injury; emotional abuse; and sexual abuse (Cawson et al, 2000; 2002). Recently, bullying and domestic violence have been included as forms of abuse of children.

There is a sizeable body of literature on the relationship between types of child maltreatment and a variety of negative health and mental health consequences. These include biological, psychological, and social deficits (for reviews, see Crittenden, 1998; Kendall-Tackett, 2001; 2003). Aside from the serious physical and health consequences of child maltreatment, several emotional and behavioural consequences for children have been noted in the literature.

These consequences vary according to differences in the severity, duration, and frequency of maltreatment. However, they also vary depending on the child's resilience, which relates to temperament, coping skills, and developmental stage, and his or her environment, as determined by family income, social support, or neighbourhood characteristics (Hecht and Hansen, 2001). Sustained maltreatment can have major long-term effects on all aspects of children's health and wellbeing.

Key findings

- Evidence states that the experience of maltreatment can have major long-term effects on all aspects of a child's health, growth and intellectual development and mental wellbeing and that it can impair their functioning as adults.

- The impact of child maltreatment includes a wide range of many complex social and economic problems, with an increased likelihood of mental disorders, health problems, education failure and unemployment, substance addiction, crime and delinquency, homelessness and an intergenerational cycle of abuse and neglect.

- The health effects of child abuse include physical injuries such as shaken baby syndrome, non-organic failure to thrive, broken bones, spinal injuries, stomach aches, migraines, and gut problems. Health problems later in life can include heart disease, obesity, liver disease, cancer and chronic lung disease.

- Depression, severe anxiety, panic attacks and post-traumatic stress disorder (PTSD) are the most common mental health consequences of abuse: the literature suggests that between 30 and 50 per cent of sexually abused children meet the full criteria for a PTSD diagnosis (Widom 1999; Darves-Bornoz et al. 1998), and up to 80 per cent experience at least some 'post-traumatic' symptoms (McLeer et al, 1992; Cuffe et al, 1998). These symptoms include hyper-vigilance, intrusive thoughts, and sudden intrusive flashbacks of the abuse experience.

- The impact of child maltreatment is often described as physical, psychological, behavioural, or societal. In reality, however, it is unrealistic to view these consequences in isolation. Depression and anxiety, for example, may make a young person more likely to smoke, abuse alcohol or illicit drugs, or overeat. High-risk behaviours, in turn, can lead to long-term physical health problems such as sexually transmitted diseases, drug and alcohol addiction, cancer, and obesity.

- Child physical abuse is associated with a wide range of debilitating emotional and behavioural problems that may persist into adulthood and generalize to future relationships, including parent-child relationships. It can lead directly to neurological damage, physical injuries, pain and disability or, in extreme cases, death. It has been linked to aggressive behaviour, emotional and behavioural problems, and educational difficulties in children (Finkelhor, 2008).

- Emotional abuse has an important impact on a developing child's mental health, behaviour and self-esteem. It can be especially damaging during the critical period of infancy, and affect children especially during their school years.

- Persistent neglect can lead to serious impairment of health and development, and long-term difficulties with social functioning, relationships and educational progress. In extreme cases, neglect can also result in death (Sidebotham, 2007).

- Sexual abuse is linked to disturbed mental health resulting in self-harm, inappropriate sexualised behaviour, sadness, depression and loss of self-esteem. These adverse effects may endure into adulthood.

- Research by Sidebotham (2007) suggests that up to 40 per cent of maltreatment-related deaths are probably the result of neglect, or a combination of neglect and other forms of abuse, with death resulting from extreme malnutrition, electrolyte imbalance, hypothermia, or infection. Many fatal cases seem to have an element of intent to deprive the child of his or her needs.

- Domestic abuse can directly and indirectly affect children, even before birth. It is likely to have a damaging effect on their health and development, with children under one at the highest risk of injury or death (McVeigh et al. 2005; Goodall and Lumley 2007).

