

Independent living of an elderly person with non-family, community support, and consequent prevention of lonely death: A case of Soma Idobata-Nagaya after the 2011 Fukushima disaster

Naomi Ito¹, Yuri Kinoshita¹, Tomohiro Morita², Sho Fujioka², and Masaharu Tsubokura¹

¹Fukushima Medical University

²Soma Central Hospital

January 26, 2021

Abstract

The construction of apartment buildings after the disaster and the way of living there fostered the social capital of the original area. Community formation made it possible for elderly people living alone to respond to emergencies and prevent lonely death. It can be proposed to the future super-aging society.

TITLE

Independent living of an elderly person with non-family, community support, and consequent prevention of lonely death: A case of Soma *Idobata-Nagaya* after the 2011 Fukushima disaster

AUTHORS

Naomi Ito^{1,2}, Yuri Kinoshita^{3,4}, Tomohiro Morita⁵, Sho Fujioka⁵, Masaharu Tsubokura²

¹Division of Health and Welfare, Soma City Government, Soma, Japan

²Department of Radiation Health Management, Fukushima Medical University, School of Medicine, Fukushima, Japan

³Division of Food Science and Nutrition, Tohoku Seikatsu Bunka Junior College, Miyagi, Japan

⁴Department of Public Health, Fukushima Medical University, School of Medicine, Fukushima, Japan

⁵Department of Internal Medicine, Soma Central Hospital, Soma, Japan

Correspondence

Naomi Ito, Division of Health and Welfare, Soma City Government, Soma, Japan.

Email: itonaomi@fmu.ac.jp

Funding Information

This study was part of a research project on the health effects of radiation conducted by the Ministry of the Environment, Japan (Project Code:SS2020003).

Key Clinical Message (50 words)

Contrary to the assumption that, in rural Japan, elderly persons are only cared for by their families, this case illustrates that elderly care in an emergency can be effectively provided through community formation.

KEYWORDS

Fukushima, disaster, prevention of isolated death, aging-in-place, social capital

1 INTRODUCTION

Most people, regardless of their ages, desire to live in a place they know. [1][2][3] By living in a town they know, elders gain a sense of independence, dignity, and a better quality of life. Although living arrangements can be impacted by disasters or illnesses, "aging-in-place" is an important public health goal.[4]

Many elderly people desire to live independently in a familiar area. However, until recently, people believed that elderly persons needed support from their immediate families, so they could live with autonomy. Recently, communities based on blood ties have weakened, and alternative types of support are being explored. [5] To address the serious issues of social isolation and lonely deaths among the elderly, community housing options such as rowhouses and apartments have been attempted and reported as effective.[6] [7]

Social isolation and lonely deaths are serious problems, particularly in an area that has been hit by a natural disaster.[8] In 2011, the Great East Japan Earthquake caused massive tsunami damage to Soma, a city of 37,000 people, located 45 km north of Fukushima Daiichi Nuclear Power Plant. Many of its residents lost their homes, and families were forced to evacuate to temporary housing. The city has seen its population declining and aging over the years; in 2020, population aged 65 and over was 31.0%.[9] The city has placed the highest priority on the reconstruction of the lives of its residents. In light of that, Soma *Idobata-Nagaya* (rowhouse) was built as public housing to meet the needs of older adults living alone and individuals with disabilities.[10] The housing project intended to respect the desire of its residents to live in a familiar place, while nurturing mutual support among them and promoting healing after the disaster.

Generally speaking, research on efforts to achieve aging-in-place in an area affected by a natural disaster has not been attempted. Additionally, the type and amount of care an elderly person receives in the case of a medical emergency in this type of living arrangement has not been investigated. This report describes a woman in her 80s who chose to live independently in a rowhouse in a familiar community with residents she had known before, rather than with her own family, after the tsunami disaster. In the end, she passed away because of an acute illness while being cared for by people whom she knew. This report demonstrates that long-term, intimate care for the elderly can be effective in a post-disaster housing community.

2. CASE REPORT

A 80-year old woman lived near the coast of Soma city. She lived with her husband, her eldest son, and his wife. The tsunami engulfed her house during the March 2011 earthquake, but she was able to escape from it in her son's car. The house remained, but the mud carried by the tsunami flooded her house for one month. After that, she sought shelter in an evacuation center, then moved to temporary housing, and eventually relocated to another apartment in Soma City. She and her husband decided to live separately from their son due to a space issue. In July 2012, while she was in an apartment, her husband died of lung cancer, leaving her alone. She moved to a nagaya, a rowhouse apartment, in June 2013. Over this period of two years and three months, she lived in four residences after leaving her own house.

