



Flooded homes, broken bonds, the meaning of home, psychological processes and their impact on psychological health in a disaster

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ABSTRACT

In 2005, Carlisle suffered severe flooding and 1600 houses were affected. A qualitative research project to study the social and health impacts was undertaken. People whose homes had been flooded and workers who had supported them were interviewed. The findings showed that there was severe disruption to people's lives and severe damage to their homes, and many suffered from psychological health issues. Phenomenological and transactional perspectives are utilised to analyse the psychological processes (identity, attachment, alienation and dialectics) underlying the meaning of home and their impact on psychological health. Proposals for policy and practice are made.

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Introduction and review of the literature

A review of the literature on health and social impacts of the floods revealed that studies identified the events that triggered anxiety and stress, but neglected the underlying psychological processes and the deeper aspects of the impact on mental health. This paper tackles this issue through reporting on the findings of a qualitative study on the health and social impacts of the Carlisle floods of 2005. The findings revealed severe disruption to people's lives and a strong impact on the psychological health of many people. In an attempt to give a better understanding of this impact on psychological health, an analysis of the meaning of home and the psychological processes which are embedded within that meaning is undertaken. This analysis draws upon the work in the phenomenological and transactional perspectives which have developed the concepts of attachment, identity, alienation and dialectics related to place. It is suggested that a better understanding of these processes and their impact on psychological health would help authorities establish the appropriate methods to aid people's recovery and review their own policies and practices.

There is a growing body of literature which shows the physical and psychological health effects and social impact of floods in the

UK through quantitative evidence (DEFRA/EA, 2004; Reacher et al., 2004; Werritty et al., 2007) and qualitative evidence (Tapsell et al., 2002, 2003; Tapsell and Tunstall, 2001, 2008), and also worldwide, for example, in Europe (Hajat et al., 2003; Verger et al., 2003), in North America (Erikson, 1994; Auger et al., 2000; Ginexi et al., 2000) and internationally through epidemiological reviews (Ahern et al., 2005; Few et al., 2004; Galea et al., 2005). The evidence suggests that psychological health impacts are often more severe and longer lasting than physical health impacts in the northern hemisphere, particularly Europe and North America. It also suggests that social impacts such as disruption to lives and displacement from the home during the restoration period have a strong impact on psychological health, revealing symptoms of post-traumatic stress disorder (PTSD) (DEFRA/EA, 2004; Galea et al., 2005; Tapsell and Tunstall, 2008; Verger et al., 2003), and are more complex and extensive than at first thought (Ohl and Tapsell, 2000; Tapsell et al., 2002; DEFRA/EA, 2004; Verger et al., 2003). It is clear that everybody does not respond in the same way to the same stressors and there are many manifestations of behavioural responses some of which show acute anxiety over a short period of time and PTSD symptoms over a longer period of time. It has also been suggested that there are a larger number of people who do not reach the full PTSD threshold yet need the same level of care as those with full PTSD (Carlier and Gersons, 1995; Grubaugh et al., 2005; Peres et al., 2005; Zlotnick et al., 2002).

Personal and environmental factors moderate between the trauma and the occurrence of and levels of anxiety, stress and the

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resulting symptoms and these include personal health history and gender (higher incidence in women, Fordham, 1998; Galea et al., 2005), the accumulation of stressors (Verger et al., 2003), lack of personal control (Reghr et al., 2000; Massad and Hulsey, 2006), perceived and received social support, perceived ability to cope (Declerq and Palmans, 2006; Ozer et al., 2003; Peres et al., 2005) and resilience (Bonanno, 2004). Erikson (1976, 1994) shows that there is individual trauma and collective trauma in a disaster and that trauma can be regarded both as an individual and a broad social concept. He shows the impact of a disaster on the individual, communality and the community and argues that the anxiety and stress effects of the trauma are accommodated as a medical condition known as PTSD (Erikson, 1994). Young (1995) traces the development of PTSD as a recognised mental disorder and shows how its classification has changed over time, how its origins in a specific situation of war has developed into general and universal situations. He argues that it has been socially constructed through the practices and technologies of interested professions and institutions and how changes are made to the criteria to fit in with those practices. The author does not deny that the symptoms known as PTSD are real and exist and he explains how PTSD has become real and exists as a mental disorder.

