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Review Article

Health Promotion for Older Population in Japan: Importance of Preventive Care and Successful Assisted Living

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Abstract

Japan will face a super-aged society in the near future, in which 40% of the population will be over 65 years of age. However, prolongation of life expectancy is inevitably associated with greater numbers of frail old people who need help or assistance in their daily activities. The percentage of the old-old population in 2020, comprising more frail people compared with the young-old population, exceeded 14% of the total population in Japan. In such a situation, many older Japanese wish to be healthy for their entire life and continue to live in their hometown with a sense of security until the end of their life. Under such circumstances, we should establish a society in which old people can enjoy a healthy, satisfying life through social participation and contribution. In this review article, we discuss about the importance of preventive care and successful assisted living in health promotion policy for older population in Japan, a super-aged country.

Keywords: Japan; Health Promotion; Older Population

Introduction and Important Concepts

The percentage of the older population is estimated to continue increasing rapidly, and reaching 28.4% in 2020, as reported by the National Institute of Population and Social Security Research [1]. Japan will face a super-aged society in the near future, in which 40% of the population will be over 65 years of age [2]. However, prolongation of life expectancy is inevitably associated with greater numbers of frail old people who need help or assistance in their daily activities. The percentage of the old-old population (aged 75 years or over) in 2020, comprising more frail people compared with the young-old population, exceeded 14% of the total population in Japan.

In such a situation, many older Japanese wish to be healthy for their entire life (Healthy longevity) and continue to live in their hometown with a sense of security until the end of their life. Under such circumstances, we should establish a society in which old people can enjoy a healthy, satisfying life through social participation and contribution. The community-based integrated care system advocated by the Ministry of Health, Labor and Welfare (MHLW) is an ideal community based on the above-mentioned concept (Figure 1). In the community-based integrated care system, the community, hospital care, long-term care, and social activity are organically bonded, leading to a harmonious, convivial society for both young and old populations.

For an active aging society, the World Organization (WHO) policy framework requires action on the following three basic pillars: Health, Participation, and Security. As for the policy framework, enhanced participation in social activities is required to attain the goal of active aging [3]. Also, in Japan, the government started the Health Japan Project (2nd term) in April 2013 [4], which is the 2nd version of a 10-year national campaign intended to prolong Healthy Life Expectancy (HLE) and improve the quality of life. In the Health Japan Project (2nd term), the three important pillars for healthy longevity are exercise, good nutrition, and social participation and network [4] (Figure 2).

Based on this concept about health promotion for the older population in Japan [4], preventive care is considered to be very important to prolong a population's HLE [5] (Figure 3). As the primary prevention, various activities to promote knowledge of the three pillars for healthy longevity, as previously described (Figure 2), are organized. As many elderly retired people are expected to have more time to participate in these activities in the community, participation in social activities will increasingly play a key role in contributing to the health of older adults in today's aging society in Japan [6]. Previous studies investigated the association between participation in social activities and various health outcomes [7]. In a study in Sweden, it was found that low social participation was the strongest predictor of low-level physical activity [8]. Also, a study conducted in Japan reported that lack of participation in social activities was significantly correlated with an increased risk of disability and requiring Japanese Long-Term Care Insurance (LTCI) [9]. In addition, participation in social activities is considered to be very important in the community, since it may nurture the growth of social capital. Social capital refers to the quantity and quality of social relationships such as formal and informal social connections as well as norms of reciprocity and trust that exist in a community [10,11]. Since assessment of the social capital is difficult, it is important to establish the appropriate assessment method for the social capital from now on.

