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LITERATURE REVIEW AND ANALYSIS OF RESEARCH CONDUCTED IN EUROPE ON HEALTH LITERACY

PRZEGLĄD LITERATURY I ANALIZA BADAŃ PRZEPROWADZONYCH W EUROPIE NA TEMAT „HEALTH LITERACY"

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Abstract: According to World Health Organization, Health Literacy encompasses the cognitive and social skills that determine the motivation and ability of individuals to access, understand and use information in a way that promotes and maintains good health. The aim of this article is to present the concept of "health literacy", its determinants and consequences, as well as to review research conducted in Europe using the European Health Literacy Survey Questionnaire – HLS-EU-Q16 indicator. For this purpose, a literature review was conducted, to incorporate analysis and criticism. The article determines the scope of research on health literacy in Europe using the European Health Literacy Survey Questionnaire – HLS-EU-Q16, based on literature analysis. The greater people's health literacy, the better their understanding of prevention and treatment. Low health awareness means financial losses, both personal and global. High Health Literacy enables good prevention, which is the best and cheapest method in every health system.
Keywords: health literacy, European Health Literacy Survey Questionnaire, Health Literacy Framework, World Health Organization

Abstrakt: Wg Światowej Organizacji Zdrowia "Health Literacy" umiejętności poznawcze i społeczne determinują motywację i zdolność osób do uzyskania dostępu, rozumienia i wykorzystywania informacji w sposób, który promuje i utrzymuje dobre zdrowie. Celem artykułu jest przybliżenie pojęcia „Health Literacy", jego uwarunkowań i konsekwencji, jak również przegląd badań przeprowadzonych w Europie. W tym celu przeprowadzono przegląd piśmiennictwa. Zastosowano metodę analizy i krytyki piśmiennictwa. Artykuł określa zakres badań dotyczących świadomości zdrowotnej "Health Literacy" w Europie z wykorzystaniem Europejskiego Kwestionariusza Kompetencji Zdrowotnych (European Health Literacy Survey Questionnaire – HLS-EU-Q16). Im większa świadomość zdrowotna "Health Literacy" ludzi, tym lepsze rozumienie profilaktyki i leczenia. Niska świadomość zdrowotna to straty finansowe zarówno osobiste jak i globalne. Wysoka Health Literacy umożliwia dobrą profilaktykę, która jest najlepszą i najtańszą metodą w każdym systemie zdrowotnym.
Słowa kluczowe: świadomość zdrowotna, ramy wiedzy zdrowotnej, Kwestionariusz Europejskiego Badania Kompetencji Zdrowotnych, Światowa Organizacja Zdrowia

Introduction

The concept of "health literacy" entails looking for information on the impact of various factors on health and also on the prevention and treatment of diseases. For those working in these areas, it seems important to know the ways and benefits of improving "health literacy" or the effects of having a low level of the same. Health literacy is a concept that has been present in English-speaking countries since the 1970s. According to literature, this term was probably first used by Scott Simonds, a professor at the University of Michigan, who noted the need for health education, being convinced that it should start in schools. Initially, the term health literacy meant the ability to read basic medical information. The English word health means health, and the word literacy means the ability to read. Over time, this concept has evolved and means much more, but unfortunately there is still no good equivalent in Polish.

According to WHO, Health Literacy encompasses the cognitive and social skills that determine the motivation and ability of individuals to access, understand and use information in a way that promotes and maintains good health.

Research methods

For this purpose, a literature review was conducted. Databases were searched, including Scopus, Web of Science and the Google Scholar search engine. The concept of "health literacy" featured in over a hundred articles. The first stage was to select those articles that addressed the issue of "health literacy". In the second stage, the results of research carried out in recent years in Europe were analysed making recourse to the European Health Literacy Survey Questionnaire - HLS-EU-Q16.

Literature review

Health awareness should also be understood as a series of skills that influence our health. Historically, medical activities have for years been somewhat mysterious and inaccessible to patients. No one in hospitals even tried to elucidate the meaning and significance of the procedures. They would be carried out; and that was that. Today, no one could imagine performing any procedure without obtaining informed consent from the person being treated. With the development of modern medicine, the number of treatment options and medical procedures has increased. But we need to understand their meaning in order to agree to them or refuse, as the case may be. The times of 'God' doctors are over, and since the patient should be part of the treatment team, it is necessary for the same patient to have a certain amount of knowledge and skills necessary in order to make decisions regarding their own health and life. Someone who cares about developing personal health awareness knows that their health does not depend on fate, but on genetic predispositions, everyday choices, habits and professional medical care. They know that the weight of their personal decisions matters, so they make conscious choices to remain fit and healthy; being understood 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 (Ratzan and Parker, 2000).

