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Community resilience and flooding in UK guidance: a critical review of concepts, definitions, and their implications

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Abstract

Community resilience is one of the main strategies that UK governments employ to deal with the impact of floods. In this paper we analyse how community resilience is used in 28 UK guidance documents that refer to floods and discuss the benefits and drawbacks of different conceptualizations. We show that some documents represent community resilience as the absence of illness, as the opposite of vulnerability, as a static and unchanging element, or in a circular way as both a cause and an outcome. By contrast, some documents avoid generalisations and focus more specifically on the concept's behavioural, relational, cognitive, and psychological aspects. We discuss the implications of different conceptualisations of community resilience for its operationalisation by policymakers and practitioners.

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Introduction

Flooding is a major issue in the UK (Cabinet Office, 2015), with more than 5 million people in 2.4 million properties at risk (WHO Regional Office for Europe, 2013). Floods affect geographical communities and can cause displacement, in contrast to other major incidents such as bombings of public places for example, which are most likely to affect people who are away from their homes. The damage of floods can persist for a long time after the waters recede through the presence of secondary stressors (Stanke, Murray, Amlôt, Nurse, & Williams, 2012) – problems which are not direct results of the disaster, but are "following from and are consequential on what has taken place" (Department of Health, 2009, p. 20).

UK policy guidelines and guidance documents use of the concept of community resilience to design interventions to assist people and agencies to deal with the impact of flooding. However, despite the widespread use of the term, there is an ongoing debate as to what is community resilience, with authors of research papers and authors of government policy not having reached a definitive conclusion (Norris, Stevens, Pfefferbaum, Wyche, & Pfefferbaum, 2008). Some have pointed to the concept's underdevelopment (Furedi, 2008), have highlighted the gaps in its implementation (White & O'Hare, 2014), and have systematically analysed its common elements, suggesting that a focus on these underlying factors may be more fruitful for policy and research (Patel, Rogers, Amlôt, & Rubin, 2017).

The central question of this paper is to investigate how community resilience in relation to floods is discussed in official documents. Our focus is on flooding, both because of its importance as a national risk, and in terms of its implications for policy and practice. Because community resilience is a heavily debated concept with implications for practice, for this paper, we adopt discourse analysis as a method to investigate how community resilience is constructed in guidance documents. We discuss what community resilience 'is' for different authors, what are the implications of different conceptualizations for the 'nature' of the communities

discussed, and what issues might arise from different representations of community resilience for the relations between communities and practitioners, as well as for policy and practice. We also focus on how authors of official documents use psychological concepts when they discuss community resilience. Flooding represents the most common and a special case for study since it requires of communities to mobilise in response and recovery. Thus, we consider an analysis of how the psychology and subsequent behaviours and capabilities of communities in disasters are represented in those documents to be crucial.

Community Resilience and Disasters

The concept of resilience can be traced back to the physical sciences (Bodin & Wiman, 2004). In the last two decades, 'Resilience has become increasingly central to international and domestic policy-making … the 'guiding principle' of policy governance … [and] the top priority for the sustainable development and international development aid agenda' (Chandler, 2014, p. 1). Social scientists have applied it to refer to people's (e.g. Bonanno, 2004), crowds' (e.g. Drury, Cocking & Reicher, 2009; Drury, Novelli, & Stott, 2015; Drury, 2012; Williams & Drury, 2009) and communities' (e.g. Cagney, Sterrett, Benz, & Tompson, 2016; Wickes, Zahnow, Taylor, & Piquero, 2015) effective adaptation and functioning despite adversity. 'Collective psychosocial resilience' is a related concept which refers to the ways in which people in crowds come to provide and expect cohesion, solidarity, coordination and social support (Drury et al., 2009; Williams & Drury, 2009), whereas community resilience focuses on how communities make effective use of their resources to return to positive trajectories of recovery and functioning (Norris et al., 2008).

Research into the psychology and sociology of disasters provides the evidence and theories to understand how and why behaviours and cognitions associated with collective as well as community resilience arise. Aspects of it have focused on the ways in which people

come together and offer support to each other in the face of adversity (Clarke, 2002; Drury, Brown, González, & Miranda, 2016; Drury et al., 2009; Fritz & Williams, 1957; Kaniasty & Norris, 1999; Solnit, 2009), proposing various contextual conditions that assist people, groups, and organisations to develop their resilience. Resilience has been investigated through various conceptual prisms; some researchers approach resilience through the notion of social capital (e.g., Fielding & Anderson, 2008) – the pre-existing networks within communities that are mobilised during an emergency to assist in providing support – while others have focused on enhancing community resilience through building social capacity and community engagement (Morton & Lurie, 2013). Other authors (e.g. Drury, 2012; Drury et al., 2009; Williams & Drury, 2009, 2010a,b, 2011; Ntontis et al., 2017) have argued that emergent groupness and solidarity is due to survivors' sharing a sense of *common fate*, which creates shared social identity. Inevitably, different definitions of resilience will have different implications for the practises and assumptions that agencies and governments will follow to achieve the sought outcomes.

