ABSTRACT

The capacities and vulnerabilities of people with extreme obesity have yet to be explored in disaster risk reduction literature. Whilst people have been impacted in disasters in relation to their size, shape and weight, the literature is 'conspicuously invisible' on this topic and where guidance exists, people's own accounts are missing. Through autoethnography, the authors relate what was entailed in self-evacuation for a super-plus size person in advance of Hurricane Irma making landfall at Sarasota in September 2017. The article identifies and discusses issues that impact on the ability of people with extreme obesity to prepare and respond in disasters.

Peer-reviewed article

My grab bag is two suitcases: an autoethnographical view of a super-plus size self-evacuation from Hurricane Irma

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Introduction

Hurricane Irma formed on the 30th August 2017 and devastated parts of the Caribbean on its path to Southern Florida. By the time it made landfall in Sarasota County on September 10th the category 5 hurricane had reduced to a category 1 (Sarasota County 2017). Damage totalling at least $64.8 billion and 134 fatalities (including at least 80 people across Florida) are associated with Hurricane Irma (Cangialosi, Latto & Berg 2018).

Accounts of previous hurricanes have shown that people with extreme obesity (body mass index of 40 and above) present unique challenges for emergency management, including rescue transportation, equipment, shelter and clothing (Baggett 2006, Saunders 2007). However, the literature has not specifically considered extreme obesity in disaster risk reduction (DRR), despite reports of people being left behind during disasters because of their body size, shape or weight (Gray & MacDonald 2016, Gray 2017).

Three of the authors met in Sarasota, Florida in July 2017 to discuss DRR in relation to people with extreme obesity and identified that whilst the County had plans in place for assisting people with extreme obesity, for example in the case of falls (Sarasota County 2015), no specific DRR plans were in place regarding this population. This is not unusual. While there are accounts of people with extreme obesity having been impacted in disasters (Ramme, Shaleen & McLaurin 2015, Fink 2013), the research literature is 'conspicuously invisible' on this topic (Gray & MacDonald 2016). Some practical guidance and toolkits refer to such populations (Bagget 2006, Ringel *et al.* 2009, ASPR n.d.) but individual accounts are missing. This article addresses that gap.

Method

The authors apply the qualitative method of autoethnography which involves the researcher(s) retroactively and selectively writing about experiences

Image: July 2017 visit to Sarasota Emergency Operations Center: Lynn McAfee, Chief Edward J McCrane.

and reflecting on those experiences (Maréchal 2010). Autoethnography 'offers a way of giving voice to personal experience to extend sociological understanding.' (Wall 2008 pp.38). The second author is a person who describes herself as super-plus sized. She has lived in Sarasota for 8 years.

On the run

With hurricane Irma scheduled to make a direct hit on Sarasota I decide to make a run for it.

I knew if it was a category 4 or 5, I wouldn't be able to ride it out in my house, I would need to go to a shelter for an unknown number of days. If it was a lesser hurricane, and I was only in a shelter overnight, I would have stayed. The fact that I had access to a vehicle and can drive and that I had someplace to go and stay was also a factor. I would have to evacuate from Sarasota myself. If I stayed, how I would be able to get around by myself? A lot of the roads would be flooded and there was no way I was going to be able to get out of my car and walk anywhere. My mobility is just too limited. The local, narrow two-lane roads routinely flood in the rainy season. I could be stuck in a shelter for days until the waters recede.

Packing the car was a physically-draining nightmare. I already had a file of important papers to take with me but I was totally unprepared for how much emotional and physical work it is to evacuate by myself. The trunk of my car had my bariatric manual wheelchair; my walker went in the back seat. I packed a bag with essentials I would need in my two nights in a hotel – hygiene tools, medication, my BiPAP (Bilevel Positive Airway Pressure machine), soothing book to read, two sets of clothes for the rest of the trip, water, protein bars to eat in case there were no restaurants to deliver food or drive-thru. I took a toilet riser to use in hotel rooms, my hygiene tools (Amplesponges, long-handled spatula to apply ointments in places I could not reach).

