

A META-SYNTHESIS STUDY ON CURRENT INTERNATIONAL HEALTH EDUCATION STUDIES ON HEALTH LITERACY

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Abstract

Considering the importance of health literacy in protecting public health, health literacy always maintains its popularity. In this direction, health education programs are carried out to create and develop health literacy in individuals. Within the scope of the study, a search was conducted with keywords related to health literacy and health education in Google Scholar and ERIC databases. In terms of the currency of the study, the focus was on the years 2022-2025 and a total of 463 articles were reached within this scope. 25 articles were included in the study in accordance with the criteria determined before the research. When the studies were examined, it was found that health education programs targeting health literacy were concentrated in the areas of patient education and general health. The health education programs in the studies were generally conducted with middle school students and residents and relatively large groups (200-1000 participants) in traditional ways. Quantitative methods were used in the effects of health education programs on participants in the studies and the survey data collection tool was used. It was found that the majority of health literacy health education programs examined in the study were carried out in America and had positive effects on participants. It is expected that the results of the study will provide a more detailed perspective on health education programs.

Key words : health education, meta-synthesis, health literacy, international studies

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Introduction

Health is a very important resource that supports the flow of life when considered as a whole (physical, mental and social). Therefore, it is necessary to create awareness about it in order for the state of being healthy to continue throughout life. At this point, health education plays an important role in maintaining health-oriented thoughts and behaviors (Edwita et al., 2023). Health education is a systematic education with long-term goals on maintaining health thoughts and actions. The aim of health education is to raise health literate individuals who acquire and apply the necessary knowledge and skills for a healthy life (Hasanah&Marini, 2025).

Health literacy is an approach that encourages a healthy lifestyle together with health awareness (Li et al., 2023). Health literate individuals are more active in benefiting from the necessary health services to protect and maintain health. These individuals maintain their well-being longer by using their health knowledge and skills better in their daily lives (Liu et al., 2020). According to the World Health Organization (WHO), health literacy; these are skills that provide individuals with the necessary knowledge, motivation and ability to protect, develop and maintain health (Nutbeam and Muscat, 2021). Health literacy promotes good health and provides both individuals and societies with the necessary competencies for this. Health literacy includes making good health decisions to prevent health care and diseases (Ofori Boateng et al., 2025). Due to technological developments and interventions in health in recent years, health literacy also appears as digital health literacy. Digital health literacy includes both digital literacy, which is the ability to use technology, and health literacy, which is the ability to use health information and resources (Kemp et al., 2021). With the increasing use of digital tools, especially in health monitoring, health literacy also includes the ability to use digital tools better in health (Rocque et al., 2025).

Health education programs are considered as special contents that aim to create positive effects on health literacy (Olyani et al., 2021). At this point, health literacy trainings are becoming increasingly widespread and are becoming mandatory in more places (Yang et al., 2022). Problems such as lack of information and education encountered in health literacy are seen as the outcome of the inadequacy of health trainings and activities in this field (Lam et al., 2020; Arasomwan & Mashiya, 2021; Wang et al. 2023).

Method

In this study, considering the importance of health literacy in individual and community health and its relationship with health education, studies conducted in this direction were examined by adopting a meta-synthesis approach. Meta-synthesis approaches are qualitative approaches that include detailed examination of studies conducted on the research topic in the literature in terms of different variables (Achterbergh et al., 2020). For this meta-synthesis study, a systematic meta-synthesis approach was adopted. The study generally consists of the steps of determination, research, selection, evaluation and analysis. The study process and the stages followed are given in detail below:

Defining research problems: Research problems were determined by researchers to determine from which perspectives the studies will be examined. Research problems are as follows:

- i. In which health education themes are health literacy-oriented health educations carried out?
- ii. What is the content of the education programs used in health literacy-oriented health educations?
- iii. In which countries are health literacy-oriented health educations mostly carried out?
- iv. With which age groups are health literacy-oriented health educations carried out?
- v. What is the study group size in health literacy-oriented health educations?
- vi. What is the preferred research method(s) and data collection tools in the evaluation of health literacy educations?
- vii. What are the results of health literacy educations on participants?
- viii. Are there gaps in the literature on health literacy educations? What are the recommendations?