A Definitional Issue

In terms of how we define resilience in general and community resilience in particular, there is no agreement between researchers, policymakers and practitioners (e.g. Manyena, 2006; Norris et al., 2008; Patel et al., 2017, Furedi, 2008; White & O'Hare, 2014), which makes the concept's operationalisation more difficult. Resilience is used very broadly and may be analysed at the levels of persons, groups, communities, organisations, and states. Norris et al. (2008) state that community resilience is better conceptualised as an ability or process rather than as an outcome; it is better construed as the ability to adapt rather than remain stable. Manyena (2006) treats resilience as a quality or outcome which depends upon the social and economic processes that foster it.

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There have been multiple approaches to resilience within the field of flood risk management as well. They vary from adopting a narrower focus on preserving the existent stability of buildings, to more flexible conceptualisations that place more weight on societal factors and accept transformation and change (White & O'Hare, 2014).

Our survey of the literature shows that the concept of resilience is used in relation to policy, to emergency preparedness and response, and in respect of how different people cope with disasters and adversity. Some analyses focus on the availability of resources and capacities that each level possesses that lead to their adaptation. In the opinion of Norris et al. (2008), there are four primary sets of adaptive capacities: economic development, the presence of social capital, the availability of information and proper communication, and the competence, or agency, of communities. Patel et al. (2017), in their systematic review of definitions of community resilience in the academic literature, find that the concept is discussed in a multitude of ways, often represented as the absence of vulnerability, a static characteristic or innate ability of a community, or a more complex process that requires various other sets of actions and behaviours. They identify nine shared core elements, namely: local knowledge; community networks and relationships; communication; health; governance and leadership; resources; economic investment; preparedness; and the mental outlook of the community. They suggest that it might be more fruitful for researchers and policymakers to be precise about the exact elements of resilience to which they refer rather than use the broad and imprecise term of 'community resilience' in discussions. In line with the definition of Norris et al. (2008), defining community resilience as a process helps us to shift our gaze from a broad notion of 'resilience' that lacks focus, to the specific capacities and activities or behaviours that make a community able to function and adapt to change after an adverse event, which can also assist in the operationalisation of the concept.

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Criticisms of (Community) Resilience

The concept of resilience has not escaped criticisms. Chandler (2013) discusses how the representation of people as embedded within interconnected systems gives rise to 'resilience ethics', calling people to become more reflexive and self-aware. However, suggesting that problems are societal and stem from lifestyle choices can be used as a means for political and economic factors to avoid being held responsible, attributing responsibility instead to individuals. With regards to flood risk management, the construction of risk as an inevitable part of everyday life and the need for 'developing resilience' as a solution has been described as a way for authorities and agencies to avoid accusations for failing to avert avoidable risks (White & Richards, 2007), as well as for transferring the responsibility for risk governance from the state towards communities and the private sector (White & O'Hare, 2014; Chandler, 2014).

Another criticism relates to the tendency to link resilience with vulnerability. As Furedi (2008) has emphasized, vulnerability is treated as the defining condition of life, as well as the natural response to adversity. Thus, resilience is treated by policymakers as an antidote and countermeasure to inherent vulnerability (Waller, 2001). However, resilience should not be treated as merely the absence of vulnerability, risk factors, or disorder (Almedom & Glandon, 2007; Manyena, 2006; Williams & Drury, 2011); people can temporarily be distressed in the aftermath of an adverse event, which is a natural response to a shock. However, the presence of such reactions does not denote that survivors are not resilient and should be treated in pathological terms. On the contrary, the concept of resilience should be understood to accept that distress is a natural response to trauma, which is followed by recovery through providing effective support (Williams & Drury, 2009, 2011) (this definition is also evident in NATO's (2008) guidance for psychosocial and mental health care for those affected by disasters). Nevertheless, similar to resilience, vulnerability remains a vague and broad concept with a

great array of definitions offered with regards to its conceptualisation. Its breadth is accompanied by a lack of widely accepted indicators or methods of measurement, and a lack of a firm theoretical background (Bohle, Downing & Watts, 1994). Thus, in our opinion, it is often misused or misunderstood.

All too often, people's resilience is ignored within considerations of their vulnerability, and is treated as an exception to the rule, while their assumed inability to deal effectively with adversity is given too much emphasis. Researchers have pointed out that the public is often depicted as a passive receiver of the wisdom of enlightened expert communities (Durodie, 2003).