Clothing was a special issue. I can't go into any regular store and replace any article of clothing. Everything is mail-order and expensive. So I picked out what I thought would be irreplaceable or would take weeks to replace. Armfuls of clothes were too dangerous for me to carry so I ended up using my wheelchair to transport the clothes to the car, making many trips in the one day I had before I felt I really had to evacuate or the traffic would be unbearable. I was physically exhausted.

About 1.00am, eight hours before I was due to leave, I slipped and fell, hitting my head against a bookcase. I was lucky it did not fall on me – it would be somewhat ironic for a bibliophile to be literally killed by her books! I lay on the floor for a while I think, kind of out of it, but finally was able to use my cell phone to call for help. The rescue people were amazing. They calmed me down, we talked about our options to get me upright; they were very respectfully 'in charge'. They had dealt with people my size before and they knew what they were doing but they listened to me and dialogued. They asked if I wanted to go to the hospital but I said no but in retrospect I probably should have gone. The next day, instead of leaving I slept late and puttered around the house with a very sore forehead and a spectacular headache that lasted 48 hours.

The news that evening talked about how many people were evacuating and clogging the roads. I went out at 9.30 pm to get gas and was shocked at the long lines at the pump. No one was available to pump my gas; they were all busy directing traffic. The gas station closed before I could get gas, so I had to get it the next morning. There was news on the TV about how places were running out of gas and this was only Wednesday. The storm wasn't due until Saturday night or Sunday morning. I knew I had to get on the road early Thursday morning to have enough time to outrun the storm.

The first hour of my trip was fine. No traffic jams at all until I got through Tampa. Then traffic just stopped. I mean, really stopped. It was like that for the next seven hours – stop, start, go slow, stop. I spent eight hours on the road to get to a place that's usually only two hours away. I had to stop and pump gas several times because idling in traffic was killing my gas mileage, plus the news

reported widespread gas shortages. Some gas stations were closed and I had to scrabble around for a few exits to find one that had gas. Seriously stressful. One of the worst things about the drive was my bladder problems. I am 100% incontinent - urge, stress and functional incontinence. Incontinence is one of the problems that would make my stay in a shelter difficult.

I stopped after eight hours to get a hotel room. Despite Florida having heaps of hotels it was not easy to get a room. I struggled to get myself from car to registration desk at four hotels before finding a place at an expensive and not very nice place. They did not have a room suitable for my needs, but at that point I didn't care. My whole body felt swollen; unusually my ankles and feet were tremendously swollen. I could barely move my right ankle. My arthritis was hurting everywhere, especially my hands, shoulders and feet. I began to strategise scenarios in case I could not drive all the way to my planned destination. What was the shortest distance I could drive to get away from the hurricane? Would I have enough money to stay in a hotel for a few days until I could drive again? The hotel I was in was still in the hurricane's projected path: I felt trapped, alone and scared.

Thankfully, the next morning the swelling had gone down and I medicated for arthritis pain. There was considerable traffic for the first hour, then the highway branched and I went east while it seemed most people went west. Without having to hit the brake all the time, my feet and ankles did not swell up much. It felt like a miracle, a sign I should just keep driving. So I did.

One thing is certain: another hurricane will come, and next time it will probably not be a category 1. Evacuating or going into the shelter is always going to be a difficult decision. The major factor in deciding whether to evacuate or go to the shelter is that the accommodation is being sold, so I will not be able to evacuate to that property to ride out the storm there. Staying in a hotel will not be financially feasible, so although I would prefer to evacuate I won't be able to leave. I think that I will ride out a category 1 or 2 in my house. For category 3 and above I will go to the shelter. I hope the shelter will be able to accommodate my needs.