Whilst these studies show that damage to homes and possessions directly through the floods are traumatic, some also show that disputes with industrial companies (Erikson, 1976, 1994), with insurance companies and building contractors are also sources of severe psychological stress (Tapsell and Tunstall, 2008). However, they only identify the events that trigger the stress and they have not identified the underlying psychological processes which give an understanding of the strength of the stress. An exception to these studies is a non-empirical paper by Fullilove (1996) who draws on the psychology of place literature to identify the processes of attachment and identity and their importance in psychological health on displacement. More recently, Tapsell and Tunstall (2008) show in a longitudinal study how people's perception of, and relationship to, locality and home as a secure environment changed after floods. Reviews of approaches to understanding place and home (Manzo, 2003; Moore, 2000) reveal an extensive range of literature and that the perspectives of Transactionalism (Altman and Rogoff, 1986; Werner et al., 1985) and Phenomenology (Relph, 1976; Dovey, 1985) have been used to provide frameworks for analysing the psychological processes in the understanding of the meaning of place and home. For phenomenologists, home is the centre point of world experiences and highlights human qualities, emotional bonds and the personal relationships with home (Case, 1996; Moore, 2000). In Transactionalism, the transactions are the events of everyday life and it recognises the elements of people, environment, time and cultural boundaries (Case, 1996; Moore, 2000). These two perspectives have similarities but basically start from people's experiences in a socially constructed world. In relation to the analyses of the meaning of home, these perspectives have developed the concepts and theory of place attachment (Fullilove, 1996; Guiliani and Feldman, 1993), place identity (Proshansky et al., 1983; Guiliani and Feldman, 1993), place alienation (Fullilove, 1996; Manzo, 2003) and place dialectics (contrasting experiences) (Case, 1996).

Study of Carlisle floods

Background to the floods

In 2005, the City of Carlisle in the UK suffered from severe flooding from three rivers (Eden, Petteril and Caldew) after three days of very heavy rainfall and gale force winds. These were the

worst floods for 180 years. There were approximately 1600 house properties and three to four hundred business properties affected by the floods. The centre of Carlisle was under a few feet of water and this included important buildings housing the City Council, Utility Services and the Emergency Services (Civic Centre including benefits office, police and fire service headquarters) and electrical sub stations, whilst power and telephone lines failed. All this hampered emergency and recovery operations. Further details can be found in the debrief report (Government Office for the North West, 2005).

Methods

The project was carried out with the cooperation of Carlisle City Council, Carlisle Council for Voluntary Services and Communities Reunited (organisation set up by the City Council to deal with flood recovery). The main purpose of the project was to provide evidence of the health and social impacts of the floods some 10–13 months after the floods had taken place. The study was carried out through qualitative methods utilising focus groups of 4–6 people and 6 individual interviews, all of whose homes had been flooded. The sample consisted of 14 men and 26 women in the age range of 30–70. Also interviewed were 6 people from 4 different agencies who had helped and supported those flooded. The sample of people from agencies was obtained through Carlisle Council and Carlisle Council for Voluntary services. A random sample of those flooded was selected from the City council's database of flooded households and the householders were asked by telephone if they wished to take part in the interviews. The key areas of questioning were broadly based on the work of Tapsell et al. (2002) and were related to their perceptions and behaviour prior to, during and after the floods and their views on the impact of the floods. The topics included: pre flood, previous experience of flooding, warnings about the flood; during the flood, support given and would have liked, whether they stayed in their home or left it and feelings about these; after the floods, evacuation and displacement issues, most devastating aspects, insurance and contractor issues, support received and would have liked. The interviews were semi-structured with the researcher being able to allow the respondents to develop the areas most pertinent to respondents. They were tape recorded with permission, field notes were taken and a protocol for the conduct of the interviews was followed which was approved by the University's ethics committee. In addition, there were many discussions and interviews with people affected by the flood, which helped to inform the direction of the interviews and categorisation of the data. Analyses of the transcribed interviews were conducted using the Framework Approach as used by Ritchie and Spencer (1993) and recommended by Pope et al. (2000) for health research. This involved the five stages of familiarisation (immersion in the data), identification (issues, concepts and themes), indexing (coding), charting the issues and themes, mapping and interpretation (selection of quotes, explanations). Quality control was maintained throughout by discussions at each stage with the research team. Summaries were sent to the respondents for comments some twenty months after the floods. In addition to this qualitative work, the findings were also supplemented by further evidence through an analysis and summaries of articles in local media (The Cumberland News, BBC Radio Cumbria), and data from the BBC Radio Cumbria survey conducted six months after the floods (sample size 64), and Communities Reunited survey 10 months after the floods (sample 213). All this evidence is not utilised in this paper but it indicated that the stories and data in

these sources were not dissimilar to those in the qualitative study and were widespread in Carlisle.

