



Review

Children and young people's behaviour in accidental dwelling fires: A systematic review of the qualitative literature



Julie Mytton*, Trudy Goodenough, Claire Novak

Centre for Child and Adolescent Health, University of the West of England, Bristol, United Kingdom

ARTICLE INFO

Article history:

Received 24 June 2016

Received in revised form 21 December 2016

Accepted 19 March 2017

Keywords:

Children and young people

Human behaviour

Fire evacuation

Accidental fires

Dwelling fires

ABSTRACT

Children and young people are considered one of the most vulnerable population groups when exposed to accidental dwelling fires. Understanding how children behave in these circumstances and the reasons for their decision making are important to support rescue and fire safety education. We undertook a systematic review of the qualitative literature to identify studies where children and young people were asked to recount their experiences of being in an accidental dwelling fire in order to inform UK Fire and Rescue Service training and fire safety education programmes. We found no studies designed specifically to explore children's behaviours in dwelling fires, and only four studies (including 39 children's stories) where their behaviours had been recorded coincidentally to the main study aim. The evidence arising from these stories was frequently incomplete, often out of date (15–20 years old), and 38/39 (97%) of stories were from the United States. This review indicates there is inadequate evidence of the current lived experience of children in accidental dwelling fires to support fire and rescue services in either their fire and rescue training or community fire safety education activities, particularly for non-US countries.

© 2017 Elsevier Ltd. All rights reserved.

Contents

1. Introduction	144
2. Methods	145
2.1. Inclusion criteria	145
2.2. Search strategy	145
2.3. Study selection	145
2.4. Management of studies included in the review	145
3. Results	146
4. Conclusions	147
4.1. Summary of findings	147
4.2. Strengths and weaknesses of our study	147
4.3. Comparison with existing literature	147
4.4. Implications for research and practice	148
Funding and timescales	148
References	148

* Corresponding author at: Centre for Child and Adolescent Health, Oakfield House, Oakfield Grove, Bristol BS8 2BN, United Kingdom.

E-mail address: Julie.Mytton@uwe.ac.uk (J. Mytton).

1. Introduction

There were 39,600 dwelling fires in Great Britain in 2013–14 (Department for Communities and Local Government, 2015), and of these 89% were accidental. Dwelling fires remain the main cause of fire-related deaths in Great Britain. The main cause of accidental dwelling fires is the misuse of equipment or appliances and the main source of ignition is cooking appliances, accounting for half of all accidental dwelling fires (Department for Communities and Local Government, 2015). The trend in falling numbers of dwelling fires over the last decade is most likely to be associated with the increasing proportion of homes with working smoke alarms. Despite smoke alarm ownership being estimated to be as high as 88% in the UK in 2011 (Department for Communities and Local Government, 2014a), 57% of fire fatalities and 41% of non-fatal casualties occurred in homes where a smoke alarm was absent or present but not working. The UK Fire and Rescue Service (FRS) identifies children and the older people as the two most vulnerable groups in dwelling fires. Of the 258 people who died in dwelling fires, the age group most affected are those over 80 years of age (Department for Communities and Local Government, 2015). Of these, only 29 children and young people (up to the age of 25 y) died in fires in Great Britain in 2013–14, but a much larger (and unrecorded) number of children and young people will have experienced a fire in their home. The risk of being injured in a fire is socially patterned and associated with multiple non-independent factors (Holborn et al., 2003; DCLG, 2014) including household members using tobacco products, alcohol and drugs, household members being unwell or having a disability and failing to have a working smoke alarm. A study of FRS data between 1994 and 2004 (Mulvaney et al., 2009) showed that Fire and Rescue Services based in the most deprived areas of the UK had local fire injury rates between 1.4 and 3.7 times higher than Fire and Rescue Services in areas of the least deprivation, with a dose-response relationship, i.e. the greater the degree of deprivation, the greater the number of fire related injuries occurring in that area. These deprivation gradients had not changed over the 10 year period of study (Mulvaney et al., 2009).

