

ABSTRACT

Homelessness can decrease the disaster resilience of individuals and communities. This paper presents the findings of ten in-depth qualitative interviews conducted at a homelessness support service to explore homeless individual's experiences of natural hazards and how they access support during disasters. Thematic analysis identified three themes: disconnection (isolation causing a reliance on non-durable forms of support), service provider trust (participants accessed services they trusted) and personal disaster (homelessness increased vulnerability to relatively minor natural hazards). Findings were applied to the role of community service organisations (CSOs) using the Adaptive Cycle of Resilience as a framework. The results imply that CSOs could minimise structural pre-disaster vulnerability by engaging people who are homeless in disaster preparedness and response activities. Disaster plans need to be 'all-people' and provide tailored support for the needs of specific populations. These plans could include word-of-mouth information, emphasising the strengths of people who are homeless and anticipating their priorities during disaster. CSOs could also employ vulnerability mapping to prepare for the needs of homeless populations. The impacts of disasters should be assessed in the context of an individual's exposure and vulnerability to their effects. Disaster recovery provides opportunities to promote strengths and increase social integration for people who are homeless.

Homelessness and natural disasters: the role of community service organisations

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Introduction

Disasters expose and exacerbate social inequalities related to health and housing inherent in complex, urban communities (Morrow 1999, Paidakaki 2012). Extreme weather can have a particularly magnifying effect on the physical and social problems faced by people who are homeless (Pendrey, Carey & Stanley 2014). Access to housing is therefore a key factor in the resilience of individuals and communities (Paidakaki 2012). However, disaster responses targeting the homeless population can be uncoordinated and ineffective (Washington 1998, Leung *et al.* 2008). There has been limited research to date analysing the experiences of homeless people during natural disasters, despite their unique and elevated vulnerability to these events (Fothergill & Peek 2004, Cusack *et al.* 2013, Every & Thompson 2014, Fortin *et al.* 2015, Silver 2018).

The marginally homeless (in overcrowded or temporary housing) are the most vulnerable to becoming chronically homeless during a disaster (Greene 1992). People with lower socioeconomic status will also spend longer in emergency shelters after a disaster (Brown *et al.* 2013). Homeless people can have limited protective factors such as higher education, financial resources and stable social networks (Greene 1992) and are less able to evacuate to alternative shelters (Norris *et al.* 2002). However, this population does have access to certain skills, knowledge and resources they can draw on during emergencies and disaster events. These include social and kinship ties, experience finding sources of food and shelter, knowledge of the local area and coping mechanisms to manage displacement and resource scarcity (Fortin *et al.* 2015, Settembrino 2017).

The strengths and vulnerabilities of a community responding to a natural disaster can be understood in terms of resilience, which is a key element of disaster management planning (Djalante *et al.* 2013). Resilience is understood as the ability of a community to tolerate disruptive influences without interruption to essential services and functions, and recover to pre-disaster levels (Washington 1998). The Adaptive Cycle of Resilience model expands the concept of disaster resilience by dividing the development of complex systems into four stages:

- growth
- development
- collapse
- reorientation (Burkhard, Fath & Müller 2011).

Resilient socio-ecological systems are those that not only absorb the effects of disaster and respond effectively, but are also able to employ the critical knowledge gained from the event to rebuild a durable and more equable community (Burkhard, Fath & Müller 2011; Fath, Dean & Katzmaier 2015). In the context of homelessness, this means recovering from episodes of extreme weather and using that experience to develop societies that mitigate systemic vulnerability (Gunderson 2010). The Adaptive Cycle of Resilience is applied in this paper to interpret findings and develop recommendations that support this form of societal renewal.

CSOs often have long-term engagement with people who are homeless and may be best placed to coordinate disaster preparedness, response and recovery for this population (Queensland Government 2015). To accommodate disruptions caused by natural disasters, CSOs require robust plans based on the experience and priorities of the local homeless population. There is limited research on the role of homelessness-focused CSOs in disaster response (Biederman & Nichols 2014). A more detailed understanding of the experience of homelessness during natural disasters and how to optimise support for this population via CSOs could reduce vulnerability and increase resilience for homeless individuals and the wider community.