Before moving to the rowhouse, her son invited her to live with him and his wife again in their new house. However, she decided to live alone, because she did not get along with her son's wife. He and his wife occasionally escorted her to doctor appointments, but most of the time, they were not on good terms with his mother. Their visits to her were limited to emergencies. When she called them, they did not answer. She told other residents that she envied those with children and grandchildren who visited them frequently.

The woman was not capable enough to continue living alone, but she did not want to live in a nursing care facility. She was invited to sign up for the rowhouse by a friend from her dance circle. In the rowhouse, she engaged in interactions with the residents who came from the same town. She built close friendships with her next-door neighbors. She had even known one of the neighbor's parents. In the rowhouse, she and her neighbors shared dishes and helped each other when they had problems. She participated in the

morning exercise routines organized for rowhouse residents. She thought participation in community events was crucial. She always kept her door propped open as a welcome sign.

She suddenly developed an aortic dissection in the nagaya and died at the hospital on the same day. Her neighbor, a long-term friend, was the key person caring for her until her last day. For several months before she died, she occasionally complained about her health problems to her neighbors. Her neighbor would care for her and contact her son, who lived far away, on her behalf. One early morning, she had vomiting and diarrhea, so she pushed her speed-dial number to ask her neighbor for help. Again, the neighbor took care of her and contacted her family, then sent her to an emergency room. She relied on her neighbors for her survival. Without her neighbor's assistance, she would not have been able to promptly access hospital care.

People in the rowhouse often talk about this woman who suddenly passed away. After dealing with the unexpected death of her friend, her neighbor became exhausted and lost weight. Yet, she was feeling validated by the other residents after sharing her experience with them. The rowhouse residents commented: "I feel lonely, as if I've lost my own family," "I wish I could die without bothering my family as she did," "I want to live as fully as she did."

3.DISCUSSION

The construction of housing complexes for the elderly after the earthquake helped the city build strong social capital. Such communities had built-in mutual assistance and monitoring functions for the elderly which were traditionally provided by immediate families. This case exemplified that we can successfully prevent an elderly person from living an isolated life and a lonely death.

Toward the end of her life, her long-term friends living in the same area played a more critical role than her biological family. She was probably happy passing this way. We, health care workers, were able to fully respond to her wish; she wanted to live alone, did not want to feel lonely, and did not want to engage her family.

Some elderly people need connections with people who come from the same town, but not their own family. The government officers discovered this preference as they met with local residents for several meetings. They decided to build this public housing near their original community and ensured that residents came from this same community. Various support related to nagaya, low rent, watching by the manager, free outing bus, free lunch distribution, etc. support their independent living. On a daily basis, the residents share stories about their houses and the lands that were washed away by the tsunami. Such opportunities help them heal from the damage caused by the earthquake.[11] The same effects could not have been attained in nursing home facilities.

In the course of this research, it became clear that many more elderly individuals have started a new phase of life by choosing to live in the rowhouse with long-term friends and neighbors, rather than with their families. Today, building human connections is increasingly challenging as society undergoes aging, declining birthrates, and changes in family structures. The rowhouse project and its operation have helped people realize their new phase of life based on the philosophy of aging-in-place.

This case report is available to inform policy, practice, and research in elderly care, both domestically and internationally. Future research may more broadly explore the effects of rowhouse projects based on situations such as urban and rural areas, unaffected areas, and age groups of the elderly, while investigating cases of other older adults with diverse socioeconomic and medical conditions.



FIGURE 1: Lunch time at *Idobata-Nagaya*

By having lunch together in the common space, residents can meet and interact with one another at least once a day.



FIGURE 2: Front view of *Idobata-Nagaya*

Building style known as *nagaya* , a rowhouse commonly inhabited by ordinary people in the downtowns during the *Edo* period. Five buildings containing 58 units were built in Soma City after the earthquake.

ACKNOWLEDGEMENT

The authors are sincerely grateful to all the individuals involved in this case.

ETHICS STATEMENT

This type of study does not require ethics approval by an institutional review board. Written informed consent was obtained from the client's family.

CONFLICT OF INTEREST

None declared.

AUTHOR'S CONTRIBUTION

N.I. conceived the study and drafted the article. Y.K., T.M., S.F. and M.T. participated in the study design and helped with coordination and editing. All the authors were involved in the conception and design of the study, interpretation of the case, and final approval of the article.

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