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## Minireview

# What Is a Chronic Disease Strategy to Promote Evidence-Based Self-Management Support-How to Promote Research In COVID-19

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## Introduction

In recent years, due to changes in the disease structure and social conditions surrounding medical care, many people continue to work or live while suffering from chronic diseases. Therefore, as a measure against chronic diseases, not only prevention but also care of patients with chronic diseases has been a public health issue for a long time [1,2]. Australian Government has established the “National Strategic Framework for Chronic Conditions” as the overarching policy document for chronic conditions, which sets the directions and outcomes to help Australians live healthier lives through effective prevention and management of chronic conditions [3]. Self-management efforts are now being seen in various countries [4,5]. In Japan, where access to medical care is guaranteed and the transition to a regional comprehensive integrated care system is progressing, new health strategies would be needed on social support for “Self-Management” performed by patients and their families after discharge from medical institutions [6].

The author is currently promoting research efforts on such “public health support for self-management of people with chronic health problems” [7,8]. To that end, the author has already been practicing field surveys and the development, implementation, and evaluation of self-management support programs, assuming Saitama prefecture (Wako city) as a model area [9]. This has been implemented from the viewpoint of “establishing a system to support the self-management of health problems by residents such as patients and their families.” It was to ensure that the comprehensive community care system being developed by 2025 will operate without disparity between fields. By applying this approach to various diseases, we hope to convey the importance of “residents’ awareness and implementation of self-management related to health issues (=self-help/co-help)” and “local community support for that social life (=public assistance)” are expected to be spread. For that purpose, the author has already developed, implemented, and evaluated a self-management support program for post-stroke epilepsy patients and their families, and has gained results [10]. We chose “chronic pain” in this study as the next target and have just begun to work on it in the model area. The reasons for paying attention to the symptom of “chronic pain” among various injuries are as follows. In other

words, I thought that it would be possible to realize an emphasis on the viewpoints of residents and parties by changing the way of understanding various health issues from the medical model focusing on diagnosis to the social model focusing on symptoms [11]. Many residents live with difficulty in living due to chronic pain. It is necessary for them to promote self-management support in cooperation with the measures system of the Ministry of Health, Labor and Welfare, which was built in collaboration with regional medical institutions centering on the pain center [12].

On the other hand, in order to promote evidence-based public health measures from the perspective of local residents, it is necessary to accumulate data along individual life courses in order to evaluate medical outcomes and promote EBM. The author intended to change the way of understanding disability by accumulating and utilizing post-injury tracking data, proposing a database of “disability data” necessary for evaluating the effect of medical and welfare interventions, and examining its methodology [13,14]. However, in order to reduce the medical burden of the new corona-virus infection (COVID-19) [15], I thought about how about integrating and analyzing the existing statistical data first, and to examine the problems concerning the information on chronic diseases and disorders/injuries to construct database in the region. In addition, the publication of research results should be accelerated by publication in the open journal (Web).

As mentioned earlier, our hands-on study requires changes and additions to the construction method for the COVID-19. But it is possible to repeat efforts to reduce the medical burden and explore new ways of sharing the roles of health, medical care, and welfare. The present study, which is being promoted by the present authors, is a “future health strategy” that aims to “realize in the field” the solution to the above-mentioned issues of health measures. Even at COVID-19, it would have at least the following significance.

1. In community medicine for chronic pain, baseline data is needed to transform medical care after diagnosis and treatment into a system that can socially and scientifically support self-management of patients and their families. By exploring the availability of existing statistical data as baseline data, it is expected that the medical burden will be reduced and the cooperation

between medical care and health and welfare will be enhanced. In addition, by attempting the Web distribution (ZOOM, etc.) of the developed chronic pain self-management support program (hereinafter “pain program”), it can be expected to promote the spread of the local Web use environment.

2. By conducting a web survey to evaluate pain programs, information can be quickly and simultaneously distributed to a large number of people, and efficient and effective grasp of actual conditions can be performed. In addition, by assembling the questionnaire used in the survey at the time of evaluation based on the ICF (International Classification of Functioning, Disability and Health)[16], it can be expected to promote a shift to the positive aspect of daily functions. Furthermore, it is expected that the medical burden will be reduced by prioritizing the regional promotion of the connection and utilization of existing statistical data rather than immediately constructing a database for disabilities.

3. It can be expected to understand the issues under the COVID-19 epidemic of various socially vulnerable people, such as persons with disabilities and the elderly, and to look for necessary measures.

### Proposed research plan

We will conduct the following research in about one year.

