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Home visiting and childhood injury

Key messages

- Home visits can reduce the risk of accidental injuries in the home by around 26 per cent.
- Home visits may encourage parents to reduce home hazards.
- Evidence is unclear on whether the effectiveness of home visiting in reducing injuries varies when provided by professionals, semi-professionals or specially trained community volunteers.
- The evidence for effectiveness of home visiting comes from studies of families with low-income and/or in high-accident areas.

Introduction

Home visiting is when an individual visits a prospective or new parent (usually the mother) at home before and/or after a child's birth. A home visitor may provide advice and support in relation to a range of issues such as child development and health, mother–child interaction, and parenting.[1,2] In the United Kingdom, home visiting has been largely associated with the work of health visitors who are trained nurses. This *Highlight* looks at the impact home visiting may have on reducing unintentional child injuries.

Home visiting can be delivered in a series of visits over time and targeted to improve a range of child and maternal outcomes. Other programmes are specifically targeted at childhood injuries and focus on providing safety advice during one or two visits.[2,3] Sometimes home visiting is only one component of a wider multifaceted programme which includes other support services such as parenting programmes.

Injury and child health inequalities

Injury accounts for 40 per cent of deaths among one to14-year-olds across the developed world.[4] It is the most common cause of death for children over one year old in the United Kingdom and has a steeper social class gradient than any other cause of death in children.[5,6] In the UK in 2002 almost half a million children under five and more than 400,000 children aged five to 14 attended a hospital after being injured at home.[7] Child deaths from injury have fallen over recent years, but the reduction has been smaller among children from deprived backgrounds, therefore increasing inequalities.[8,9]

Children living in areas of deprivation, those in poor housing – including bed and breakfast accommodation – and those from large families are all at greater risk of accidental injury.[10] Most research in this area considers young children (up to the age of two years), and the potential benefit to older children has not been assessed.

Benefits of home visiting

There are a number of studies and research reviews published on the effect of home visiting on injury and other childhood and maternal outcomes.[2,3,10-12] The overall conclusion from this research is that home visiting can substantially reduce rates of accidental injury in families at increased risk of accidents in the home. The literature does not reach a conclusion as to what aspect of the home visiting contributes to a reduction in injuries.

A recently published overview of the research incorporated findings from nine previous reviews. It looked at home visiting with regard to a range of child outcomes. The clearest effect was seen in the ability of home visiting to reduce rates of childhood injury.[12]

An earlier review of individual research studies also found that home visiting reduced home hazards and injuries.[2] In this review, eight studies reported a reduction in injury in the intervention group.[13-20] This finding reached a statistically significant level in three studies[15,18,20,21] and in total represented a 26 per cent reduction in risk of injury to children in homes that had been visited.[2]

The content of the interventions varied according to the main aims of the project, and six explicitly included a safety advice element.[14-16,18-20] Typically, home visits included information and advice on child development and child health, emotional support, links to local support networks and information about local services. No studies compared the effects of home visits provided by professional groups and by non-professionals.

Home visiting that addressed home hazards typically involved some safety education and a safety inspection followed by specific advice on changes that should be made in the home. Across five of the six studies, homes were found to be safer following the home visit.[15,22-25]

In one study carried out in the United Kingdom, health visitors provided low-income homes in Newcastle with information on safety and grants for safety improvements. Families visited at home were more likely to obtain and fit stair gates, fireguards, cupboard locks, window locks and cooker guards than those who were not visited.[22] This finding has since been replicated in three other studies,[26-28] although one of them failed to show that home visiting increased the impact of either general advice from paediatricians or referral to a children's safety centre.[28]

One study published after the review found a decrease in parent-reported injuries at a four-month follow-up.[29] The home visiting was provided by specially trained child health nurses, weekly for six weeks, then fortnightly until three months and finally, monthly until six months. Another trial looking at outcomes after two years did not find an effect on reported injuries, although other outcomes improved (for example, parent–child interaction and child development).[30] The home visiting was part of a wider programme to address child abuse and neglect and was provided by para-professionals, who are trained to assist professionals, but are recruited from the community.

