

UNDERSTANDING THE CONCEPT OF HEALTH LITERACY IN THE EDUCATIONAL ENVIRONMENT: A PILOT STUDY

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ABSTRACT

Health literacy is a widely known and researched subject in health care system defined as the relationships between an individual's level of education and his/her ability to maintain healthiness, improve health or participate in health treatment. However, there is a lack of information about the role of health literacy in school environment. This study reports on the topical status of understanding of health literacy concept among teachers and parents in the educational system of Latvia. Qualitative descriptive research was conducted in order to: a) analyse health literacy concept in theory and education documents; b) explore teachers' and parents' health literacy perception through focus groups interviews. A group of respondents included six adults representing teachers and parents from two schools. A thematic analysis method was applied to investigate participants' perception of health literacy, representing four dimensions of the concept's explanation: health and health education, Covid-19 pandemics, school/parent collaboration, and uncertain terminology aspects. The results showed various interpretations of health literacy terminology in educational documents, caused by insufficiently explained sub-terms – school, teacher and parent health literacy. This finding was confirmed by the results of the focus group interviews. That leads to a conclusion that the concept of health literacy requires a more efficient explanation by developing a comprehensible health literacy terminology in the educational setting.

Keywords: *education environment, focus group interview, health literacy, parental health literacy, pilot study, terminology*

Introduction

Over the last decade there has been a growing debate on public awareness of health issues, which was intensified over the last two years by the impact of the restrictions on public health caused by the Covid-19. Health literacy is being put into practice gradually, linked to the overall level of health education in society as a whole. As shown by health literacy

surveys in European countries (Sørensen et al., 2015), the overall level of health literacy varies across countries and social groups, which is currently worsening by the presence of pandemics and viral illnesses (Sørensen et al., 2015). Sørensen et al. (2013) argues that the social determinants of health literacy need to be taken into account when developing public health strategies to improve health equity in Europe, highlighting that limited health literacy is a challenge for health policy and practice across Europe. There are three health literacy levels a person should navigate: functional – includes knowing how to find and use the information needed to maintain one's health, including individuals' interest and involvement in health promotion programmes; interactive – includes the skills to be motivated and work towards improving one's health in a health-supportive environment, including e-environments; critical – includes personal and community participation, awareness of the impact of social and economic factors on health, risk assessment, ownership and the informed ability to effect policy and/or organisational change (Nutbeam, 2000).

Particular attention has been paid to children and adolescents, whose health is the responsibility of both parents and teachers. One of the problems in the educational environment is the contradictory understanding of health concepts and the confusion caused by the use of related terms. Recent research suggests that parents caring for children during the Covid-19 pandemic have experienced changes in emotional well-being and serious health literacy issues (Stars et al., 2021). The relationship between parental health status, education, and children's educational achievements points to the importance of parental competence in health literacy (Mikonnen et al., 2020), as well as the importance of school-parent collaboration in promoting parental health awareness (Okan et al., 2018). Insufficient parental health literacy affects children's health status and the educational process, reducing learning outcomes (Mikonnen et al., 2020; Koffijberg et al., 2012; de Buhr & Tannen, 2020). During the pandemic, the mental health problems of adolescents and adults have also become relevant, highlighting parental mental health literacy, which is analysed in connection with stigmatised beliefs and insufficient knowledge in the field of mental health (Bonanno et al., 2021).

Two years ago, the USA Centre for Disease Control and Prevention (CDC) launched a new definition, which the US government is implementing as part of its Healthy People 2030 initiative (Santana et al., 2021). The update covers personal health literacy and organisational health literacy and provides the following definitions: personal health literacy is the way in which individuals are able to find, understand and use information and services to inform health-related decisions and actions for themselves and others; organisational health literacy is the way in which organisations

equitably enable individuals to find, understand and use information and services to inform health-related decisions and actions for themselves and others (CDC, 2022a). Both definitions describe the way or context in which individuals are able to obtain, process and understand the basic health information and services needed to make appropriate health decisions.

