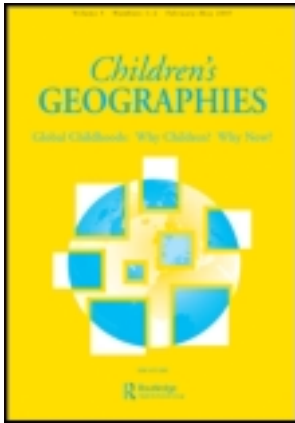


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'It came up to here': learning from children's flood narratives

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'It came up to here': learning from children's flood narratives

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The growing body of literature that seeks to understand the social impacts of flooding has failed to recognise the value of children's knowledge. Working with a group of flood-affected children in Hull using a storyboard methodology, this paper argues that the children have specific flood experiences that need to be understood in their own right. In this paper, we consider the ways in which the disruption caused by the flood revealed and produced new – and sometimes hidden – vulnerabilities and forms of resilience and we reflect on the ways in which paying attention to children's perspectives enhances our understanding of resilience.

Keywords: flood-affected children; flood recovery; resilience; storyboard methodologies; Hull floods

Introduction

Relatively few accounts of flooding and flood recovery take account of the perspectives and agency of children and young people. While there is a strong body of evidence that children are a vulnerable sub-group to flooding (Thrush *et al.* 2005a, 2005b), and some research has identified the need to understand children's perspectives on flooding (Tapsell 1997, Tapsell *et al.* 2001, RPA *et al.* 2004), most studies of natural hazards have failed to incorporate the growing body of research that recognises the role of children as social actors (Tucker and Matthews 2001, Valentine and Holloway 2002, Hemming 2008). This neglect is particularly problematic given the increasing policy emphasis on building individual and community resilience as a strategy for coping with floods (Defra 2005, 2008, Environment Agency 2005, Cabinet Office 2010). It is also problematic in the context of shifts in policy worlds, from the United Nations down to national and local government, that recognise the rights of children and young people to have a say in decisions that affect their lives (DCSF 2008).

This paper details some key findings of an in-depth study working with a group of flood-affected children and young people which set out to identify key aspects of their experiences and agency in relation to flooding and the flood recovery process. The research was based in the city of Kingston-upon-Hull, north east of England, which experienced severe flooding in June 2007. Over 110 mm of rain fell on the city during the biggest event on June 25th, overwhelming the drainage system and resulting in widespread pluvial flooding. The Hull floods affected over 8600 households and 1300 business properties, one young man died and 91 of

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the city's 99 schools were affected (Coulthard *et al.* 2007a, 2007b). However, our research shows that establishing who was affected – and how – is more complex than the statistics suggest.

To set the scene for the paper, we begin by reviewing the literature which discusses the impacts of flooding on children. We then turn to consider how these debates relate to issues of vulnerability and resilience, before moving on to discuss the methodology we employed in the study. In the paper, we show how the disruption caused by the flood revealed and produced new – and sometimes hidden – vulnerabilities and forms of resilience amongst the children. In conclusion, we reflect on the ways in which paying attention to children's perspectives can enhance our understanding of resilience and the role that children play in their communities more generally.

Children and flooding

The Pitt Review of the summer floods of 2007 in England (Cabinet Office 2008) supports the findings of an increasing body of social science literature that pays testament to the economic, social and emotional impacts of flood recovery (Tapsell *et al.* 2002, Fielding and Burningham 2005, Thrush *et al.* 2005a, 2005b, Walker *et al.* 2006). Nevertheless, children remain largely hidden from research on flood and flood recovery despite the fact that one in four households at risk of flooding in England and Wales have children living in them (Burningham *et al.* 2005). This omission is consistent with Valentine's (1997) claim that contemporary research on children's geographies reveals the extent to which adults know relatively little about children's social worlds.

To date, those studies which have attempted to explore the impacts of flooding on children have done so from an adult-focused perspective, rather than working with children themselves. Such work shows that children can be severely affected – both physically and emotionally – by natural disasters such as flooding (Flynn and Nelson 1998, Tapsell and Tunstall 2001). Studies have also highlighted the social and physical health effects of flooding upon children in a development context (Flynn and Nelson 1998, Delap 2000, Zoleta-Nantes 2002, Hossain and Kolsteren 2003). In the UK, research has shown that flood-affected children are prone to health problems such as coughs, colds and eczema (Tapsell *et al.* 1999, Tapsell and Tunstall 2001). Children may also experience emotional impacts; for example, parents interviewed in Carlisle reported that their children would still become upset and cry during heavy rain more than a year after the floods took place in 2005 (Watson *et al.* 2007). Parents identified childhood stress at home over the loss of possessions or pets and distress at school (Carroll *et al.* 2006, Convery *et al.* 2010), as well as behavioural problems, including difficulty sleeping, nightmares and tantrums (Welsh Consumer Council 1992, Hill and O'Brien 1999).