In contrast to such negative representations is a body of research that acknowledges people's capacity to act adaptively during adversity, treats populations' agency and engagement between people and other agencies as a prerequisite for their resilience (Durodie, 2003; Challies, Newig, Thaler, Kochskämper, Levin-Keitel, 2016; Houston, Spialek, Cox, Greenwood & First, 2014), and accepts the public as a 'resource' rather than a problem (Drury, 2012). Moreover, Furedi (2008) argues that resilience can be encouraged and cultivated, but cannot be taught, with technocratic top-down approaches limiting local initiatives and not engaging communities. This ambivalence with regards to public vulnerability or resilience is also visible in guidance documents on emergency response, in which the public is sometimes depicted as possessing rationality, agency, and the ability to give help, while in others it is depicted as passive and as secondary to that of the emergency services (Drury, Novelli, & Stott, 2013).

The Present Study

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Community resilience is one of the strategies of UK governments for dealing with the impact of floods. As we have shown, resilience is a widespread yet heavily debated concept, with issues regarding its definition and implementation, heavy reliance on its use in policy, as well as its uncertain relationship with other concepts like vulnerability. However, floods pose a great threat for the UK, and the debate surrounding the concept, as well as recurrent calls for communities to become more resilient inevitably invite us to focus in this paper on the ways that the concept is employed in current UK guidance documents. Using discourse analysis, in this paper we report our investigation of different conceptualizations of community resilience for different authors, what is implied in such conceptualizations about the psychological, relational, and behavioural aspects of the public and of professional groups, as well as about the relations between them.

Method

Search Process

We used three different approaches to identify the relevant documents: Internet search, previous analyses, and suggestions from experts on the field. First, we investigated previous similar research on the UK's emergency planning guidance (Drury et al., 2013), as well as their reference lists. This search was complimented through the use of Google's search engine to identify relevant documents in the public domain, using the keywords: *floods, floods England, floods Wales, Floods Scotland, floods Ireland, floods UK, resilience, disaster resilience, community resilience, emergency preparedness, civil contingencies, flood response*. The first search returned a very high number of webpages, but after the first 20 pages we started seeing replications but no further new documents, so we set this as the limit to our search. However, to verify that we did not omit important documents, we used the 'filetype:pdf' command using

the same keywords to identify pdf files that we could have missed through our first Internet search. Through the first search we identified 71 documents.

Next, we applied our inclusion criteria and selected those documents that were: 1. guidance documents; 2. issued by a UK governmental department or agency (e.g. Environment Agency); 3. included reference to floods; and 4. explicitly referred to 'community resilience'. Twenty-four of our documents met these criteria. We selected two people whom we considered to be expert in the field of extreme events on the basis of their work for government departments and agencies in the UK. We asked each person to assess the adequacy of our search and list of documents and to point us to any documents that met our inclusion criteria and which we might have missed otherwise. They drew to our attention four further documents that our search had omitted. Consequently, our final list comprised 28 documents and is summarised in Table 1. The publication dates ranged between 2006 and 2016. We did not set a cut-off date in our initial search because guideline documents of this nature are regularly revised and updated. Since our aim was to examine only contemporary usage, we included only the most up-to-date version of each of the documents reviewed.

(Insert table 1 here)

Analytic Procedure

We chose discourse analysis as a method to analyse the textual discourses in the guideline documents, in line with previous similar research (e.g. Drury et al., 2013). Specifically, we adopted the method proposed by critical discursive psychology (CDP) (Edley, 2001; Wetherell, 1998), which draws from the discourse-analytic tradition in social psychology (Edwards & Potter, 1992; Potter, 1996; Potter & Wetherell, 1987) to argue for the constitutive and action-oriented character of language. CDP analyses data at both a micro- and macro-level. At a

micro-level, CDP draws from discursive psychology and adopts a bottom-up approach to investigate the immediate text with regard to how subjects are positioned, how accountability is managed, as well as how different versions of identities and events are created and represented as factual. At a macro-perspective CDP investigates how broader ideological/cultural resources (interpretative repertoires) shape the various different ways of talking available in society (e.g. Bozatzis, 2009; Edley, 2001; Wetherell, 1998) and aid in the ideological establishment and reproduction of specific practices. Thus, the variability observed in different constructions of community resilience is not treated as a problem to be eliminated from analysis, but rather is a feature of interest. We investigate the different ways in which community resilience is constructed in the local context of the guidance documents, how these constructions are linked to broader ways of talking about resilience and communities, how psychological concepts are mobilised to assist in these constructions, and, finally, we examine the differing implications of different definitions for policy and practice.

We used QSR International's NVivo 11 qualitative data analysis software to code the contents of the documents. All 28 documents were imported and were subjected to word search, identifying instances in which the terms *resilient, resilience* and *community resilience* were mentioned. The amount of relevant text varied across documents, ranging from a single sentence or paragraph discussing resilience, to guidance documents exclusively focusing on community resilience.

In the first part of our analysis, we focus on documents that discuss community resilience as a single, reified concept. By 'reification', we mean the ways that organisations treat resilience as a concrete, material thing, which individual persons and groups (e.g., emergency responders) can act upon. In the second part, we present extracts from documents that elaborate community resilience in terms of relational, behavioural and psychological processes. Our aim is not to generalise and criticise the quality of the documents as a whole, but rather to present

any variability in how community resilience is described, and what implications different constructions might have in relations between public and government/professional groups, and for preparing for and responding to flooding.