Discussion

Hurricane Irma's relatively long lead-in period allowed Sarasota residents time in which to prepare, pack and leave. Emergency management organisations routinely encourage people to have a small 'grab bag' (or go bag or getaway bag) containing essential items such as water and snacks, shoes, warm clothing, medications, copies of important documents, radio and torch. Yet there is evidence that large proportions of populations living in areas prone to natural hazards are not prepared (Colmar Brunton 2016, p.14).

Lynn's grab bag comprised two suitcases and a fully loaded car. Many of these items were indispensable aids to daily living. Apart from mobility aids, such as her bariatric wheelchair, Lynn needed items related to her size, such as appropriate clothing and hygiene items to clean and dry between skin folds.

Clothing is a significant issue for people with extreme obesity. In disasters the public are routinely asked not to send donations of clothing. It can be expensive and time-consuming for people with extreme obesity to acquire appropriate clothing; a challenge that is amplified in a disaster situation. Lynn recalled:

'When Hurricane Katrina hit New Orleans, there was a picture of a woman wearing taped together trash bags because she had no clothes. Several of us volunteered some of our clothing, and one woman tried, without success, to find a place to send it.'

Recognising the predicament of super-plus sized people following Hurricane Katrina, the National Association to Advance Fat Acceptance (NAAFA) coordinated the collection and distribution of appropriately sized clothing. Requests for plus sized clothing were received following Hurricane Harvey in Texas and items were sent to the Virgin Islands and Puerto Rico following Hurricane Irma (NAAFA 2017).

Lynn's experience highlights how size, shape and weight impact on a person's ability to produce a practical emergency 'grab bag'. The range and size of required items means preparing a small, portable 'grab bag' is not realistic for a super-plus sized person. The contents of Lynn's 'grab bag' also illustrate how her needs as a super-plus sized person go beyond issues related to disability and mobility. Lynn had self-registered with the Sarasota County Emergency Operations Center (SCEOC) as a person with special needs (PSN). She was pleased to see that the PSN form had space to indicate if your wheelchair was regular or wide. A new form was introduced in April 2018, following lessons learned from Hurricane Irma in conjunction with Health Department partners. The name was changed from special needs to medical needs because many people (800) registered as PSN in the four days leading up to the hurricane and most were identified as appropriate to go to a general population shelter. The wheelchair width question has disappeared and question relating to weight is now included. Decisions should not be made on weight alone as width and girth are significant factors in the ability to fit into chairs, cots, and through doorways. As was found in Superstorm Sandy the patient's weight and width were factors informing decisions not to attempt evacuation down the stairwell (Ramme, Shaleen & McLaurin 2015). Anyone completing the form is contacted and needs verified by staff at SCEOC. Lynn did receive a call from SCEOC before she left asking if she was planning on going to a shelter. While Lynn felt that it was good that they followed up and tried to help, her decision to evacuate to a shelter was influenced by several factors related to her size, not just her mobility. 'I would need to go to a shelter for an unknown number of days. If it was a lesser hurricane, and I was only in a shelter overnight, I would have stayed.' A significant consideration for Lynn was the shelter sleeping arrangements. 'Where would I sleep? I can't fit on a cot!'

The use of regular military cots in shelters following the 2004 Florida hurricanes (Baggett 2006) was problematic. Because the cots were close to the ground, very large people required assistance getting on and off them. Staff found this task difficult and physically stressing (Baggett 2006). Florida Health's guidance for vulnerable

populations details shelter requirements including cots with adequate dimensions and suitable weight capacities (Florida Health 2013). Six larger sized cots were deployed to Sarasota Memorial Hospital and three deployed to each special needs shelter. Lynn had read that some disaster planning documents advocated the use of two beds or cots to accommodate big people.

'Are they kidding?? I'd put one butt cheek on each bed and they would immediately open up a space between the beds I can conveniently use to fall right onto the floor, where I can't get up without the help of, literally, six people.'