Literature review: For the study, a search was conducted in Google Scholar and ERIC databases using the keywords health education programs, health literacy, health education for health literacy. As a result of the search, various types of studies such as articles, books, book chapters, conference proceedings were reached, and journal articles were selected from among them.

Selection: The study selection was based on the study type and study year criteria. In this context, it was noted that the study was a journal article from the last 3 years. In terms of the currency of the study, the focus was on the years 2022-2025 and a total of 463 articles were reached within this scope. The study selection was made according to the study subject and content, study type and study year criteria. The steps according to the criteria are as follows:

- i. For the study subject criterion, studies that did not include health literacy and health education were excluded. For example, studies only on health literacy or health education were not included.
- ii. For the study content criterion, attention was paid to the fact that it was an applied study. Accordingly, review studies were excluded.
- iii. Journal articles were selected for the study type. Accordingly, books, book chapters, and notification studies were excluded.
- iv. For the study year, studies from the last 3 years were included in terms of the up-to-dateness of the study. Accordingly, studies conducted in previous years were excluded.

Evaluation: Finally, the selected studies were reviewed according to all criteria and eliminations were made. Studies that met the criteria and were not yet implemented in the applied journal article studies in the last 3 years were excluded from the scope.

In this context, 25 journal articles from last 3 years of the study were included in the study.

Analysis: The studies included in the study the were examined in detail. The studies were examined in terms of study authors, country of study, program applied in the study and participants, as indicated in Table 1.

Table 1. Details About Studies

Writer&year	Country	Program	Participants
Hasanah&Marini, 2025	Indonesia	Child-friendly Healthy School Program	Primary school students and teachers
Abidogun&Adeniyi, 2025	Nigeria	Mental Health Literacy and Life Adjustment	Youngs and adults (18-50 age)
Lewis et al., 2025	USA	Monthly educational modules	High school/college students, older adults
Tsichla et al., 2025	Greece	Nurse-led educational intervention	Patients
Bagheri et al., 2025	Iranian	Health Education Courses, Workshops and Packages	Primary school students
Zhao et al., 2023	China	WeChat-Based Health Education Intervention Program	Residents (15-69 age)
Suarez-Balcazar et al., 2025	USA	Community Health Workers Education	Workers
Li et al., 2023	China	Community-based health education programs	Residents
Gotham et al., 2025	USA	Online Training Package	Educators, health professionals,school staff
Wei et al., 2025	Canada	Mental health literacy (MHL) interventions	Secondary school students
Kahar et al., 2025	Haiti	Community-based health education program	Immigrants
Wang et al., 2023	China	Public health emergencies	Secondary school students

Moonsan et al., 2025	Thailand	Cancer Education-Based Learning	Secondary school students
Ofori Boateng et al., 2025	Ghana	Malaria treatment	Caregivers
Selim et al., 2025	Saudi Arabia	Digital base intervention	Undergraduate health profession students
Rocque et al., 2025	USA	Digital health	Community members, advisors, healthcare providers, non-clinical navigators
Paudel et al., 2022	Vietnam	Community-based health education	Residents
Movaseghi Ardekani et al., 2022	Iranian	Educational Intervention	Adolescent
Yang et al., 2022	China	Innovative instructional module	Medical students
Gibson et al., 2022	USA	Interactive training	Caregivers
Morgado et al., 2022	Portugal	ProLiSMental Psychoeducational Intervention	Secondary school students, education and health professionals
Roux et al., 2024	Australia	My Vital Cycles	Girls and mothers
Muller et al., 2024	USA	Oral Health Education Program (OHEP)	Refugees
Sakai et al., 2024	Nepal	Art-based health education	Pregnant women
Short et al., 2024	USA	Student-run and Collaborative Outreach Program for Health Equity (SCOPE)	Community members

When Table 1 is examined, it is seen that various programs are used in health education studies on health literacy and that they are mostly carried out in America. When examined in terms of participants, it is seen that the studies are mostly carried out with middle school students and residents. Also, it is observed that non-digital content is preferred more in health education programs.