Results

Simple Representations of Resilience

Researchers have suggested that it is inappropriate to equate resilience to the absence of risk and vulnerability (Furedi, 2008; Almedom & Glandon, 2007; Norris et al., 2008; Williams & Drury, 2011). However, it remains a common conceptualisation of resilience in guidance documents. The first example is an extract from an HM Government document entitled 'Government response to the Committee on Climate Change' (2015: 46):

> **Extract 1**
>
> *Furthermore, in line with the localism agenda it is for local authorities to take a view on the progress they are making in increasing resilience and reducing their communities' vulnerability to the impacts of extreme weather.*

In this extract, the document cites as a warrant the 'localism' agenda, an aspect of the 'Big Society' government project (Cabinet Office, 2011), to allocate some of the responsibility for assessing communities' vulnerability and resilience away from central government and towards local authorities while positioning the former as the organisation in control. Resilience is placed next to vulnerability as opposites, suggesting a hydraulic relationship – the more the community's resilience is increased, the more its vulnerability to impacts is decreased. Similar to Drury et al.'s (2013) observation in the context of civil contingencies more generally, communities appear as relatively passive entities and their resilience is portrayed as relying upon the actions of the local authorities, which appear as higher order, external agents.

Representations of community resilience of this nature are not uncommon in the guidance

documents in our sample and they appear to create a top-down hierarchy. The HM Government's 'National Adaption Programme' (2013: 46) states, for example:

Extract 2

Objective 11: To reduce the risk of death and illness associated with severe weather events and climate change and increase preparedness and resilience to the impacts on public health. [...] Objective 13: To minimise the impacts of climate change on vulnerable groups in society by strengthening their resilience to better prepare for, respond to and recover from future climate risk.'

Here, the National Adaption Programme appears as a protector of vulnerable groups, using 'resilience' as a remedy against vulnerability. Resilience is associated with preparedness, response, and recovery, considering the Government as an agent, and 'vulnerable groups' as passive receivers. Representing resilience as the opposite of vulnerability suggests a hydraulic and oppositional relationship, with resilience being represented an element that can be 'increased' and 'strengthened' by external agents, or as a construct, the properties of which can be precisely measured. These representations make it harder for practitioners to implement successful policies and practice, since those construals are often very broad and lack focus on the specific elements for which an intervention might be required.

Other documents attempt to make the concept more practical by discussing the ways in which the concept can be applied in communities. The following extracts come from the Cabinet Office's 'Emergency Preparedness' (2006: 21 and 2006: 4 respectively) guidance:

Extract 3

Building individual and community resilience:

- *Promoting resilience messages and materials;*

- *Individual and community resilience building;*

- *Encouraging local participation in resilience activities;*

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- *Developing individual resilience through duty service delivery.*

And:

Extract 4

The duty to make the public aware of the risks of emergencies does not extend to a requirement to assist individuals/organisations in developing community resilience or to promote community resilience. However, responders should recognise the benefits of engaging with the community and promoting individual and community resilience.

Here, resilience appears as a unitary element that can be 'promoted', 'built', 'developed', and 'enhanced', or as an outcome ('resilience through duty service delivery'). Some documents mention how volunteers (in extract 3) and responders (in extract 4) can assist communities in making communities more resilient. Also, we note that, on some occasions, the word 'resilience' is used as an adjective to accompany specific objects and actions ('resilience messages and materials', 'resilience activities'). However, constructions of this nature adopt the term 'resilience' in an attempt to describe the same outcome – how to enhance resilience – and, say little about the content and processes though which communities become and sustain their resilience in the first place. The benefits of community engagement are also mentioned, assuming communities have abilities to come into contact with the responders. However, there is no reference to communication as a two-way process; instead, communities are depicted as passive receivers of 'resilience' from the side of the authorities, while their possible role is not specified.

In other instances, we notice circularity in how resilience is conceptualised; some documents attempt to explicate some of the processes that comprise resilience, but also attempt to explain a concept by adopting the same concept as an explanation. The first extract comes from the Cabinet Office's (2016d: 1) 'The Context of Community Resilience':

Extract 5

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> *Community resilience is about empowering individuals, businesses and community groups to:*
>
> - *Take collective action to both increase their own resilience and that of others*
> - *Come together to identify and support vulnerable individuals*
> - *Take responsibility for the promotion of individual and business resilience*

And, similarly, from the Cabinet Office's 'Emergency Response and Recovery' (2013c: 46):

> **Extract 6**
>
> *The Civil Contingencies Secretariat leads a programme of work to support the building of community, family and individual resilience, working with government departments, public, private and voluntary sector organisations to:*
>
> - *Increase individual, family and community resilience against all threats and hazards;*
> - *Support and enable existing community resilience activity, sharing these successful models in other areas;*
> - *Support effective dialogue between the community and the emergency response practitioners supporting them;*
> - *Identify and bust barriers to participation;*
> - *Raise awareness and understanding of risk and local emergency response capability in order to motivate and sustain self-resilience;*
> - *And evaluate the success and articulate the benefits of community resilience.*

