

## Chapter 47

### Health Literacy and Promotion of Health

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During the past century, in parallel with developments in science and technology, there have been new discoveries and developments in medicine and health as well, and people have been able to easily and quickly access a lot of information about their health through various ways such as newspapers, radio, television, internet, etc. (Cesur, 2014). However, whether all this information is reliable or not has been a matter of question, and information obtained from unreliable sources has led to information pollution. Therefore, people should be able to decide which information is reliable and which suggestions are useful for them, be able to make accurate decisions about their own health and be able to take initiatives accordingly, which seems rather difficult in an environment they are exposed to unreliable information provided by uncontrolled information sources. At this point, to access accurate health information and develop healthy lifestyle behaviors, the concept of health literacy comes to the agenda. Previously, whereas concepts such as health education, health awareness, health communication, human / patient / children's rights, access to reliable sources and lifelong learning were dealt with individually, today, all these concepts were integrated under one single title: health literacy.

#### HEALTH LITERACY

Health Literacy was defined by the World Health Organization (WHO) as follows: the cognitive and social skills which determine the motivation and ability of individuals so that they can access to, understand and use information in order to promote and maintain good health (WHO, 1998). What is meant by health literacy is to activate individuals' skills and power and to increase their knowledge level in order to improve both the health of individuals and that of the community by changing people's lifestyles and living conditions. Therefore, the meaning of health literacy goes beyond reading health materials and making appointments with health professionals; it means to reach multifunctional literacy levels as a result of the strengthening of health literacy through developing people's skills to access health information and to appropriately make use of this information.

In scientific studies conducted in recent years, health literacy has been defined as a literacy-related concept which requires the improvement of quality of life through the prevention of diseases, and the promotion and protection of health. It may also be defined as people's ability to access, understand, and assess information as a way to promote, maintain and improve health (Sorensen *et al.*, 2012). As mentioned in the definitions given above, health literacy depends on the level of general literacy. Health literacy within in the context of literacy contains essential skills such as reading, writing, understanding, basic math all of which enable an individual to understand health-related information and to communicate with others. Personal, social and cultural development of individuals with low levels is directly limited and

the development of their health literacy is adversely affected [(WHO, 1998), Durusu-Tanrıöver M, Yıldırım HH, Demiray-Ready FN, Çakır and Akalın 2014]; Turkish Health Literacy Survey]. However, several studies conducted in recent years indicate that even though literacy levels of individuals are adequate, factors such as complex health system, medical terminology used by health care providers and individuals' own roles (accessing to information, and assessing, making decisions about and implementing this information) are known to affect health literacy adversely (the US Department of Health and Human Services 2007, Martin *et al.*, 2009, Akalın, 2012).

### **EFFECTS OF LIMITED / INADEQUATE HEALTH LITERACY ON INDIVIDUALS, HEALTH SYSTEMS AND SOCIETY**

In the literature the following negative health consequences of limited / inadequate health literacy have been reported (Howard *et al.*, 2005; Carbone and Zoellner, 2012):

- unhealthier life
- lack of knowledge on chronic diseases (hypertension, diabetes, etc.), difficulty in understanding the training provided
- lack of knowledge on staying healthy and preventive health care services, and problems in using these services (screening, vaccinations, exercise programs, etc.)
- an increase in emergency department use and hospitalization
- difficulty in complying with the treatment given (compliance with drug therapy, medical controls etc.)
- increases in inappropriate drug administration and violations of patient safety
- increases in health costs
- increased mortality

The Institute of Medicine (2004) identified four basic relationships between health care and low health literacy: reduction in preventive care services, reduction in knowledge related to diseases and disease management, increases in hospitalization, increases in the cost of health care (Institute of Medicine, 2004; Durusu Tanrıöver *et al.*, 2014).

### **FACTORS AFFECTING THE HEALTH LITERACY**

Among the factors affecting health literacy are age, race, gender, marital status, income, education and occupational status, ethnicity, immigration, social support, health-related beliefs, perception of health and illness, general literacy level, levels of physical, mental and cognitive skills, and the health care system.

Health literacy is generally lower among the elderly, black people, females, singles, and those with lower education and income levels. In the European Health Literacy Study conducted in eight European countries (Germany, the Netherlands, Austria, Spain, Italy, Greece, Bulgaria and Poland), smoking, alcohol consumption, obesity and not doing any physical exercise which are important risk factors in terms of health were considered to be associated with the levels of health literacy. It was determined that those with high health literacy do exercises more frequently (The European Health Literacy Project, 2009-2012; Durusu Tanrıöver *et al.*, 2014).