Findings

Disruption, destruction, displacement

Most people were surprised by the speed, power and depth of the floodwaters and the length of time it was in their properties, and they did not have enough time to save their possessions. Essentially people lost everything that remained on the ground floor during the floods. What was not lost through damage was lost through contamination and pollution.

...water rushing down the road like the Niagra Falls
 ...and within minutes of the phone call it was coming through the front door and then it was just coming in everywhere.
 It was quite bizarre, as well as being upstairs and listening to things and falling out of cupboards and falling over, it was like the Titanic when all the plates were crashing...
 ...furniture, television, washing machine, tumble dryer, fridge, freezer, all carpets, everything, kitchen units.

There was more to the damage than contents and possessions, there was substantial damage to the structure and fabric of the properties and often required larger restoration projects than at first thought. In some cases everything was gutted.

You could move everything upstairs but you still lose your floor, half your walls, your fires, your kitchen and that's a bigger problem than losing your suite.
 The whole downstairs was absolutely gutted, we had new joists, new floorboards, plaster right up the walls, just everything.

However, for many people personal possessions, such as, personal inherited effects, photographs, books and craft work and effects which they had made personally were the most devastating losses.

We had a lot of books, some first editions, and a lot of personal things you can't replace. I mean, even our wedding certificate we found it in an envelope, but there was no writing on it.
 ...hours and hours of sewing and cutting out and all that sort of thing.

When these comments are related to being "devastated" and "heartbroken" and feelings, such as, "traumatic", "lack of motivation" and "losing interest", then clearly the disruption and destruction does not only relate to the property and possessions in a cognitive assessment, it also relates to people's lives, identity and attachment. There is personal and emotional investment here.

I've lost interest in my house..... it's not home anymore...
 I worked for everything that I had in my house...
 I knew that the thing that really finished me (loss of personal possessions and craft work)..... because I cannot get my motivation back to do things... I think 'why bother.....

Many people described their experience of the floods in strong emotional terms, such as, "horrifying", "terrified", "petrified", "traumatic" and "panic stricken", "never been so frightened in all my life". There was a genuine fear and many lives were in danger. Some people had to be rescued by boat or helicopter. Two old women died in their homes. People reported that they had not been in this situation before, did not know what to do, were

frustrated, isolated, indecisive, anxious and confused. There was a real dilemma of whether to go upstairs and stay put, or leave their homes. Some also were worried about other relatives and some had young children or elderly relatives to look after. They found it extremely stressful and alienating. When the power and communications went off, many could not find emergency equipment, such as, torches, matches, candles, battery radios and had no food upstairs and could not make hot drinks. People were rescued and taken to reception centres set up by the council. Some people returned to their homes after a few hours or days depending on the location, and then basically lived upstairs or found alternative accommodation.

There was a severe shortage of accommodation, all bed and breakfast establishments, hotels, rented accommodation, caravans quickly became full and people lived wherever they could, some with relatives or friends. Some people stayed in their homes, even against advice from insurers or builders, because of the scarcity of accommodation but some chose to stay because of security reasons and to keep their eyes on the builders. They were living with inadequate washing, cooking and heating facilities in unhealthy and unsafe conditions, with dust and noise pollution from drying out machines and builders work.

We're still living upstairs with a microwave and portable two ring grill, you know, because downstairs is not yet finished, so you know Christmas is coming and, at the time, we thought this would take six months (others agree), we're coming up to a year.

We were all right until they ripped out the floorboards up, and all we had was a passageway from the stairs to the door, we had a plank we could walk along but everything else was stripped out completely so we couldn't get to the kitchen. We had to walk right round the house and come in the back door so, in the finish, we built a plank across the back room. We taught the dog to walk this plank because we had a four foot drop.....