Extract 5 discusses community resilience through the prism of individual and collective 'empowerment'. Community resilience appears as an outcome of 'collective action' and of the provision of social support, while being framed as a responsibility of community groups. However, in extract 5, we notice the same notion of circularity, in which community resilience is explained through resilience itself. However, no attention is paid to the more specific and practical pathways that define what is a resilient community. This description is assisted by the

consideration of resilience as a reified element, which can be 'promoted' and 'increased'. Similarly, resilience in extract 6 is constructed as a reified element that can be 'built', 'increased', 'supported and enabled', 'evaluated', 'motivated' and 'sustained'. However, it is important to note that extract 6 also refers to certain relational and cognitive processes that can assist in 'building' resilience. According to the document, a resilient community needs intergroup communication, as well as risk-awareness. But, despite it capturing some of the processes of community resilience, the document still reifies the concept, sometimes falls back to treating resilience as an outcome, or uses it in a circular way, with no mentioning on which specific sub-elements practitioners and policymakers should focus to improve the preparedness and responses of authorities, emergency services and communities.

In the second section of the analysis, we present examples from guidance documents that focus on the elements that constitute community resilience and that elaborate some underlying processes.

Unpacking the Underlying Processes of Community Resilience

Some documents discuss the key features of 'resilient communities'. The first extract comes from the Cabinet Office's 'Strategic National Framework on Community Resilience' (2011: 15), and the second from the Department of Health's 'NHS Emergency Planning Guidance' (2009: 50):

Extract 7

Key features of a resilient community

Communities may not have all or even many of these features, but these features have been seen in the communities we have engaged with who have undertaken resilience planning to date:

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- *People in resilient communities use their existing skills, knowledge and resources to prepare for, and deal with, the consequences of emergencies or major incidents. They adapt their everyday skills and use them in extraordinary circumstances.*

- *People in resilient communities are aware of the risks that may affect them. They understand the links between risks assessed at a national level and those that exist in their local area, and how this might make them vulnerable. This helps them to take action to prepare for the consequences of emergencies.*

- *The resilient community has a champion, someone who communicates the benefits of community resilience to the wider community. Community resilience champions use their skills and enthusiasm to motivate and encourage others to get involved and stay involved and are recognised as trusted figures by the community.*

- *Resilient communities work in partnership with the emergency services, their local authority and other relevant organisations before, during and after an emergency. These relationships ensure that community resilience activities complement the work of the emergency services and can be undertaken safely.*

- *Resilient communities consist of resilient individuals who have taken steps to make their homes and families more resilient. Resilient individuals are aware of their skills, experience and resources and how to deploy these to best effect during an emergency.*

- *Members of resilient communities are actively involved in influencing and making decisions affecting them. They take an interest in their environment and act in the interest of the community to protect assets and facilities.*

And:

Extract 8

Research shows that the most substantial aspects of psychosocial resilience include:
- *The abilities of people to accept and use social support;*

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- *The availability of social support;*

- *A staunch acceptance of reality;*

- *Belief in oneself buttressed by strongly held values; and*

- *The ability to improvise.*

The first extract refers specifically to 'community resilience', whereas the second focuses on 'psychosocial resilience' in the context of disasters, including floods. Neither extract discusses resilience per se, but rather its core 'aspects' and 'features'. They are comprised of affective, relational, behavioural and cognitive elements. In terms of implicit psychologies, the second document discusses resilience in terms of veridical beliefs ('a staunch acceptance of reality') and self-confidence ('Belief in oneself'), while behavioural elements are discussed in the first document in terms of adaptation and use of skills. Moreover, resilience is also said to be manifested through cognitive factors such as specific abilities ('ability to improvise'), and knowledge and awareness. Last, we can also notice relational factors, which are part of community resilience; at an individual level, people's capacity to receive and utilise the necessary resources is emphasised. Within the community, the document acknowledges the need for effective leadership, which can mobilise the wider community, and points towards issues of in-group trust, which is crucial in maintaining cohesion and collective organisation. The relational factors also extend to the inter-group level, with the document referring to intergroup cooperation, acknowledging the agency and potential of communities to be treated as a resource rather than an obstacle (cf. Drury, 2012). However, communities are mainly discussed in terms of location wherein 'resilient individuals' reside, or as a sum of their constituent parts ('Resilient communities consist of resilient individuals'), without mentioning the psychosocial aspect of collectives and communities in their own right (e.g., Drury et al., 2009; Ntontis et al., 2017.; Williams & Drury, 2010).