The flood recovery process can also impact adversely on children. One study cites poor academic performance as a result of stress in family relationships during the long-term flood recovery process (Allen and Rosse 1998), where such stress might come from the disruption to normal routines as well as social isolation from friendship networks (Tapsell and Tunstall 2001). In the north east of England, parents were angry that there was a lack of advice on how to deal with children after a flood, and that no social or psychological support had been provided for young people (Tapsell and Tunstall 2001). Nevertheless, parents may be too pre-occupied with 'crisis management' to consider how their children are affected (Ketteridge and Fordham 1995).

However, while we can draw inferences from such adult-focused studies, this does not give us systematic and robust insights into children's own experiences of flooding, or indeed how these experiences may relate to concepts of vulnerability and resilience which are frequently used to examine people's experiences of disaster recovery.

Flood, vulnerability and resilience

The concept of vulnerability has been an increasing concern within the literature that seeks to explore the social impacts of flooding (Tapsell *et al.* 2002, Fielding and Burningham 2005). Within this literature, vulnerability is often considered to be linked to particular demographic and socio-economic factors such as age, ethnicity, income, pre-existing poor health and family structure (Thrush *et al.* 2005a, 2005b, Walker *et al.* 2006). Following the logic of such arguments, children – like older people – may automatically be classed as a ‘vulnerable group’. However, more recent research suggests that the situation is more complex than this. Working with a group of flood-affected adults in Hull, Whittle *et al.* (2010) suggest that vulnerability is both dynamic and contextual and that it cannot be reduced to a static list of socio-demographic characteristics that can be defined and measured, such as age or disability. Specific circumstances operating in a person’s life (some of which were completely unrelated to flooding, such as redundancy or family illness) influenced who became vulnerable at different points during the recovery process. Such conclusions were born-out in our work in Hull where we discovered that some children may be vulnerable immediately before and after the flood, while others may become vulnerable as a result of the ways in which the long-term flood recovery process is played out (Walker *et al.* 2010, Whittle *et al.* 2012).

Whilst the concept of vulnerability focuses on weakness and susceptibility, resilience, in contrast, suggests a more positive sense of strength. Competing conceptions of resilience have proliferated across a wide range of literatures with different implications for what the analysis of building resilience might mean (Medd and Marvin 2005). In our study, we were interested in two manifestations of resilience: the extent to which resilience was already present and demonstrated in the flood response, and the extent to which new forms of resilience were being (or could be) established as a response to the flood. The role that children played as social actors was therefore important: concerns that children are a ‘vulnerable’ group has led to increased interest from both policy worlds and academia into the role that children can play in building resilience within their homes and communities (Cabinet Office 2010). By focusing on this issue we build on existing literatures on children’s psychological resilience which discuss how children’s services can enhance children’s resilience (Resilience Research Centre Canada 2008), and which makes evaluations and suggestions for the development of education programmes for children and young people (Ronan and Johnston 2005; and in a development context Izadkhah and Hosseini 2005). The research also builds on a well-established literature that, since the 1990s, has demonstrated the importance of recognising the competencies and capacities of children as individual social actors who make sense of, and actively engage with, their social worlds (Valentine 1996, James and Prout 1997, James *et al.* 1998, Hutchby and Moran-Ellis 1998, Holloway and Valentine 2000, Smith and Barker 2001, Tapsell *et al.* 2001, James and James 2004, Newman *et al.* 2006).

In the project we explored the ways in which the children contributed to the process of building resilience (for example, by seeing children as having an active role in the recovery process (James and Prout 1997, Hutchby and Moran-Ellis 1998, Pain 2006). We also explored their role in the household – for example, by providing practical help as well as emotional support (Burningham *et al.* 2005, Seymour 2005, Thrush *et al.* 2005a, 2005b). We now outline the methods on which the study was based before going on to explore the children’s narratives of the flood and the subsequent recovery process.

