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HEALTH LITERACY AS A BASIS FOR PRESERVING HEALTH

Abstract. Efficacy of the medical interventions is directly correlates with health literacy 's state of the population. It is now becoming an important issue for health systems in different countries of the world. Populations with insufficient level of health literacy have higher medical expenses and are less efficient in medical services than people with adequate health literacy populations. High and intermediate health literacy result in reduced overuse of health services improved quality of life and reduced length of stay in health-care facilities. There are many options for measuring this level and an attempt to improve it, as it contributes not only better quality of medical care but also to reduce the costs of its delivery. The publications of the last 5 years showed that in predictive and preventive medicine, health literacy is playing an increasingly important role in public health, providing advanced methods to determine and predict individual diseases risk. Further research on health literacy should develop an intervention for improving quality of health communication to reach diverse groups of population, especially by improving frontline professional skills and support. This article describes the concept of health literacy and approaches to its study.

Key words: health literacy, public health awareness, public health.

Introduction

The modern medicine and health systems all over the world struggling with increasing level of costs. The efficacy of medical interventions is directly correlates with a level of health literacy of the population among other reasons. To achieving the advanced level of healthcare services in the country, it is demanding of active involvement of patients and healthy people into their health related issues and making decisions about their health made on informed evidence base. This requires reliable, easy-to-understand and accessible health information, which is adapted to general public's needs. For the last few years people are increasingly taking more responsibility for their health and health literacy (HL) is becoming more important. The World Health Organization (WHO) defines health literacy as the personal characteristics and social resources that individuals and communities need to access, understand, evaluate and use the information and services needed to make health-related decisions [1,2]. The relevant necessary knowledge, motivation and skills, including accessing, understanding and evaluating health information, have been conceptualised as health literacy. Therefore, personal health literacy can be understood as «the extent to which people are able to find, understand and use information and services to inform health-related decisions and actions for themselves and others»[3].

In this regard, health literacy is always substantive and context-specific. This means that the ability to understand information about someone's health depends on the context in which they are applied to make health-related decisions [4].

Methods and Materials

A literature review was conducted on the topic of health literacy. From 2017 to 2022.

Numerous studies have demonstrated an association between low functional health literacy and poor health-related outcomes, such as increased hospital admissions and readmissions, lower activity in prevention, poorer self-management of chronic conditions, poorer disease outcomes, lower functional status and increased mortality [5]. As we know, limited literacy skills are often associated with lack of understanding and management of health issues, underuse of preventive health services, higher rates of hospital admissions for preventable conditions and poor overall health status [6]. Populations with low health literacy are more likely to have difficulties in understanding different types of health information, both in assessing its reliability and source, struggling to understand medical language and professional terms, and problems in acquiring skills to control their health [7]. Accordingly, there is the combination of knowledge, self-motivation and skills, which can be gained through the access

to health information, and thus understanding and evaluating it, designated as health literacy. It should be emphasised that personal health literacy is always a matter of content and context. This means that healthcare professionals should pay more attention to explanation and be precise with health information, hence it can be applied to health-related decision-making. Priorities are changing and consequently, people are increasingly taking responsibility for their health. As a consequence, health literacy is becoming an increasingly timely topic. Studies by Kristin Hjorthaug Urstad., Randi Andenaes, and Astrid K. Wahl et al (2020) have demonstrated an association between low functional LH and poor health-related outcomes. LH led to low activity in disease prevention, belated detection, and thus burden on the healthcare system [8-9]. Also, problems are identified at the primary healthcare (PHC) and inpatient level, which require finding ways of correction and making management decisions from government and physicians.

Limited literacy skills are known to be often associated with poor understanding and management of health conditions, underutilization of preventive health services, higher rates of hospital admissions for preventable conditions and poor overall health [10]. Evidence of social disparities in health literacy has been found in all published national population-based surveys. Health literacy is an intermediate determinant of health, but not a panacea for addressing health inequalities caused by the misallocation of opportunities and resources. The contribution of health literacy in mediating the causes and consequences of identified social determinants of health can be optimised, according to many researchers (2021). Existing interventions demonstrate the feasibility of improving health literacy among high-risk groups, but majority of study remains underdeveloped and the impact on health inequalities is largely unexplored. Future research on health literacy interventions should focus firstly on improving the quality of health information that is achieved in diverse populations, especially by improving advanced skills and support; secondly, enabling people to develop transferable skills to access, understand, analyse and apply health information; and thirdly, ensuring that priority is proportional to need, by reaching and engaging populations,

In 2013 the WHO Regional Office for Europe published a report entitled Health Literacy: Stronger Evidence, which identified health literacy as a stronger predictor of health status than income, employment status, education level and race or ethnicity [11]. At the global level, the Shanghai Declaration on Health Promotion of the 2030 Agenda for Sustainable

Development (5) stated that health literacy is a critical determinant of health. This declaration provided a clear mandate for governments to prioritize health literacy in public policies and make it a global movement [12].

