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## Opinion

## How can we realize the health promotion measures for all the people in a mature society, Japan?-Proposing for "collaboration between academy and practice" in Japanese public health by Self-Management Education, especially Chronic Disease Self-Management Program

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## Abstract

This paper, at first, examined the process to realize the "Health promotion support policy in Japan for people with disabilities", that is, "Building a health promotion support system for people with disabilities by utilizing Self-Management Education (SME)," which the author has suggested so far. The author has also proposed the "definition of health in a mature society" encompassing all persons including those with disabilities. The "Image of an environment that supports" Health for All "" by SME was considered to be feasible, for example, by collaboration between public health academic researchers and business administration researchers on a regional basis. Next, I compared the pros and cons of SME, and examined whether it was appropriate as a methodology of realizing health promotion support systems for all the people, including those living with chronic conditions, in Japan. As a result, SME, especially CDSMP was considered to have many advantages, including the possibility of contributing to the reform of Japan's social security system in anticipation of a declining birthrate and an aging population. From these, in this paper, I have proposed the spread of SME, especially Chronic Disease Self-Management Program as the methodology of progressing public health policies in Japan in the future.

Keywords: evidence-based health and welfare policies for people with disabilities, Self-Management Education (SME), Chronic Disease Self-Management Program (CDSMP), health promotion system that does not leave anyone behind, reform of Japan's social security system

## Introduction

The author has been proposing "establishment of a health promotion support system for people with disabilities who live independently" as measures to solve the problems in the reform of people with disabilities in Japan [1,2]. That is, it is a proposal to position the system of health promotion support measures for the people with disabilities in the policy for people with disabilities by utilizing SME. Then, how can the proposal be realized in real Japan? In this paper, at first, I will consider a concrete process for realizing the health promotion support concept in Japan's policy for people with disabilities.

Furthermore, the author has proposed "the definition of health in a mature society" encompassing all persons including those with disabilities [1]. Next, in this paper, I have compared the pros and cons of SME as a way to realize a health promotion support system for people living with chronic conditions, including disabilities and chronic diseases, in Japan. As a result, SME seems to have many advantages, including the possibility of contributing to the reform of Japan's social security system in anticipation of a declining birthrate and an aging population. And I examined whether utilization of SME was appropriate as a methodology that could contribute to the realization of health promotion policies and SDGs [3] in the future of Japan's social security system reform, in anticipation of a declining birthrate and an aging population.

## Japan's Health Policy for People with Disabilities Challenge and legal basis

The total number of people with disabilities in Japan is 9,366,000, equivalent to about 7.4% of the population [4]. The overall number of people with disabilities is on the rise, with more people at home and out of the office increasing, and the aging of people with disabilities is also progressing [2]. Based on the current situation, it is important to promote comprehensive disability health and welfare measures for the purpose of enabling people with disabilities to live together in the community regardless of the type of disability.

On the other hand, in recent years, the public health and welfare administration is required to have a public debate on social security reform that foresees 2040 in which a phase change to a "plunging of active generations" of the population structure is expected [5]. According to the "Forecast of Social Security in 2040," there will be little hope of an increase in the number of employees in medical welfare, especially in medical services, in fiscal 2040 (plan basis). The Ministry of Health, Labor and Welfare has set out to make goals and implement measures to extend the health life expectancy, improve the productivity of medical and nursing care services, and is considering budgeting and system revisions from what is possible.

To date, based on a series of my studies on health information infrastructure and disability health and welfare measures in a mature society, "promoting the epidemiological longitudinal study of injuries and illnesses leads to a re-evaluation of disability health and welfare measures" [6]. In addition, it suggests the possibility of becoming a trigger for converting disability health and welfare measures to policies based on "people with disabilities", and "health support for people with disabilities" necessary for that purpose and "mature society." By positioning in the disability policy, a system of "disability health" that is not visible at present, that is, a policy system of health promotion support for people with disabilities, only "support environment by things (support equipment etc.)."

## **Problem solution**

The author has suggested the possibility of becoming a trigger to transform disability health and welfare measures into measures for people with disabilities [6]. I then made recommendations for the "Health support concept for people with disabilities "and "definition of health in the mature society" necessary for that purpose. By positioning in the policy for people with disabilities a system of "disability health" that is not visible at present, that is, a policy system of health promotion support for people with disabilities, only "support environment by things" Instead, it is important to improve the "support environment by people" [7,8]. And furthermore, as a measure to realize that, Tachibana has made a proposal for measures to solve the problems by utilizing SME (Self-Management Education) as a health promotion support method for people with disabilities [9].

## **Urgency of response**

In the current health policy system, it is a proposal for improvement measures to the actual situation where people with disabilities have been excluded from health promotion measures. "Health of persons with disabilities" contributes to verification of interventions related to health promotion of persons with disabilities and disability health and welfare measures: (1) Japan's Constitution (1947-) the right to live in Article 25. Necessity for promoting public health measures in line with the government's obligation to guarantee the right to live, (2) Ratification of the Convention on the Rights of the Disabled in Japan (January 2014), in addition, (3) Given the fact that the Disability Discrimination Elimination Act has already come into effect from April 2016, etc. Accumulation of scientific grounds for enhancement (= a shortage of health evidence is pointed out in Japan) can be said to be a pressing issue [10].