Methodology

The methodology builds on the growing body of work that uses interactive mixed-method research to generate rich data about issues in children’s own lives (Thomas and O’Kane 2000, Tapsell *et al.* 2001, Morrow 2002, 2003, 2004, Ansell and van Blerk 2004, Kellert 2005,

Walker *et al.* 2009). In total, 46 flood-affected children took part, from May 2009 to May 2010; some of the children were flooded at school and others were flooded both at school and at home. Access to the children was via three sources: a primary school, a secondary school and youth groups. However, in this paper we concentrate solely on the experiences of the school groups, where the participants were aged 7–13 years when the floods occurred and 9–15 years at the point of data collection.¹ Hull City Council provided detailed information on how schools across Hull were affected and played a lead role in facilitating our relationship with the schools and youth groups. We worked in two schools that were badly affected by the floods; both schools were evacuated on the day and then closed for strip-out and refurbishment. The school children totalled 42 (25 primary and 17 secondary pupils) with Tables 1 and 2 providing a profile of the schools and the participants, respectively.² Both schools were also situated in areas characterised by high levels of social disadvantage: eligibility for Free School Meals is used as an indicator of poverty and Table 1 shows that the number of pupils entitled to free school meals is above the national average in both establishments.

Participating classes were chosen with staff guidance. We worked with the Year 5 class in the primary school (9–10-year-olds) and a mixed age-group of pupils from Years 7–10 (11–15-year-olds) in the secondary school.

Following recruitment, we used storyboards, interviews and group discussions with the school children and telephone interviews with four flood-affected young people, accessed through the youth team. We also interviewed 18 adults who supported children in Hull following the floods, including key service providers and front line workers, together with stakeholder engagement through a project steering group.³

The storyboard workshops involved 44 participants in two sessions; one for the primary school (16 children and three staff) and one for the secondary school (18 children and two staff). The primary school headteacher was concerned that some pupils had ‘a nervousness’ about rain and she suggested we talk about ‘the fun things to do with water’. To generate a feeling of excitement, the workshops took place off the school premises and began with a set of games based around the theme of ‘water’. The children were then asked to represent their

Table 1. School profiles.

School profile	Marshside Primary School	Edgetown Secondary School
Type	Community (LA maintained)	Community (LA maintained)
Admissions	NA	Comprehensive
Gender	Mixed	Mixed
Age range	3–11	11–16
Pupils	329	1200
Free school meals	178	312

Table 2. Project participants from the schools.

School participants	Marshside Primary School	Edgetown Secondary School
Cohort	26 (9–10 years)	17 (11–15 yrs)
Free school meals	15	1
SEN (pupils learning needs requiring extra support)	9	0
EAL (English as an additional language)	1	0

'flood journey' in a storyboard. Storyboards have been shown to be an effective method in children's research because they avoid problems associated with low literacy levels and give participants the freedom to 'represent' themselves in particular ways (Smith and Barker 2001, Ansell and van Blerk 2004, Newman *et al.* 2006, Hemming 2008). We then conducted one-to-one interviews with the children (15–20 min, 42 recorded in total – 25 primary and 17 secondary pupils) using the storyboards as prompts (Loizos 2000, Walker *et al.* 2009). For example, on his storyboard Zain (Figure 1) shows the flood water reaching up to, and then receding from, the letter box and we talked about this in the interview.

The audio-data from the interviews were transcribed in full and categorised thematically using data analysis software (Atlas Ti). This process involved coding of the data by the researchers, and data clinics in which the research team read a sample of the data and compared their interpretations in order to identify key themes for analysis. Issues around loss and disruption at home, at school and in friendship networks were prevalent within the children's narratives. As a result, the following sections use a framework of what was disrupted, revealed and created by the flood as a means to enhance our understandings of vulnerability and resilience.

The disruption of everyday life

Media coverage of flooding demonstrates only too clearly the immediate disruptions that floods can produce in the daily lives of a city and its inhabitants. The children described the immediate impacts of the flood in a number of ways. The most obvious of these was the effect that the flood had on their homes. The children had vivid recollections of the chaos caused as the floodwaters entered their homes, often in unexpected ways. Darren (Yr 5/10)⁴ remembered, 'it started coming through the holes where you have the [tv] aerial, loads of it . . . all over the house', while Wayne (Yr 5/10) noticed that the water went 'yellow' in the toilet and then water 'started squirting out' of the washing machine.

This initial experience was shocking for those who did not realise the extent and severity of the floods, as Gemma's (Yr 9/14) experience illustrates. Like many of the children, Gemma thought that there would only be a 'bit of damp', whereas the reality was much worse. Her



Figure 1. Zain's 'flood journey'.

bedroom was downstairs so she put ‘all her stuff’ on the top of her cupboard, took her uniform and slept upstairs. However, what happened next came as a shock:

At 4 o’clock in the morning the next thing I know the house was flooded . . . I didn’t know my house was going to be flooded. I thought it was just going to be like a little bit of damp . . . it was really high. Because where I live it’s like a bowl and all the water just came in and they were all sucking in the water to get it out, the fire brigade and that lot, it was coming back down our street, it was really high. (Gemma Yr 9/14)

