Chapter 48

Thinking About the Bodies of the Victims and the Bereaved in Disaster Prevention

Field of Expertise: Social Anthropology

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Summary

Disaster emergency responders often face the challenge of dealing with large numbers of bodies. During the aftermath of the Great East Japan Earthquake, several cities had to convert leisure and public facilities into temporary morgues and vacant lots into mass burial grounds to face the overwhelming number of victims. This paper draws lessons from Japanese and overseas examples of mass fatalities to encourage the systematic integration of mass casualty into disaster preparedness. [1]

Keywords: Mass deaths, grief, bodies, bereaved families, internationalization, disaster preparedness, disaster reduction, interdisciplinarity

Introduction

Disasters depend not only on natural phenomena but also on human actions consisting of pre- and post-disaster responses. This paper shows that neglecting to anticipate mass deaths can lead to increased impact and damage. It argues that, as with evacuation drills and the construction of breakwaters, mass casualty preparedness is a matter of both disaster prevention and mitigation.

1: Problems in dealing with the victims of the Great East Japan Earthquake

The United Nations Disaster Management Agency estimates that disasters linked to natural hazards have killed approximately 1.35 million people over the past two decades. Like the victims of the Great East Japan Earthquake, these deaths today conjure up images of makeshift morgues, the burial of victims in temporary mass graves and of thousands of grieving people. On the afternoon of 11 March 2011, an earthquake of magnitude 9.0 struck the Tohoku region of Japan. The quake triggered a tsunami that reached up to 40 metres high and swept away entire settlements. Of these, 15,083 people were killed and 3,971 were missing. This is in addition to the 3,739 related deaths.

[1] The term "mass death" is used in this paper to refer to the tragic loss of many lives at once in a single disaster and overwhelming the local authorities dealing with those bodies. The use of this term for human beings is currently deeply ingrained, but as we shall see, it is an extremely important concept for the future of disaster management.

The first challenge faced by the emergency teams was to recover the bodies. The police, the Self-Defense Forces, firefighters, paramedics, and others did most of the work and were responsible for transporting the bodies to temporary morgues and sometimes to temporary cemeteries. Despite their efforts, it is estimated that 2,529 people are still missing. The second problem faced during this emergency was the lack of facilities to house the bodies. For example, the city of Ishinomaki had to cope with more than 3,000 deaths. With 1,200 bodies being brought in a day, it was soon decided to convert gymnasiums and squares into large morgue areas. The bodies of hundreds of victims were laid out in these morgue areas, identified, and returned to their families. Filmmaker Ryoichi Kimizuka brought this situation to light in 2013 with the release of his film, *Return* (Kimizuka, 2013).

Fig. 48-1 Higashi Matsushima temporary collective cemetery, photo taken by the author on 13.8.2011

After the recovery and identification of the bodies, the local authorities returned them to the families of the victims. The families were expected to carry out the customary cremation, funeral ceremonies, and burial. However, many crematoria were irreparably damaged, and some lacked the fuel and other materials necessary for their operation. In response, the government allowed local authorities to build temporary mass graves. For example, the city of Higashimatsushima built a cemetery for 500 bodies on the site of the former health center (now a crematorium) at the top of the mountain (Figure 48-1). The graves were prepared by the construction company. The bodies were transported by the SDF in plastic bags and coffins and remained there, sometimes for months, until their families could cremate them.

2: The importance of learning about mass deaths of past disasters

This section briefly discusses some of the main issues that complicated the handling of mass deaths during the Great East Japan Earthquake. Despite the country's history of mass deaths, there was a lack of preparation in some cities. Disasters such as the Great East Japan Earthquake have been predicted by researchers for years, albeit on a different scale. There is little evidence that national authorities imagined and have taken any precautions for a mass death scenario. We observed some local initiatives, such as a large funeral home in Sendai City, which rebuilt its premises in response to a predicted mass casualty scenario (Sugawara, 2012). This overall lack of preparedness has placed significant stress not only on those who dealt directly with the bodies but on the families as well.

Mass casualty preparedness requires cultural knowledge and state involvement. Funerals in Japan are considered to be private, even in times of disaster. In the aftermath of the Great East

Japan Earthquake, the families of the deceased were expected to deal with the bodies recovered from the rubble. Some traveled hundreds of kilometers in private cars or rented cars to take the bodies to crematoria in neighboring prefectures. However, many of the families did not have the means or capacity to make such a journey. For this situation to be avoided, governments and other public authorities may be required to be involved in the process of handling the bodies, including the construction of memorials and cenotaphs (Boret and Shibayama, 2017).

3: Death and social conventions

The importance of preparing for mass mortality is based on the cultural understanding that death is not only a biological process but also a social one. Anthropologists understand that the passing of an individual begins with biological death (e.g., heart failure) and ends with social death (e.g., disposal of the body, funeral, and most often burial). If we cannot undo biological death, we can better cope with mass death and reduce its impact on society by preparing for the social process of death. New approaches based on knowledge of the culture of death are needed to meet people's demands for collective death.

The new approach should also be integrated with the idea that mass deaths are relevant to public health. A recent example outside Japan, where a team of applied anthropologists worked with the World Health Organisation (WHO) to mitigate the Ebola crisis, demonstrated a striking link between the management of deaths and public health. They showed that in the throes of an epidemic, good knowledge of local funeral practices and beliefs could enable a better-suited medical response and improved public health.

4: Learning from mass-death scenarios around the world

We are also researching disasters outside of Japan to better understand the challenges that arise during the occurrence of mass fatality. An example is the 2004 Sumatra Tsunami in Aceh Province, Indonesia. In Aceh Province alone, more than 120,000 bodies had to be buried following the tsunami. All the bodies should have been buried within 24 hours of death to accommodate for the predominantly Muslim population of Aceh. The huge number of bodies, the lack of resources, and the state of the infrastructure made this impossible. The emergency services and survivors eventually built several mass graves where they hastily buried the thousands of tsunami victims, not in keeping with normal practice (Figure 48-2).

Fig. 48-2 Shillong mass grave, Banda Aceh, Indonesia (46,718 victims), photo by the author, 25.12.2013.

They sometimes recorded the total number of bodies but rarely the identities and locations of the victims. Even today, many people visit mass graves to pray without knowing where their family members are buried. During these extreme cases of mass death, what can be done to improve the treatment of the victims and alleviate the suffering of those left behind? Solutions might include preparing a sufficient number of special bags to wrap the bodies, planning the construction of mass graves, or creating a system to record the location of the bodies after burial using their DNA. These are some of the practical questions that this study hopes to answer.

This research also considers pandemics (Ebola and Covid-19) and manmade disasters (terrorism). Many cities around the world have had to anticipate the threat of mass deaths, especially from terrorism. London and Paris have designed their own facilities to deal with mass deaths and related events. The plan takes into account all resources, including hospitals, emergency teams, and various morgue facilities. By working with those responsible for this plan, we hope to develop better solutions to mass deaths at home and abroad.

Conclusion – Thoughts from the author

Experts in disaster research predict that the Nankai Trough and Tokyo earthquakes will cause mass deaths within the next 30 years. While measures may have been taken to improve evacuation procedures, there seems to be no discussion of the major issues of handling the bodies of the victims and the grief of bereaved families. In the future, this study hopes to continue to draw lessons from past cases to bridge this gap and propose new initiatives to deal with mass deaths.

References

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