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Some documents refer separately to the role of intergroup relations and communication in community resilience. The first extract below comes from the Cabinet Office's 'Strategic National Framework on Community Resilience' (2011: 20), while the second comes from the Cabinet Office's 'Preparing for Emergencies' (2016a: 8):

> **Extract 9**
>
> *Effective community resilience will rely on good working relationships within communities, between communities and those who support them on a professional or voluntary basis, and between agencies and organisations engaged in this work. It is, therefore, important that all parties are clear about their roles and the linkages and interdependencies between them.*

And:

> **Extract 10**
>
> *Building community resilience is something that many people and communities already do. It is not about creating or identifying a whole new community network or a one-off response to or recovery from an incident, but rather an ongoing process of using and enhancing existing relationships to better improve the emergency preparedness of an area.*

Both extracts focus on community resilience through the prism of intergroup relations. In the first extract, resilience is constructed as an element that is dependent on other factors ('rely on good working relationships'). Those relations are presented at different levels of group breadth, ranging from the intragroup (within-community relations) to the intergroup (relations between communities and assisting agencies) level. Extract 9 adopts a cognitive discourse based on this distinction between the different kinds of relationship and shifts attention to the importance of adequate knowledge of each group on their connections and corresponding responsibilities, on which community resilience is based. Moreover, all groups, including communities, are treated

as having specific roles, thus conceptualised as agentic and active, rather than passive receivers of knowledge.

Extract 2 reifies community resilience by describing it as an element that can be actively 'built'. However, it appears to draw on the concept of social capital to present community resilience as an 'ongoing process', where the improvement of existing relationships can enhance a community's emergency preparedness. Thus, both extracts present underlying elements of resilience such as the importance of positive group relations, based on cognitive, behavioural and relational factors.

Other documents focus on the ways that organisations and responders can assist in enhancing a community's resilience, again by focusing on some of its constituent elements. The next extract comes from the Environment Agency and is titled 'Under the Weather' (2015: 19):

> **Extract 11**
>
> *The purpose of an emergency plan is to serve organisations engaged in response and recovery, within the locality at the time of an emergency. Its aim is to increase multi-agency and community resilience by ensuring that all those charged with tackling the emergency on behalf of the community:*
>
> - *know their role;*
>
> - *are competent to carry out the tasks assigned to them;*
>
> - *have access to available resources and facilities; and*
>
> - *have confidence that their partners in response are similarly prepared.*
>
> *Involving the community in the production of emergency plans whenever possible and practical, and supporting communities to develop their own emergency plans, will enable community members to play an active role in supporting responders in the response to, and recovery from, emergencies and ensure they also meet the requirements set out*

above.

The extract begins by discussing emergency planning, with a focus on 'increasing' community resilience through the actions of emergency responders when dealing with the emergency. Then it proceeds to present the characteristics that responders should possess, which are described in cognitive ('know their role'), affective ('have confidence') behavioural ('are competent') and practical ('have access') terms. The document then discusses another element of community resilience, that of agency (cf. Norris et al., 2008). Thus, as suggested by Durodie (2003), communities should not be pathologised as lacking agency and the ability to deal with adversity, but should be treated as able or otherwise to participate in producing emergency plans and in complementing the work of the authorities (Drury et al., 2013).

The next extract comes from a Cabinet Office's webpage titled 'Steps for Increasing Community Resilience' (2016c: 2), which aims to inform organisations on ways to support activities associated with community resilience:

Extract 12

Consider how your organisation enables the public to be aware and take responsibility for their own resilience by:

- *providing information in the public domain – is information and data, relevant to the community and local risks, made publicly available by default and in an accessible format?*

- *signposting, advising and guiding active community groups – are services, resources and points of contact for responder organisations effectively publicised?*

- *ensuring transparency of organisations and existing governance – is information about resilience organisations, governance and decision making publicly available and regularly updated?*

- *removing barriers and bureaucracy – are public and volunteer facing schemes and services as simple, accessible and user friendly as possible?*

- *being open to community input – are responders encouraging and receptive to community input regarding their resilience planning and approach?*

- *making physical resources and assets accessible – are appropriate resources available for use and management by communities?*

- *enabling knowledge sharing and networking within and between communities and groups – are community groups aware of each other's work and actively sharing knowledge, approaches and resources?*

In this extract, the document does not present communities as complementary to emergency responders, but rather constructs 'community resilience' as actions that should be undertaken by communities based on certain cognitions ('be aware') and agency ('take responsibility'). The methods through which organisations can assist communities to enhance their resilience include practical matters like availability and ease of access to information (e.g. 'providing information', 'removing barriers and bureaucracy'), cognitive and social elements ('knowledge sharing') and group relations at various levels ('networking within and between communities'), including community input. However, in contrast to previous extracts, the document does not refer to relations between communities and other organisations. Rather, community resilience appears as a matter for communities only, while the role of other organisations is to support the actions of communities, rather than their having an active role.