The children’s accounts then show how this initial disruption was followed by the more hidden but no less troublesome disruption involved in the longer term recovery process. Here, we can see how the recovery process affected the daily routines and social practices of the household – a point which was well illustrated by the experiences of those who lived in caravans during the repairs to their home. When talking about life in the caravan, it was common for the children to use words such as ‘cramped’ or ‘squashed’, and this meant that everyday activities had to be reconfigured to adjust to the lack of space and facilities. Sally (Yr 7/11) illustrates how her family changed their cooking and eating habits in the aftermath of the floods. To begin with, she said: ‘we got take-aways but then we stopped and we was having salads because it was too unhealthy’. Then her parents bought a small touring caravan and they put it on the drive way. Sally said ‘my mum started cooking . . . and some days we had like meals like spaghetti bolognaise and that and hot dinners . . . but it wasn’t very good, well it tasted nice but the cooker wasn’t good’. Sally and her sister helped with the washing up in the caravan ‘but it was only like a little sink and the fridge was really small so we had another fridge in the garage and a freezer’.

Socialising, doing homework and even sleeping were difficult in such close quarters and, in many cases, this disruption took its toll on the physical and emotional well-being of the children and their families, as Megan (Yr 9/14), whose family of six lived in a four-berth touring caravan, describes in this extract from her storyboard:

. . . when me and my little sister came back we had to live in the tiny caravan because my littlest sister had just turned 2, all she would do is cry. So none of us would sleep. My little sister was still crying every night so we took her to the doctors. My little sister had pneumonia so the builders had to work really fast so my little sister could move out of the caravan. When Christmas came we had to spend it at my grandma’s so there was 7 of us in a one bedroomed flat! And my grandma had a close friend over so there was 8 of us! But it wasn’t too bad. And after a week of staying there we went home and got back in our house. So we stayed in a caravan for 4 months! (extract taken from Megan’s storyboard).

Megan’s experience also illustrates how such disruption did not only affect the daily routines of the household: instead, its significance became particularly apparent during the longer term rhythms of family life – including events such as Christmas and birthdays. For example, Victoria’s (Yr 8/12) parents were separated, yet both their houses were affected by the flood. Her dad’s house ‘wasn’t finished or anything for Christmas . . . it was really small so . . . not much space to do all Christmas stuff’. Added to this Victoria’s mum not having insurance and money became an issue. She said, ‘my mum couldn’t really afford much for Christmas because we had to do the floor and other stuff to like the house and it like wrecked our telly as well’. We return to Victoria’s story in the next section where we discuss the kinds of vulnerabilities revealed by the flood.

However, it is important to note that the disruption experienced by the children did not stop at the threshold of the home – it also extended to their gardens and the streets and parks where they played and hung out, as Figure 2, with the image of a miserable looking boy playing football and riding his bicycle through the puddles, shows.

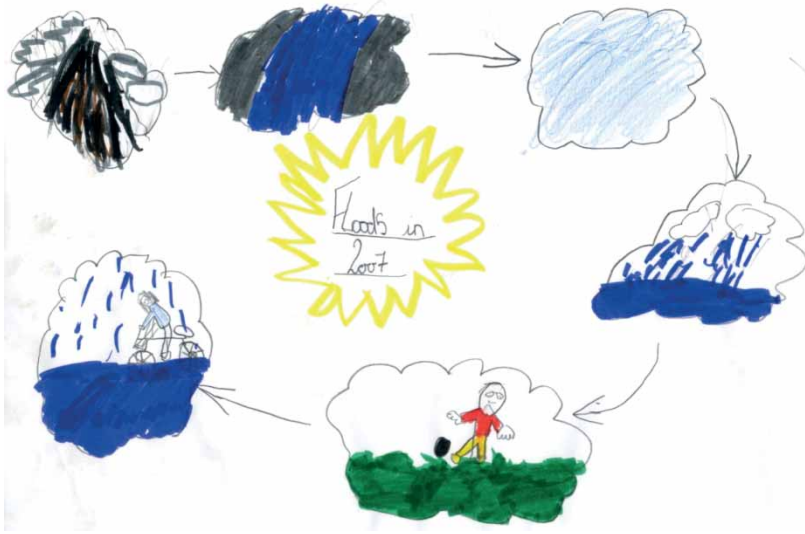


Figure 2. Playing outside is not easy.

Sherry's (Yr 5/10) mum told her not to play in the water because 'it was all contaminated' and although she didn't know what it meant at the time in the interview she said 'I do now ... It's like all dirty, it's got muck in it, it's like the drains'. Gemma (Yr 9/14) wouldn't go near the 'rank' water, saying 'I wouldn't touch it ... it was horrible, it was all brown'. Tim's (Yr 5/9) storyboard (Figure 3) shows 'the poo' floating past his front door.