Secondary Prevention for Long-Term Care

An increase in long-term care expenses due to an increase in

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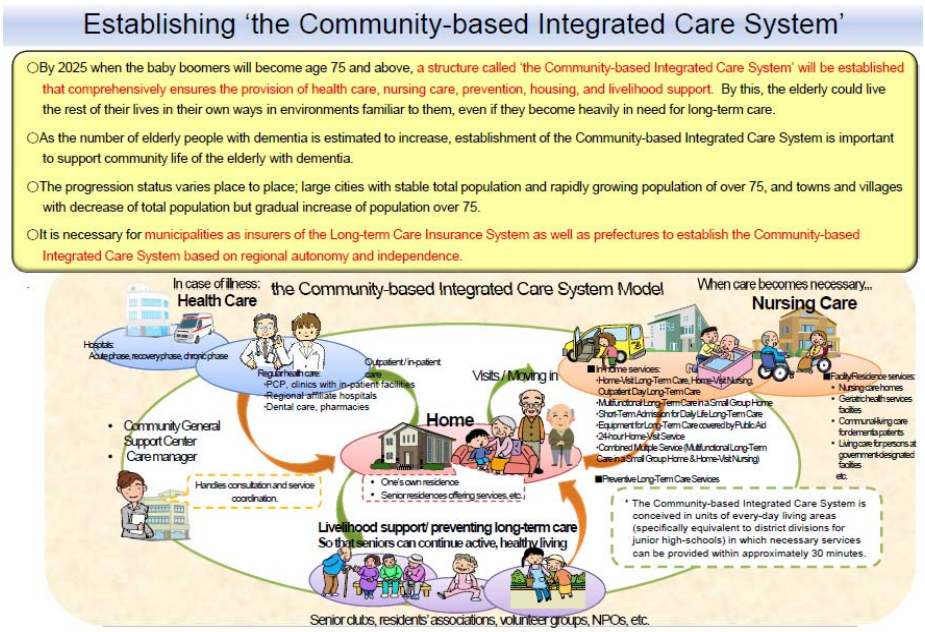

Figure 1: Community-based integrated care system. From Japan Ministry of Health, Labor and Welfare website (Ministry of Health, Labour and Welfare 2016) [31].

the aging population can affect the insurance premiums of both old and actively working generations [10]. With comprehensive reform of social security and the tax system, establishing an integrated community care system and ensuring the sustainability of the Japanese LTCI system are essential [11] (Figure 1). LTCI in Japan was introduced in 2000 to cover social care for 2 million people aged 65 years or older; and the number of insured people under LTCI doubled by 2006 [12,13]. Since 2006, LTCI has been revised to focus on preventive care by detecting people aged 65 years or older who are at high risk of needing future care or support. The preventive care project provides community-based exercise programs and programs to improve the cognitive function and malnutrition status. Many local governments are trying to detect community dwelling older people who are at high risk, using the basic health checklist called "Kihon Checklist" [14]. The basic health checklist consists of 25 items and seven categories (daily life, physical ability, nutrition, oral condition, seclusion, forgetfulness, and mind) for the screening of older people who have functionally or cognitively declined [14]. A subject is identified as having "Low physical strength" if they show three or more negative responses to questions 6-10. "Low nutritional status" is assessed by answers to both questions 11 and 12, with a negative answer indicating a lower status, and "Low oral function" is defined as two or more negative responses to questions 13-15. A subject is identified as showing frailty if they give at least 10 or more negative responses to questions 1-20 (interpreted as "Overall low score for questions 1-20"). The target people for the secondary preventive care project, who are at high risk of needing future care or support, are defined by the criteria of the Japan Ministry of Health, Labor and Welfare as those who show lower function in at least physical strength, nutritional status, oral function, and overall low score for questions 1-20. When we approach them to start preventive intervention, we should also reference the categories of: "Houseboundness", "Low cognitive function," and "Depression risk" to provide effective

Figure 2: Three pillars for healthy longevity in Japan.