Discussion

In this paper, we focus on the different levels of complexity in constructions of 'community resilience' in UK guidance documents on flooding. Representations range from simple ones like resilience as the opposite of vulnerability or as a reified element, to more complex ones

that focus on specific features of resilience, as well as by drawing from broader behavioural and psychological discourses.

One novel finding from our analysis is the notion of 'circularity', in which the concept of resilience is used as an explanatory concept to account for individuals' and communities' resilience. We also observe that some documents use both simple as well as more complex representations of resilience. We attribute this phenomenon of ambiguity to the lack of agreement about the 'nature' of resilience. In line with Norris et al. (2008), we argue that community resilience should be seen as a process rather than an outcome or reified element, since attention shifts towards the elements that aid in its facilitation or inhibition. In parallel with Patel et al. (2017), we argue that a narrower focus on the core elements of community resilience may be more fruitful for its operationalisation in policy and practice. Resilience is a very broad and vague concept on its own, and, because it is a social construct with specific historical and cultural background, attempts to come up with 'objective' and 'universal' versions take attention away from the core issue of the concept's operationalisation.

Our findings supplement those by Carter, Drury, Rubin, Williams, and Amlôt (2013) on issues of communication in chemical, biological, radiological and nuclear (CBRN) incidents involving mass casualty decontamination, and Drury et al. (2013) on other UK emergency response guidance documents. We did not find in the documents that we analysed notions of mass panic and the public's inability to handle information, but rather communication between responders and communities is promoted in most documents. In the flooding guidance we analysed, communities were usually represented as efficacious and agentic, with a potential for resilience and with the ability of handling information and of cooperating with the emergency responders. We suggest that this is due to the differences between the common perceptions and social representations around floods as compared with CBRN incidents. Perhaps, representations of CBRN incidents are loaded with notions of public mass panic because they

are uncommon and outside everyday experience; on the other hand, floods are much more common events, with people's cooperation being much more evident. Durodie (2003) has emphasized the importance of population engagement, and, more specifically with regards to the social aspects of flood management, Challies et al. (2016) have commented on the importance of community involvement. The acknowledgment of the population's behavioural and psychological capacity to act is very useful, since it opens the way for collaboration between agencies and communities in a horizontal rather than top-down manner.

However, in the floods guidance, communities were sometimes constructed in more passive terms and were represented as dependent upon the initiatives of responders and authorities to initialise communication and possible cooperation; their resilience and potential for self-organisation without the input of the authorities was not mentioned. Such conceptualisations avoid considering people's capacities for acting individually and collectively. People often come together in collectives and self-organise during disasters in a bottom-up approach (Clarke, 2002; Drury et al., 2009, 2015; Williams & Drury, 2010b) including floods (e.g. Ntontis et al., 2017), which should be considered by authorities, since their involvement can be crucial for the acute and recovery phases. Research on the mental health impact of floods has suggested the need for support for both affected and indirectly affected residents (Waite et al., 2017), and the authorities' cooperation with the emergent groups of volunteers must be taken into account by practitioners and policymakers (as has been suggested by Williams and Drury, 2010b). Some of those conceptualisations also stand in contrast to the current aims of policy and practice of community resilience, at least in the context of flooding in the UK. The Government's Strategic National Framework on Community Resilience (2011), for example, accepts the public's ability to support themselves in the absence of emergency responders, and attempts to promote 'active subjects'. Thus, the

representation of communities as passive receivers of expert knowledge is contrary to the Government's goals.

In more general terms, the use of vulnerability in the documents we reviewed is very common (Furedi, 2008; Levine, 2004), as is its juxtaposition to resilience. In our analysis, we note a hydraulic relationship between the two concepts, with resilience often treated as the antidote to vulnerability. Researchers have suggested that treating resilience and vulnerability as exact opposites can lead to 'circular reasoning' (Klein, Nicholls, & Thomalla, 2003; Manyena, 2006), and we add that the reification of resilience and its positioning next to a similar version of vulnerability can be problematic, since they both ignore social processes and dynamics that lead a community to being resilient in the first place.

The concept of community itself is also heavily debated. The Strategic National Framework on Community Resilience (2011: 12) identifies 4 different types of communities: a) the geographical communities, which are based on recognizable boundaries and are based on proximity; b) the communities of 'interest', which are based on groups with similar affiliations; c) the communities of 'circumstance', which are based on people's shared experience of a common adverse incident; and d) the communities of 'supporters', which are based on groups of volunteers within organisations. However, it is geographical communities that are the main targets of community resilience initiatives (2011: 12), with no specific guidelines given to other types of communities such as those of circumstance (see also Drury et al, 2013). We argue that emergent communities should be taken into consideration. Social psychological research has identified how survivors come together during disasters (Drury et al., 2009; Drury et al., 2016) and floods in particular (Ntontis et al., 2017), showing that psychosocial communities emerge and operate in the aftermath of floods, providing crucial support for the recovery phase. Neighbouring streets can have both affected and non-affected residents who might spontaneously come together to offer and receive support. Thus,

emergency planning should take into account the intertwining of both geographical and psychosocial communities, which should be reflected in the official guidance.