Such changes to outside spaces also disrupted the children's ability to socialise with their friends and enjoy some independence away from their homes. This was particularly the case



Figure 3. The 'poo' in the brown water.

for young people like Josh (Yr 7/12) who moved to rented housing in another part of the city while his home was repaired. Being in rented housing meant that Josh could no longer walk to school with his friends or hang out with them as usual – if he wanted to spend time with them he was dependent on his father dropping him off in the car and collecting him later.

The final kind of disruption to highlight was that experienced at school. Understanding this kind of disruption is vital as 91 of Hull's 99 schools were affected (Coulthard *et al.* 2007b) and, as a result, many children and young people were affected both at home and at school. This disruption was particularly pronounced for the younger children at Marshside who had to attend two different schools while their own school was repaired. Getting used to a different space, a new school journey and the co-presence of other children was an unsettling experience for some. Charlie (Yr 5/10) said 'It was a bit scary because I've never been to a different school before'. The first school the children attended was the local secondary school, and this was an issue for him because the pupils at the comprehensive were so much older and bigger. Charlie said, 'when we like went for dinner the . . . kids were there having their dinner and they kept swearing and all that to us'. Then the children moved schools again, in September 2007 to a primary school away from their estate. The disruption involved in the move was especially pronounced because the estate on which Marshside is located is very territorial and moving off the estate – even to go to the city centre – was not the norm for the children taking part in our project. The importance of exploring these contextual factors when attempting to understand children's experiences of disaster recovery is a theme that we return to in the discussion.

Revealing hidden vulnerabilities

Victoria's example illustrates how the flood revealed and, in some cases, exacerbated existing vulnerabilities. As explained previously, Victoria lived between her mother and father's separate homes, both of which were flooded. At her mum's house she said 'It's [the mould] going up the walls . . . you can see the rising damp'. But because her mum is an unemployed owner occupier without insurance who does not have enough savings to pay for the repairs Victoria is not sure if the problem with the damp will be resolved, 'we don't know whether we are going to be moving house or something but if we aren't it will probably just stay like that'. Her mum's house is 'real cold and it's got a weird smell' and she said, 'I prefer being at my dad's new house' because it is 'bigger' than the one he lived in before the floods. Nevertheless en route to the bigger house Victoria's dad moved twice, 'he moved into a new house and they didn't realise it was flooded until my dad had been there and decorated and everything. So once they found out it was flooded my dad had to move again'. So he moved to another house and 'they've just found out that was flooded so they are going to have to live upstairs now'. As we discussed earlier in relation to the issue of Christmas presents, Victoria was conscious that the floods had cost both her parents money. Even though her dad rents Victoria said, 'he hasn't got as much money no more because he has to like do the house up and things'. However, the disruption her dad experienced also 'cost' Victoria because she had less time to spend with her dad.

Victoria's account of her dad's experiences living in rented accommodation is consistent with the findings of the adults' project where we discovered that private renters were particularly vulnerable during the longer term recovery process due to rising rents caused by a rapid increase in the level of demand for alternative rented housing across the city. Renters also had little or no control over their repairs as matters were handled by their landlords (Whittle *et al.* 2010).

Parallel research conducted with the adults in Hull showed that the impacts of the flood went much wider than the physical spread of the flood waters – for example, with serious effects on the relatives and carers of flooded residents (Sims *et al.* 2009). The children's accounts of the flood and the subsequent recovery process also reveal the spatial and temporal complexity of

understanding who was affected and how. This is something that we have already alluded to in the previous section where we examined the disruption experienced by the children at school. Given that 91 of 99 schools in the city were affected, we can see how those whose homes were not affected could still have experienced impacts. However, the patterns of impact and, consequently, of vulnerability and resilience were more complex still. This complexity was illustrated by the experiences of Bob and Natalie.

Natalie (Yr 7/11) was not flooded in June 2007. However, her dad and step mum bought a new house in December 2007, which they believed to have been unaffected by the floods. Shortly after moving in, however, 'we started seeing all the damp up the walls and in the back room, all the weird brown dots and it started sticking and everyone got ill . . . Everyone started getting headaches and being sick'. Her dad and step mum then became embroiled in a protracted argument with the bank and the surveyors about the cause of the damage and – crucially – who should pay for the repairs. Natalie drew a black coloured bank and the words 'fight with bank for 8 months', a drawing of her step mum with a red, angry-looking face beside the words 'It's got rising damp' and 'it's not in writing it's floods' attributed to 'bank person' and then another of her step mum beside the word 'stressed' on her storyboard (Figure 4). The result of this dispute was that Natalie and her family were still living in rented accommodation 2 years after the flood while they waited for the problem to be sorted.