In 2018, an action network for assessing health literacy at the population and organisational level (M-POHL network on Measuring Population and Organizational Health Literacy) was established aims to develop an international version of the European Health Literacy Survey (HLS-ESU) for monitoring [13]. The health practice perspective focuses on the grammatical, linguistic, mathematical and digital skills that individuals as users of health services need to possess to carry out the different tasks in this field. Equally important, few authors share the aspect of organisational health literacy in the sense that institutions and practitioners should have the skills to identify and address barriers to care for patients with different levels of health literacy [14,15]. In this context, it is appropriate to emphasize the need to broaden the competence of physicians by using an interdisciplinary approach to gaining additional knowledge, not limited to their subspecialty.

At the same time, it is useful to perceive health literacy as a valuable quality, essential in a commitment to a healthy lifestyle, which should be reinforced through community empowerment, civic engagement and community action. Literacy, as reported by international scholars, is a determinant of high levels of health and well-being [16,17].

Regarding the issue of mental health literacy, other researchers have reported that it evolved separately from the broader concept of health literacy, and has been confirmed by practice. Its early definitions focused on people's knowledge, attitudes and beliefs about mental disorders, which contribute to the recognition, management or prevention of such disorders [18]. All of the above are observations to reinforce this section in a comprehensive evaluation of the implementation of literacy programmes, both among the population and equally important for health professionals.

According to Department of Public Health study, about one-third of adults in the United States of America (USA) have limited health literacy. People with limited health literacy often find it difficult to navigate the healthcare environment, including navigating their own healthcare and health literacy such as prevention, screening, diagnosis, and treatment. Evidence-based interventions to help adults with limited health literacy to improve health outcomes; however, little is known about health literacy interventions in the context of cancer and self-promotion and their impact on health outcomes.

Health literacy studies of rural populations in the USA aimed at assessing health literacy have shown results in two isolated rural health and education areas suggesting that populations have difficulty understanding, and evaluating their own health. Health literacy studies can help to further health promotion, prevention and public health costs reducing [19,20].

The US Department of Health and the National Institutes of Health are calling for health programmes and research to address the health literacy challenges of health disparities in rural areas. Rural residents suffer significant health disparities and face a barrier to preventative services, health care and health research that is often overlooked. Rural people tend to be lower in social status and under-insured and have lower literacy rates than those living in metropolitan areas and major cities. People in rural areas also have higher rates of poor health as they have less screening and lower rates of preventive care, lack of public transport, scarcity of public services and persistent shortages of healthcare providers, especially specialists. Looking at barriers through the lens of health literacy, implementing health literacy research strategies can help to remove barriers to understanding and accessing appropriate public health services [21].

People with low health literacy have higher medical costs and are less efficient in their use of services than people with adequate health literacy; populations with high and intermediate health literacy result in reduced overuse of health services, improved quality of life and reduced length of stay in health-care facilities. Consequently, health literacy education is socially and economically effective for health care [22].

Health literacy is increasingly welcomed as a strategy for improving people's control over their health. A major criticism of health literacy interventions is their overemphasis on individual-level factors, which was acknowledged in the 2008 report of the Commission on the Social Determinants of Health, which recommended that the scope of health literacy be expanded to include indicators of social determinants [23].

The publications of the last 5 years show that in predictive and preventive medicine, health literacy is playing an increasingly important role in public health, providing advanced technologies with the potential to measure and predict individual risks of disease. Thus, the issue of the ever-expanding space of definitions of health literacy in people's daily lives, attitudes and perceptions of self in health-related decision-making, as well as individual health literacy about health, is gaining a steady lead [24].

There is no data on research in LH in Kazakhstan, but the need for systematic population-based study aiming to assess the level of health literacy in different population groups in Kazakhstan using international best practices is pressing.

In addition, it is necessary to establish an interaction between healthcare providers and consumers to improve the health literacy of the population of the Republic of Kazakhstan. It can be achieved through training health workers in effective communication skills, organising schools for patients, interactive seminars and webinars, training for the population in promoting healthy lifestyle, engaging online resources, which contain health information. All the information should be presented in easily understandable language in an accessible manner and based on the principle of «healthy lifestyle».