The research questions that guided this study were:

- What are urban homeless people's experiences of natural disasters?
- What forms of social and peer support do homeless people access when exposed to natural disasters?
- What is the perspective of homeless people on the role of CSOs during natural disasters?

Methods

Participants and data collection

The participants (n=10) were selected from a population accessing a homelessness drop-in centre in Brisbane, Australia, and were referred to the researcher by service staff. Participants were selected for inclusion if they were above 18 years of age, did not suffer from intellectual disability or cognitive impairment and had experienced flooding, severe storms or cyclonic weather while being homeless. Brisbane is a subtropical environment and frequently experiences high heat, tropical storms and flooding. Widespread flooding had occurred in 2010, 2011 and 2013. Table 1 summarises participant demographics.

The semi-structured interviews were conducted using an interview guide in a quiet and private room at the drop-in centre. Open questions were grouped around three focus areas: 'experiences of homelessness', 'experiences of bad weather' and 'support during bad weather'. Interviews ranged in length from 20 to 60 minutes.

Table 1: Demographics of survey participants.

Gender	Age	Ethnic background	Experience sleeping rough
Female=4	18-30	Indigenous	Less than 3
Male=6	years=3	Australian=3	years=3
	31-50	Caucasian=6	3-10 years=4
	years=4	Maori=1	10+ years=3
	50+		
	years=3		

Minor alterations were made to the interview process based on information learnt from previous interviews. This included the adoption of 'street' terminology and local geographical references. Directed questioning was conducted to investigate discrepant or divergent information. Participants had the opportunity to volunteer additional topics of discussion and identify priorities that may not have been accounted for in the interview guide.

This study received ethical clearance from the Behavioural and Social Sciences Human Research Ethics Committee at the University of Queensland prior to the commencement of any fieldwork.

Data analysis

Thematic analysis was used to interpret the data. The dataset was read over multiple times to ensure familiarity and then inductively coded to identify common or meaningful semantic data features. The second step of analysis required interpreting the significance and meaning of patterned semantic content, which led to the identification of themes within the dataset. This constant comparative method is a key feature of Grounded Theory that ensures theoretical concepts used to understand data arise directly from the dataset (Lauridsen & Higginbottom 2014). In this way, three themes were identified: disconnection, service provider trust and personal disaster.

Results

The three discrete themes identified within the data were the nature of peer support within the homeless community (Disconnection), the credibility of support services in disaster contexts (Service Provider Trust) and the ways in which disasters exacerbate the unique vulnerability of people who are homeless (Personal Disaster). This thematic grouping was evident across participant responses.

Disconnection

The majority of respondents frequently referred to the social ties between homeless people when discussing how they coped with disaster events. Participants

referred to a transient web of social supports that they relied on for information and protection from police, other rough sleepers and natural hazards. Participants considered these connections essential to long-term survival on the street and the main source of social support during extreme weather.

Interviewer: If there's bad weather coming, how would you hear about that?

Jo: Well, like I said I've got a lot of friends on the streets, and rumours get around quickly. And everybody knows one another; it's the connection between all of us ... where I come from, words just fly like the wind.

Several participants described the dual nature of these relationships between rough sleepers, which could fluctuate rapidly between camaraderie and 'hustling', (where briefly established friendships are exploited to obtain food, money or other resources). Participants emphasised that while this network would be their usual method of accessing information about oncoming severe weather, it did not constitute a trusted support network during those times.

Interviewer: How would you hear about bad weather before it begins?

John: Well usually it's from friends who watched the news and they just tells us, 'oh yeah bro, storm coming'.

Interviewer: Other friends who are homeless?

John: Yeah, like everyone looks out for each other but then again they rip each other off because it's all for survival you see, like even though they're friends, they'll still take things that they're not supposed to, like phones; anything to make money.

Jo: I don't hardly sleep at night because we can't trust anybody out there.

Mary: There's a real camaraderie among homeless people at times. It can be very transient, it can be very transient, it can quickly disappear ... when people are staying out camping together, they'll give up their life for their mates, for somebody's sleeping bag, you know, and they've only known him four or five days, and I suppose that's just part of human nature.