The World Health Organisation (WHO, 2021a) also recognises that health literacy in educational settings is considered a core concept of health promotion. School health literacy includes the equal interaction of school management, teachers, students, school support staff and parents with the aim of promoting the growth of health literacy of all involved parties. School-parent cooperation in health literacy should be seen as an important tool to develop health literacy and should be defined as a set of activities developed jointly by parents, teachers and school management, designed to optimise a) the physical, mental, emotional and cognitive health of the child; b) the health literacy of parents, teachers and school support persons. Scholars note that incorporating health literacy into the school curriculum, supported by a “whole-school” approach, is the most promising strategy to ensure that all children can gain the necessary knowledge and skills to support their health and well-being across their lives. That illuminates the need of collaboration between health and education sectors, including teachers and parents.

The importance of health literacy in today’s society is indisputable, but the question is – does society, especially its important actors in the educational environment – teachers and parents, have a clear understanding of what health literacy is? Thus, the aim of this pilot study was to analyse the usage of health literacy terminology in public educational documents and to explore in a small sample how this term is being understood in school environment by teachers and parents.

Health literacy in education environment

Health literacy nowadays means more than being able to read health-related materials and make an appointment with a doctor. As it has been stated in Health Promotion 4.0 document, the health system is going to change due to the digital transformation of health and medical care, both in its practice and its governance. Health literacy promotes people’s ability to access health information and their ability to use it effectively (Kickbusch, 2019). Health literacy enables people to make ‘positive choices’ as it implies the achievement of a level of knowledge, personal skills and confidence to take action to improve personal and community health by changing personal lifestyles and living conditions (WHO, 1998). Researchers emphasises that health literacy includes the knowledge, motivation and competence to access, understand, evaluate and use health

information to make health decisions in their daily lives, disease prevention and health thereby maintaining or improving the quality of health care throughout life (Sørensen, 2016). School health literacy skills start early in life and are part of the health care and education process for children, adolescents and young people. All schoolchildren and students need to acquire appropriate health literacy skills to help them lead healthier lives (CDC, 2022b). According to Norwegian health literacy researchers, at the structural level of the organisation, health literacy refers to the way in which an organisation, in this case a school, provides health information and health services to people – teachers, students, parents – with different levels of health literacy (Frederiksen & Wångdahl, 2022).

Parental health literacy, on the other hand, is seen as an important competence for monitoring a child's health, as children are dependent on parental care and may suffer from situations where parents have insufficient levels of health education and knowledge (de Buhr & Tannen, 2020). Teacher health literacy is characterised by the teacher's ability to provide the pupil with basic health knowledge, health information appropriate for the age and perception of the pupil, and to create awareness by example of the competences and skills that need to be acquired throughout life.

Health literacy as a component of health education has been studied worldwide since the 1970s, when the role of school health education in promoting health literacy was highlighted at the political level (Nutbeam, 2015). Health literacy goes far beyond the narrow concept of health education and communication towards individual behaviour. It looks at the environmental, political and social determinants of health, including the wide range of skills and competences that people develop throughout their lives to search for, understand, evaluate and use health information to make informed decisions to reduce health risks and improve their quality of life.

The Health Promoting Schools (HPS) initiative originated in the 1980s as a result of the WHO's Ottawa Charter for Health Promotion, emphasised that health promotion is a process that enables people to gain control over their health and their environment (Turunen et al., 2017). The collaborative work of students, school staff, parents, health professionals and health service providers are what sets such a school apart from others (Griebler et al., 2017). One of the most important health literacy skills is information literacy, which creates additional challenges in the rapidly growing digital age. The WHO's Global Strategy for Digital Health (WHO, 2021b), provides a roadmap to track developments and innovations in digital health. It aims to make digital health support equal and ensure universal access to quality healthcare services, make healthcare systems more efficient and sustainable, enabling them to provide quality, affordable

and equitable care. As engagement with the digital world among children and adolescents increases, this becomes essential for health literacy. Digital developments should be addressed by the education sector and in schools, which will need teachers trained to deliver this kind of education.