The Kent Fire and Rescue Service have recently been working with the University of Greenwich to investigate the behaviour of people over the age of 16 years who experience an accidental dwelling fires. They have been exploring the extent to which adults follow current FRS guidance to “Get out, stay out and call 999”. A qualitative study of 179 adults who had experienced a fire at home revealed that people often attempt to tackle fires themselves, will carry out actions that are specifically discouraged by the FRS (such as re-entering the room of origin of the fire) and will re-enter property having left the building to retrieve other occupants, possessions or pets (Wales and Thompson, 2013). This study has led to the creation of an on-going database of information on adult behaviour in accidental dwelling fires being collected from multiple FRS from across England, and facilitating the identification of themes with the potential to influence FRS stakeholder practice, and informing how public safety messages may need to be revised (Wales et al., 2015).

How an individual behaves in a dwelling fire is dependent on features which include their ability to make decisions and how that may be influenced by being in a stressful environment such as a dwelling fire, their ability to observe and interpret danger signals with subsequent estimation of risk, and their mobility to respond to that risk appropriately (Kobes et al., 2010). The challenge of managing potentially conflicting impulses driven by cognition and emotion in a fire evacuation situation is well recognised (Kinateder et al., 2015; Clark et al., 2015). Behaviours identified in adults should not be generalised to children and young people.

The behavioural features may differ from those in adults, and are likely to vary during their childhoods, dependent on the age and stage of the child's development. Reports of children's involvement in domestic fires tend to be in the form of epidemiological studies of fire injury and fatality incidence or case series (Shai and Lupinacci, 2003; Holborn et al., 2003; Mulvaney et al., 2009; Hussain and Dunn, 2014). Such reports do not include the voice of the child. The most appropriate study design to explore individuals' perceptions and behaviours is through qualitative methods. These techniques allow an exploration of choice and decision making, leading to a greater depth of understanding of the factors that have influenced subsequent actions (Corbin and Strauss, 2015). This in turn facilitates the inductive generation of hypotheses which can be used to inform the development of interventions and later testing through quantitative studies (Bowling, 2014). It is increasingly recognised that research designed to improve outcomes for children and young people is strengthened by the inclusion of children and young people in the research. This principle is enshrined in the United Nations Convention on the Rights of the Child (United Nations, 1989) and in the UK Children Acts of 1989 and 2004 (Children Act, 1989, 2004). Public participation in research is recognised as contributing to the improved validity and potential impact of study outcomes and the ability to generalise study findings beyond the academic setting (INVOLVE, 2012). Hearing the voice of the child is now widely recognised as good practice, is promoted by advocates for children such as the UK Chief Medical Officer (Chief Medical Officer, 2012) and by children themselves (McDonagh and Bateman, 2012) and demonstrates a marked shift from historical approaches where research was done to children or on children (Bird et al., 2013).

Information on the circumstances of UK fires that are fatal for children and young people are collected through Fire Investigation Reports, Coroners Reports and the work of the Child Death Overview Panels (HM Government, 2015). However, relatively little is known about how the behaviours of children who survive an accidental dwelling fire differ from those who do not. Here again, the literature is largely focused on the behaviour and lifestyles of adults, but is mostly more than 15 years old (Runyon et al., 1992; Marshall et al., 1998; Warda et al., 1999) or from non-UK settings (Diekman et al., 2012; Xiong et al., 2015). Evidence emerging from research on adult behaviour in fires suggests that understanding pre-evacuation behaviour is as important as behaviour during evacuation (Zhao et al., 2009). As the number of children who experience a fire at home but are not killed or seriously injured is much greater than the number who are harmed, it seems appropriate to understand how the behaviour of those who survive unharmed differs from the behaviour of those who are harmed. This knowledge has the potential to support two important areas; fire officer training and fire safety education. UK Fire officers entering a burning building to search for children are trained to look under beds and in wardrobes on the assumption that children will hide from fire (Department for Communities and Local Government, 2014b). Conversations with several UK fire personnel indicate that this practice appears to be built upon the location of fatal child fire victims. It is not clear whether this behaviour is dependent on the stage of the fire or the age of the child. In addition, Fire and Rescue Service pro-actively engage with pre-schools, primary and secondary schools to teach fire safety to children. It is important that they have accurate information on the behaviour of children in dwelling fires to know how best to advise children how to behave if they find themselves in this situation. Currently most research on human behaviour in fires in the UK setting has been focussed on the behaviour of adults (Thompson and Wales, 2014; Wales et al., 2015; Clark and Smith, 2015). The aim of this study was therefore to identify the literature reporting the behaviour of

Download English Version:

<https://daneshyari.com/en/article/4981192>

Download Persian Version:

<https://daneshyari.com/article/4981192>

[Daneshyari.com](https://daneshyari.com)