Figure 1 places literacy as the foundation of health literacy; wherein health literacy is the active mediator between individuals and health contexts. Individuals bring specific sets of factors to the health context, including cognitive abilities, social skills, emotional state, and physical conditions such as visual and auditory acuity. Literacy provides the skills that enable individuals to understand and communicate health information and concerns. Literacy is defined as a set of reading, writing, basic mathematics, speech, and speech comprehension skills (Kirsch, 2001).

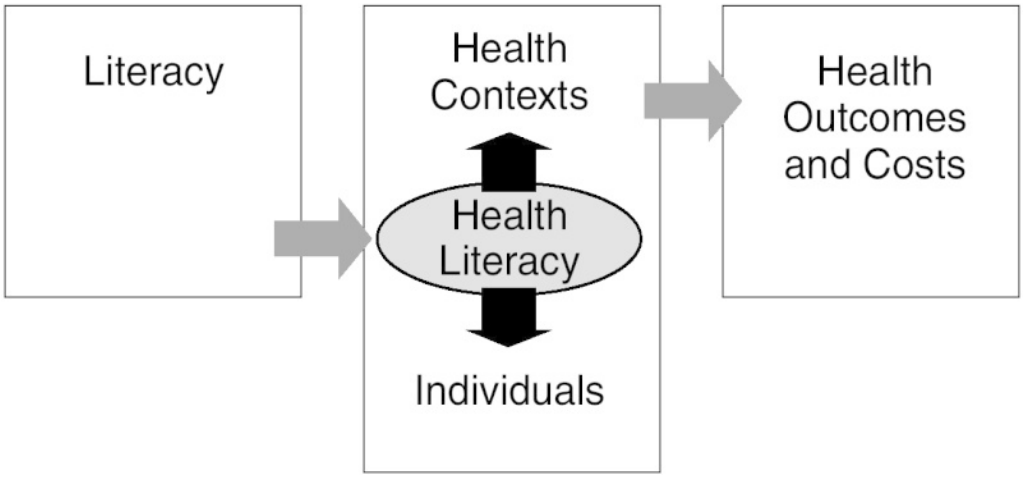

Figure 1. Health literacy framework

Source: Health Literacy: A Prescription to End Confusion. Institute of Medicine (US) Committee on Health Literacy; Nielsen-Bohlman L., Panzer A.M., Kindig D.A., (eds.) Washington (DC): National Academies Press (US); 2004, https://www.ncbi.nlm.nih.gov/books/NBK216035/figure/mmm00004/?report=objectonly, 10.09.2023.

Figures 2 illustrates the interaction of individuals with education systems, health systems, and societal factors as they relate to health literacy. It is not a causal model; indeed it is likely that the determinants of health literacy are as varied and complex as those of the most refractory problems now facing all fields of health. Although causal relationships between limited health literacy and health outcomes are not yet established, cumulative and consistent findings suggest such a causal

connection. Research is needed to establish the nature of the causal relationships between and among these factors. Mapping this web of causation should be a goal of research, but it is important to note that current knowledge can serve as the basis for changing practice and policy. Below, we introduce the role each of the sectors plays in supporting or impairing health literacy (https://www.ncbi.nlm.nih.gov/books/NBK216035/.

