Key Issues of Health Literacy
—A Literature Review

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Abstract: *Health literacy and related practical issues have been the subject of discussion recent research. In modern society, each individual is required to manage their own health in the positive way and proactively participate in decision-making with respect to the health and medical care that they wish to receive. The purpose of this paper is to discuss the chief findings and issues that have been raised in the context of theoretical and practical research on health literacy and to clarify the progress and limitations of current research. This paper will focus on four main aspects of health literacy: the definition of health literacy, assessment of health literacy, translation into health education, and mental health literacy. Given the contextual background above, much attention has been paid to the concept of "health literacy" as a means for all individuals to be able to promote their own health condition.*

Of the many definitions of health literacy, the most commonly cited is the definition provided by the World Health Organization (WHO) in "Healthy People 2010". In "Healthy People 2010", health literacy is defined as "the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions". Previous studies on health literacy have mainly been conducted in multi-ethnic nations such as the United States that encompass various populations with lower levels of literacy. In such studies, health literacy has been measured in the same way that basic literacy is measured, only in terms of health information, with the main focus being on functional literacy.

The primary goal of school health education is to develop health literacy among school-aged children. That said, in the Japanese context, education for mental health literacy is rarely practiced. After reviewing the literature, I have identified the following points for discussion. First, further theoretical discussion regarding the definition of health literacy and its translation into specific educational theory and practice is needed. Second, further analysis regarding language and other barriers to understanding and applying health literacy is needed. Third, as far as I was able to determine through this literature review, few, if any, studies have dealt with health literacy among those with health conditions and the disabled. Almost all of the previous research presumes that the students and adults receiving health literacy instruction do not have specific illnesses, impairments, and disabilities. This is one of the limitations of the previous research. One of the practical challenges facing schools is inclusive education, the goal of which is to include students with mild disabilities and health conditions in regular schools and regular classes. This is the case in terms of the social lives for the adults. That said, while the educational system is able to teach literacy it is unable to teach health literacy. Health literacy is multifaceted and requires a multi-sectorial approach involving society as a whole. Therefore, it is anticipated that health literacy and its practical application will serve as foundation for building an inclusive society.

Keywords: *Health Literacy; Health Education; Mental Health; Health Literacy Assessment*

1. Introduction

1.1 Focus on health literacy

In modern society, each individual is required to manage their own health in the positive way and to proactively participate in decision-making with respect to the health and medical care that they wish to receive. With regard to successfully managing and participating in health-related practice, it is assumed that we all have sufficient information corresponding to our individual needs. Traditionally for many individuals, the main source of information regarding medical care and health has been medical professionals including non-physicians. Recently, however, mass media and the internet have increasingly been providing medical and health-related information, facilitating access to health-related information. This has resulted in a new problem, namely the spread of medical information whose quality is not guaranteed. Accordingly, and there is a growing consensus that what is more important than access is for individuals to have the ability, knowledge, and skills to recognize and utilize effective information on their own[11].

Given the social background above, much attention is being paid to the concept of "health literacy" as a means for individuals to promote their own health condition. The term 'health literacy' was originally used to mean the literal ability to read and write text in health-related areas but has come to mean the ability to seek out, understand, and utilize medical and health-related information. The term 'health literacy' started to gain popularity in the "Ottawa charter for health promotion" in1986. Increasing attention has been paid to this term/concept in the United States since the latter half of the 1990s. In Japan, the same attention has been amassing starting around 2000[11].

In the United States, the action plan for "Health People 2010" added "health communication" as a new field of the importance and put forth that communication should be used in a strategic manner to improve health[30]. The action plan also elevated the role of 'health literacy' as one of the specific goals of "health communication". Health literacy is considered an important factor for maintaining and improving the quality of health communication.

1.2 Purpose and method of this survey

The purpose of this paper is discuss the chief findings and issues that have been raised in the context of theoretical and practical research on health literacy and to clarify the progress and limitations of recent research. Various articles related to health literacy have been published in the last decade, since introduction of the concept to Japan. These articles have identified a number of key issues.

This paper will focus on four main aspects of health literacy: the definition of health literacy, assessment of health literacy, translation into health education, and mental health literacy. Based on a review of these topics, I will discuss the practical implications of the literature.

Furthermore, since health literacy promises to yield new implications for care and education in Japan, initial discussion may entail occur at the small scale based on limited research and practice. Whether this discussion can be expanded to include discourse related to inclusive education or curriculum development is an important question to be examined.

The online database of the Educational Resource Information Center was used to retrieve a list of articles containing 'health literacy' as a key word, resulting in the

selection of 21 papers. Other literature including relevant Japanese journal articles from the CiNii Scholarly and Academic Information Navigator were also included in the literature review.