Prolonged supportive relationships between rough sleepers were rare in this sample. Small groups could quickly establish in particular camp sites and then disband within several months at the longest. This chronic unease was cited as another cause of trauma for rough sleepers and became a barrier to finding shelter during extreme weather. One participant observed how the rough sleepers who had been on the street for a long time were less likely to seek support from family or friends.

Interviewer: What sort of help would you get from family or friends during bad weather?

John: A lot of help, yeah, roof over your head, a meal, you know, good company, because that's what you need on the street, like, you see streeties, since people rip each other off so much, they don't talk to anyone anymore. They become, like, shell-shocked, you know what I mean; they just always want to be alone.

In addition to this social isolation induced by a 'hustling' culture, homelessness was described as isolating people from wider social networks and communities. During disasters, participants relied on brief connections with other 'streeties' even when family members with housing were nearby.

Sarah: We pretty much look after each other, the homeless, because like, our friends are homeless too. We don't rely on family that much because they have their own family and things happening.

One respondent referred to the trauma of becoming homeless that made it difficult to reintegrate into the housed population.

Mary: I have some vague memory of being young and seeing a light on in a house and seeing people pulling up and just feeling... it's almost like that psychological thing where people are, um, what's it called, disconnected a bit, after shock or trauma, there's sort of that internalisation, because there's shame.

Participants seemed to be describing homelessness as a form of severe social exclusion, a conceptualisation also identified by Rayburn, Pals & Wright (2012). Other respondents cited breakdowns in social relationships as triggers for becoming homeless, such as divorce, loss of parents or family conflict leading them to transition to this less reliable network of brief connections. An ethnographic study by Desmond (2012) observed these 'disposable ties' among poor urban families, where non-durable relationships are rapidly formed to allow resource transfer. This study identified the immediate gains achieved by this process coupled with the exacerbated instability it created over the long term. The theme of disconnection illustrated a dual process of isolation from society at large and from other homeless social contacts, with some people becoming more disconnected across the trajectory of a prolonged 'homelessness career' (Chamberlain & MacKenzie 2006).

Service provider trust

Participants discussed access to services and frequently mentioned trust as integral to their decision-making during disaster events. There was a notable diversity in how much the participants trusted service providers. Participants aged 18-30 years reported minimal concerns, whereas older participants were sceptical of the capacity of service providers to support them effectively. They were also concerned about the stigma of using services, choosing instead to manage their disaster response actions independently.

Bill: If you can't look after yourself, the government certainly can't do it ... I don't want to go too far in

an evacuation because they are just making an advertisement for the government ... look after yourself and be away from it all.

All participants reported CSOs as their primary source of support during dangerous weather. Eight participants cited the drop-in centre as their preferred support service. All participants cited word-of-mouth as their primary source of information and police, local council or CSO workers as the main communication sources. However, there was little expectation that service providers could actually provide substantial assistance. Several participants felt that most service providers fundamentally could not comprehend the experience of rough sleepers, which limited their trust in service providers.

Jack: Until you've been in that for six months, you guys have no idea. Until you really observe the ruthlessness and the crap and all the bullshit that they say ... Until you really observe first-hand what really goes on, you guys have no idea.

While participants did not describe their independence from service providers as a strength, it could be interpreted in these terms. Participants referred confidently to their ability to manage their own disaster response and some felt that their past experiences had adequately prepared them for such situations. A lack of trust in CSOs and other services may have promoted a degree of self-sufficiency that increased participant's capacity to manage and recover from natural disasters.

Personal disaster

Rough sleepers experience the effects of disasters more acutely than the housed population (Washington 1998, Brown *et al.* 2013). These effects include loss of vital possessions, loss of documentation and strains on physical and mental health (Cusack *et al.* 2013). Participants in this study reported losing vital possessions even during periods of heavy rain.

Interviewer: So it was raining for two weeks?

Sarah: About two weeks, yeah and most of our stuff got wet. All our clothes and phone chargers and phones.

Participants also emphasised the vulnerability that accompanies homelessness that can lead to maladaptive responses during extreme weather.

Mary: You couldn't not be damaged by it... and especially if you're not skilled up ... the only other thing is to go down hard, and you just can't afford to ... You feel like you have to rebuild again, you have to have a positive attitude, most of those who don't just go to their drink or their drugs.