Lynn was also concerned about shelter bathroom facilities. Florida Health recommend easy access and secure mounting of toilets with the capability to support increased weight (Florida Health 2013). In practice it is not likely that many shelters could accommodate people with extreme obesity.

The needs of people with extreme obesity are not routinely considered when discussing chronic conditions or disability in disasters (Gray 2017). For example, a recent Australian guide concerning the needs of people with chronic conditions in disasters references weight and obesity once as a lifestyle factor (Australian Diabetes Educators Association 2015). Convention is that extreme obesity does not mean someone is disabled, however certain conditions associated with extreme obesity including diabetes or limited mobility may be disabling. Walking, stair climbing, and chair rise ability may be especially compromised with extreme obesity (Vincent, Vincent & Lamb 2010). To be a super-plus sized person with disabling conditions presents unique challenges and represents not only the double jeopardy of disaster and disability (Maja-Shultz & Swain 2012) but the prospect of triple jeopardy involving disaster, disabling conditions and excess size, shape, and weight (Gray 2017).

Lynn's evacuation decisions were also influenced by her expectation that she would experience weight stigma in a shelter.

'For many super-plus size people, this is a key issue. People will sometimes avoid even looking at you when they think you might make eye contact, although sometimes they will just stare, open-mouthed. I imagine kids running around and pointing to me, hollering "Mama, look at the fat lady. She's so fat!" This is not unrealistic; it happens to us all the time.'

While Lynn had access to alternative accommodation and transport, the process of packing to evacuate was 'a physically draining nightmare.' Her lack of mobility impacted on her decision to evacuate or shelter-in-place. 'If I stayed, how would I get around? A lot of the roads would be flooded and there was no way I was going to be able to get out of my car and walk anywhere. My mobility is just too limited.' Even in non-disaster situations fear of falling is greater in people with higher body mass (Friedman et al. 2002, Neri et al. 2017). If Lynn had no transport she would be reliant on the County. Military transportation is often used for mass evacuation in disasters (Baggett 2006), however such options are not always appropriate for people with extreme obesity. Difficulties boarding and disembarking trucks and buses and weight restrictions on helicopters and small aircraft mean that the evacuation of people with extreme obesity may be, at best, delayed.

Conclusion

Vulnerable populations have been identified as being at increased risk of negative outcomes during and following disaster (Ringel et al. 2011, Wisner, Gaillard & Kelman 2015, Wisner et al. 2004). To-date the literature has not included people with extreme obesity (Gray & MacDonald 2016). Lynn's experience highlights that to be a super-plus-sized person with disabling conditions presents unique challenges which may not be routinely addressed when considering 'disability' aspects alone. Yet, the disability and DRR literature is silent on the added dimension of extreme obesity and the prospect of triple jeopardy this raises (Gray 2017).

Lynn's needs went beyond issues related to disability and impacted on the decisions she made and on her ability to prepare and respond in the face of impending disaster. Having a simple grab bag of 'essential' items to aid a quick get-away is not a realistic option for a super-plus-sized person like Lynn. The range and size of the items she needed complicated and pro-longed her evacuation. Her decision to evacuate or shelter-in-place was influenced by concerns about adequate sleeping, seating and bathroom facilities, as well as fear of encountering 'fat stigma'. While Lynn had her own transport, this will not be the case for all people with extreme obesity, and common mass evacuation transport options are frequently unsuitable for this population.

In the wake of Irma, SCEOC have the opportunity to review planning and preparedness arrangements, in particular for 'vulnerable' groups. The current Sarasota County Comprehensive Emergency Management Plan (2015) does not contain any DRR considerations for people with extreme obesity. However SCEOC intend to add information relating to people with extreme obesity to the health and medical annex of the plan. Organisations involved in DRR activities are urged to specifically consider the circumstances of people with extreme obesity that may impact on their ability to prepare and respond in disasters.

This paper provides valuable insight from the perspective of a super-plus sized person who self-evacuated in the face of an impending disaster. Further research is needed to better inform DRR with respect to this population.

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