

Issues of Safety Confirmation for Community-dwelling Older Adults: Experience of a Flood Disaster in Kumamoto, Japan

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Introduction

Japan has almost 30% of aging rate and disaster preparedness is a big issue.

Previous tragedies have revealed older people's vulnerability to natural disasters

- ◆ Heat wave in Chicago, 1995
- ◆ Hurricanes Katrina & Rita, 2005
- ◆ Great Tohoku, Japan Earthquake and Tsunami, 2011

Older adults are vulnerable because

- ✓ The physical and cognitive conditions may hinder prompt evacuation process
- ✓ Chronic health conditions make older adults more vulnerable after a disaster due to lack of medication or due to disaster-related conditions

Prompt safety confirmations before and after a disaster are key to reducing risks in disasters among older adults.

Purpose: This study aims to reveal issues in contacting fragile older adults and confirming the safety once flood disaster strikes to ensure a sustainable safety net.

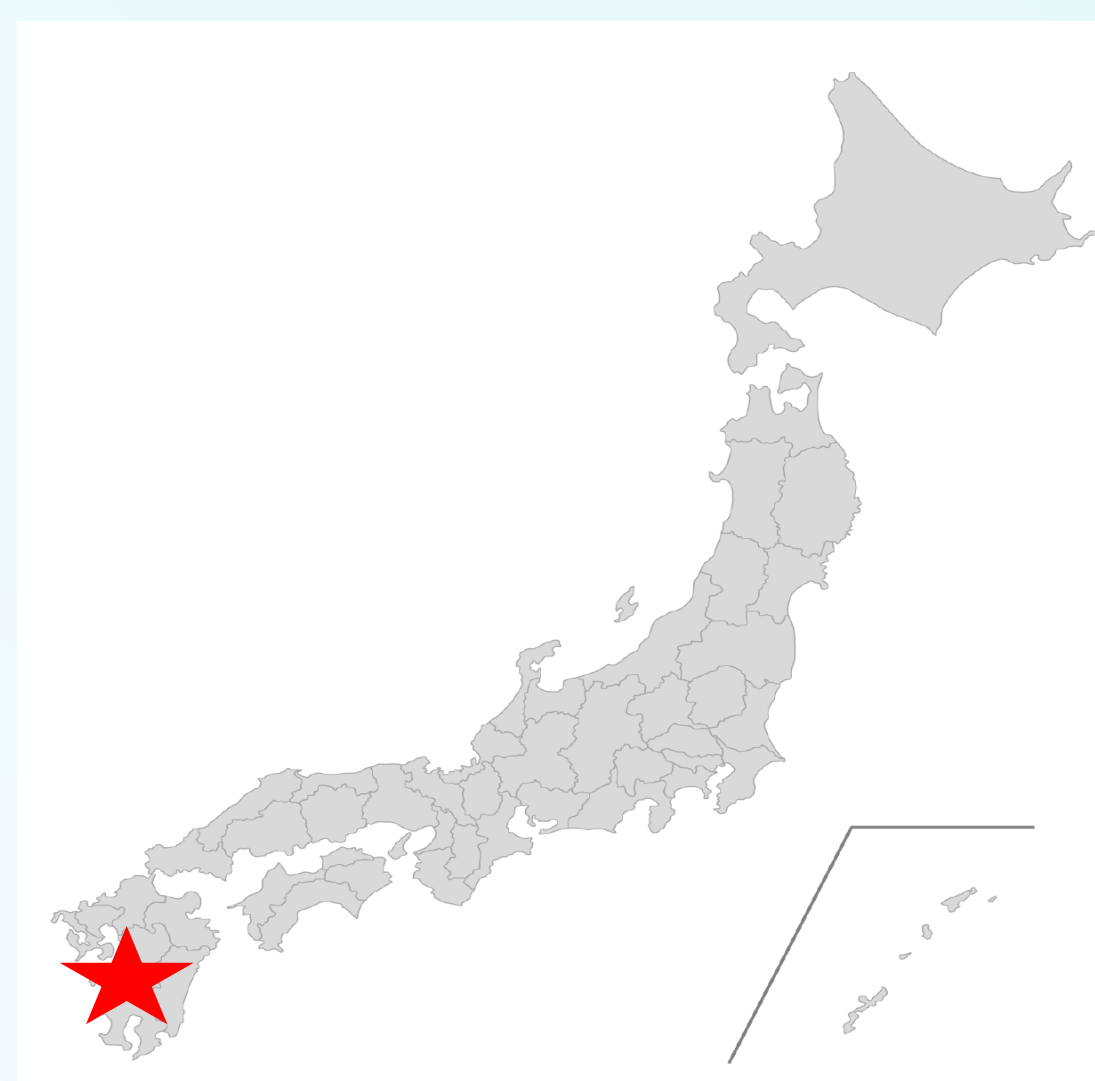
【Ethical Consideration】

Approved by the Ethics Review Committee of the National Research Institute for Earth Science and Disaster Resilience(NIED).



Kuma River

https://sotoasobi.net/10/43/72/blog/hitoyoshi_sightseeing



Kumamoto Pref.

Flood Disaster in Kumamoto, 2020

The beautiful area surrounded by the Kuma river and mountains had record-breaking heavy rain, July 3-4, 2020. The rain hit the area the hardest during midnight of July 3rd while people were sleeping, and the Kuma river had flooded and there were several landslides. The rate of rainfall exceeded 100 millimeters per hour.



From Archive Kuma Village

<https://www.archive-kumamura.com/>

Methodology

Focus Group Interviews

Three municipalities in Kumamoto, Kuma-mura, Hitoyoshi-city, and Ashikita-cho, which experienced a flood disaster in July 2020

【Objectives】

Total of nine care managers, nurses, and center directors of community-based integrated support centers were participated in August 2023

【Analysis】

We used MAXQDA, extracted the key concepts, categorized and coded them thematically about issues in contacting to and confirming the safety of the older adults during and after the flood.

Results

【Key 1: The Beneficial Role of Records in Disaster Response】

Benefit: Benefits of support lists and regular operations records

Care managers and public health nurses maintained records and lists of their consultations and subjects as part of their regular operations. These records were instrumental in compiling contact samples and confirming the safety of individuals during disasters.

Issue: Difficulty in updating the information on a regular basis

Despite attempts to update records of assistance, some subjects had outdated information because it hadn't been revised for disaster prevention.

Issue: Support gap among those with fragile conditions

The individuals previously supported were approached and confirmed safe. Independent older adults and those with close family members were swiftly evacuated and their safety confirmed. However, a disparity emerged between the very independent and previously supported groups. Frail individuals, residing alone or with older spouses in communities anyhow 'independently,' who had never relied on public services, resulting in delayed safety confirmations.

【Key 2: Different Disaster, Different Approach】

Issue: Localized impacts of flooding and delayed safety confirmation

Unlike the typhoon, the areas affected by flooding were localized yet widespread. The difficulty in sharing real-time information about flooded or mud-blocked roads led to a delayed understanding of affected areas, consequently postponing the confirmation of the victims' safety.

Discussion

- Prompt safety confirmation system in the event of a flooding is required for, in particular, fragile older adults who do not rely on public services, which lead to early support intervention
- The physical and cognitive functions of older adults appeared notably affected among disaster victims. Not only confirming their safety but also monitoring their ongoing status should be the next focal points for research efforts