## Possible solution direction

In the future, I propose the establishment of a health promotion support system for people with disabilities who use SME, especially CDSMP, as a directionality of systematic cancellation to promote community development that can support the health promotion of persons with disabilities in regional health promotion measures. I have been proposing that we promote by cooperation in area unit of "Support by Self-Management Education", "Senior health researchers (for public health centers, health welfare offices, health welfare centers, etc.) and "Science researchers for epidemiology (for universities, etc.)."

## Recommendation to the Japan Public Health Association

As a methodology for establishing a health promotion support system for people with disabilities, we have made recommendations on problem solutions using SMEs, especially CDSMP. CDSMP is a well-established methodology in which many evaluation studies by randomized controlled trials are conducted worldwide, and various effects such as self-efficacy improvement effect, physical disability function improvement effect, medical institution use reduction effect, etc. As it is a methodology [8] that only results, "health education and epidemiology using CDSMP, implementation and promotion of both researches" are essential for its realization. It is considered that there are no academic groups that can comprehensively carry out, promote, and disseminate such research in Japan, so in this paper, the following concrete recommendations were given to the Japan Public Health Association.

For the Japan Public Health Association, the author proposed that "the accumulation of the scientific basis for

health promotion of people with disabilities," as shown in Figure 1: Image of an "environment that supports health" for people with disabilities, and promotion and spread of epidemiological research using CDSMP by the following concept: Implementation and promotion of "Support by SME", in regional units, among public health members "administrative researcher (such as public health centers / health welfare offices / health welfare centers)" and "an academic researcher such as epidemiology (such as universities), by collaboration with each other and related fields of groups.



**Figure 1.** Image of an "environment that supports Health" for people with disabili es. Image of regional health promo on system in mature society \*proposed by Tachibana et al.\* Mature society is defined as "a society that aims at matured death by preven ng premature death" [2].

#### The SME in Japanese Public Health Policy

Necessity of self-management support for people living with "chronic conditions" such as disabilities and chronic diseases. Next, I examined about utilization of the SME as a methodology for promoting a health promotion support system for all people in Japan in the future, in particular, CDSMP. In recent years, with the change in the structure of diseases and the change in social conditions surrounding medical care, many people have come to work and live daily life while having chronic diseases.

The increasing number of chronically ill patients and the consequent effects are becoming a problem not only in developed countries but also in developing countries [11]. Japan is no exception, and not only prevention but also care for chronically ill patients has become a health care and public health issue [12].

People are responsible for managing their own health on a daily basis (= Self-Management). In particular, self-management conducted by "people who live with" chronic conditions "such as chronic diseases" sometimes leads to "life re-institution" sometimes. There are many cases where it is necessary to continue daily, and in line with the real life and the view of one's own life, which can be extremely difficult. Therefore, the importance of "support by self-management education (SME)" is becoming recognized worldwide. The style of health in Japan is required to switch from a style based on acute disease models, that is "disease  $\rightarrow$  diagnosis  $\rightarrow$  treatment  $\rightarrow$  cure" to a style based on chronic disease models "Onset  $\rightarrow$  diagnosis  $\rightarrow$  treatment  $\rightarrow$  support of life and life living with chronic condition(s)."

The SME is the method to teach "task task solution technology so that patients (of chronic disease) can take appropriate actions to be healthy from their own point of view." [13] When comparing "Patient education" and "SME" in the past in Japan, in the former case, the problem / problem of self-management is "medically defined" by the disease specific, and the solution technology and information were provided by a medical professional. On the other hand, in SME, the problem / problem of self-management is "defined by the patient himself", and the solution technology and information are also "subject is patient." On the other hand, in SME, the problem / problem of self-management is "defined by the patient himself", and the solution technology and information are also "determines by the patient." That is, SME supports: 1) Decision-making and action for problem-solving of self-management, and 2) Providing technology that can take appropriate action even if the environment surrounding patients changes. Therefore, SME is positioned as "the complement to (conventional) patient education".

## Chronic Disease Self-Management Program: CDSMP Characteristics of CDSMP

The CDSMP, developed at Stanford University in the late 1980's, is one of the most popular SME programs and has the following characteristics [14]: (1) Two people, including non-professional patients, proceed with the program as a leader, and they are easily accepted by students (including patients and families) and cost is low. Because it is not limited, it is possible to target general people with chronic disease (including rare disease), etc. Furthermore, CDSMP is a well-established methodology in which many evaluation studies such as randomized controlled trials have been conducted and reports have been shown to show the following effects [15]:(1) pain reduction, (2) improvement of disability/impaired physical function, (3) fatigue reduction,(4) anxiety improvement, (5) improvement of psychological well-being,(6) improvement of general/self-rated health, (7) decreased health distress, (8) increase in frequency of aerobic exercise, (9) increased frequency of cognitive symptom management, (10) improvement of communication with healthcare professionals, (11) improvement of self-efficacy to manage, etc.