Research in Latvia shows the problems of school-based health education (Stars, 2018a) and the challenges posed by health literacy issues to two important state systems, namely health care and education (Stars, 2018b). The issues of the relation between parents' quality of life in terms of health and children's illnesses are brought up (Laizāne et al., 2018), as well as those of adolescent health literacy and information literacy as an essential part of understanding health literacy (Stars & Rubene, 2021). Aim of this pilot study is to explore how health literacy terminology has been described and explained in public educational documents and analyse specific target group – teachers and parents in school. The hypothesis is that the concept of health literacy is not sufficiently explained in educational setting in Latvia.

Methodology

The design of this study was/ is descriptive, qualitative research. The qualitative research is a useful research method in situations when a concept or a phenomenon needs to be understood since little research has been conducted in the researched area and the topic has never been addressed with a certain sample or a group of people (Creswell, 2009). Qualitative descriptive approach has been applied as it is suitable for health care examining purposes, including the concept of health literacy. This approach has been identified as appropriate for research questions focused on discovering the way informants perceive poorly understood phenomena (Kim et al., 2017). Document analysis as a systematic procedure for evaluating documents (Bowen, 2009), in this case health literacy terminology documents – both printed and electronic material – has been used. The onomasiological approach has been selected for the conceptual understanding of the health terminology system, which involves the study of terminology based on a clearly transparent conceptual framework, where each concept is given an appropriate term, and at the same time looking at the understanding of the concept directly related to its use. Onomasiology in a pilot study described as the branch of linguistics that studies words as the names of certain things or phenomena (Skujiņa et al., 2007).

Methods of data collection

The purposive sampling through the use of the convenience method was selected based on theorists' recommendations for conducting a pilot

study, for both purposes, testing the research methods and the validity of the problem. The focus group interview method increases the possibility of discovering individuals' points of view in the process of interaction between the researcher and the group members (Mārtinsonē & Pipere, 2011). For both groups of respondents – parents and teachers – identical questions were formulated, which were used to find out the respondents' experience and understanding of health literacy. The main interview question was:

1. How do you understand the concept of health literacy? Additional questions such as –
2. How would you explain the concept of parental health literacy?
3. How would you explain the concept of teacher health literacy? – were used when deemed relevant.

The purposive sampling through the use of the convenience method was chosen based on theorists' recommendations for conducting a pilot study – to both test the research methods and the validity of the problem (Mārtinsonē & Pipere, 2011). A total of six adults between the age of 37 to 43 took part in the focus group discussions in this study. Participants were classified according to the following sampling criteria:

- 1) Age: group 30–40 ($n = 2$), group 40–50 ($n = 4$);
- 2) Gender: women ($n = 6$);
- 3) Place of residence: big city ($n = 1$), suburb/rural area ($n = 5$);
- 4) Location of the educational institution of the respondent: school in a big city ($n = 3$), suburb/rural area ($n = 3$);
- 5) Type of school: secondary school ($n = 6$);
- 6) Characterisation of the respondents is the following: the basic subjects of teachers are the Latvian language, literature, the German language, and geography.

During the interview, teachers reflected on health literacy not only as professionals, but also as mothers of students, as children of different ages (18, 16, 14, 13 years) are growing up in their families. The group of parents was represented by three mothers whose children attend 1st–7th grade of a secondary school. The two mothers involved in the study are also teachers working in pre-school and interest education, this way, parents also reflected as teachers during the interview. In general, this approach allowed for a representative understanding of the views of both parties, namely teachers and parents.

Data collection and analyses

Ethical approval was gained from the Ethics Committee of the Faculty of Education, Psychology, and Art of the University of Latvia. The interviews took place in March, 2021. Participants of the study received a letter explaining the course of the study; an oral consent to participate

in the research was obtained from them. Participation was voluntary and the respondents had the right to decline or discontinue participation. The names of the research participants were coded according to data protection requirements. Data were obtained through Zoom video recording, each interview lasted 40 minutes. Participants' location during the video interview was individually chosen due to the Covid-19 pandemic restrictions. There was a lack of data saturation observed by the author, setting the interview length for further studies at 1 h 30 min. Data was transcribed verbatim and analysed manually using a thematic data analysis. At the beginning, the concepts were defined as follows: health literacy, teachers health literacy and parental health literacy, the related concepts marked in the interview text (twenty in total: health education, health behaviour, parental self-esteem, teachers' health, etc.) are grouped into two thematic groups: health and health education, which are further divided into two more groups: school/parent collaboration and health literacy terminology in education environment.