interventions. "Houseboundness" refers to people who answered "no" to question 16. "Low cognitive function" referred to participants who had at least one or more negative conditions in questions 18-20, and "Depression risk" referred to elderly people who had two or more negative responses (questions 21-25). We clarified the usefulness of Kihon Checklist for the prediction of future disability of community dwelling older peoples using future LTCI certification [15,16]. "Low physical strength", "Low nutritional status", "Low cognitive function" and "Depression risk" in Kihon Checklist were strongly associated with 3 years later certification of LTCI. Thus, Kihon Checklist could be useful for prediction of future disability status of older peoples and high risk of needing future care or support in LTCI [17]. Interventions and preventions for physical strength, nutritional status, cognitive decline and depression are supposed to be very important. Actually, various preventive intervention programs were provided in the community by the local government, and they have proven to be effective for preventing functional or cognitive decline

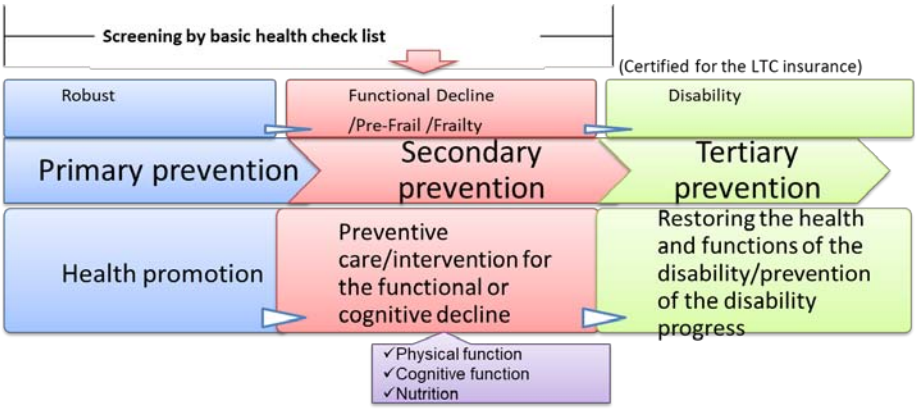

Figure 3: The concept of preventive care in Japan [5].

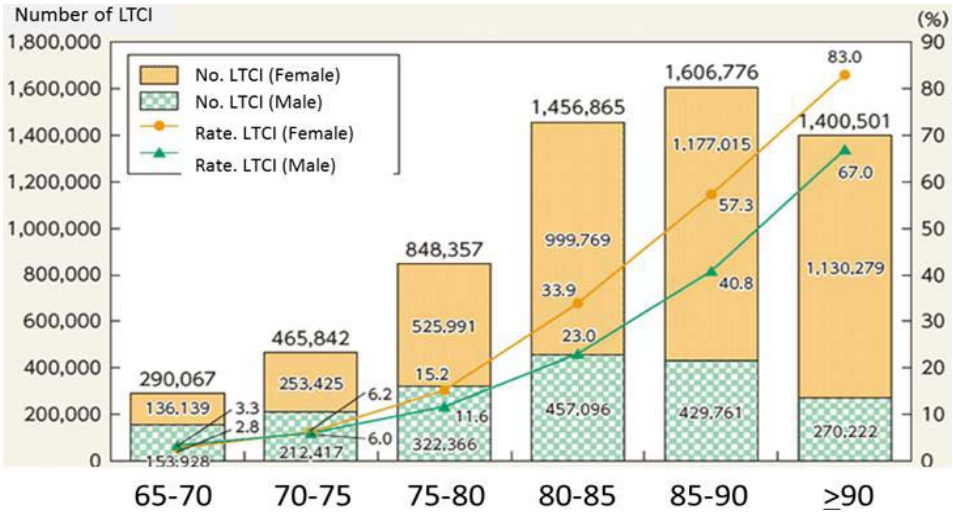

Figure 4: Certification of Long Term Care Insurance in Japan.

of older people.

Just recently, Japan Ministry of Health, Labor and Welfare started using the new questionnaire for the elderly in elderly health check-ups [18]. This new questionnaire for the elderly focuses on identification of the frailty status [19,20] compared with the Kihon Checklist as described above. It is desirable that this questionnaire is utilized for preventive care and hospital care for older people.