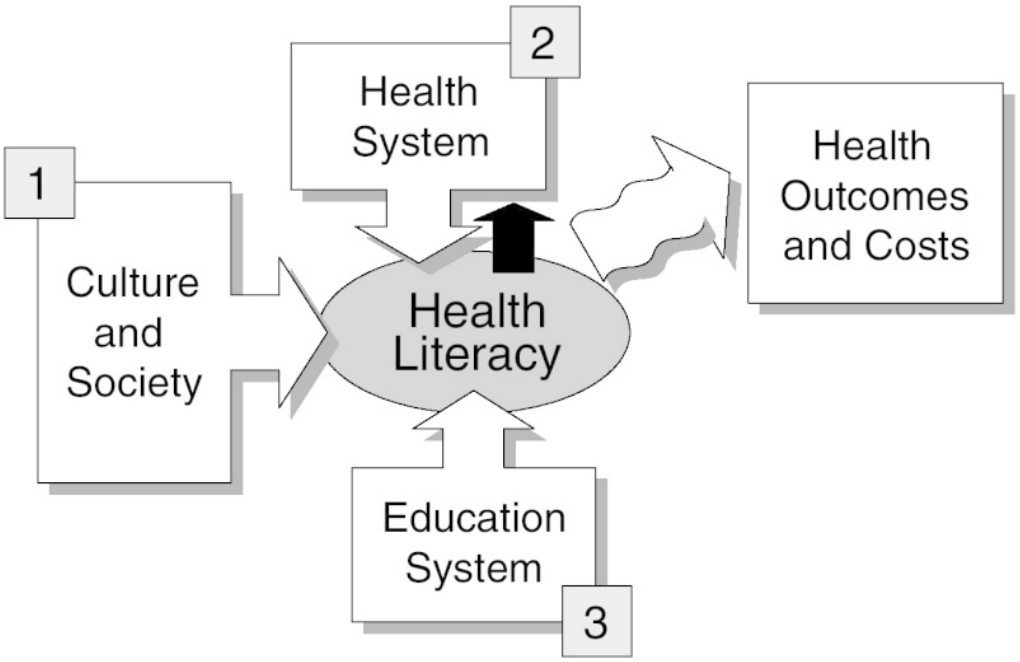

Figure 2. Potential points for intervention in the health literacy framework
Source: Health Literacy: A Prescription to End Confusion…

The term "health literacy" was probably first used by Scott Simonds (Simonds, 1974) in the 1970s, when arguing for the need to implement health education in schools. Nevertheless, his approach was narrower and even slightly beyond our modern understanding of the term. Another way of approaching the characterised concept, was via a combination of the individual's possession of a basic understanding of health information, with a broad WHO definition, i.e. having skills leading to "empowerment", was created by Nutbeam (Nutbeam, 2000, pp. 259-267). He proposed a three-level division of "literacy" in relation to health:

1. "basic/functional literacy" — may involve an individual's improvement of knowledge in the area of health/disease, i.e. mainly about risk factors and functioning in the healthcare system, as well as the ability to act in accordance with specific indications (e.g. of a health care professional). (Nutbeam, 2000, pp.260-267). For example, Levin-Zamir and Petersburg (Levin--Zamir D., Peterburg Y.: Health literacy in health systems: perspectives on patient self-management in Israel. Health Promot. Int. 2001;16: 88-94) indicate the following possible benefits of this "health literacy" level for patients with type II diabetes – the ability to understand and make use of, in accordance with recommendations, basic information about the disease, including risk factors and treatment, as well as being aware of the need for self-care, including: regular use of medications, use basic skills in reading and writing medical recommendations necessary for effective functioning in everyday situations.
2. "communicative/interactive literacy" – more advanced cognitive and literary mechanisms that, combined with social skills, can be used to actively participate in everyday situations, to extract information from various forms of communication and understand their meaning, as well as to adapt the type of information used to changing circumstances and conditions; In turn, in "communicative/interactive literacy", Nutbeam (Nutbeam D.: Health literacy as a public health goal: a challenge for contemporary health education and communication strategies into the 21st century. (Health Promot. Int.

2000;15: 260-267) indicates the possibility of improving an individual's motivation and belief in their own abilities and, consequently, the ability to use knowledge independently. For example, in relation to patients with diabetes, this includes, among others: to identify appropriate sources of information about this disease and independently use the information obtained on a daily basis (Levin-Zamir, Peterburg, 2001, pp. 88-94).

3. "critical literacy" — more advanced cognitive mechanisms that, combined with social skills, can be used to critically analyse information and, on this basis, to take more and more control over various events in life (so this level of "literacy" is supposed to lead to "empowerment".

In the case of "critical literacy", the potential benefits for the individual include its strengthening, i.e. the mentioned „empowerment". Such a person is able to make the right decisions regarding their own health (Nutbeam 2000, 15: 260-267). The author defines these effects for the individual as improving his or her ability to flexibly approach changing conditions and thus to seek appropriate solutions and not give in to various adversities in the area of one's own health. Levin-Zamir, Peterburg state that this may occur, among others: through the ability to critically assess the quality and reliability of information regarding health/disease, as well as consciously adapting related knowledge to the changing situation (Levin-Zamir, Peterburg, 2001, pp. 87-94). These effects at the individual level are expected to lead to benefits on a broader scale - society-wide, i.e. "empowerment" of a specific group of people, and thus to improve the ability to control and influence the social and economic determinants of health (Nutbeam, 2000, pp. 260-267).