#### (1) Field survey of chronic pain self-management

Target: (1) Residents of the Web search area, (2) Persons involved in groups such as patient-family associations, (3) Facility users in other prefectures, etc.

Survey method: Use of web search, web interview, web survey

#### (2) Applicability survey for chronic pain in areas of the program

Target: Pioneering implementation areas extracted through web search, etc.

Survey method: Web interview survey

#### (3) “Redevelopment of Web version” of pain programs and surveys

The pain programs and questionnaires that have already been developed will be the Web version that can be implemented by COVID-19. In addition, the ICF classification will be applied to the questionnaire items for reconstruction, and a social model will be used to transform the perspective of residents and parties.

#### (4) “Web implementation” of pain programs and surveys

Target: Participants in the health promotion system in the model area, the civil affairs system, the patient family association, etc.

Method: Hold and evaluate the development program practical course (1st and 2nd, 2 weeks or more intervals). Participants will be sent in advance a consent form, a withdrawal form, a pledge, etc. in order to understand the effects and challenges of the program in the survey at the time of the 1st and 2nd lectures. Homework survey. The second survey will be conducted. The questionnaire composition in the 1st and 2nd surveys is based on the respondent attributes, GHQ, and SF-12v2.

#### (5) “Developing a companion” through a pain program

Through the model area health promotion system, civil affairs system, patient family association, pain center, etc., we will create a system to provide specialized cooperation for

local human resource development, with the course participants as companions for supporting chronic pain self-management.

#### (6) Evaluation of pain programs

a) Evaluation of pain programs for chronic patients in the model area: “Evaluation of program effectiveness”

Target: Respondents of the 1st & 2nd survey. Methods: Comparison before and after intervention using Wilcoxon signed rank test.

b) Pain Program Evaluation for Chronic Patients in Model Regions: “Program Challenge Assessment”

Target: Collaborators who responded to the homework survey that participated in the 1st and 2nd courses. Method: Qualitative analysis.

c) Evaluation of Pain Program for Chronic Patients in the Model Area: “Challenging Survey under COVID-19”

Target: Collaborators who responded to the homework survey who participated in the 1st and 2nd courses.

Method: Understand the actual situation and specifics of the COVID-19 problems of persons with disabilities and chronic diseases.

(7) “Dissemination of accompany runner training” using pain programs, etc.

Target: Municipal staff involved in medical and welfare measures

Method: Plan and plan for the launch of new Web training at the academy, and conduct and evaluate prototype training. In addition, the Institute of Public Health provides training to local government employees, etc., and it is possible to disseminate and foster them from a nationwide perspective [17].

(8) “Consolidated utilization and analysis of existing statistical data” related to medical and health welfare (nursing care) for persons with disabilities, centered on local governments

Targets: Information network in the brain trauma regional cooperation path in the U area of Y prefecture, rehabilitation medical-related database constructed by the academic society, Information network in the local government (C prefecture) Institute of Health.

Method: List and organize data details (including the collection basis) for each item of information availability that can be managed by the following departments. Building a regional model to analyze and utilize medical and welfare data while verifying how close local governments can be to “building a disability database” under the present conditions by utilizing existing data of consumers who have suffered from injury or disability, extract issues. At the same time, the collected data will be analyzed and examples of utilization in the area will be shown.

Cerebral trauma regional cooperation path [Y Prefecture] → Disability data centered on [trauma care lightning/discharging]

Database of academic societies related to rehabilitation medicine [National Rehabilitation Center for Persons with Disabilities] Responsible for [lightning / discharge end of specialized rehabilitation]

Local institute of health (Municipal Information Center) [Chiba] → Individual information such as accreditation and supply diagnosis, mental and physical functions, and various health checkup information, etc. which are held and managed by the department in charge of the municipality, etc. Life function data.

### Discussion & conclusions

Infectious disease pandemics require a variety of self-restraint and restrictions on “closed, dense, going close” contact and movement between people. In research in the field of natural sciences, which is likely to target many people, it can be said that there are many restrictions and prohibitions in terms of performance. Also in the field of primary care, efforts for the post-corona “new everyday” are beginning to be reported [18]. Perhaps, due to COVID-19, not a few people must have experienced “compulsion of crippling” and “irrational emotions.” However, these “inconveniences” and “irrationalities” may be the “physical and mental challenges” that many disabled people and chronically injured people already had before “the corona.” Prejudice and discrimination have historically frequently occurred not only to patients with infectious diseases but also to persons with disabilities and patients with chronic illness. We want to establish the foundation of a local community in Japan where all the residents can live together as if they were human beings, based on a judgment based on chemical basis, without being bound by prejudice or stereotypes.

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### Disclosure of Interest

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