- Domestic abuse, adult mental ill-health problems, substance misuse or racism from a caregiver may be factors underlying the physical, sexual, and emotional abuse of children within the family.

- For children with disabilities, the usual risk factors for child abuse (i.e. dependence and vulnerability), are intensified. When a child or young person is disabled, injuries or behavioural symptoms can mistakenly be attributed to the disability rather than the abuse or neglect.

- Abused children follow several distinct developmental trajectories (Noll et al, 2003; 2006). For example, victims suffering seemingly more mild forms of abuse can appear to be asymptomatic in the acute phases immediately following disclosure, but may become more symptomatic later in development (Trickett and Putman, 1998). These findings suggest that treatment of child abuse should either continue throughout development, or be revisited when issues reminiscent of the abuse become developmentally salient.

Introduction: effects of maltreatment on children's health

In many cases, child maltreatment has consequences for children, families, and society that last lifetimes (Kendall-Tackett, 2003). Infants and young children are particularly vulnerable to the physical effects of maltreatment.

Physical abuse is associated with various types of injuries, particularly when exposure to such abuse occurs in the first three years of life (Vinchon et al, 2005). Shaking an infant may result in bruising, bleeding, and swelling in the brain. The physical consequences of 'shaken baby syndrome' can range from vomiting or irritability to more severe effects, such as concussions, respiratory distress, seizures, and death (Conway, 1998). Two-thirds of subdural haemorrhages in children under two are caused by physical abuse (Vinchon et al, 2005). It is estimated that 10 per cent of admissions to paediatric burns and plastic surgery units are related to child maltreatment (Chester et al, 2006).

Infants who have been neglected and malnourished may also experience a condition known as 'non-organic failure to thrive'. This refers to a situation in which the child's weight, height, and motor development fall significantly below age-appropriate ranges, without a medical or organic cause. In extreme cases, the death of the child is the end result. Even with treatment, the long-term consequences can include continued growth problems, retardation, and socio-emotional deficits (Wallace, 1996).

Domestic abuse poses a serious risk even to the unborn foetus, as violence may increase the risk of premature birth, low birth weight, chorioamnionitis, foetal injury and in the worse case, death (Mezey and Bewley 1997, Connolly et al 1997, Bacchus et al 2002). It has been suggested that foetal morbidity resulting from violence is more prevalent than that from gestational diabetes or pre-eclampsia (Sidebotham and Golding, 2001). Foetal abuse can have effects on the developing infant's brain, leading to childhood anxiety and hyperactivity (Hosking and Walsh, 2005).

New technologies such as functional MRI (magnetic resonance imaging) and PET (positron emission tomography) have enabled scientists to identify the chemical and structural differences between the central nervous systems of abused and non-abused young people (Anderson et al, 2002; Teicher et al, 2004; Weniger et al, 2008). Many health problems, including panic or post-traumatic stress disorder, chronic fatigue syndrome, fibromyalgia, depression, some auto-immune disorders, suicidal tendencies, abnormal fear responses, pre-term labour, chronic pain syndromes, and ovarian dysfunction can be understood, in some cases, as manifestations of childhood maltreatment (Kendall-Tackett, 2000; De Bellis, 2005).

Evidence shows that maltreatment may inhibit the appropriate development of certain regions of the brain (Glaser, 2000). A neglected infant or young child may not be exposed to stimuli that normally activate important regions of the brain and strengthen cognitive pathways. The connections among neurons in these inactivated regions can literally wither away, hampering the child's functioning later in life. As a result, the brain may become 'wired' to experience the world as hostile and uncaring. This negative perspective may influence the child's later interactions, prompting the child to become anxious and overly aggressive or emotionally withdrawn.

Neglect and other forms of abuse may also be associated with neuromotor handicaps, such as central nervous system damage, physical defects, growth and mental retardation, and speech problems (Chester, 2006). Recent studies have also found an association between childhood abuse and hormonal disruption, manifesting in a dysregulation of the HPA (hypothalamic pituitary adrenal) axis (Cicchetti and Rogosch, 2001). In addition, childhood abuse also has strong links to later health problems, including heart disease, liver disease, cancer and chronic lung disease (Felitti et al, 1998).