The operation of psychological communities raises further questions that emergency responders should consider, such as the nature of affected communities, the pre-existing relations between residents that might foster or inhibit their providing support, community values and the perception of community members of the authorities. Community values are crucial, since they can shape the nature of the response (Furedi, 2008). In social-psychological terms, group norms can shape group members' actions and perceptions of others (Drury & Reicher, 1999). The public's involvement in emergency planning has also been recommended in the wider context of disasters and terrorist attacks (Aguirre, 2006; Durodié & Wessely, 2002). We think that it is likely that a community's recovery will be enhanced by it being able to provide its services as well as enhancing people's responses towards the affected. Thus, attention to the social processes that occur in communities before, during and after floods might be more useful both for practitioners and communities (see also Williams and Drury, 2010b).

Our study is not without limitations. First, its scope is limited to UK guidance documents. Thus, we cannot be sure how resilience is conceptualised and used in the guidance of other countries, including at European level. Second, the scope of this paper is limited to how community resilience is used with regard to floods, so an extension of this review could explore the presence and definitions of community resilience in other guidance (e.g. pandemic preparedness plans).

In summary, we propose the following points should be considered by emergency planners:

- It is better to avoid using simple, reified, and static definitions of community resilience in planning guidance, since they lack explanatory power, as well as clear directions for future

action in preparedness and response. A focus on enhancing some specific core aspects of community resilience might be more fruitful than attempts to enhance resilience in abstract.

- The emergence and collective resilience of communities during and in the aftermath of disasters should be reflected and taken into account in planning guidance.

- Circularity (using resilience to explain resilience itself) should be avoided, since it lacks focus on its more specific, core parts and, thereby, risks overemphasising empirical support for actions that are proposed.

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Table 1. Details of guidance documents used in the analysis

Source	Year	Document
Cabinet Office	2006	*Emergency Preparedness: Non Statutory Guidance accompanying the Civil Contingencies Act 2004*
Cabinet Office	2011	*Strategic National Framework on Community Resilience*
Cabinet Office	2013	*Emergency Response and Recovery: Non Statutory Guidance accompanying the Civil Contingencies Act 2004*
Cabinet Office	2013	*Expectations and Indicators of Good Practice Set for Category 1 and 2 Responders*
Cabinet Office	2013	*Responding to Emergencies. The UK Central Government Response. Concept of Operations*
Cabinet Office	2016	*Preparing for Emergencies: Guide for Communities*
Cabinet Office	2016	*Roles, Responsibilities and Partnerships to build Resilient Communities*
Cabinet Office	2016	*Steps for increasing Community Resilience*
Cabinet Office	2016	*The Context for Community Resilience*
Civil Contingencies Secretariat	2013	*The Role of Local Resilience Forums: A Reference Document*
Committee on Climate Change	2015	*Progress in Preparing for Climate Change. 2015 Report to Parliament*
Committee on Climate Change	2016	*UK Climate Change Risk Assessment 2017: Synthesis Report: Priorities for the Next Five Years*
London Resilience Partnership	2015	*Strategic Flood Response Framework*
DEFRA	2014	*The National Flood Emergency Framework for England*
DEFRA	2015	*Flooding in England: Lead Government Department Plan*
Department of Health	2009	*NHS Emergency Planning Guidance: Planning for the Psychosocial and Mental Health Care of People affected by Major Incidents and Disasters: Interim National Strategic Guidance*

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Environment Agency	2015	*Under the Weather. Improving Health, Wellbeing and Resilience in a Changing Climate*
Healthcare System Adaptation Report Working Group	2015	*Adaptation Report for the Healthcare System 2015*
HM Government	2013	*The National Adaptation Programme: Making the Country Resilient to a Changing Climate*
HM Government	2015	*Government response to the Committee on Climate Change: Progress on Meeting Carbon Budgets and Preparing for Climate Change Summary Document*
HM Government	2015	*Meeting Carbon Budgets – 2015 Progress Report to Parliament: Government Response to the Seventh Annual Progress Report of the Committee on Climate Change*
HM Government	2016	*National Flood Resilience Review*
London Resilience Team	2014	*London Resilience Partnership Communicating with the Public Framework v1.*
Department of Housing, Planning, Community & Local Government,	2013	*A Framework for Major Emergency Management: Guidance Document 11: a Guide to Flood Emergencies*
NHS England	2014	*NHS England Emergency Preparedness, Resilience and Response (EPRR): Planning for the Management of Self-presenting Patients in Healthcare Settings*
Sustainable Development Unit	2014	*Adaptation to Climate Change Planning Guidance for Health and Social Care organisations.*
Sustainable Development Unit	2014	*Module: Healthy, Sustainable and Resilient Communities*
Sustainable Development Unit	2014	*Sustainable, Resilient, Healthy People & Places*