2. Key Issues of Health Literacy

2.1 Definition of health Literacy

In the last few years, 'health literacy' has become a buzzword and a major topic of discussion around the country. The American Association for Health Education has even approved a position statement on health literacy[7].

Just as 'health communication' has a variety of definitions, 'health literacy' also has wide array of definitions[11].

There are as many as 17 different definitions of health literacy[29], the most commonly cited being the definition proposed by WHO in "Healthy People 2010". In "Healthy People 2010", health literacy is defined as "the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions".

WHO (2014) explained that the fundamental but somewhat narrow definition of health literacy misses much of the deeper meaning and purpose of literacy for people[31]. In the field of literacy studies, there is vigorous debate about different 'types' of literacy and their practical application in everyday life. One approach to classification simply identifies types of literacy not as measures of achievement in reading and writing but more in terms of what it is that literacy enables us to do. Based on such an approach, health literacy is defined as "the cognitive and social skills which determine the motivation and ability of individuals to gain access to, understand and use information in ways which promote and maintain good health"[31].

Based on the definition and description from WHO, Nutbeam (2000) proposed breaking down health literacy into three levels[22]. The first level is basic/functional literacy, and refers to the possession of sufficient basic reading and writing skills to enable an individual to function effectively in everyday situations. This level broadly corresponds to the narrow definition of 'health literacy' referred to above. The second level is communicative/interactive literacy. Nutbeam suggests that this level entails more advanced cognitive and literacy skills which, together with social skills, can be used to actively participate in everyday activities, to extract information and derive meaning from different forms of communication, and to apply new information to changing circumstances. The third level is critical literacy, defined by Nutbeam as more advanced cognitive skills which, together with social skills, can be applied to critically analyse [sic] information, and to use this information to exert greater control over life events and situations 22.According to this classification scheme, people with higher health literacy in each of these three levels should be able to make some health-related decisions on their own, find it easier to adopt healthy behavior, and, as a result, improve their health condition and better manage any disease[1]. Arakida (2014) found that people with higher health literacy were also better able to apply their knowledge to other health problems as well as specific diseases, and could potentially provide advice to their neighbors[1].

These two representative definitions of health literacy share two commonalities[18]. The first has to do with the ability to access, understand, and utilize health-related information. The second has to do with the ability to support for the individuals to make sure of the first one by the institutes or the committees. Health literacy is needed in

order to utilize the information and the health care system. So the second commonality was raised from the idea to make easier by enhancing the individuals' health literacy and make easier to understand of the information and system by the provider of the information and service related to the health care[18].

2.2 Assessing health literacy

Over the last several years, the concept of health literacy has progressively become wider and deeper. However, it is difficult to assess the entire gamut of health literacy comprehensively; instead, we only have a few assessment tools for understanding certain aspects of health literacy. Jordan et al. (2008) conducted an extensive review of the assessment instruments published between 1990 and 2008[15].

Because previous studies on health literacy have mainly been conducted in multi-ethnic nations such as the United States that encompass populations with lower levels of literacy, health literacy has been often assessed in the same manner as basic literacy, only for health information, with the main focus being functional literacy. The most popular way of assessing health literacy is to use fill-in-the blanks questionnaires regarding health information, that are similar to questionnaires for assessing reading literacy and numeracy. REALM (Rapid Estimate of Adult Literacy in Medicine)[12] and TOFHLA (The Test of Functional Health Literacy in Adults)[23] are examples of such assessments, which an are used to assess specific aspects of health literacy.

Meanwhile other researchers developed the Health Activity Literacy Scale (HALS) by identifying 191 health-related literacy tasks that cut across the three literacy levels and provide a link across the various surveys. These items were then used to create a new health activities literacy scale[27]. This scale uses a common lexicon to differentiate various health-related activities, including health promotion, health protection, disease prevention, health care and maintenance, and systems navigation[6].

2.3 Translation into health education practice

The primary goal of school health education is to develop health literacy among school-aged children. Health literacy is defined by the Joint Committee on Health Education Standards as "the capacity of individuals to obtain, interpret, and understand basic health information and services and the competence to use such information and services in ways which enhance health"[13]. In 2005, the National Academy of Science' Institute of Medicine reported, "[T]he most effective means to improve health literacy is to ensure that education about health is a part of the curriculum at all levels of education"[14].

Although it is important that all individuals become health-literate, Fetro (2010) focused on children and youth because most of professional work has taken place in school settings and has targeted children and youth aged 6-18[7].