Maltreatment may affect a child's health indirectly. For instance, physical and sexual abuse is a major factor in the homelessness of young people, which may result in risk-taking behaviours including substance abuse, self-harming, prostitution, and increased vulnerability

to further assault. Child victims of sexual abuse, for example, may be more prone to sexually transmitted infections, including syphilis and HIV (human immunodeficiency virus).

Importantly, abnormal ano–genital signs are uncommon in children examined for suspected child sexual abuse (Heger et al, 2002; RCPCH, 2007). Adolescents who have experienced sexual abuse are more likely to experience ongoing health problems such as chronic pelvic pain and other gynaecologic problems, gastrointestinal problems, headaches, and increased obesity (Springer et al, 2007). Both physical and sexual abuse are associated with a doubling of the risk of attempted suicide for young people by the time they reach their late twenties (Gilbert et al, 2008).

The link between maltreatment and many of these adverse consequences may be stress and depression, which can influence the immune system and may lead to higher risk-taking behaviours such as smoking, abuse of alcohol, illegal drugs, and overeating (Widom and Maxfield, 2001).

The broad range of direct and indirect health effects of child maltreatment is likely to have a substantial impact on a victim's life expectancy and long-term health-related quality of life (HRQL).

Effects on children's mental health and wellbeing

All types of maltreatment can affect a child's emotional, psychological and mental wellbeing, and these consequences may appear immediately or years later. The immediate and longer-term impact of abuse can include mental health problems such as anxiety, depression, substance misuse, eating disorders, self-injurious behaviour, anger and aggression, sexual symptoms and age-inappropriate sexual behaviour (Lanktree et al, 2008).

Numerous studies have documented associations between a child's exposure to maltreatment with negative mental health outcomes: low self-esteem and depression (Briere, 1996; Heim

and Nemeroff, 2001); severe anxiety (Kendler et al, 1998); addictions, drug and alcohol abuse (Bremner et al, 2000); post-traumatic stress disorder (McCauley et al, 1997); self-harming and suicidality (Oates, 2003); and being bullied (Duncan, 1999).

Other psychological and emotional conditions include panic disorder, dissociative disorders, attention deficit/hyperactivity disorder, and reactive attachment disorder (Teicher, 2000; De Bellis and Thomas, 2003; Springer et al, 2007). In one long-term study by Silverman et al (1996), as many as 80 per cent of young adults who had been abused met the diagnostic criteria for at least one psychiatric disorder by the time they reached age 21. These young adults exhibited many problems, including depression, anxiety, eating disorders, and suicide attempts.

Children who experience rejection or neglect are more likely to develop antisocial traits as they grow up and are more associated with borderline personality disorders and violent behaviour (Schore, 2003). Abused and neglected adolescents are estimated to be at least 25 per cent more likely to experience problems such as delinquency, teen pregnancy, low academic achievement, drug use, and mental health problems (Kelley et al 1997). Other studies suggest that abused young people are likely to engage in sexual risk-taking as they reach adolescence, thereby increasing their chances of contracting sexually transmitted infections (Johnson et al, 2006).

Evidence shows that around 50 per cent of people receiving mental health services report abuse as children: one review found that “on careful questioning, 50 to 60 per cent of psychiatric inpatients and 40 to 60 per cent of outpatients report childhood histories of physical or sexual abuse or both.” (Read, 1998). Others have concluded that “child abuse may have a causative role in the most severe psychiatric conditions.” (Fergusson et al, 1996; Mullen et al, 1993).

While the negative effects on health and development can often, though not always be reversed, this requires timely identification of the maltreatment and appropriate intervention.

