Avoidable accidents: children’s injuries and their links to the social and family environment

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Accidents do not occur randomly. Studies show that prevalence and severity of children’s accidents are linked to various factors including family income, overcrowding and the mental health of carers. This article considers the wider literature as well as two specific studies from Peru, and seeks to place the issue of accidental injuries on the early childhood public health agenda.

The World Report on Child Injury Prevention, published by the World Health Organization and UNICEF (2008: 2), finds that accidental injuries are the cause of 30% of deaths in children aged between 1 and 3 years, almost 40% in children aged 4, and 50–60% in children aged 5 to 17. Road traffic accidents alone are the second-largest cause of death in children aged between 5 and 14.

For every one of these fatal accidents there are, of course, many more accidents that children survive – sometimes with devastating physical or mental damage that curtails their activities in the long term. The most common results of accidental injury include head injuries, open wounds and poisoning, according to 2004 figures for children under the age of 15 around the world (WHO and UNICEF, 2008: 7).

A study in the USA in the 1980s showed that for each fatally injured child under the age of 19, a further 45 needed hospitalisation and more than 1300 were taken to an accident and emergency unit and then discharged (Gallagher et al., 1984). Even when the effects are not long-lasting, treating the injuries caused by these accidents involves a huge financial outlay for healthcare systems (WHO and UNICEF, 2008: 7) or for families without healthcare insurance.

Despite the prevalence of accidental injuries, they have not always been regarded as an important public health matter. According to literature reviewed by Bartlett, this may be due to accidents being seen as random events (2002: 1). Accidents are linked to notions of chance and inevitability, and there is a fatalistic tendency to see unintentional injuries as an unavoidable evil (Tursz, 1986 in Bartlett, 2002: 1). It is a mistake, however, to think of accidents as random.

Factors linked to children’s accidents

Several studies have pointed to factors that affect the prevalence and severity of children’s accidents. Notably, the frequency of accidents is much greater in poorer homes, with the highest rates seen in the child population of low-income countries (WHO and UNICEF, 2008: 1).

In 2010, Laflamme, Hasselberg and Burrows published a review of numerous articles demonstrating a link between socio-economic inequality and children’s accidents (Laflamme et al., 2010) including pedestrian road traffic accidents, bicycle and motorcycle accidents, car accidents, drowning, poisoning, burns and falls. The studies also found that more educated mothers were better at protecting their children from risk.

A link between overcrowded living conditions and the risk of road traffic accidents was highlighted in a study carried out by Donroe and colleagues in the district of San Juan de Miraflores in Lima, Peru (Donroe et al., 2008: 4). The study also found that particular environmental factors such as a greater number of street traders, the absence of lane markers on the roads, vehicles travelling at higher speeds, and more vehicles using the road increased the likelihood of children suffering pedestrian road traffic accidents.

According to the WHO and UNICEF, there is some evidence of the link between the risk of injury and the absence or presence of supervision. The risk becomes substantially greater if the carer shows a pattern of substance abuse or has some kind of mental disorder. Howe et al. (2006) documented the connection between injury occurrence and the incidence of common mental disorders in children’s carers. Lack of care is also linked to a background of domestic violence in mothers. Jewkes et al. (2001) found that the impact of violence on the mental and physical health of mothers affected their ability to give their children proper care.
Not only are children in low-income families more likely to suffer accidents, they are less likely to have access to good-quality medical care. This link between resources and access to good medical treatment might explain the variation in accident mortality rates in different parts of the world. For example, according to data quoted by the WHO and UNICEF, in one study carried out in Nigeria, 27% of children admitted to hospital with burns died as a result of their injuries, compared to a study in Kuwait, which found that only 1% of children died.

**Recent evidence from Peru**

In Peru, the first two stages of the Young Lives study asked a series of questions about accidents. Using these data (Benavides et al., 2011), we have calculated that falls are the most common kind of accident, with 15% of children mentioning having suffered this type of accident, followed by hard blows to the head (4%), burns (3%) and fractures (2%). The study found that symptoms of depression in mothers increased the likelihood of any of the four kinds of accidents occurring.

A separate study carried out by the Bernard van Leer Foundation in selected districts of three regions in Peru also showed that falls were the most frequent kind of accident, followed by stings or animal bites, and burns. Drowning was found to be more common in rural areas, and in some places, such as Belen, 7% of the children of the sample had almost died of drowning. This study found that three key factors affect the occurrence and severity of accidents:

- The first factor is the extent to which children are supervised in and outside the home, and if toxic products are stored within their reach.
- The second major factor is the presence of open rubbish tips and waste disposal sites in the community. Dirty streets full of rubbish not only spread disease among children, they are also the scene of many more accidents than streets which are clean and tidy.
- Finally, the study found that children living in homes where episodes of domestic violence take place are more likely to suffer serious injury. In those contexts, children are not well supervised and the probability of accidents is higher.

There are several clear policy implication from these studies. They show, for example, the importance of efforts to tackle overcrowded housing; improve regulations on use of public roads; clean up public spaces; address the effects of domestic violence and mental illness on mothers’ caregiving capacity; and improve supervision of children when their primary carers are otherwise engaged. Children’s accidents are not random, and should be firmly on the early childhood health working agenda.

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References


Studies also show several clear policy implications such as the importance of improving regulations on use of public roads and cleaning up public spaces, among others.

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Further information


Note

For more information about Young Lives, visit www.younglives.org.uk