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Towards an Age-Friendly City: The Constraints Preventing the Elderly's Participation in Community Programs in Akita City

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Towards an Age-Friendly City: The Constraints Preventing the Elderly's Participation in Community Programs in Akita City*

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Abstract

The inclusion of the elderly in community life is a major factor in achieving an age-friendly city. However, there has been little research investigating the constraints preventing the elderly's interaction with society. With that in mind, this paper is pioneering the investigation of such constraints using the results from the "Questionnaire towards an Age-Friendly City" by Akita City Government in Japan, a member of the World Health Organization (WHO)'s Global Network of Age-friendly Cities and Communities. This paper reveals two policy implications. First, living with someone encourages elderly to interact with society. Second, the elderly's ability to be mobile fosters their social participation.

Key words: age-friendly city, aging, elderly's social participation, community programs, isolation

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Introduction

"Promoting the elderly's inclusion in and contribution to all areas of community life" is one of the six pillars of active aging (World Health Organization [WHO], 2007). Much of the research endorses this statement, encouraging the elderly to interact with others by participating in local community programs, such as sports/cultural events, local festivals, or community-building activities. In reality, many elderly individuals are reluctant to interact with others and therefore remain lonely (Victor et al., 2000; Findlay, 2003; Gardner et al., 1999; Edelbrock et al., 2001). In this paper, we intend to uncover the constraints preventing the elderly's participation in community programs by investigating the results of the "Questionnaire towards an Age-Friendly City" by Akita City Government in Japan, which has one of the country's highest rates of people aged 65 and over.

In the literature on ageing, social isolation has been defined in different ways. For example, Cattan and White (1998) employed both objective and subjective measures: an objective measure of social interaction and a subjective expression of dissatisfaction with a small number of social contracts. Hall and Havens (2001) and Van Baarsen et al. (2001) also used this combined concept. Gardner et al. (1999), however, only employed an objective definition. They defined people as socially isolated if they had poor or limited contact with others and they perceived this level of contact as inadequate and/or that the limited contact had adverse personal consequences for them. People who only had poor or limited social contact were considered "at risk" of social isolation, though some people prefer to be alone

and suffer no adverse effects regarding their quality of life.

Regardless of people's preferences, most research indicates that social interaction is very beneficial for the health and wellbeing of older people (Bower, 1997; Fratiglioni, 2000; Moyer et al., 1999; Pennington, 1992; Victor et al., 2000; Wenger et al., 1996). For people aged 65 and older, social isolation has been linked with increased mortality rates (Bower, 1997); elevated blood pressure (Bower, 1997); increased propensity for dementia (Fratiglioni, 2000); rural stress (Monk, 2000); depression (Gutzmann, 2000; Silveira & Allebeck, 2001); and suicide (Center for Disease Control and Prevention, 1996; Conwell, 1997; Rapagnani, 2002).

In reality, social isolation has become a serious problem. The population is aging, which means that more people are living alone (WHO, 2007). Of course, many governments and international organizations are attempting to deal with this issue. A notable example is the development of a framework for age-friendly cities initiated by the WHO, which states that "Promoting the elderly's inclusion in and contribution to all areas of community life" is one of the six pillars of active aging. The WHO also established the WHO Global Network of Age-friendly Cities and Communities (GNAFCC) to spread best practices in select cities and communities. Yet, social isolation amongst older people has still emerged as one of the major issues facing the industrialized world.

Nonetheless, there has been little research investigating the constraints preventing the

elderly's interaction with society. Although much of the research claims that social isolation increases health risks, the opposite is also true; some individuals are isolated *because* they are ill. It is unreasonable to claim that an elderly person's poor health is due to a lack of social interaction because, for example, those who are bedridden or those who suffer from severe dementia often simply cannot interact with others. Therefore, in order to identify the constraints preventing the elderly's interaction with society, health factors that are difficult to measure must be excluded.

In this research, we therefore pioneer the investigation of the constraints preventing the elderly's interaction with society, focusing on participation in community programs. Using data about Akita City, excluding health status factors, we identify these constraints for the first time and reveal policy implications in order to help achieve the "elderly's inclusion in and contribution to all areas of community life."