Of course, there is the big difference in the preventive care approach between urban and rural town. The preventive care programs in each town should be based on the properties of the town such as number of population, rate of old peoples, main industries, local facilities and so on.

Tertiary Preventive Care and Importance of Successful Assisted Living

Japan is now facing a super-aged society, in which the average life expectancy is over 81 years for men and over 87 years for women. Physiological aging essentially progresses, leading to organ dysfunction and decline of physical and cognitive functions. In most old people, pathological aging, that is "disease", will develop. Human aging is accelerated *via* these processes in all of us. About 50% of those aged 85 or older had the certification of LTCI, as shown in Figure 4 [21]. One third of people with the certification of LTCI above moderate levels (above Level 3 out of 5) have severe disabilities or require assisted living.

In the super-aged society of Japan, although the number of old people with healthy longevity is increasing, the number of older people above age 85 or 90 years with assisted living is also markedly increasing. Therefore, we have to pay attention to older people with assisted living whom numbers will rapidly increase in super-aged societies, such as in Japan. We need to clarify the factors associated with successful assisted living. Research to investigate the wellness of older people with assisted living is necessary, as well as research on healthy longevity.

As for the wellness of older people with assisted living, prevention of the progression of physical disability, called "tertiary preventive care," is very important. Furthermore, it is very important to accept physical and cognitive declines, which lead to geriatric syndromes, from a psychological aspect. Regarding this psychological concept, "Gerotranscendence" proposed by Dr. Lars Tornstam [22] and "With

Aging in Japanese" proposed by Dr. Kenji Toba [23] would be close to this concept. We consider that there have been in sufficient studies on tertiary preventive care and psychological aspects of wellness in older people with assisted living. Older people with assisted living may be conscious of their impending death. Repeated Advanced Care Planning (ACP) for End-of-Life Care (EOLC) may be effective in older peoples with assisted living. The authors propose that research for the promotion of successful assisted living is essential everywhere.

Our Research for Healthy Longevity and Successful Assisted Living

"Which factors influence healthy longevity?" is the key question for the practice of the LTC prevention project. There has been extensive research on the influence of these factors on morality from birth to an older age, but little research on how these factors affect the likelihood that a person will survive and remain healthy to an old age [24]. Starting with the research premise of healthy longevity in Japan, we started a longitudinal cohort study of an aged population to clarify factors contributing to healthy longevity. The study is called "Septuagenarians, Octogenarians, Nonagenarians Investigation with Centenarians (SONIC study)." The aims of the SONIC study are to investigate age differences and similarities in factors influencing healthy aging and psychological well-being, including psychological (cognition, change in emotion and compensation; personality, psychological development), social (socio-economic status, social relationship), medical, dental, and nutritional aspects [25]. Study participants include more than three thousand septuagenarians aged 69-71 years, octogenarians aged 79-81 years, nonagenarians aged 89-91 years, and centenarians aged 100 or older collected from four urban and rural towns in Japan. We are looking for targets to realize the health promotion for the prevention of LTC in the SONIC study [26,27].

Another prospective cohort study of old patients with home medical care is called the "OHCARE (Osaka Home medical Care Registry) study" [28]. Subjects in the OHCARE study include severely disabled patients with assisted living at home. For the investigation of factors associated with successful assisted living, OHCARE is considered suitable since the average age of study subjects is around 85 years and all have the certification of LTCI. Some achievements resulting from the OHCARE study [29,30] are considered to be very useful in the Japanese community-based integrated care system, as mentioned above.

Conclusion

In order to realize a healthier aged society, in which all people even with the status of requiring assisted living can have healthy, satisfying lives while supporting each other, there will be increasing demand for each preventive care process. Especially, research to clarify factors associated with successful assisted living of older populations is essential in super-aged societies.

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