Jack: The homeless have a 24-hour mentality. They don't think long-term at all, but if you can think long-term you can hide your stuff, it's pretty okay, but most of them ... they get wet, they get cold, they get miserable, they drink more.

Mary also felt that post-disaster support failed to recognise the impact on people who are homeless because impact assessments are usually oriented around the financial cost of damages.

Mary: I lost all my suitcases ... it's sort of like, oh, 'you're homeless anyway', but you're still affected. And I might only have a suitcase, but that's my whole world, that is my house, my home, my survival, my security.

This theme underscores the natural association of homelessness and disasters as reflections of community resilience and vulnerability (Paidakaki 2012). The varying effects of natural disasters across populations can demonstrate how the risk profile for homeless people is constructed by social, economic and political policy (Busch 2012, Paidakaki 2012). Participants in this study had forfeited financial support because they had lost contact with the government agency when their phone was damaged by rain. Others had been caught in storms because they could not move their possessions and could not afford to lose them. When moderate fluctuations in weather can easily exacerbate disadvantage for these citizens then disasters occur on a dangerous continuum of hazards not experienced by the housed population.

Discussion

For CSOs engaging in disaster preparation or response, these findings illustrate several observations regarding people who are homeless during extreme weather:

- Peer relationships are an essential, but non-durable element, of disaster response.
- CSOs are a key source of support.
- Service provider trust relationships are important, complex and hard to develop.
- The acute vulnerability of homeless people to small changes in weather puts them at a disadvantage when exposed to natural hazards.

The Adaptive Cycle of Resilience (Fath, Dean & Katmir 2015) was applied to interpret the findings of this study.

Growth and development phases

In the 'growth and development' stages before disaster events, CSOs can enhance community resilience by fostering deep engagement with people who are homeless and connecting with social networks within the community (Every & Richardson 2017, Silver 2018). Participants named social isolation and geographic transience as catalysts for homelessness. These factors are also major obstacles during a disaster response, which CSOs could assist in overcoming with long-term and local engagement with the community.

The dynamic and unpredictable social connections reported by participants can be a strength during disaster if they enable people to access support in a



Homelessness presents challenges for community service providers during disasters.

Image: Alex Coppel, Newspix

rapid and flexible manner. However, this chronic instability was more often reported by participants to erode their trust in others and in service providers. This dichotomy between camaraderie and hustling behaviours should also be interpreted within a wider context of trauma and disadvantage frequently associated with homelessness, which can compound the vulnerability of this population when exposed to extreme weather (Every & Richardson 2017). Addressing this lack of strong social connections prior to a disaster event could enhance resilience.

Participants identified that the degree of trust in service providers was crucial to their engagement. This appeared to be more difficult to develop for older people, those with mental health conditions and those who had become socially isolated after prolonged periods of homelessness. Many CSOs actively develop relationships with their clients by building credibility and providing consistent and reliable support (Silver 2018, Kuskoff & Mallet 216). Despite these efforts, these findings indicate that some within the homeless population have concerns regarding the practical capacity of CSOs during natural disasters and stigma still acts as a barrier to access help during these periods.

CSOs face challenges in terms of resources, funding and staffing constraints. Their capacity to engage in disaster preparation can be restricted (Gin, Der-Martirosian & Dobalian 2018) and their ability to maintain the trust and confidence of their clients can be destabilised during times of disaster (Vickery 2017). Other authors have observed this lack of trust to be a communication barrier between CSOs and the homeless community, emphasising the value of cultivated relationships that can facilitate access to services during disaster (Silver 2018). Vickery (2015) recommended developing strong connections with particular members within a homeless community to assist with spreading information about preparedness and evacuation operations. Communicating via representatives known to the local

homeless population could also increase CSO credibility during times of crisis.

Other recommendations include providing education to people who are homeless regarding disaster resilience throughout the equilibrium phase, focusing on issues such as communication and evacuation processes specific to people without stable accommodation (Every & Richardson 2017). These initiatives could help people who are homeless to respond appropriately and also identify the CSO as a reliable source of support during extreme weather and other events.