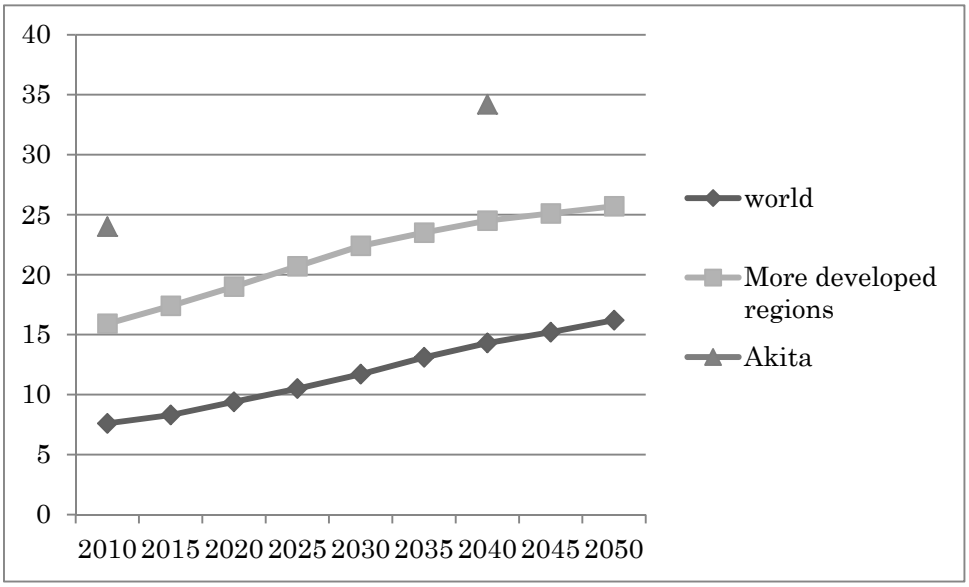
Analyzing the Case of Akita City

As mentioned, we have used the results of "Questionnaire towards an Age-Friendly City". Akita City is the capital of Akita Prefecture, located in the northeastern part of Japan. As of April, 2012, the city's population stands at approximately 320,700.

Investigating the case of Akita is important for two reasons. First, Akita is at the forefront of the issue. The ratio of the population aged 65 or over in the total population, hereafter referred to as the population aging rate, in Akita City was approximately 24% in

2012. It is estimated that the rate will reach 34.2% by 2040 (Age-friendly World, 2012). As seen in Figure 1, the average population aging rate in the more developed regions is expected to catch up with the rate in Akita City by 2040. Akita City is among the frontrunners in terms of the population aging rate. Thus, Mayor Hozumi pledged to make the city age-friendly when he was elected in 2009. Since then, the city has made significant strides, for example, by becoming a member of GNAFCC and soliciting residents' opinions via the "Questionnaire towards an Age-Friendly City."

Figure 1. World's Population Aging Rate (%)



Source: United Nations (2010)

Note: More developed regions, as defined by the United Nations (2010), comprise all regions of Europe plus North America, Australia/New Zealand, and Japan.

Second, analyzing the data from the questionnaire allows us to identify policy implications. The purpose of this research is to identify the constraints preventing the elderly's interaction with society that can help keep them healthy. In reality, it is very difficult to differentiate "social interaction" from "long-term care." For instance, many people provide

care to elderly individuals who are bedridden. However, such interaction is not necessarily "social interaction." That is, all elderly people who reside in either hospitals or nursing homes would have "interaction" if we include such care in the term "social interaction." Apart from that, it may not be reasonable for governments to encourage such elderly individuals to engage in any social interaction as those who are bedridden probably either cannot do it or do not want it. Therefore, it is necessary to exclude those who require care (i.e., those who are incapable of the activities of daily living [ADLs]) from this analysis. With this in mind, the Akita survey succeeded in collecting data only from those who are at least capable of performing ADLs. That is, Akita City distributed the questionnaire to those who do not hold a "care grade" in Japan's Long-Term Care Insurance (LTCI) system. The LTCI is a universal system through which elderly people can receive necessary long-term care services in Japan. In order for the elderly to receive long-term care services, their need for physical and psychological care must be measured objectively at a public institution and categorized according to "care grade." A person who is capable of ADLs is disqualified from the minimum care grade level, which is "Care 1" (see Table 1).