Natalie's story thus reveals the hidden stress that 'secondary flooding' imposed on children and their families, as well as the far-reaching implications of the flood in time and space. In contrast to 'official' accounts of disaster (which confine the incident to a particular place and time), we can see how the impacts are more complex and go wider in their reach (Walker *et al.* 2011). Her story also reveals the social processes – in terms of the interactions with the bank and the surveyors – that lie behind the designation of 'flood victim' status.

In contrast to Natalie, whose family was trying to convince the authorities that they had been affected, Bob (Yr 5/10) explained that it was not flooded. He gave us this explanation because he



Figure 4. The stress.

officially ‘lives’ with his mum and her house was untouched. However, on a closer inspection, Bob revealed that he actually slept at, and spent a huge amount of time at, his dad’s house, which was flooded. He explained:

I go home and then have my tea and go out for a bit and I sleep at my dad’s; I go to my dad’s when I’ve larked out for a bit’. Most of the nights I stay there . . . he goes to work early, about five, he starts at six but I stay in bed and walk home in the morning . . . and then I get dressed and that at mine and then I come to school. (Bob Yr 5/10)

The flood damage to his dad’s house meant that he could no longer stay over and he missed his dad as a result. Like Natalie, Bob’s example illustrates the hidden impacts of the flood as well as the importance of understanding the children’s experiences in the context of their everyday lives.

Producing new vulnerabilities and forms of resilience

In addition to disrupting and revealing particular aspects of the children’s lives, the flood also had a more active role in producing new situations and challenges for the participants. One of the most fundamental experiences produced by the flood was the experience of loss. Many of these losses were only too evident in the physical damage created by the floodwaters. Cheryl was upset that she had lost her treasured dolls house ‘forever’, while Gemma lost sentimental things, including her jewellery box, her diary and her photographs because her bedroom was on the ground floor,

The worst thing was probably my bedroom getting messed up because all my stuff was in there and the only thing that got rescued was my teddies because they were on top of my bed; they had like a bed up there and then like loads of storage space.

She said she lost things in the clean-up process when everything was thrown into the skip, ‘I lost my jewellery because that was something they chucked it away, and I forgot all my jewellery was in it so all my jewellery got lost’. Others spoke of the sadness at losing pets: Victoria’s rabbit lived in a hutch in the garage and he died before the family could rescue him.

However, our research shows that it is also important to be alert to the kinds of losses that are less immediately obvious. In particular, most of the children felt that they had lost valuable time with friends and family – for example, Josh, who moved to a rented accommodation away from his friends, and Bob who was not able to see his Dad as much.

Here, it is useful to return to our original concepts of vulnerability and resilience. On a more fundamental level we can see how the flood not only revealed pre-existing kinds of vulnerability (as was the case for Victoria living between two homes with both parents coping with financial hardship and whose experience we discussed in the previous section); it also produced new forms of vulnerability amongst some of the participants. Some of these vulnerabilities, such as those of Megan’s little sister in the caravan, were only too obvious. However, others were much more subtle and only become apparent through a detailed exploration of the children’s accounts. Here, we think particularly of Natalie, whose family life was overshadowed by the uncertainty of ‘secondary flooding’ 2 years later, and Bob who ‘wasn’t flooded’ but found it hard to see his father. Such accounts are important because they support research which suggests that vulnerability is both dynamic and contextual (Walker *et al.* 2010). Looking at the detail of the children’s accounts, we can see how, although vulnerability may sometimes be associated with particular characteristics – such as private rental households or those without insurance, this is not a straightforward picture. Indeed, vulnerabilities cannot be reduced to a static list of socio-economic or demographic criteria because vulnerability is produced through the ways in which the recovery process is played out in relation to the specific circumstances at work in the children’s lives.

However, there was also some evidence that the flood may have produced particular forms of resilience. As we discussed previously, many of the children experienced disruption as the flood-water entered their homes and streets. However, this was not by any means an entirely negative experience for all of the participants, and neither were they passive observers of this process. For example, Josh explained that he was outside with his dad, trying to empty the water out of their garden with dustbins, while Michael helped his family carry furniture and other items upstairs. For some, this process of helping out continued into the repairs process where some of the children reported making tea for – and cleaning up after – the builders. Outside the home, too, many of the children reported fun and excitement and, although some of them stayed out of the water as a result of their own (or their parents') fears about contamination, others enjoyed playing in it.