Results

The results are described in the following order: teachers' and parents' explanations of health literacy, dimensions of the concept of health literacy and analyses of terminology aspects in education documents. Explanations given by teachers and parents (see Table 1) represent their current understanding of the term health literacy and reveals the competencies regarded as necessary for a person to be healthy.

The following results reflect informants' perceptions of health literacy representing four dimensions of the explanation of the concept:

1. Health and health education:

- a) health information literacy;
- b) adherence to the principles of physical activity and good nutrition as well as emotional stability and ability to maintain mental health conditions;
- c) critical thinking – highlighting the importance of critical thinking in the ability to navigate both health information and to evaluate and select relevant and credible media sources;
- d) awareness of the 'basics' of health literacy, which include healthy sleep, food and exercise, as well as emotional and mental health, and, of particular importance, the practice of this knowledge.

2. Covid-19 pandemics. Informants admit that existing level of health literacy, particularly with regard to mental health, is insufficient in a pandemic. Parents, teachers and children all want to be heard, to share their thoughts and emotions, and to seek support.

Table 1. Health literacy concept meaning: teachers and parents

Teacher 1	“Health literacy is initially about understanding your health, the factors that influence it and determining specific actions and activities. It has several facets – mental, physical and emotional health, or good psycho-emotional health.”
Teacher 2	“My personal opinion is that of all the skills that are taught it’s probably a recent “hit”. I guess I am a bit sceptical. These things have been around all the time anyway, but under a different name, the terms are changing, the terminology itself is changing.”
Teacher 3	“Health literacy is the ability to take care of one’s health, to lead a healthy lifestyle, and it is a holistic concept that encompasses the whole person – their mental, physical and social health. As a teacher, I use my skills to set an example for my pupils, and then pass on this knowledge. The only issue is that the understanding of what is healthy for whom varies greatly. And especially when these different opinions are between parents and teachers, for example, about the [Covid-19] vaccines. This is an issue where there are all sorts of stumbling blocks.”
Parent 1	“I have been thinking about health literacy for years without knowing it was called health literacy. It involves the ability to find information, the existing knowledge and previous experience. Seeking information, understanding, analysing.”
Parent 2	“When you spoke to me, I didn’t understand at first what it was either – health literacy... I mean, I can’t even remember the word – health literacy. But I thought of it logically – health and mind. So, mind – to understand, to know, attitude and action, for me it is emotional health first, physical health second.
Parent 3	“Health literacy is the very foundation of the health. My skills may be high, but if I don’t embody it in my life, it doesn’t work. The foundations of health literacy must start with my own example, taking care of what I eat, how I sleep, what my regimen is, how I take care of my emotional state and how I use my critical thinking to analyse health information.”

3. School/parent collaboration – the need of mutual trust arises in data. For example, one of the parents expresses her doubts through the question: Do I have confidence that the teacher is competent enough to educate me on these issues? Teachers, on the other hand, point out that “all the salt” is to educate parents. Therefore, the issue of cooperation between teachers and parents, mutual trust as one of the most important preconditions for the success of the health education process, integrating health literacy as a part of teacher and parent education, is relevant for further research.

4. Uncertain terminology – observation of participants answers point out contradictions in the understanding of terminology and, consequently, inaccurate orientation in the conceptual system. One of the parents admits: “Until you asked about this term [health literacy], I didn’t know the

combination of these words”. Three out of six respondents say they are hearing the term for the first time. This means that terminology itself has not been widely used in the educational setting and other environments, such as home, workspace, etc. Although the concept of health literacy has been known in the world for more than 40 years, it appears to be relatively new in Latvia.