One of the desired outcomes of health education is to increase students' health literacy, so they have the capacity to navigate the numerous health challenges they will face in the 21st century[3]. Experts across the globe have espoused the critical role schools can play in helping students achieve health literacy[2]. Although the status of health education as a separate discipline is less than optimal, there are several promising developments that are bringing health into the comprehensive picture of school success[7]. As examples of such developments, Fetro identifies the National Education Association's Health Information Network, the Association for Supervision and Curriculum Development,

and the Partnership for 21st Century Schools.

Benham-Deal and colleagues also argued that because the infusion of literacy instruction with other content areas has been effective in improving skills and knowledge in science, social studies, and mathematics, the integration of literacy instruction with health content would be equally effective[2]. However, as the effect of integrated instruction on health knowledge and skills has not been examined, elementary classroom teachers must overcome a number of instructional barriers if they are to deliver effective health education and enhance health literacy[3]. The Institute of Medicine report emphasized that health literacy is a shared function of social and individual factors[10]. That is to say, an individual's literacy skills and capacity are mediated by his/her education/culture and language. Furthermore, as we move forward with health literacy education, we must consider three contexts: the culture and society, the educational system, and the health care system[7]. Fetro also pointed out the complexity of the educational system, citing the fact that the "No Child Left Behind Act" has caused "teaching toward critical thinking" to be replaced by "teaching to the test", and the fact that many teachers responsible for teaching core curricula are not health literate[7].

Understanding the impact of health education on the acquisition of health-related information (concepts) and skills will allow researchers to evaluate the efficacy of school-based instruction as a tool for achieving health literacy and, therefore, as a tool for preventing chronic disease[9].

Arakida found that children with higher health literacy can recognize and express their mental and physical health condition using their own words[1]. Moreover, they can change their daily habits, even if it were gotten in the state occasionally. Furthermore, they may be interested in how others think about their health and, thus, discover new ideas through the communicative relationships[1]. In the same way, youth with higher health literacy tend to develop healthy lifestyles of their own and choose appropriate health-related information by comparing the wide range of information available. Additionally, they are able to make health-related judgments based on this information and reasoning. As a result, such individual may be better able to protect themselves against traffic accidents or sexually transmitted diseases[1]. We assume that the health classes addressed health education standards and integrated characteristics of effective programs.

2.4 Research and practice related to mental health literacy in Japan

Health literacy as related to mental disease is called "mental health literacy"[16]. To assess mental health literacy, Nakamura and colleagues had employees in the central office of a large company read a description of a person with typical symptoms of depression. Based on analysis of the employees' response, Nakamura found the 15% of the workers had some knowledge of this disease[17]. Maeda and Arai assessed college students in the same way, and found that the students had slight higher knowledge regarding depression[16].

In the Japanese context, education for the mental health literacy is rarely practiced. Ojio et al. confirmed this fact by examining the curriculum guidelines for elementary and secondary education issued by the Ministry of Education, Culture, Sports, Science, and Technology in Japan (MEXT)[24]. Ojio et al. pointed out that content regarding mental disease was removed as part of the guideline revision of 1977-1978. Few textbooks use the expressions "mental problems" or "dealing with stress" with respect to mental

health[24]. Sato and his colleagues conducted a statistical survey of senior high school students regarding mental health literacy[28]. They found that, after intervention some factors, especially those related to knowledge of mental health and mental disease had changed significantly. They reported that the students were expected to not only know about the mental health but also to utilize their mental health literacy[28].

2.5 Toward a new definition of health literacy

Three new health literacy objectives monitor the proportion of persons who report (i) that their health care provider always provides them with easy-to-understand instructions about how to deal with their illness or health condition, (ii) that their health care provider always asks them to describe how they will follow the instructions, and (iii) that their health care provider's office always offers help with filling out forms. Hubbard and Rainey concluded the comprehensive health education using standards-based texts plays an important role in the development of health literacy and reduction of risk factors that contribute to chronic diseases[8].

According to Rojas-Guyler and colleagues, this paradigm shift has been happening over the last five years through the efforts of the National Action Plan to Improve Health Literacy, the Agency for Healthcare Research and Quality Health Literacy Universal Precautions Toolkit, and the Institute of Medicine's Attributes of a Health Literate Organization[26].WHO (2014) explains that "health education comprises consciously constructed opportunities for learning involving some form of communication designed to improve health literacy, including improving knowledge, and developing life skills which are conductive to individual and community health"[31]. From the viewpoint of health literacy, health educators must utilize the communication methods that are appropriate for the learners' literacy level and strive to improve the learners' health literacy systematically and strategically. The Healthy People 2020 Health Communication and Health IT objectives are geared toward the following[21]:

・Providing personalized self-management tools and resources

・Building social support networks

・Delivering accurate, accessible, and actionable health information that is targeted or tailored

・Facilitating the meaningful use of health IT and exchange of health information among health care and public health professionals

・Enabling quick and informed response to health risks and public health emergencies

・Increasing health literacy skills

・Providing new opportunities to connect with culturally diverse and hard-to-reach populations

・Providing a trained workforce for the design of programs and interventions that result in healthier behaviors

・Increasing Internet and mobile access.