## CLASSIFICATION OF HEALTH LITERACY

Nutbeam (2000) classifies health literacy into three levels, and his classification is one of the most commonly used classifications.

**Functional Health literacy:** Functional health literacy refers to basic skills such as reading and writing through which one can understand and use health information. Individuals at this level can read health-related materials.

**Interactive Health Literacy:** Interactive Health Literacy means that one has social and cognitive skills through which he/she can communicate with health care providers. People at this level can benefit from health activities, and they you can easily use their knowledge when there are changes in their health conditions.

**Critical health literacy:** Critical health literacy refers to an advanced level of cognitive and social skills and critical thinking ability. People at this level can understand and interpret social, political and economic dimensions of health. These people are expected to correctly interpret and analyze their health-related knowledge (Nutbeam, 2000).

Zarcadoolas *et al.* (2012) classify health literacy into four domains: fundamental literacy, scientific literacy, civic literacy and cultural literacy

**Fundamental literacy:** Fundamental literacy refers to skills related to reading, writing, speaking, and interpreting numbers. Fundamental literacy is of key importance to health literacy. One with fundamental literacy is able to read and understand statistical information, and has the arithmetic skills through which he/she can calculate percentages related to treatment risks and probabilities, and drug doses.

**Scientific literacy:** Scientific literacy refers to skills with which one can use health-related science and technology. Scientific literacy includes knowledge of fundamental scientific concepts, abilities to understand technical complexity, technology, science, scientific uncertainty and rapid changes in science.

**Civic literacy:** Civic literacy means that citizens of a country are aware of public issues and can become involved in critical discussions and decision-making processes on these issues. Among the domains of civic literacy are abilities such as questioning the reliability and quality of sources that offer information, finding out where and how to access reliable information, knowing how to advocate himself/herself and others, understanding the relationship between an individual and social groups.

**Cultural literacy:** Through cultural literacy, both healthcare providers and lay people are able to recognize, understand and use the public's beliefs, customs, world-view and social identity related to health (Zarcadoolas *et al.*, 2012; Yalçın Balçık *et al.*, 2014).

### Assessment of Health Literacy

Several tools have been developed to assess health literacy. However, most of these tools are used to assess skills such as word recognition and pronunciation which assess knowledge and skills of general literacy and certain aspects of health literacy and performing arithmetic operations. However, these tools are often criticized because they ignore cultural and social dimensions of health literacy and cannot adequately measure comprehension levels of individuals (Durusu Tanrıöver *et al.*, 2014).

Of the tools developed to assess health literacy, the most frequently used ones are as follows:

- TOFHLA (The Test of Functional Health Literacy in Adults),
- STOFHLA (Short Test of Functional Health Literacy in Adults),
- REALM (The Rapid Estimate of Adult Literacy in Medicine),
- WRAT-3 (The Wide-Range Achievement Test),
- NVS (The Newest Vital Sign)
- HLQ (Health Literacy Questionnaire/)
- HLS-EU (The European Health Literacy Survey)

### **HEALTH LITERACY IN THE WORLD AND IN TURKEY**

In a study conducted with 3260 English or Spanish speaking patients who were 65 years old or over, 33.9% of the patients whose native language was English and 53.9% of the patients whose native language was Spanish were determined to have inadequate or low literacy levels. In a cross-sectional study conducted with 2659 patients, it was observed that a significant proportion of the patients failed to read and understand the most basic medical instructions. Of the patients participating in the study, 41.6% failed to understand that they should take the drug on an empty stomach, 26% did not understand the next appointment date, and 59.5% failed to understand the content of a standard informed consent (Gazmararian *et al.*, 2003; Williams *et al.*, 1995).

In a study conducted to assess health literacy levels of the participants in eight European countries (Germany, Austria, Bulgaria, the Netherlands, Ireland, Spain, Poland and Greece), it was determined that of the participants, approximately 12% had inadequate health literacy and 35% had problematic health literacy. Of the respondents, 29% in the Netherlands and 62% in Bulgaria had inadequate / problematic health literacy (The European Health Literacy Project, 2009-2012).