Darren (Yr 5/10) said that the best thing 'was that I could sit on the balcony and catch fish' and Hayley (Yr 7/12) also went fishing, 'all the ponds got flooded and they were all like swimming about in the water'. Such examples illustrate how most of the children employed a creative use of agency. For example, Hayley also helped her parents by taking care of her 2-year-old brother who wanted to go fishing but was too small to go on his own. As Hayley explained 'He couldn't walk for the water' so she carried him, 'I said, "just sit on my back and I'll take you"'. Her ability to appreciate a more positive side of the floods was apparent from the way in which she divided her storyboard into 'high and low' points (Figure 5).

If we think of resilience as the ability to recover successfully, then the children's comments on their newly refurbished school are also an important indication. Although many of them found attending a temporary school to be stressful, there were plus points – Cheryl and some of the others liked the fact that there was a new bus journey to enjoy – and, when they eventually returned to their original school, they 'felt a lot more happier with the design and everything

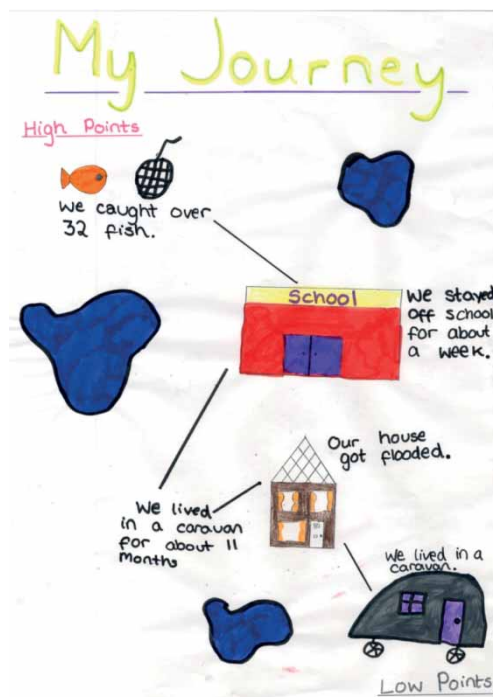


Figure 5. The highs and lows of Hayley's journey.

else ... There were new toys and all that ... New carpets, new toys, new TV, new books, new everything ...'.

Finally, resilience also emerged in unexpected ways. Interestingly, the complex family lives led by many of the children proved to be an unexpected source of resilience when the floods occurred. For those used to moving locally between the homes of different family members, the additional disruption caused by the flood requiring 'multiple moves' did not seem as great as it did to those with more settled home circumstances. There are, however, two points to set against these arguments: first, the moves made by the children took place in a relatively small spatial framework (i.e. within Hull), while moving beyond this was more problematic. Second, it is important to consider Erikson's (1976, 1994) comments about the kinds of 'pre-existing disasters' that may exist in poor communities. There was no doubt that many of the children and young people we worked with came from backgrounds where poverty – and the kinds of social hardships that can result from this – was a real problem for their families on a day-to-day basis. In a sense, then, the flood and the subsequent recovery process made these pre-existing problems more visible (as in the case of Victoria) as well as exacerbating their impacts on the community (Pelling 2003, Gunewardena 2008).

Discussion

This paper details the findings of research that set out to identify key issues in children and young people's experiences in relation to vulnerability and resilience to flooding and the flood recovery process.

As a first step we have shown that it is important to understand the social impacts of flood from the perspectives of flood-affected children themselves, rather than trying to make inferences about their issues from the accounts of adults. This is vital because children can and do define their vulnerability differently to the concerns that adults may have for them. For example, the adults we interviewed were particularly concerned about the impact of the floods on the children's examination results or on their ability to complete homework whilst living in caravans (Walker *et al.* 2010). However, as this paper shows, the young people themselves were often more concerned about the daily disruption to their lives – for example, the anxiety involved in having 'strangers' in your home, losing time with family members and an inability to socialise with their friends. There is no doubt that the impact of living in a caravan or living upstairs during the renovations, indeed the changing spatiality of the children's home-life, impacted upon family dynamics and hence is contextual.

The children's narratives also raise questions about who is actually affected by a disaster – and how. For some of the children, like Megan, it was only too obvious that they had been flooded and that they had experienced impacts as a result. However, in other cases this distinction was less than clear cut; life at home for Natalie was stressful living with the uncertainty of knowing whether her home would be classed as flooded by the insurance company (Walker *et al.* 2011).

There are also differences in how the children define flooding. Bob said he 'hadn't been flooded' because he thought of his Mum's house as 'home'. However, his Dad's house (where he slept most nights) was flooded, resulting in major disruption to Bob's life. Consequently, without speaking to Bob – and without understanding his experiences in the context of the complexity of his family circumstances – the impacts on his life would have been overlooked.