Policy and practice implications

The research described here highlights gaps in current knowledge as to how home visiting should be delivered. None of the reviews was able to establish which components of multifaceted home-visiting programmes were effective in reducing childhood injury in the home.[2,10] Some studies have shown positive effects from injury-only focused home visits,[26,27] but it has been suggested that multifocused home-visiting programmes are more effective.[12] Issues such as key content of visits and the intensity and duration of visits have on the whole, not been addressed. A recent study has suggested that professional visiting (by nurses) is substantially more successful than lay or para-professional visiting, but injury was not measured as an outcome.[31] Despite the lack of evidence, it seems likely that the quality of home-visiting provision is important, and further attention should now be given to this type of issue.

While most of the findings support the use of home visitation to reduce risk of injury to children, it should be noted that many of the home-visiting programmes being evaluated have targeted groups perceived to be at particular risk of unintentional injury. This may therefore restrict the extent to which the results are relevant to other groups of parents in the population. There is, for example, little evidence available concerning their effectiveness with ethnic minority or population samples.

When asked about their experience of home visiting, parents have reported positive responses, but they may have been reluctant to criticise an intervention clearly aimed at helping them.[2] However, more than nine in 10 families in one study declared that they would participate again in a similar programme. These parents also expressed their need for further training.[27] Evidence from other studies has shown that only being given safety advice, particularly for families living in poverty, may be experienced as stressful.[32]

One study found that the most appreciated devices provided in a safety kit were door handle covers, electric outlet covers, cupboard and drawer latches, pamphlets and emergency phone numbers. The study concluded that the home delivery aspect was crucial to success along with free provision and easy-to-use safety kits.[13]

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The resource implications of home visiting will depend on who is providing the visiting and whether or not this work will be undertaken as part of routine visits. As a guideline, the cost to the health service of a 20-minute home visit by a health visitor (allowing for all costs including overheads and travel) has been calculated at £30. In comparison, a home visit from a non-professional community auxiliary nurse would cost £7 at 2003 rates.[33] The latter figure does not include support costs.

These costs may be offset against anticipated savings, for example reduced clinic visits, or reduced visits to hospital accident and emergency departments. One study found that for every 12 homes visited, one injury visit to the doctor would be prevented per year.[26] A North American study reports a net saving for a sample of low-income families, when visiting and support costs were offset against savings in welfare and increased taxes collected over four years.[34]

In some areas home visiting may be offered by non-professionals, such as community mothers or para-professionals (such as nursery nurses working as health-visiting assistants or other community nurses).[35] Families within Sure Start[36] areas will receive at least one antenatal home visit from a local Sure Start worker, and some programmes include post-natal home visits. Increasingly, fire and rescue services offer free home risk assessments. These initiatives have, however, not been evaluated using rigorous methodologies.

Conclusion

Home visiting can be an effective intervention in reducing unintentional child injuries at home. It can be provided by trained community workers or professional home visitors and, although the evidence is limited, the potential for savings is high. A range of different types of home visiting has been evaluated. While it is still unclear which components are most influential in producing change, the evidence suggests that multifaceted interventions are most successful in reducing injuries in childhood.[12]

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Further information

The most recent review of home visiting, on which much of this information is based, is published by the Health Development Agency (HDA) at: **www.hda.nhs.uk/documents/home_visiting.pdf.**

The HDA also provides an information resource on innovation in primary care with a section on innovation in health visiting and school nurses at: **www.innovate.hda-online.org.uk/**

The Department of Health publishes a health visitor resource development pack: **www.dh.gov.uk/PublicationsAndStatistics/Publications/PublicationsPolicyAndGuidance**

Community Practitioners and Health Visitor Association: **www.msfcphva.org**

Home Start: **www.home-start.org.uk/site/index.asp**

Sure Start: **www.surestart.gov.uk**

The Child Accident Prevention Trust (**www.capt.org.uk)** will shortly be publishing its own guidelines on home safety checks.

This Highlight has been produced from What Works for Children? evidence nugget on home visiting, which is a longer, more detailed document, available at ***www.whatworksforchildren.org.uk***

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