According to the data released by UNESCO in 2012, the general literacy rate in Turkey was 94.9% in people aged 15 years and over (91.6% in women and 98.3% in men) (the average rate in developed countries was 99.66%). UNESCO. (2014). Given the average training period in Turkey is 7.6 years of education / person, health literacy is estimated to be rather low (UNDP, 2014). Indeed, in a study conducted in 2014 in Turkey in which the European Health Literacy Survey (HLS-EU-) and the Newest Vital Sign (NVS) were used, 64.6% of the participants were determined to have inadequate / problematic general health literacy and that the higher the age was the lower the health literacy was. While 30.2% of the respondents replied none of the six questions in the Newest Vital Sign (NVS) correctly, 9.4% of the respondents answered all the six questions correctly. As the education level increased, so did the number of the correct responses (Durusu Tanrıöver *et al.*, 2014). As the aforementioned data indicate, it is necessary to improve health literacy both in Turkey and in the world if people are to be strengthened in the health care system which is a dynamic process, and to be enabled to think and decide critically in the abundance of information.

### **THE ROLE OF HEALTH LITERACY IN HEALTH PROMOTION**

The main objective of healthcare services is to promote the health of people and to prevent them from getting sick. Health promotion is a process of enabling people to increase their control over their health and to improve it. Health promotion is a

process in which people increase their control over their health and thus improve it. In terms of any health-related behavior and life situation, education is defined as the composition of organizational, economic and environmental support. Health promotion deals not only with individuals but also with interventions to physical and social environment. Environmental interventions should include public policies, supportive approach to the environment, community involvement, development of personal skills and adaptation of healthcare services to new requirements. The basic approach to the realization of all these interventions is the increased community health literacy.

The decisions made at the International Conference at which the Declaration of Alma-Ata was adopted (1978), at a World Medical Assembly where the Declaration of Lisbon was adopted (1981), at the First International Conference on Health Promotion at which the Ottawa Charter was signed (1986), at an international conference on health promotion held in Adelaide (1988), each of which has an important place in the promotion of health were used as the basis for health literacy concepts. According to the Alma Ata Declaration, “participation of people as a group or individually in planning and implementing their health care is a human right and duty” (the Alma Ata Declaration, 1978). The focus in the Lisbon Declaration is the patient rights (the Lisbon Declaration, 1981). The Ottawa Charter aimed to find the least common denominator between governments, health and other social and economic sectors, non-governmental organizations, voluntary organizations, local governments and the media, and emphasized the importance of inter-sectoral collaboration.

The Ottawa Charter listed the tools in health promotion actions as building a healthy public policy, creating supportive environments, strengthening community actions, developing personal skills and reorienting health services. The development of personal skills was recognized as one of the conditions contributing to the promotion of health, because it increases the options available to people so that they can gain more control over their own health and over their environments and can make choices beneficial to health (the Ottawa Charter, 1986). At the end of the Adelaide Conference, recommendations on healthy public policy action were declared. At the Adelaide Conference, healthy public policy, one of the five tools specified in the Ottawa Charter, was stated as a prerequisite for the realization of the other four tools, and supporting the health of women, food and nutrition, tobacco and alcohol, and creating supportive environments were identified as the four priority areas (the Adelaide Conference, 1988). At the end of all these conferences, it became clear that one of the aspects for the promotion of health was that individuals should be enabled to gain more control over their health, to understand and adapt their knowledge of health and health care services; in other words, they should internalize healthcare services. Another aspect was the establishment of inter-sectoral collaboration. Health literacy plays an important role in enabling individuals to gain more control over their health through the transferring of the information developed by the scientific community to the society using an "understandable" language and accessible tools so that the public should be able access understand and interpret this information, and develop appropriate behaviors in the light of this information (Bilir, 2014).

Health literacy is indispensable in terms of the full integration of the users of healthcare services into the health system and services. No matter how perfect health policies, healthcare services, payment mechanisms are, in order for the public to benefit from the services, the public's skills to make use of these services are of great importance. It is impossible to reach the desired level of service quality, by paying attention only to healthcare institutions and professional processes. Improving the community health literacy seems to be the only viable and achievable option in resolving inequalities in health (Sur, 2015).

The development of health literacy means healthier people, healthier communities and thus a healthier world. Individuals with high health literacy can take the right decisions about their health, adopt a healthier lifestyle, and are aware of the cultural, social, economic and environmental determinants of health. Increasing the number of individuals with high health literacy will first contribute to social improvements and then the achievement of better health outcomes around the world (Cesur, 2014).

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