These cases of displacement within their own properties were described as "outcasts in my own home" and "squatters in my own home", adapting as best they could but alienated. They were "being in their home" but not "at home" (Dovey, 1985). Whilst staying in the home in these circumstances may be seen as a reflection of the importance, investment and attachment to the home, home was not seen in the same light as prior to the flood. Routines and normality had been suspended and the relationship to home had been changed. Home as a place of privacy, comfort and security had been breached. There were so many people from flood restoration companies and building companies who were legitimately removing or disposing items, it became difficult to maintain privacy and security of property and possessions. Some people took advantage of this situation and there were reported incidents of looting from inside and outside their homes.

We had to go home because there had been five houses burgled on my street. They had literally kicked the front doors in.

Our neighbours have got photographs of somebody coming in and loading their van with our stuff.

Even flood restoration employees did not treat the possessions as private.

...and they were in my house chucking stuff out before I had even got in the front door, busying themselves before I could turn round, they were chucking something else out and I was trying to say, 'no, no wait a minute, just leave my stuff

alone..... and I just sat on my car bonnet and cried and cried and cried, and after that it was just a nightmare.

Private houses had become ‘public places’ and personal possessions ‘public property’.

Many people found alternative accommodation. In these circumstances they described themselves as “I am homeless”, “a refugee” and “we were outcasts”. They had to make decisions whilst often in a state of shock. One respondent described her plight.

So we were left, absolutely soaking wet, freezing cold, in shock, two children and a dog standing in the freezing cold. We were in total shock. I had put mine and kids’ stuff in a bag and forgotten to pick it up..... we had nothing for the kids, nothing for me, no food for the baby, no bottle, no dummy.

This family went to live with relatives. However, living there was not easy as there was limited space, and the arrangement, originally expected to last for a few weeks at the most, was extended for months, creating tensions and arguments with the family. There were also other instances of people falling out with relatives, boyfriends and married partners.

I think my marriage suffered, it has not been very good for the last ten months really. Yeah, you’re at loggerheads constantly about everything.

These instances highlight the home as a place of social relationships and that it was not only the home that was damaged but also social relationships.

Some people never found suitable accommodation. One woman reported that the Council could only offer her homeless accommodation for one night. After that she was displaced for a year, moving five times in that period whilst staying in bed and breakfast guesthouses, rented accommodation, and her boyfriend’s home.

They are saying, ‘I’ll take you for one night.’ I had visions of having to carry my belongings round every bloody different night because no one, nobody will take you. I was becoming homeless, there was nowhere else to go.

She felt that she was exploited by bed and breakfast owners and landlords, harassed by groups of youths and had nuisance neighbours in rented accommodation. When she went to live with her boyfriend their relationship deteriorated and she left. There were other cases which illustrated problems for evacuees, for example, families having to live in one room in a hotel for a year, families split up with parents and a child in a hotel whilst other children going to live with relatives, accommodation located miles away from Carlisle and not convenient for schools or work. Displacement reveals clear signs of alienation from the living accommodation and the community in which the alternative accommodation is situated, through a lack of familiarity, identity, bonding and the social cultural boundaries of home.

Reconstruction, restoration, return to routine

For people who had been flooded, the reconstruction period entailed dealing with insurance companies, loss adjusters, flood restoration companies, building contractors and retail outlets to purchase household goods and possessions. All of this was a new situation for most people who were often in a state of shock or stress. Very few of the respondents reported that all of these dealings went smoothly and there were many complaints. The main complaints against insurance companies were delays in

dealing with claims, attitudes of loss adjusters, not providing sufficient information, unequal treatment by different companies, where and the way furniture and goods had to be bought and the selection of building contractors. The last two of these complaints have particular relevance to the formation of identity and bonding with the home. The insurance companies and loss adjusters in many cases take control of purchasing goods and selection of builders.

When the assessor came and said, ‘you’ve got to get your electrical items from... (an internet company) and it was like ‘I don’t want them (goods) from them.

...because we were on a voucher, we had to go to and get our clothes from (department store), we had to go to..... (electrical store) to get all our electricals, we’d go to the crockery and things at..... (catalogue store).

The selection of builders meant many people were given national companies who sublet the work and did not allow the claimant to get a local builder whom they knew.