The term *health literacy* has been officially used in Latvia since 2016, when it was reviewed by the Commission of Terminology of the Latvian Academy of Sciences (LZA, 2016). It is also included in the operational strategy of the Center for Disease Prevention and Control, as well as in the document “Public Health Guidelines 2021–2027” prepared by the Ministry of Health of the Republic of Latvia (MK, 2022). It must be admitted that the concept has been described much earlier, for example, Pēteris Apinis already in 2011 wrote an article “On Health Literacy” in the magazine “Latvian Doctor” (*Latvijas Ārsts*) where he says that health education is important, which aims to create health literacy as a priority to motivate to act for the health of themselves and their loved ones (Apinis, 2011). And yet the public’s (including the educational environment) understanding of the concept of health literacy is still evolving, so the explanation of this concept in the broadest conceptual framework is needed, revealing the correspondences between the use of sub-terms and related terms. It should be noted that entering the term *health literacy* in the Latvian National Centre for Education digital platform named “School 2030” (Skola2030, 2022) retrieved no results, so it can be assumed that in the new educational documents compiled on this website, the term *health literacy* has not been defined at all or the phenomenon is referred to differently. Thus, the situation with the concept of *health literacy* in the public space of Latvia was also reflected in the respondents’ answers.

The term *proficiency* entered the Latvian terminology along with the term information literacy in 2005 in connection with the collection of library and archive terms. Nowadays, the word *literacy* is given in the Dictionary of the modern Latvian language (MLVV, 2022) with the following explanation: “an individual’s skill (in what field), understanding (of what), ability to use, for example, information, knowledge”. The most common word associated with this word is proficiency. Proficiency as a synonym of the term competence is also defined in the “Glossary of Pedagogical Terms” (Skujiņa et al., 2000). In the terminology system that emerged with the “School 2030” initiative, the term component *literacy* has been particularly strained, creating a number of new terms, such as *word literacy*, *media literacy*, including *health literacy*, and *digital literacy*, *mathematical literacy*, *social* and *civic literacy*, technological know-how, etc. Going beyond the field of traditional education, society and the media have

been talking about financial literacy and legal literacy in recent years. It must be said that the use of these terms has not yet really taken root, so the term compound and the word term are used in parallel and with the same meaning.

Thus, the conceptual framework (see Figure 1) of health literacy terminology that has been based on the gathered data include a system of basic terms consisting of terms such as *organisational health literacy*, *school health literacy*, *teacher health literacy*, *adolescent health literacy*, *parental health literacy*, *collaboration on health*, and *digital health literacy*. In turn, terms related to health literacy are *health competence*, *health education*, *health behaviour*, *digital health*, *health information literacy*.

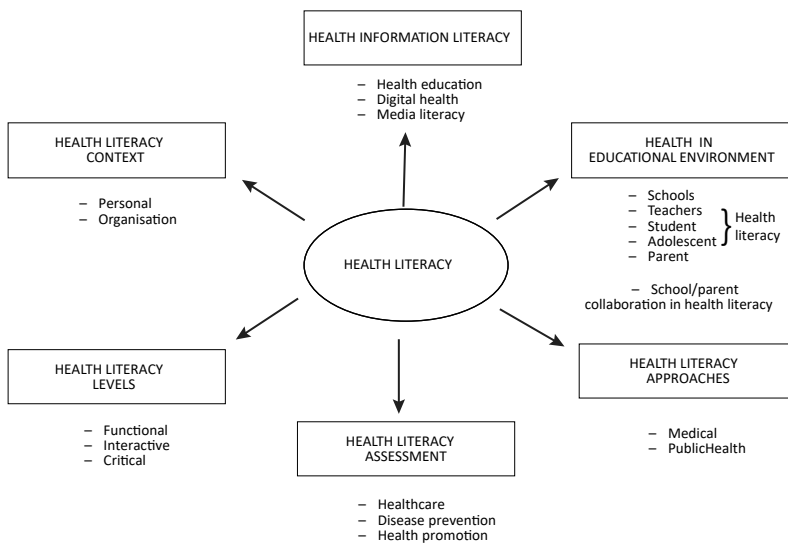


Figure 1. The conceptual framework of health literacy terminology (a scheme drawn up by the pilot study authors, based on theoretical frameworks of health literacy concept, Nutbeam, 2000; WHO, 2019; Sørensen, 2016).