The harmful effects vary depending on a number of factors, including the circumstances, personal characteristics of the child, and the child's environment (Gelles, 1998), and may endure long after the abuse or neglect occurs. Researchers have identified links between child maltreatment with difficulties during infancy, such as depression and withdrawal symptoms, common among children as young as three who have experienced emotional or physical abuse, or neglect (Dubowitz et al, 2002). Heim and Nemeroff (2001) suggest that early childhood abuse and trauma can cause a persistent biological state, which is likely to function as a risk factor for the occurrence of mental disorders in later life. It follows that abuse in childhood should be recognised as an important risk factor for mental disorders (Agid et al, 2000). Persistent neglect can lead to serious impairment of health and development; children may also experience low self-esteem or feelings of being unloved and isolated.

Domestic Abuse and its Effects on Children

Research has consistently shown that a high proportion of children living with domestic violence are themselves being abused, either physically or sexually, by the same perpetrator. Walby and Allen (2004) report a co-occurrence of domestic violence and child abuse in 40 per cent of cases, while Mullender et al (2003, 2005) estimate that in 90 per cent of incidents, children are witnesses to the violence.

Prolonged and/or regular exposure to domestic abuse can, despite the best efforts of the parents to protect the child, seriously affect the child's development, health and emotional wellbeing in a number of ways. It poses a threat to unborn children (Bacchus et al 2002), because assaults on pregnant women frequently involve punches or kicks directed at the abdomen, risking injury to both mother and foetus (Jasinski, 2004).

Domestic abuse during pregnancy and the first six months of child rearing is significantly related to various types of child maltreatment (child physical abuse, neglect, and emotional abuse) up to the child's fifth year, with children under one year at the highest risk of injury or death (Goodall and Lumley 2007). Older children may also suffer blows during episodes of

violence, and children who live in homes where domestic violence occurs are 15 times more likely to be physically abused or seriously neglected compared to the general child population (Carlson, 2000).

Children may also be greatly distressed by witnessing the physical and emotional suffering of a parent (Mullender, 2005; Hester et al. 1998; McGee 2000; Mullender et al. 2003), which can in itself be psychologically and emotionally harming. Studies by Silvern et al (1995) and Singer et al (1998) indicate that child witnesses to domestic violence are, on average, more aggressive and fearful and more often suffer from severe anxiety, depression and other trauma-related symptoms. They live with constant anxiety and may be at a higher risk of alcohol or drug abuse, experience cognitive problems or stress-related ailments (headaches, rashes), and have difficulties in school.

Multiple adverse events in childhood

Rosen and Martin (1996) have drawn attention to the fact that research into child abuse often focuses on only one type of abuse. This, however, overlooks the combined effect of different types of abuse: Horwitz's prospective study (2003), for instance, suggests that children who have experienced child sexual abuse often grow up in impoverished environments, with poverty, inadequate parenting, parents who are unemployed, or parents using drugs or alcohol. Such children have often experienced other forms of child maltreatment as well, including emotional abuse, neglect, physical abuse, and witnessing domestic abuse in the home (Coid et al, 2001; Radford and Hester, 2006). About one-third of adults self-report that they have experienced more than one form of child maltreatment (Edwards et al, 2003). Indeed, some researchers have suggested that emotional abuse is inherent in all forms of maltreatment and cannot be disentangled from other types of abuse (Garbarino et al, 1986). Emotional abuse can have a severe impact on a developing child's mental health, behaviour and self-esteem, particularly when it occurs in infancy. Underlying emotional abuse may be as important, if not more so, than other, more visible forms of abuse, in terms of its impact on the child (Glaser et al, 2001).

The effect of the co-occurrence of multiple categories of maltreatment on psychological health and wellbeing has often been overlooked, although one study by Felitti et al (2002) indicates that the effects are negatively related to the number of abuse types experienced. The study, which examined adult patients of an American health maintenance organisation, also reported a negative/positive dose-response relationship between the number of indicators of childhood maltreatment or family dysfunction, and a broad range of health outcomes. That is, as the number of negative experiences increased, poorer health was reported.