The most common complaints against building contractors were contractor attitudes and customer relations, treatment of their properties, the standard of workmanship, profiteering from the situation and the disposal of waste down the drains. This latter did cause flash flooding in heavy rain and provoked fears of flooding in their homes again. Contractor attitudes and treatment of properties again reflected attempts to control the reconstruction at the expense of the homeowner’s ability to stamp their personal identity on the property and attacked the public/private divide. An illustration of this is an argument over what appears to be a small matter, the position of a dado rail.

... ‘Oh but it would look better at this height’ (joiner). I went, ‘no, that’s where I want it, that height’. ‘No it looks better there’ (joiner), so they actually put it on where they wanted it. So I went, ‘you’ll have to take it off’, and I made them take it off but, because the plaster came off as well, now I’ve got two patches where they glued it..... You know, they say they’ve discussed it, but they don’t do what you’ve asked them to do, they do what they think they should do.

There were also reported accounts of builders replacing period and quality fittings with inferior and non-period alternatives, such as doors and fireplaces. The quality of workmanship and treatment of properties was commented on frequently.

We spent a lifetime lovingly restoring our home only for it to be trashed and ruined completely.

They weren’t respecting anybody’s properties at all (others agree) whether you lived in it or whether you’d all your stuff upstairs, and whether your house was empty, it wasn’t respected.

... our toilet was used by the whole street and I really put a stop to that.

This was not the only example of workmen using the house as a toilet even when they were not working there. Homes had become public conveniences.

Whilst everyone wanted to return to their home and resume the routine and normality, there was some apprehension after a year “lost” to the floods. The floods had “taken over their lives” and the comments reveal the changing relationship to home and how the respondents do not fully identify with their ‘new’ property. There were comments on the difficulties of getting insurance and being able to sell their houses and worried about being “stuck here.”

I don't know when I'll be going back now. I'll be scared about eventually going back. Everything will be new and there is nothing of mine to put back in it, like things you build up over the years.

I'm scared to buy furniture. We haven't bought all our furniture yet. We're going to wait and see what happens, wait until next spring.

I find it very difficult when I go back because I had looked so much forward to getting back home but it wasn't my home it had changed, that's right it was like moving into some where new.

Inside everything is perfectly decorated and it sounds a peculiar thing to say, but I miss the cracks in the walls you know 'cos they are part of the house, and it is not easy moving back in because you are always conscious of the fact that it may happen again.

I'm very concerned about this (obtaining insurance, selling the house) because we could end up stuck here... so where do our lives go now? It's not just us, there must be hundreds of people in the same situation.

People's normal lives and routines had been suspended during the 'lost' year. They had to return to their previous routines or build new ones, and trying to resume or maintain routines such as taking the children to school were all part of the relationship with home.

I noticed when spring came along a few people started doing their gardens even though they were living a few miles away. They came back and did their gardens and they met neighbours and so on and that was that gave a real boost to some people. They felt something was normal, just as nearly all the children continued going to the same schools and they were travelling long distances sometimes, but for the kids that kept one bit of family life normal. I think for parents as well, it did actually because taking the kids to school is a normal activity, even when other things have changed, so anything that was able to carry on was a helpful sign, wasn't it?

Whilst individual routines helped to maintain or restore familiarity and bonds with home and neighbourhood, there was also evidence of neighbourhood bonding both during the floods and afterwards. Both workers from agencies and those flooded talked of "community spirit" and "community bonding" and how the shared negative experiences of the floods have strengthened friendships and these processes.

Psychological health impacts

Every interviewee reported various degrees of anxiety and stress emanating from the floods themselves, the danger at the time, loss and damage to property and possessions, disruption and displacement and the living conditions, and also from secondary factors, such as, those of dealing with insurance societies and building contractors. These secondary factors prolonged and exacerbated psychological stress. This stress was medium to long term for many people. They had to cope with the flood and aftermath whilst coping with all their normal aspects of life, going to work, caring for children and elderly relatives. There was also a climate of fear that it might all happen again and they "could not go through all that again."

... up till now it's been an emotional nightmare and it is getting more stressful the last few weeks...

... life is stressful at the best of times but your home is your security blanket, your safety net and that's gone and you've

nothing left to catch you, nothing to help you cope with the stress of life and work.

The following symptoms were commonly reported, panic attacks, flashbacks, disturbed sleep, lack of motivation, unsettled and obsessive behaviour. These are symptoms associated with PTSD (Nice, 2005). These symptoms are illustrated in the following quotes. An example of lack of motivation has already been given.