Results and Discussion

Publications from available sources from 2017 to 2022 have shown that investigating fundamentals of insufficient effect of healthcare identified health literacy as one of key aspects and lack of LH is a real challenge for the population and healthcare systems all over the world.

Many studies have demonstrated evidence-based correlation between low functional health literacy and poor health-related outcomes: increased hospital admissions and re-admissions, lower participation in preventive measures, poor self-management of chronic conditions, adverse disease outcomes, low functional status and unstable mortality rates;

Majority of the research has established the role of LH and recommend increasing personal health literacy among the population, regardless of geographic location. The importance of accessibility to find, understand and use information and services of health-related decisions and actions for themselves and others is beyond doubt;

The analysis of the reports shows the need to increase the competence of healthcare providers in oral communication in health literacy, through self-education based on an interdisciplinary approach to gaining additional knowledge, not limited to their specialty;

In this regard, study of health literacy and assessment of the impact of demographic, socio-economic and behavioral determinants on health literacy in Kazakhstan is important and promptly.

Development and implementation of regional programmers and methodological tools based on a comprehensive literacy assessment of both the population and health professionals is more appropriate in order to close gaps in understanding and use of health information, systematization of requirements and complexities in the health system.

References

1. Bajsunova G.S., Turdalieva G.S., Tulebaev K.A., Zagulova D.A., Vlijanie demograficheskikh, social'no-jekonomicheskikh i povedencheskikh determinant na uroven' medicinskoj gramotnosti naselenija Almatinskoy oblasti // The influence of demographic, socio-economic and behavioral determinants on the level of medical literacy of the population of the Almaty region// Vestnik KazNMU. – 2016.- №1.-S. 613-619.
2. Mark Matthijs Bakker, Polina Putrik, Anna Aaby, Xavier Debussche, Janis Morrissey, Christine Råheim Borge, Dulce Nascimento do Ó, Peter Kolarčík, Roy Batterham, Richard H. Osborne, Helle Terkildsen Maindal., Obschnee delo: Nacional'nye demonstracionnye proekty VOZ po razvitiyu gramotnosti v voprosah zdorov'ya (NDPGVZ) sluzhat udovletvoreniyu potrebnostej v etoj sfere v Evropejskom regione // Panorama obshchestvennogo zdoraohareneniya.// Common cause: WHO's National Health Literacy Demonstration Projects (NDHLPs) address health literacy needs in the European Region // Public Health Panorama-otchet. – 2019. -TOM 5 //VYPUSK 2–3 // S. 244-246
3. Saskia Maria De Gani., Daniela Nowak-Flück., Dunja Nicca and Dominique Vogt., Article Self-Assessment Tool to Promote Organizational Health Literacy in Primary Care Settings in Switzerland// International journal of Environmental Research and Public Health. – 2020. – №17. – P.1-14. doi:10.3390/ijerph17249497
4. Web site\ Centers for Disease Control and Prevention. What is Health Literacy? Available online: [<https://www.cdc.gov/healthliteracy/learn/index.html>] Accessed 26 October 2020.
5. Kristin Hjorthaug Urstad., Randi Andenaes., Astrid K. Wahl., Lisbeth G. Kvarme., Sølvi Helseth., Torbjørn Moum. The Health Literacy Questionnaire: Initial Validity Testing in a Norwegian Sample // Health Literacy Research and Practice. – 2020. – No. 4. – P. 190-191.
6. Maricel G. Santos, EdD; and Michael K. Paasche-Orlow, MD, MA, MPH., Special Supplement: Health Literacy and Adult Basic Education // Health Literacy Research and Practice. – 2019. – Vol. 3, No 3. – P. 88-90.
7. Amlaev K., Dahkil'gova H. Gramotnost' v voprosah zdorov'ya: ponyatie, klassifikacii, metody ocenki // Vrach. Health literacy: concept, classifications, assessment methods//– 2018. – №29(6). – S. 83–86. <https://doi.org/10.29296/25877305-2018-06-19>.
8. Harzheim, L., Lorke, M., Woopen, C., & Jünger, S. (2020). Health Literacy as Communicative Action—A Qualitative Study among Persons at Risk in the Context of Predictive and Preventive Medicine. *International Journal of Environmental Research and Public Health*, 17(5), 1718. DOI: <https://doi.org/10.3390/ijerph17051718>