Collapse phase

During the 'collapse' phase, when a disaster is occurring, planners standardly adopt an all-hazards and all-agencies approach (Yates & Bergin 2009). These plans often include people who are homeless in general lists of multiple 'vulnerable populations' (Vickery 2017). This study found that in comparison to other vulnerable groups, homeless people have unique responses to disaster situations, are often adversely affected by a wider range of weather events and rely on different forms of social support. Therefore, these findings suggest the need for plans to also be 'all-people', ensuring they are sufficiently adaptable to accommodate all populations that may be supported by the plan. This could include specific methods for communicating with homeless social networks, resources for evacuating homeless people and transporting their pets and possessions, and providing additional trained staff to help people with issues related to mental health or substance use that may affect their capacity to respond during disasters. This would be a plan that 'faces both ways', ensuring that, in addition to being able to respond to any hazard, the plan responds in the best way for the multiple distinct populations being affected.

Key elements of an all-people plan could include Community Vulnerability Maps (Morrow 1999) based on data gathered through active involvement of vulnerable communities. These maps provide a way to accurately estimate the needs of specific groups within a community and are invaluable tools for emergency managers. These maps are developed through deep and ongoing engagement with the community, thereby reflecting the forms of social support and methods of communication used within networks accessed by people who are homeless. This could assist CSOs to inform homeless people about disaster management initiatives such as evacuation procedures or food distribution. Related to evacuations, study participants cited word-of-mouth as the most reliable means of spreading information. Therefore, an all-people plan should include activities that support and foster this communication pathway (Vickery 2015). Examples include providing emergency and disaster event training for outreach workers, involving peer educators and using social media effectively.

Reorientation phase

The acute stage of collapse when social systems are disrupted is followed by a prolonged 'reorientation' phase. During reorientation the lessons and experiences of the collapse phase are incorporated, enabling resilient social systems to be adapted and strengthened with new forms of preparedness and response planning (Burkhard, Fath & Müller 2011). Participants indicated that CSOs play a large role in assisting them to recover from extreme weather events. However, several participants felt that the assessments made by service providers were inadequate to measure the impact extreme weather could have on their health and finances. Therefore, impact assessments need to measure the relative and absolute effect of disasters on vulnerable populations (Buckle, Mars & Smale 2000) to interpret the loss of possessions or documentation and the impact on health within the individual's particular context. This should be based on a clear understanding of the client's situation prior to the event and could be aided by a standardised assessment tool specific to homeless populations.

Participants did not clearly identify their personal strengths related to a disaster recovery process and felt alienated from most organisational or community responses. This provides an opportunity for CSO intervention. Ethnographic data collected after Hurricane Sandy found that shelters provided a valuable and efficient service of donation distribution and support for the affected local community, driven by homeless volunteers (Settembrino 2016). Those volunteers felt the disaster recovery process provided a positive opportunity for them to contribute to their community by using skills partly developed through their experience of homelessness. CSOs could invite and encourage this valuable contribution when assisting during the reorientation phase of disasters. Actively engaging homeless people in this process could enhance their

community integration, skills development and build resilience to future weather events.

Limitations

The data collection method restricted this study to a small number of participants. The participants were self-selecting and could therefore have been more willing to interact, more engaged with services and have had more social connections than the general homeless population. The researcher was a Caucasian male, which may have been a communication barrier for female and Indigenous participants. As a qualitative dataset, these findings have limited generalisability. This exploratory research could be supported by larger-scale quantitative assessments of the concepts and behaviours identified.

Conclusion

CSOs were the main source of support during extreme weather events for the homeless participants in this study. These organisations therefore require comprehensive plans that address the unique strengths and vulnerabilities of people who are homeless. These findings support the development and implementation of 'all-people' planning that would account for the diversity of capacities and experiences within the affected population. This research concurs with previous authors in finding that vulnerability is socially constructed and that emergencies and disaster events reveal structural inequalities that exist outside periods of disruption.

The continuous, cyclical nature of disaster preparedness and response, while a daunting undertaking for resource-constrained CSOs, also presents an opportunity to access and promote strengths and increase social integration of people who are homeless. This concept of iterative regeneration contrasts strongly with the linear process of psychological decline and social isolation reported as a result of homelessness by some participants in this study. More research is needed to further explore experiences of disaster among vulnerable populations and to design effective, locally specific disaster management plans that access the unique skills and resources of CSOs and vulnerable populations themselves.

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