... panic attacks, walking up the street, really quite serious. I was in such a state of anxiety that I couldn't breathe all the time.

We've moved back in now and coming down for work on a morning, you can still see the water in your house, oh yes easily, and I think, even though your house is new to you, you can picture it can't you? I can still see things floating, that's in your mind and you can still see the water.

... she (doctor) gave me anti depressants, strong ones and also sleeping tablets... because I was getting no sleep.

I find I should really go and may be polish the bathroom tap or something, even though they were done yesterday,.... and I'll do anything other than sit down..... I've got this, like an obsession of keeping clean...

...but I'd seen how the river was and I was nearly physically sick when I saw it. It scared me so much and I thought I can't have these feelings every time it rains because it is no good, because you are like that for days not just for those hours that it is raining, but it knocks you off pot for days and then it affects your family because you are too busy pacing about looking at rivers and out of the window that no tea gets made and you make the kids anxious... I would feel sick, I would get butterflies, I would feel cold and shaky.

These symptoms were also reported in the BBC Radio Cumbria Survey (2005) and Communities Reunited Health Survey (2006). These are serious symptoms and they were reported to be occurring over a period of twelve months. Many people did seek medical attention and often were given medication. Others would not go to their GP's because they thought "they would not be interested", "would think they were a hypochondriac or something", "didn't want drugs", and yet many clearly needed some kind of psychological help or practical support which would lessen their anxiety. This would suggest that many people did not receive the psychological support they needed at the right time and thus prolonging the stress. Many people did seek help in the form of practical advice, food and shelter, finance emotional support and health benefits from reception centres, the City Council Benefits Advisory Service, MIND, Communities Reunited, Cumbria Community foundation, Floodart and the Flood Therapy Group. Communities Reunited dealt with 592 insurance issues, 432 complaints and disputes relating to building contractors, 162 issues related to health and stress, 231 debt problems, 129 related to the Environment Agency and over 200 related to other matters. The Cumbria Community Foundation provided financial support to 697 individuals and 51 organisations. Almost everyone interviewed said they sought and received support from their families, friends or neighbours in various forms.

Discussion

The evidence from this project shows that a flood disaster has severe social and health impacts, supporting the work of Tapsell and Tunstall (2001, 2008); Tapsell et al. (2002); Auger et al. (2000); Ginexi et al. (2000) and Verger et al. (2003). The social

impacts include the disruption to people's lives, relationships and communities and the destruction of people's homes. The health impacts include pollution and contamination of homes and possessions, and physical and psychological health issues, of which the latter is the most serious and longer lasting with many people. Many people reported suffering from anxiety and stress in different forms around a year after the floods, which could indicate the occurrence of PTSD or partial PTSD (Nice, 2005) and supporting the work of DEFRA/EA (2004); Tapsell and Tunstall (2008) and Verger et al. (2003). The disruption and displacement, living conditions, relationship issues, people's focus of attention on flood recovery and restoration are in strong contrast to the routines and normality of the pre flood situation. These contrasts of experiences (Case, 1996) help us to give a deeper understanding of the meaning of home and the people's relationship with their home. Furthermore, the psychological stress people were suffering from was shown to be related to the destruction and reconstruction of their home and everything it stood for, and this revealed a further understanding of the psychological processes underlying the stress, and why it had such a devastating impact and lasted so long.

The understanding of home can be seen through utilising the concepts of place identity (Proshansky et al., 1983; Moore, 2000), place attachment (Guiliani and Feldman, 1993; Moore 2000), place alienation (Fullilove, 1996; Manzo, 2003) and dialectics (Case, 1996). These concepts are not entirely separate entities, they have overlapping elements, for example, personal possessions are part of identity and the evaluation of these items in the home situation leads to attachment, whilst place alienation can be seen as dialectic of attachment when different interpretations or evaluations are utilised. Place identity may include different elements, personal and familial identification, personal and social relationships, the private and inclusive domain, as opposed to public and exclusive domain which indicate its boundaries.