9. Jolie N Haun, Nitin R Patel, Dustin D French, Robert R Campbell, Douglas D Bradham, William A. (2015). Lapcevic Association between health literacy and medical care costs in an integrated healthcare system: a regional population-based study. *BMC Health Serv Res*. DOI: 10.1186/s12913-015-0887-z. <https://pubmed.ncbi.nlm.nih.gov/26113118/>.
10. Baur, C., Martinez, L. M., Tchangalova, N., & Rubin, D. (2018). A Review and Report of Community-Based Health Literacy Interventions. Washington, DC: The National Academies Press, 49-65. [Online](<http://www.ncbi.nlm.nih.gov/sites/books/NBK500372/>)
11. Chinn D, McCarthy C. All Aspects of Health Literacy Scale (AAHLS): developing a tool to measure functional, communicative and critical health literacy in primary healthcare settings. // Patient Educ Couns. – 2013. No 90(2). – P. 247–53. doi: 10.1016/j.pec.2012.10.01
12. Sørensen K, Pelikan JM, Rothlin F, Ganahl K, Slonska Z, Doyle G et al. Health literacy in Europe: comparative results of the European health literacy survey (HLS-EU). *Eur J Public Health*. – 2015. – No 25(6). – P.1053–1058. doi: 10.1093/eurpub/ckv043.
13. Paakkari O, Torppa M, Kannas L, Paakkari L. Subjective health literacy: development of a brief instrument for school-aged children. *Scand J Public Health*. – 2016.- No 44(8). – P. 751–761. doi: 10.1177/1403494816669639.
14. St Jean B, Greene Taylor N, Kodama C, Subramaniam M. Assessing the digital health literacy skills of tween participants in a school-librarybased after-school program. // J Consum Health Internet. – 2017. – No 21(1). – P. 40–61. doi 10.1080/15398285.2017.1279894.
15. Chung S, Nahm ES. Testing reliability and validity of the eHealth Literacy Scale (eHEALS) for older adults recruited online. *Comput Inform Nurs*. 2015. – No 33(4). – P.150–156. doi: 10.1097/CIN.0000000000000146.
16. Guttersud O, Dalane J, Pettersen S. Improving measurement in nutrition literacy research using Rasch modelling: examining construct validity of stage-specific “critical nutrition literacy” scales. *Public Health Nutr*. – 2014. – No 17(4). – P. 877–83. doi: 10.1017/S1368980013000530
17. Calderón JL, Shaheen M, Hays RD, Fleming ES, Norris KC, Baker RS. Improving diabetes health literacy by animation. *Diabetes Educ*. – 2014/- No 40(3). – P. 361–372. doi: 10.1177/0145721714527518.
18. Li W, Han LQ, Guo YJ, Sun J. Using WeChat official accounts to improve malaria health literacy among Chinese expatriates in Niger // An intervention study. *Malar J*. – 2016 – No 15(1). – P.567-570. doi: 10.1186/s12936-016-1621-y
19. A. J Houston1, C.M Gunn, M.K Paasche-Orlow, K.M Basen-Engquist. Health Literacy Interventions in Cancer: A Systematic Review// Published in final edited form as: *J Cancer Educ*. – 2021 April. – No 36(2): – P.240–252. doi:10.1007/s13187-020-01915-x.
20. Terry C. DAVIS, Connie L. ARNOLD, Health Literacy Research in Rural Areas. HHS Public Access. Department of Medicine, Louisiana State University Health Science Center – Shreveport, U.S.A. //Published in final edited form as: *Stud Health Technol Inform*. – 2020 June 25 269. – p.241–247. doi:10.3233/SHTI200038.
21. Kennedy AE, Vanderpool RC, Croyle RT, Srinivasan S. An overview of the national cancer institute's initiatives to accelerate rural cancer control research. // *Cancer Epidemiol Biomarkers Prev*. – 2018; 27 (11): – P. 1240–1244.
22. Review Flaviane Cristina Rocha Cesar, MSc, PhD; Katarinne Lima Moraes, PhD; Virginia Visconde Brasil, PhD; Angela Gilda Alves, PhD; Maria Alves Barbosa, PhD; and Lizete Malagoni de Almeida Cavalcante Oliveira, PhD Professional Responsiveness to Health Literacy: A Scoping ABSTRAC / LRP: // *Health Literacy Research and Practice*. – 2022. – Vol. 6, No 2. – P. 96-100.
23. Candan Kendir and Eric Breton 1,2 Health Literacy: From a Property of Individuals to One of Communities. // *Journal Environmental Research and Public Health*. – 2020. –No2. – P.1-11.
24. Laura Harzheim., Mariya Lorke., Christiane Woopen and Saskia Jünger., Article Health Literacy as Communicative Action // A Qualitative Study among Persons at Risk in the Context of Predictive and Preventive Medicine Cologne Center for Ethics. – 2020. – No5/- P. 361–372