The World Health Organization distinguishes between the "empowerment" of an individual and the entire community (Iwanowicz, 2009, pp. 428--437). Polish researchers considering this problem, Stępniewski, Bejnarowicz, Kot, Skrętowicz, Rotter, Węcławik, Tobiasz-Adamczyk, Basa-Cierpiałek, Adamczyk, have mainly been interested in assessing selected fragments of common knowledge of members of our society from the point of view of its compliance with the findings of official medicine. For example, issues such as:

- knowledge about the causes of the spread of specific diseases,
- level of knowledge of infectious diseases, methods of preventing and treating them,
- knowledge of the principles of first aid, personal hygiene and rules of conduct with a small child,
- the degree of compliance of self-assessment of health condition with the diagnosis (Korzeniowska, 1997. p. 62).

According to the definition proposed by WHO, Health Literacy is a possession of the cognitive and social skills that determine the motivation and ability of individuals to access, understand and use information in a way that promotes and maintains good health (Sørensen, Van den Broucke, Fullam, 2012).

Research analysis and conclusions

The European Health Literacy Survey Questionnaire – HLS-EU (HLS-EU-Q47) was also created, which examines the following issues (on a 5-point scale: 1 – Very difficult, 2 – Difficult, 3 – Easy, 4 – Very easy, 5 – Don't know- to be used by interviewer only):

1. Accessing information about symptoms of illnesses that concern you.
2. Accessing information on treatments of illnesses that concern you.
3. Accessing information on what to do in case of a medical emergency.
4. Accessing information on where to get professional help when you are ill.
5. Understanding the information your doctor gives you.
6. Understand the leaflets that come with your medicine.
7. Understanding what to do in a medical emergency
8. Understanding your doctor's or pharmacist's instruction on how to take a prescribed medicine
9. Understanding how information from your doctor applies to you
10. Appraising the advantages and disadvantages of different treatment options
11. Judging when you may need to get a second opinion from another doctor.
12. Judging if information about an illness in the media is reliable
13. Using information the doctor gives you to make decisions about your illness?
14. Following instructions on medication.
15. Calling an ambulance in an emergency.
16. Following instructions from your doctor or pharmacist.
17. Finding information about how to manage unhealthy behaviour such as smoking, low physical activity and drinking too much.

18. Finding information on how to manage mental health problems like stress or depression.
19. Finding information about vaccinations and health screenings that you should have?
20. Finding information on how to prevent or manage conditions like being overweight, high blood pressure or high cholesterol.
21. Understanding health warnings about behaviour such as smoking, low physical activity and drinking too much
22. Understanding why you need vaccinations.
23. Understanding information understand why you need health screenings?
24. Judging how reliable health warnings are, such as smoking, low physical activity and drinking too much.
25. Judging when you need to go to a doctor for a check-up.
26. Judging which vaccinations you may need.
27. Judging which health screenings you should have.
28. Judging if the information on health risks in the media is reliable.
29. Deciding if you should have a flu vaccination?
30. Deciding how you can protect yourself from illness based on advice from family and friends?
31. Deciding how you can protect yourself from illness based on information in the media?
32. Find information on healthy activities such as exercise, healthy food and nutrition.
33. Finding out about activities that are good for your mental well-being.
34. Finding information on how your neighbourhood could be more health-friendly?
35. Finding out about political changes that may affect health.
36. Finding out about efforts to promote your health at work.
37. Understanding advice on health from family members or friends.
38. Understanding information on food packaging.
39. Understanding information in the media on how to get healthier.
40. Understanding information on how to keep your mind healthy.
41. Judging where your life affects your health and wellbeing.
42. Judging how your housing conditions help you to stay healthy.
43. Judging which everyday behaviour is related to your health.
44. Making decisions to improve your health
45. Joining a sports club or exercise class if you want to?
46. Influence your living conditions that affect your health and wellbeing
47. Taking part in activities that improve health and well-being in your community?

(Sørensen et all., Health Literacy Survey Questionnaire (HLS-EU-Q) http://dx.doi.org/10.1186/1471-2458-13-948, Annex: The HLS-EU-Q47 of the HLS-EU Consortium for the European Health Literacy Survey (HLS-EU).