## Status of efforts to the CDSMP (Chronic Disease Self-Management Program) in the United States, Britain and Japan

In the United States, the CDSMP-induced arthritis program first developed at Stanford University has been replicated and spread in many other groups and countries. According to the home page of the US CDC [16], in the US in recent years, the scope of the "chronic conditions" has been expanded in the US, and corresponding programs have been provided. In addition, health education programs based on SME and CDSMP are provided in various applied forms in the health department of each state.

In the UK, in the 1990s, various measures related to healthcare professionals were implemented, in order to ensure the sustainability by improving the quality and quantity of medical services which are under severe financial conditions and restricting working hours to medical professionals. As part of the reform, the UK National Health Service has adopted CDSMP as a major expert partner program under the NHS Constitution's philosophy that patients and citizens support the system as one of its members, and the provision of CDSMP was started at all primary healthcare facilities in Japan. In the case of the U.S. Arthritis SME Program and Arthritis CDSMP replicated in the United Kingdom, both program participants were found to be effective, including a significant reduction in healthcare use [9]. SMEs in the United Kingdom are now widely used for over 100 chronic diseases, etc. [17].

In Japan, several patient groups jointly visited Stanford University to introduce CDSMP in 2004. Next, in 2005, the training of leaders for program implementation was started, Japanese-language teaching materials (manuals for leaders, reference books) were prepared, and the provision of programs began. Currently, CDSMP is provided by non-profit organization Japan Chronic Disease Self-Management Association throughout the country [18]. In the medical setting, in Japan, SME efforts are progressing on a disease-by-disease basis, and a protocol for self-management has been established for multiple diseases such as diabetes and COPD [19]. However, there are few cases where those protocols are promoted in cooperation with regional health departments such as local governments beyond medical institutions. One of the reasons is that historically regional health in Japan has been developed in a system independent of regional health care.

## Discussion

#### **Social Security Reform for 2040**

In Japan, by 2025, when the baby boomers are 75 years old or older, the development of a system for the realization of regional comprehensive care systems is being promoted. In the regional comprehensive care system, local governments such as municipalities and prefectures are required to "provide high quality services without break or gap to all residents". However, looking at the transition of Japan's population structure, it is expected that there will be a change in the phase from "the rapid increase in elderly people" to "the rapid decline in active generations" from 2025 [20]. Public debate on the overall picture of social security reform is being sought. According to the Cabinet Secretariat, the Cabinet Office, the Ministry of Finance, and the Ministry of Finance, "The future outlook for social security in 2040", the increase in the number of employees in medical welfare, particularly medical services can not be expected in fiscal

2040 (plan basis) [21-22]. The Ministry of Health, Labor and Welfare has set out to set goals and implement measures to extend the health life expectancy and improve the productivity of medical and nursing care services and is considering budgeting and system revisions from what is possible.

As mentioned above, SME has the following advantages as a solution to the problems with an eye on the declining birthrate and aging population:"Efficacy, methodology has been established," "Possibility of reducing the use of medical institutions," "Low cost," etc. In order to promote its spread in Japan, it will be necessary to promote collaboration between "scientific researchers" and "administrative practitioners" etc. on a regional basis while training human resources for local government employees etc. In order to promote its spread in Japan, it will be necessary to promote collaboration between "scientific researchers" and "administrative practitioners" etc. on a regional basis while human resources development for local government employees etc. in the National Institute of Public Health etc. I propose SME, especially CDSMP as a solution to the problem of contributing to social security reform in Japan, with an eye toward declining birthrate and aging population, as a methodology to be promoted in future public health policy in Japan.

#### Social impact of the task

The realization of the recommendations in this paper can be expected to contribute to the following important policies in Japan:

• Contributing to the promotion of important policies for people with disabilities as well as measures against poverty of children and barrier-free universal design in the promotion of the "symbiotic society" which is one of the important policies of the Cabinet Office [20].

• Promotion of the National Basic Plan (4th) for People with Disabilities [21].

• "Goal 3: Health and welfare for all people" in SDGs (17 international goals for 2030, with the goal of achieving a sustainable, diverse and inclusive society) Contribution to the promotion [3].

• Contributing to the promotion of social security and way of working reform with a view to 2040 [22].

#### **Concluding Remarks**

In this paper, the author proposed not only how to realize the previous proposals, but also how to develop the proposal to contribute some important policies in Japan. In order to realize the health promotion policy for all the people based on the "definition of health in a mature society," I propose progression of SME, especially CDSMP as a solution method to the problem of contributing to social security reform in Japan.

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#### **Conflicts of Interest**

The author has no financial conflicts of interest to disclose concerning the study.

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