Protective Factors and Resilience

The past 20 years of research have brought an awareness of the vast individual differences in acute and long-term responses to childhood abuse. Studies have shown a relationship between various forms of childhood abuse and poor health (Flaherty et al, 2008; Felitti, 2002). However, in some cases, children may not appear to exhibit significant effects from maltreatment. This may be because they have certain protective qualities and are more resilient to negative consequences, buffered by personal characteristics such as optimism, high self-esteem or a sense of hopefulness despite their circumstances. Furthermore, there are individual differences in the timing of manifesting symptoms; some victims display few symptoms initially but evidence 'sleeper' effects[1] later in development (Finkelhor and Baron, 1986; Trickett and Putman, 1998).

Methodological Issues

The process by which maltreatment leads to negative health outcomes, including the causal role of maltreatment, is not fully understood. This is primarily because of the lack of well-developed theory and methodologically rigorous studies that examine factors such as poor

[1] The 'sleeper effect' is a psychological phenomenon whereby a highly persuasive message or event (such as child abuse), paired with a discounting cue, causes an individual to be more rather than less persuaded by the message over time: time does not heal but rather adds to the symptomatology.

attachment, poor parenting, poverty, drug and alcohol abuse, mental illness, and how they relate to child maltreatment. Many studies have employed cross-sectional designs, comparing the health states of individuals who report child maltreatment with those who do not (Felitti et al, 1998). More longitudinal studies are needed to better examine the processes by which maltreatment leads to negative outcomes.

Practice implications

1. Individual practitioners who have continuous contact with children, such as people working in schools and community health services, can have a leading role in recognizing, responding to, and supporting maltreated children. Health professionals such as nurses, midwives, doctors, dentists, and social workers should be urged to 'observe' a child's appearance and behaviour, and look out for any physical or emotional signs of abuse. If a health professional suspects possible maltreatment they should seek an explanation from the child in an open and sensitive way and consult an expert such as a community paediatrician. They should also try to gather information from other agencies and the child should be seen again at some point in the future. However, if there is compelling evidence to suggest that a child is being abused, they should be immediately referred to social services.

2. NICE (2009) has produced guidance that is intended to encourage healthcare professionals to think holistically when a child presents, so that they think about what they see, hear and any other information they receive to help them build up a picture. For example, if maltreatment is suspected, they may need to look at the whole child, gather relevant information from other sources, discuss the case with a senior colleague, and review the child. The guidance is intended to ensure that children who need help get it early in order to prevent further harm, and to enable additional support services to be provided to families where needed.

3. All individual professionals need to recognize that maltreatment is often part of children's lives in households that are also affected by poverty, substance abuse, mental health problems, physical disability, stress, or other forms of violence, which can add significantly to the adverse effects of the child's maltreatment. Enhancing the prospects for healthy development in the lives of maltreated children therefore requires attention to enhancing opportunities for positive, non-violent family and peer interactions.

4. As there are strong associations between child maltreatment and parental mental health conditions or substance misuse, there is a need for professionals to consider the welfare of children when dealing with these problems in adults. These problems, more recently described by the term 'new morbidity', have always existed but only recently has their full extent been recognized. More inter-agency collaboration between mental health agencies and those dealing with substance misuse is required.

5. Practitioners need to build on what we already know, to get a better grasp on how abused or neglected children are faring. Child health and development surveys already contain multiple indicators of child wellbeing that could be adapted to suit the purposes of child welfare and child protective service agencies. The challenge now is to develop strategies and resources that can select from these indicators and incorporate them into the routine data collection processes that support agencies' casework, decision-making, and programme development. However, new measures will need to be developed for evaluating positive outcomes and family strengths.