In this study, personal identification is shown through the damage and destruction of the home and personal possessions and is particularly highlighted when losing personal possessions are described by some respondents as "cannot be replaced" and their most devastating loss. This results in breaking of bonds, breaking with the past and discontinuity with present and future. It is further illustrated by disputes with, firstly, insurance companies and loss adjusters over replacement goods, such as, how where and what they could purchase, and secondly, disputes with building contractors during the restoration of homes, for example, the replacement of period doors, the position of a dado rail and the quality of workmanship. Clearly, purchasing new household goods and undergoing a renovation project in an enforced situation such as this is not the same as when people have a free choice of when, where and by whom it is undertaken. These disputes indicate the desire to exercise personal choice and taste, which are reflective of how personal identity is represented in the home.

The idea of home as a private and secure domain and the inclusion–exclusion divide is clearly shown through several incidents, such as, the respondents' devastated responses to the invasion of the floodwaters, their attitudes to the flood restoration companies throwing out household goods and personal possessions without permission, the builders not respecting their property (using the toilet as a public convenience, 'trashing the home') and looting by the general public. The home as a secure haven is part of the idea of home as a private domain, where people not living there are invited in, where they are expected to behave in certain ways, follow certain norms. The boundaries had clearly been crossed, even when the owners were in their homes. Homes and possessions had become public property.

The role of the home as a place of developing and maintaining relationships is related to identity and is clearly illustrated through married and non-married partnerships and bringing up children brings strong familial ties with home. The floods brought examples of strengthening relationships with partners supporting each other and neighbours helping to supply food at the time of the floods. They also brought examples of relationships put under strain in these extreme conditions, such as, marriage breakdown, falling out with relatives and boyfriend when trying to live in other people's homes.

Place attachment is regarded as a more evaluative and emotional component than identity (Moore, 2000). It encompasses elements of personal identity, such as, a reflection of how far the person has been able to make the property 'their own', and of social cultural expectations and aspirations. It includes as well more cognitive elements, such as, choice of location in relation to work and school, other family commitments and length of time in residence there. Attachment is a comprehensive concept which encompasses more evaluative aspects of home, such as, home as routine (Case, 1996), home as private and home as a base for relationships. There is an affection and bonding which values routine and familiarity, the personal stamp of identity, the privacy and sanctuary of home and the social relationships built there. These are reflected in the evidence, for example, "missing the cracks in the walls" and all the imperfections of home, "missing my own bed" and wanting to maintain normal routines of going to work and the school run, seeing friends and relatives, and wanting to stay in the home when it was not really in a habitable condition. The floods throw up examples of attachment through the breaking of attachment bonds to homes and possessions through destruction and displacement. There is also an evaluative and emotive component to place alienation and this may be regarded as the contrast to attachment and give a better understanding of attachment and bonding. Alienation is illustrated through displacement within the home in unhealthy and uninhabitable conditions by modern standards and the self description of "squatters and outcasts" in their own home. These are examples of 'being in the home' but not 'being at home' whilst, at the same time, feeling it necessary to be there for security reasons or having nowhere else to go.

Displacement to other accommodation, which was often inadequate and regarded as short term but, out of necessity, became long term, was also an alienating experience. People described their situation as "homeless", "refugees", "belonging to nowhere" and "outsider". As well as the new accommodation not being regarded as home, there was often a negative effect on relationships (families split, break up with partners), inability to continue with routines. There was also alienation from the new community, such as, disputes with landlords, disputes with neighbours over noise, harassment by youngsters. These also relate to the social and cultural boundaries of home. There is something of the loss of communality and community and loss of 'navigational equipment' which Erikson (1976) noted. The difficulties in obtaining insurance cover and selling their houses were also alienating experiences. Many people did put their houses up for sale, which indicates their bonds had been broken.

What all this evidence on identity, attachment and alienation suggests is that disasters do not merely make people become unsettled, they attack and break the bonds of continuity, familiarity and attachment to the home. Furthermore, the locus of control over the events in and around the home had shifted from the personal and internal to impersonal and external. Homes had become merely properties, anonymous buildings, one they still owned but did not recognise through the invasion of, firstly, the floodwaters and, secondly, the insurance companies and builders. The personal identity, private sanctuary of the home had

been broken and loss of control to the floodwaters and outside organisations. The psychological processes of identity formation, attachment, alienation and causal attribution give a deeper understanding of the psychological stress that people were under. In a flood disaster people suffered acute anxiety effects. This was not only through a fear of personal danger, it was also a fear of the damage and destruction to their homes and possessions, in which they had invested so much of themselves, emotionally, financially and personally, which reflected their identity, lifestyle and continuity between past, present and future. It is a fear of more personal damage and dramatic sudden change which brought severe stress and sometimes clinically diagnosed depression. The loss of control to the flood waters, insurance companies and builders left people with feelings of “frustration”, “helpless”, “had it”, “nothing you could do”, “despair”, “isolation” and an impotence which meant that they felt that they “could not go through all that again.” It can be seen through this evidence that psychological stress in flood disasters is multi-faceted. An understanding of these facets and psychological processes underlying the stress by those supporting those flooded, that is health authorities and organisations such as Communities Reunited, would help to get the right type of support in the right place at the right time.