Characteristics of the HLS EU Q16 Questionnaire: The European Health Competence Questionnaire (HLS-EU-Q16) is the short version of the HLS-EU-Q47 Questionnaire. It consists of 16 statements reflecting the perceived difficulty in accessing, understanding, assessing and applying health information in three different areas. These areas are: healthcare, disease prevention and health promotion. Each respondent expresses an opinion on a specific statement on the Likert 5-point scale (very easy, easy, difficult, very difficult, I don't know). The accumulated points obtained in the questionnaire reflect the overall assessment of health skills, categorized as follows:

- 13-16 points – sufficient health literacy level,
- 9-12 points – problematic level of Health Literacy,
- 0-8 points – inadequate health literacy level (Levin-Zamir, Baron–Epel, Cohen, Elhayany, 2016; 62-68.)

HLS research was conducted in Europe but also elsewhere in the world, such as Ghana (Amoah 2018; Israel (Levin-Zamir, Baron–Epel, Cohen, 2016; pp. 61–68.) or Egypt (Almaleh, Helmy, Farhat, 2017; pp. 138-145).

In Poland, research was carried out in 2017, which assessed the relationship between Health Literacy and e-health competences. (n=1000 people aged 18-29 Diagnostic survey) HLS-EU-Q16 questionnaire; Health capacity was insufficient in 9.5% of cases, problematic in 35.8%, and sufficient and excellent in 42.5% and 12.3% of respondents, respectively. A relationship was been shown: the level of health competences is higher in people with high scores on the e-health scale (Duplaga, Grysztar, Tubek, 2017; p. 28)

In 2015, a study was conducted in Germany to determine the level of Health Literacy among older people (n=1117 people aged 55-91 years Diagnostic survey, HLS-EU-Q16 questionnaire). Of all respondents, 4% showed insufficient, 23% problematic, 50% sufficient and 23% excellent knowledge in the field of Health Literacy. The relationship has been shown: the level of Health Literacy is positively influenced by a higher level of education, financial status and higher self-assessment of

social position. An increase in health competences with the age of the surveyed people was also demonstrated (Tiller, Herzog, Kluttig, 2015).

A year later, in 2016, research was also carried out in Germany – assessment of health competences among the German population (n=4952 people aged ≥18 years Diagnostic survey/HLS-EU-Q16 questionnaire). Results showed that more than half of adults (55.8%) have an adequate, 31.9% problematic and 12.3% inadequate level of Health Literacy. Relationships noted: Education, age and mental health status were significantly related to the level of Health Literacy. However, gender did not significantly affect its level (Jordan, Hoebel, 2016; pp. 942-950).

In 2018, in France, research was carried out which assessed the impact of gender, age and education on the level of health competences (n=317 patients aged ≥18 years Diagnostic survey, HLS-EU-Q16 questionnaire). Test results: 8% of respondents had an inadequate, 33% problematic, 58% adequate level of Health Literacy. It has been shown that gender, age and education influence the scope of health competences (Rouquette, Nadot, Labitrie, 2018).

Research from Finland from 2018. Health Literacy Assessments among Older People (n=292 people aged 75 Diagnostic survey/HLS-EU-Q16 questionnaire); Results of the study in the group: 4.8% of participants had an insufficient level, 31.5% had a problematic level, 51.4% had a satisfactory level and 12.3% had an excellent level of Health Literacy. The relationships found: better health literacy was associated with better cognitive status, fewer depressive symptoms and chronic diseases, greater mobility and better physical condition (Eronen, Paakkari, Erja Portegijs, 2018; pp. 550-556)

Researchers on the topic also examined the level of health competences among people with a selected disease, i.e. cardiovascular disease (Diederichs, Jordan, Domanska, 2018) and breast cancer (Halbach, Enders, Kowalski, Pförtner, 2016), and with type 2 diabetes (Juul, Gill, Terkildsen, Maindal, 2018). The results of research conducted among a group of chronically ill people indicate that they have a lower overall level of health competences than healthy people. Additionally, the level of Health Literacy is related to the severity of the disease in these people. In the case of patients with type 2 diabetes, people with a high level of Health Literacy also showed greater motivation to follow dietary recommendations and physical activity (Juul, Gill Rowlands, Terkildsen, Maindal, 2018, pp. 332-337).

While the research carried out here is not exhaustive on the topic of Health Literacy, I draw attention to financial issues. The greater people's health awareness, the better their understanding of prevention and treatment. Low health awareness has its reflection in financial losses – both personal and global. Prevention, i.e. preventing disease, will always be cheaper.

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