6. Practitioners frequently have different understandings of what constitutes child abuse and neglect and find it difficult to decide at what point a referral should be made (Horwath, 2005; 2007). In line with the public health approach, identifying the health and psycho-social needs unique to children with a history of various forms of abuse has broad implications for practice, treatment access and planning. Because these needs are often varied and interconnected, an effective inter-agency and multi-professional response is crucial, with the main focus for child maltreatment being primary prevention: preventing new cases of child maltreatment where maltreatment has not yet occurred. Because child maltreatment is a complex behaviour influenced by many factors, it may be easier to intervene to prevent abuse or neglect from developing than to intervene to change behaviours that are already well-established.

7. Given new evidence that trauma in childhood alters the physiology of the brain, it is time for all individual health and social care practitioners to be educated about the full health impact of violence and abuse, and to be trained to explore these issues

either as the true aetiology of their patients' ill-health, or as an underlying potentiating factor that has contributed to it.

8. Nurses, midwives and health visitors as well as specially trained safeguarding nurse practitioners need to develop a trusting relationship with the mother and other family members to promote sensitive, empathic care of their children. They also need to assist mothers to review their own childrearing histories and help them decide how they want to parent their children. School nurses also have a key role in the identification of children who may have been abused or are at risk of abuse.

9. All health organisations should have safeguarding children procedures in place, and a designated or named safeguarding children's nurse whose contact details are known throughout the organisation. Safeguarding children training should be mandatory for all nurses and health workers who may come into contact with children and young people, including ancillary and office staff. This training should be provided on induction, with refreshers at least once a year throughout their employment. These professionals should consider child maltreatment if a child or young person displays a marked change in behaviour or emotional state that is a departure from what would be expected for their age and developmental stage.

10. The availability of appropriate treatments to meet the needs of these children, however, still remains a challenge (Brandon and Thoburn, 2008). Developing effective interventions and services is vital in order to support parents in meeting their children's health and wellbeing needs. Primary prevention efforts could thus be marketed universally, to further reduce the stigma associated with 'parent training': every parent can benefit from parent skills training, not just 'bad' ones.

Policy implications

1. The importance of preventing child maltreatment and thereby its short-term and long-term health and mental health consequences cannot be underestimated. Intervening at an early stage with 'good' parenting programmes may reduce a child's likelihood of developing long-term health problems, and also reduce the public health burden of child maltreatment by preventing future health problems and re-victimization in adulthood with all its negative health consequences.

2. Trust managers should provide access to specialist post-registration safeguarding children education programmes for all professionals working in safeguarding children, as well for as selected professionals who take a lead role in safeguarding children. More and better training is needed to assist professionals in making appropriate use of core assessments and the common assessment framework (CAF) to support abused and neglected children, and to ensure appropriate decisions are made about when to intervene. Within health care, primary-care providers such as family doctors, dentists and A and E (Sidebotham and Biu, 2007) are of particular concern, because they make few referrals to child-protection services despite their ongoing contact with families (Lazenbatt and Freeman, 2006; Flaherty et al, 2008; Woodman et al, 2008).

3. Children's rights as laid out in the UN convention on the rights of the child (UN General Assembly, 1989) provide a framework for understanding child maltreatment as part of a range of violence, harm, and exploitation of children at the individual, institutional, and societal levels. The principles embodied in the UNCRC are concordant with those of medical ethics. The greatest strength of an approach based on the UNCRC is that it provides a legal instrument for implementing policy, accountability, and social justice, all of which enhance public health responses. Incorporation of the principles of the UNCRC into laws, research, public health policy and professional training and practice will result in further progress in the area of child maltreatment.

4. Improving the context of children's and families' lives, for instance in relation to inequalities and housing, good quality childcare, the benefits system and specialist substance misuse, mental health and domestic violence services have the potential to reduce the likelihood of children suffering health and mental health consequences of maltreatment.[2]

5. A public education campaign is needed to raise awareness of the extent and seriousness of the consequences of any form of child maltreatment, and the importance of reporting it to the appropriate agencies.

[2] The NSPCC publishes its position statements on a range of topics related to child protection on NSPCC inform: see **NSPCC Policy summaries**

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