Children's accounts also show how the stresses of flood recovery have consequences for the whole family (see Whittle *et al.* 2010). For example, we might look at Victoria's mum and think that the financial stresses resulting from the damage to her home are personal to her – which of course they are, in one sense. However, Victoria's story shows how the whole family's life was

affected in a much deeper way – Christmas was a sadder, sparser affair and Victoria did not enjoy being in her mum's house anymore because of the mould and the damp. She also really empathized with her mum's anxiety about the repairs and, of course, she was equally concerned about her dad. Although pre-existing vulnerabilities can be important (as we saw in the case of Victoria's family), the children's accounts have shown how the impacts of the flood are, in reality, much more subtle and wide ranging as vulnerability is produced through the ways in which the recovery process interacts with the children's circumstances and daily lives.

There is more, though, to this argument. There is a risk that we focus here on the children as 'victims' of the flood, valuing their voices, but not taking seriously their role as social agents. This would be to neglect the established literature that, since the 1990s, has demonstrated the importance of recognising the competencies and capacities of children and young people as individual social actors who make sense of, and actively engage with, their social worlds (Valentine 1996, James and Prout 1997, Hutchby and Moran-Ellis 1998, James *et al.* 1998, Holloway and Valentine 2000, Smith and Barker 2001, James and James 2004, Newman *et al.* 2006). As with other social actors, children and young people's agency is seen to arise from their structural and ideological position in society (Matthews and Limb 1999). Interestingly, such positioning can arguably be seen to have shifted with the UN Convention on Rights of the Child (1989), ratified by the UK Government in 1994, and, at a policy level, implemented in the UK's strategy of Every Child Matters in which 'children and young people will have far more say about issues that affect them as individuals and collectively' (DCSF 2008).

By bringing this recognition of children and young people's *agency* – as well as their rights to have a voice – to debates on building resilience, it is important to ask how children and young people can contribute to building future community resilience while at the same time examining how such a contribution is inhibited or enhanced by forms of institutional support. For example, by seeing children as agentic, we can explore the ways in which the positive coping and survival strategies illustrated in their accounts above (cf. James and Prout 1997, Hutchby and Moran-Ellis 1998, Pain 2006) contribute to family, community and, ultimately, city-wide resilience. Here, we think of Hayley – in taking her younger brother out fishing and distracting him from some of the more upsetting aspects of the flood, she was enabling her parents to concentrate on managing the immediate practicalities within the home. We can also note examples of children playing a role in the resilience of the household – perhaps by offering a source of physical support, comfort, practical help and a reason for 'carrying-on' (Burningham *et al.* 2005, Thrush *et al.* 2005a, 2005b). For example, we think of Josh and Michael, who helped their parents bale out water and rescue furniture, as well as those who made tea and cleaned up after the builders.

Conclusion

In this paper we have concentrated on a case study of flooding. However, the arguments explored here also address broader issues around disaster and recovery more generally. The children's accounts reveal that the impacts were both spatial and temporal and that these dimensions reinforce the need to move from a snapshot view of the reactions to natural disasters to a more processual one.

Disasters can be moments of transformation as the existing physical and social infrastructure appears to be swept away. The recovery process is therefore an important time as decisions must be made about how such infrastructure is replaced and, crucially, whose interests are represented in this process (Pelling and Dill 2010). In particular, Gunewardena (2008) argues that the kinds of policies and practices put in place after disasters should be targeted at reducing the inequalities that made local people vulnerable to the disaster in the first place (Pelling 2003). Much of this literature comes from a developing world context. However, its conclusions have equal relevance

to case studies from the UK: given the current academic and policy interest in community resilience (Cabinet Office 2010) there is a need to explore the roles that children and young people play in the recovery process. Specifically, we can investigate how they may bring together community networks through their schooling, leisure and friendship networks (Ronan and Johnston 2005), whether children helping their family, their siblings and the wider community during the flood-recovery process also helps them and of course how their experiences of the flood as children might impact on their role in community resilience in adult life. There is also a need to build on existing literatures on children's psychological resilience with discussions of how children's services could enhance children's resilience (Resilience Research Centre Canada 2008) to a range of hazards and challenges in future. Doing so could help identify the ways in which policy could contribute to children's resilience, as well as to developing more enabling and empowering strategies which recognise the roles that children can play within their communities more broadly.

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Notes

1. See the project report (Walker *et al.* 2010) for more details regarding the methodology.
2. To maintain anonymity, pseudonyms have been used for both the schools and the participants.
3. The project steering group comprised local and national organisations with an interest in children's welfare and flood recovery: Lancaster University, the University of Surrey, Middlesex University, Hull City Council, the Environment Agency and representatives from the participating schools. The steering group was involved at all stages of the project from the original phases of designing the methodology through to later phases of analysis and dissemination.
4. School year and participant's age provided at the time of the interview.

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