When the respondents had a physical health problem they generally sought help from their GP or for minor complaints from their pharmacy. However, many people who suffered severe anxiety and stress did not go for medical help for various reasons. This has been reported in other disasters, for example, in the foot and mouth study in Cumbria in England (Mort et al., 2005) and after hurricane Katrina in the US (Elledge et al., 2007). One of the reasons for not going for medical help in the Carlisle study reflected people’s own perceptions, and their view of other lay people’s perceptions of psychological and mental health issues (stigma, labelling), and how they perceived the medical profession’s view of mental health issues, the likely diagnosis (depression) and treatment (drugs). This tends to support the proposed policy in Sri Lanka that people should not be diagnosed and labelled as suffering from PTSD (Mahoney et al., 2006). This may also explain why the uptake of the North Cumbria Primary Care Trust’s psychological support services was limited and underused after the floods. Their preferred sources of support at critical times were within the family, or from neighbours or within the community, where valued experiences of mutual understanding and bonding and learning were available. Within the community includes the disaster support mechanisms as, for example, reception centres and Communities Reunited where they received comfort and emotional support. Many of these people sought help for information, advice and practical help from outside agencies, for example, Communities Reunited (disputes with insurance companies and contractors), Cumbria Community Foundation (finance), Carlisle Benefits Advisory Service (housing, benefits), but in fact used them also for relaying their stories and emotional support. These agencies provided ‘psychological first aid’ which reduces psychiatric morbidity (Rao, 2006). However, these organisations were not always equipped for this, nor their staff always trained not trained for disaster and emergency support and counselling of this nature or psychological counselling more generally and, in addition, were understaffed. There appears to be a need to find ‘therapeutic spaces’ (Convery et al., 2007) outside a medical base. This would suggest that the health agencies need to review how and where they place their psychological support in emergency situations, for example, to shift from a wholly medical model to a more social one (Tew, 2005), and to be less medically based and more within community group support mechanisms. Early intervention and support strategies should focus on practical help with emotional support. Pitt (2008) recommends monitoring

the impact on health and well of people affected by floods and support to mitigate and manage the effects of floods. This needs to be done on a more coherent and organised method than was carried out in Carlisle and in other flooded areas.

There would also seem to be a need to reduce the potential anxiety levels in flood areas by tackling some of the issues which trigger those anxieties. The Environment Agency has recently strengthened Carlisle’s flood defences, which should help to allay some people’s fears. However, stronger policies are needed for protecting communities and individual properties. The Government’s strategy ‘Making Space for Water’ which was set up after the Carlisle floods is now tackling floods more seriously and on a number of fronts. One of those fronts is flood resistance (e.g., floodgates) and resilience (e.g., waterproof plaster) to individual properties. They have set up a pilot scheme in five selected high-risk areas, where grants are given for flood protection measures for individual properties. One of which is Appleby on the River Eden which was flooded at the same time as Carlisle. (DEFRA, 2007). Pitt (2008) recommends that resistance and resilience measures are built into new properties and to extend home improvement grants to encompass these measures into existing individual properties in high-risk areas. These are the type measures which need to be extended to all at risk areas because of what has happened after heavy rain in Carlisle and in the floods of 2007 in Yorkshire and the Midlands, and because there is an increase risk of flooding due to climate changes (United Nations, 2007). The issues surrounding disputes with insurance companies and building contractors need to be examined by independent bodies because these disputes and difficulties accentuated and prolonged the anxieties. Some of the help and advice services were not set up early enough after the Carlisle floods and they were badly stretched and had difficulty coping, so it appears there is a need to plan for the immediate establishment after floods of agencies such as Communities Reunited, and for more front line and voluntary workers to be trained and to include emotional support as well as practical. It is suggested that these issues have applicability to other disasters.

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