3. Conclusions and Discussion

After reviewing previous research and discourse on health literacy, I have identified the following points for further discussion. First, further theoretical discussion regarding the definition of health literacy and its translation into specific educational theory and practice is needed. Health literacy is a relatively new concept; however, understanding

and sharing the concept of health literacy is essential and effective for collaboration between schools and other professional institutions such as sports-clubs, cultural groups, hospitals and clinics, social workers' offices, psychiatric therapists, etc. For translating into health education, it is the case for the concept arrangement of health literacy. It is important to the profession that health educators continue to explore health literacy and investigate how its social determinants impact how health messages are received by the intended audiences[26]. The concept arrangement and further discussion has a close linkage for the professional development and training of health educators. Naturally, education for health literacy must be practiced as well.

Second, further analysis on language and other barriers to understanding and applying health literacy is needed. In the international context, health literacy has been introduced as a concept associated with various types of health education and discourse. As in the case of basic literacy, we pay attention to cultural and social barriers. As for the literally meaning of the health literacy, it may start on the point of their cultural one at first. Among racial and ethnic groups, non-Hispanic whites had the lowest rate of below-basic health literacy (9%) in 2003; in contrast, non-Hispanic black, Native American or Alaska Natives, and Hispanic or Latino populations had rates of 24%, 25%, and 41%, respectively. As mentioned above, research on health literacy has been conducted primarily in the United States, and many studies have focused on reading ability and health information used in assessment of health literacy. However, Ishikawa points out that research in the social and cultural context of Japan is necessary, because Japan represents an essentially monolingual environment with one of the highest literacy rates in the world (close to 100%)[11]. She suggests that research on health literacy in Japan may reveal different structural issues related to health literacy than those identified in the United States. In a survey conducted in the Greater Cincinnati Area, Rojas-Guyler and colleagues assessed the health literacy level of Latinos in both English and Spanish[25,26]. They discovered relationships between language, health literacy, and acculturation in this community. By understanding these relationships, health educators will be able to develop health promotion programs to change health behaviors that are tailored specifically for the racial/ethnic minorities and underserved communities that experience higher rates of health disparities[10]. Having a first language that is not English has been found to be a barrier to effective health communication that often leads to patient dissatisfaction, noncompliance, and fewer physician visits[8,25,26]. Third, as far as I was able to determine through this literature review, few, if any, have dealt with health literacy among those with health conditions and the disabled. Almost all of the previous research presumes that the students and adults receiving literacy instruction do not have specific illness, impairments, or disabilities. This is one of the limitation of the previous literature. One of the practical challenges facing schools is inclusive education, the goal of which is to include students with mild disabilities and health conditions in regular schools and regular classes. In the days of segregated special education, students with the disabilities or illnesses were hospitalized or kept in institutional settings; as such, patient education for specific illnesses and disabilities were effective. However, today, the number of students needing daily health care has increased. The research, practice, and education need to include the viewpoint of "unhealthy" persons and individuals with special needs. As is well documented, high health literacy is correlated with functional knowledge and essential skills related to key health areas[14], in contrast, low health literacy is correlated with poor health, lower ability to care for oneself and others and

increased use of health care services, which present economic consequences to society[20]. This is the case in terms of the social lives for the adults. Nakayama introduced the discourse within WHO and referred to the paradoxical nature of decision making with respect to health that is being faced by the knowledge society of the 21st century[18].

Although individuals are increasingly requested to choose a healthy life style, doing so has become increasingly difficult in the current, complex environment and health care system. Nakayama also points out that, because unhealthy lifestyles are so heavily marketed in modern society, it is becoming increasingly difficult to seek and make choices with regard to the health care system. This holds true, even for the highly educated[18]. At present, the educational system is able to nurture literacy but not health literacy. As Rojas-Guyler and colleagues point out, health literacy is multifaceted and requires a multi-sectorial approach involving society as a whole[26]. Therefore, it is anticipated that health literacy and its practical application will serve as a foundation for building an inclusive society.

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