Table 1. Approximate standards of the minimum care grade, Care 1

Overall	**Standing and moving on foot**	**Standing up/keep standing on a single leg**	**Excretion**	**Eating**	**Daily routines such as nail cutting and changing clothes**	**Symptoms of Decreasing Comprehension**	**Abnormal Behavior**
Needs partial care occasionally	Needs some assistance	Needs some assistance	Capable	Capable	Needs partial assistance occasionally	Can be seen ocasionally	Can be seen occasionally

Source: Niigata City (2008)

Akita City is forward thinking in terms of the aging population ratio and collects data from those who are capable of ADLs. It is therefore important to study the data to identify the constraints preventing the elderly's social participation that can help them stay healthy.

Methods

Data

Akita City's "Questionnaire towards an Age-Friendly City" was distributed and collected in the period from July 7–30, 2010. The target population was city residents aged 65 or over who are not at the care-grade level. The sample was randomly selected based on the Basic Resident Register. The survey was sent via the mail, and the return rate was 77.3%. The reason for such a high return rate may be because the respondents expect the government to consider their answers when creating social policy. From the dataset, we selected 1,141

respondents that had no missing answers.

Definition of Social Interaction

Focusing on community programs, we use the variables shown in Table 2. We assess the respondents' level of social interaction using the following criteria: 1) whether he/she has participated in any local community activities (e.g., sports/cultural events, local festivals, or community-building activities) in the last year; 2) whether he/she is willing to interact with young people; and 3) whether he/she often (or sometimes) participates in any local non-profit organization (NPO)/volunteer activities. As for the variable "suburb," we define the Kawabe or Yuwa areas of the city as suburbs because both areas were previously towns adjacent to Akita City until they came under the same municipality in 2005.

Table 2. Variables and description

Variable	**Description**
(1) activity_d	Have you participated in any local community activity (e.g., sports/cultural events, local festivals, or community-building activities) in the last one year? (1=Yes, 0=No)
(2) youth_d	Are you willing to interact with young people? (1=Yes, 0=No)
(3) npo_d	Do you often (or sometimes) participate in any local NPO activity? (1=Yes, 0=No)
Sex	1=Male, 0=Female
Age	Medium value of the following choices (65–69 years old, 70–74 years old, 75–79 years old, 80–84 years old, 85 years old or over)
Solo	1=live alone, 0=others
Suburb	1=live in former Kawabe town/ Yuwa town, 0=otherwise
Car	1=drive a car, 0=otherwise
Work	1=have a job, 0=otherwise
Sfarmer	1= farmer/self-employed, 0=otherwise

The descriptive statistics for the variables are shown in Table 3. The average age of the respondents is 73.6. Of the respondents, 14% live alone and 86% live with their families; 41% drive a car; 19% have a job; and more than half are either farmers or are self-employed.

The models used in this research are as follows.

(1) Prob (activity_d = 1) = a + b (Sex) + c (Age) + d (Solo) + e (Suburb) + f (Suburb*Car) + g (Work) + h (Work*Sfarmer)

(2) Prob (youth_d = 1) = a + b (Sex) + c (Age) + d (Solo) + e (Suburb) + f (Suburb*Car) + g (Work) + h (Work*Sfarmer)

(3) Prob (npo_d = 1) = a + b (Sex) + c (Age) + d (Solo) + e (Suburb) + f (Suburb*Car) + g (Work) + h (Work*Sfarmer)

Table 3. Descriptive statistics

	Mean	**Sd.**	**Max.**	**Min.**	**Obs.**
(1) Activity_d	0.5393457	0.49867	0	1	1131
(2) youth_d	0.311229	0.4632011	0	1	1131
(3) npo_d	0.1007958	0.3011913	0	1	1131
Sex	0.4341291	0.4958613	0	1	1131
Age	73.56941	5.858909	67	87	1131
Solo	0.1414677	0.3486576	0	1	1131
Suburb	0.0654288	0.2473904	0	1	1131
Car	0.4076039	0.4916062	0	1	1131
Work	0.193634	0.3953202	0	1	1131
Sfarmer	0.1016799	0.3023606	0	1	1131