Discussion

This pilot study focuses on the development of health literacy terminology, uncovering teachers’ and parents’ interpretations of health literacy, highlighting the current state of understanding of the concept in educational settings. As results have demonstrated, teachers and parents explained health literacy more from “action” point not terminology. However, parents’ insight about hearing this concept [health literacy] for the first time cannot be ignored, as well as teachers’ thoughts about term *health literacy* as some new “trend” without deep meaning. These findings

support and validate author's hypothesis that the concept of health literacy has not been sufficiently explained in educational settings.

Participants talked about health action, health education and their responsibility in health promotion in general, without using terms *health literacy*, *parental health literacy*, *school or teacher health literacy*. Teachers and parents reflected on specific skills one should obtain in order to be healthy, naming the importance of physical, mental and emotional health. Their perceptions about health literacy in everyday life included knowledge about how to maintain good health – food, physical activities, emotional stability – monitoring children and student diseases and by their own example as teachers and parents, show how to promote health literacy. This confirms theoretical findings that approaches to health literacy should consist of health care, disease prevention and health promotion (Sørensen, 2016). Dimension – critical thinking, which teachers and parents point out, confirms theoretical position of critical literacy and critical thinking as one of the most important health literacy skills that not only parents need to master, but also children need to be able to learn (Okan et al., 2018), highlighting that critical thinking is helps to navigate health information to evaluate and select relevant and credible media sources. Dimension – school/parent collaboration show – parents and teachers agree that school is the right place for a child to learn about health. However, the question of whether school is the right place to (indirectly) educate parents, as is stated by theory (Frederiksen & Wångdahl, 2022) should be explored in depth.

Health literacy explanation table (Table 1) shows that teachers and parents' level of health literacy functioning covers basic and interactive levels, that could be explained by the fact they reflect from personal health literacy context rather than from organisational (CDC, 2022a), despite school environment being presented. In order to get full insight of health literacy concept in school environment, further research should include school managers and headmasters. Both parents and teachers agree that school is the right place for a child to learn about health. However, the question of whether school is the right place to (indirectly) educate parents should be explored in depth. Regarding health literacy approaches – clinical and public health as described by researches (Pleasant & Kuruvilla, 2008) – pilot study findings suggest to use both of them. The pandemic context, which was the four dimension of health literacy concepts explanation emphasises the need for teachers, school management and parents to understand and manage both – the medical and public health aspects, which in the context of the educational environment includes collaboration with school support staff and health professionals as well as the willingness of all stakeholders to work together. This finding is confirmed by Sørensen et al. (2012) a researcher and a head of the Global

Health Literacy academy, who analysed definitions of health literacy with a team of researchers in 2022.

Conclusions

The concept of health literacy and its implementation in practice is a rather complex process, which includes various types of knowledge and skills that an individual must acquire. The development of a health literacy terminology system would facilitate the ability of society as a whole to understand the different uses of the concept of health literacy and promote real understanding of how health literacy and its level affect both our own health and the health of our family members, especially children.

The data obtained in the study demonstrate the understanding of the concept of health literacy from the points of view of parents and teachers that highlights the problems of responsibility and cooperation of both parties to improve the health practise in school setting. More in-depth research is necessary into the factors that affect the health literacy of the Latvian population, paying special attention to health literacy of parents and the development of their children's health skills in educational institution, which, in turn, points to the need for health educators. The contextualization of the results of the approbation study revealed the need to develop recommendations for specialists in promoting the health literacy of parents and teachers. It leads to the conclusion that systematic co-operation between public authorities, schools, parents and health industry is required.

Based on the results of the study and drawing conclusions about the current situation in health literacy in the educational environment in Latvia, the pilot study authors conclude that not only parents, but also teachers and the school as an organisation are in the process of understanding of the concept of health literacy. There is a need for well-thought-out expert advice on promoting health literacy of parents and teachers. Clear and thoughtful introduction of health literacy terminology in educational settings would contribute to both, the subjective health literacy growth of parents and teachers in improving the health status of students, and the health literacy of a school as an organisation, laying the foundations for systemic collaboration involving the health sector and education policy makers.

Authors Note

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