Table 4 shows the estimation results with three major findings. First, living solo may influence the elderly's social interaction. In Models 1 and 3, the variable "solo" is

significantly negative. Those who live solo are unlikely to participate in local community programs and NPO activities compared to those who live with someone. Second, the elderly's mobility affects their social interaction. In Models 1 and 2, the variable "car" is positive and significant. Those who can drive a car are more active in participating in local community activities and interacting with young people. In addition the interaction term "suburb*car" is not significant. Being capable of driving a car is effective not just in rural area. Third, holding a job appears to encourage the elderly to interact with young people. The work dummy is significantly positive in Model 2. Those who have a job tend to be more willing to interact with young people, though this is not necessarily the case regarding participating in local community and NPO activities. This may be because those who have a job get used to interacting with young people through their job. However, this could be due to the notion that those who like to interact with young people tend to continue working in their old age.

Table 4. Estimation results

	(1) activity_d	(2) youth_d	(3) npo_d
sex	-0.0189	0.0428	0.272**
	(-0.20)	(0.43)	(2.16)
age	-0.0134*	-0.00281	-0.00799
	(-1.89)	(-0.38)	(-0.80)
solo	-0.191*	0.0470	-0.355**
	(-1.73)	(0.41)	(-1.97)
suburb	0.115	0.0890	-0.0814
	(0.56)	(0.41)	(-0.26)
car	0.300***	0.262**	0.00628
	(2.90)	(2.45)	(0.05)
suburb_car	0.542	0.0274	-0.653
	(1.64)	(0.09)	(-1.18)
work	-0.123	0.339**	0.210
	(-0.89)	(2.47)	(1.24)
work_sfarmer	0.00654	-0.205	-0.256
	(0.04)	(-1.17)	(-1.14)
_cons	1.000	-0.478	-0.788
	(1.89)	(-0.86)	(-1.06)
N	1131	1131	1131

t statistics in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Results

In attempting to identify the constraints preventing the elderly from participating in community programs, this research reveals two policy implications. First, the governments need to take particular note of the elderly who live alone. As this research revealed, living with someone else is an important factor encouraging the elderly to participate in social activities. Those who live alone are likely to require a support, not just because they do not

have anyone who offers a help at home, but also because they are less likely to connect to the local community. Implementing a regular visit to the elderly who live alone and/or encouraging them to enter a nursing home may prevent them from possible social isolation. Second, the governments may need to enhance the elderly's mobility that greatly fosters their social participation. In reality it is not easy to encourage an elderly person to drive a car due to the safety matter, but developing public transportation would be the substitute. For example, increasing the number of community buses would help the city to be age-friendly in terms of including the elderly in community life.

Conclusions

The inclusion of the elderly in community life is a major factor in achieving an age-friendly city. However, there has been little research investigating the constraints preventing the elderly's interaction with society. With that in mind, this paper is pioneering the investigation of such constraints using the results from the "Questionnaire towards an Age-Friendly City" by Akita City Government in Japan, a member of the World Health Organization (WHO)'s Global Network of Age-friendly Cities and Communities. This paper reveals two policy implications. First, living with someone encourages elderly to interact with society. Second, the elderly's ability to be mobile fosters their social participation.

This research has yet several weaknesses due to data constraints. First, the detailed

household status was unknown for the respondents. Although many elderly live alone, some of them might or might not have a relative next door. The absence of such information could possibly distort the results. Second, this research included no economic variables. To be active in society, a certain level of wealth may be necessary, but this research could not consider this aspect because that data was not available.

Nonetheless, this paper contributes significantly to the study of the elderly's inclusion in community life, which is a major component of an age-friendly city. Although little research has analyzed the constraints preventing the elderly's social interaction due to data limitations, this pioneering paper identifies at least some of the constraints, which include household status and mobility. With that in mind, this research can help to improve the health and wellbeing of elderly individuals in our society and can help in creating more age-friendly cities.

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