Results

The results obtained as a result of the detailed examination of the studies are presented below.

Research problem: In which health education themes are health literacy-oriented health educations carried out? What are the results of health literacy educations on participants?

The results obtained for the research problems are given in Table 2 below.

Table 2. Health Education Themes and Results

Health education themes	Results		
	Positive	Negative	Neutral
Patient education (n=7)	x		
General health (n=7)	x		
Mental health (n=5)	x		
Oral health (n=2)	x		
Eye health (n=1)	x		
Sexual health (n=1)	x		
Emergency situations (n=1)	x		
Sustainability (n=1)	x		

When Table 2 is examined, it is seen that the health education programs in the studies mostly focus on patient education and general health themes. This is immediately followed by the mental health education theme. Also, it is seen that all health education studies conducted on health literacy have positive effects on participants. Among the studies examined, no health education study was found that had no effect or had a negative effect.

Research problem: What is the study group size in health literacy-oriented health educations?

The results obtained for the research problem are given in Table 3 below.

Table 3. Study Group Size

Participants	Frequency (n)
0-200	9
200-1000	12
1000-2000	1
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When Table 3 is examined, it is seen that health education studies on health literacy are mostly carried out with study groups between 200-1000 people.

Research problem: What is the preferred research method(s) and data collection tools in the evaluation of health literacy educations?

The results obtained for the research problem are given in Table 4 below.

Table 4. Methods and Data Collection Tools

Method	Data collection tools	Frequency
Quantitative	Survey	23
	Scale	0
Mixed	Survey	2

	Interview	2
	Focus group discussion	1
Qualitative	Interview	0
	Observation	0
	Document analysis	0

When Table 4 is examined, it is seen that quantitative methods are preferred in almost all health education studies conducted on health literacy. It is also seen that in studies conducted with quantitative methods, survey data collection tools are mostly used.

Discussion

In this study, health education program studies on health literacy were examined in detail with the meta-synthesis approach. As a result of the meta-synthesis conducted in the study, it was concluded that health education program studies on health literacy were generally carried out in non-digital learning environments, focusing on patient education and general health themes. Similar themes were also reached in the studies conducted by Bhattad and Pasifico (2022) and Shahid et al., (2022). On the other hand, the health education programs developed in the studies were generally carried out with a size of 200-1000 people and with middle school students and residents. Similarly, middle school students participated in a study conducted by Pendl et al., (2024) on health literacy. Quantitative methods and survey data collection tools were preferred in examining the effects of health education programs in the studies. Similarly, in the systematic review study conducted by Kim et al. (2023), it was concluded that quantitative methods were prominent in studies on health literacy. In all of the reviewed studies, positive effects of health education programs on health literacy were reached. In a study conducted by Sharkiya (2023), it was found that positive results were predominant in health education studies examining health literacy. Finally, it was found that health education studies that included applied interventions on health literacy were mostly carried out in the United States. Similarly, in the study conducted by Yeo et al. (2024), it was found that the majority of studies on health literacy were conducted in high-income countries, especially the United States. This study is limited to the studies on health literacy in health education studies in the last three years. In order to expand the results of the study, a longer year range can be selected or different health education variables can be examined.

In line with the results obtained from the study, the recommendations can be listed as follows:

- i. It is seen that health education themes for health literacy are concentrated in some themes, different health themes can be used.
- ii. Health education programs targeting digital health literacy can be further developed to improve the health literacy required by our digital age.
- iii. Health education studies aimed at health literacy can be developed and implemented in more regions and countries around the world.

Conclusion

It is understood that health education program studies on health literacy are concentrated on traditional methods in the areas of accessing and protecting health. In this direction, in order to capture the health literacy of our age and to scope the studies, health educators need to include more digital health studies in the field of health.

Conflicts of interest

The authors declare no conflicts of interest.

Ethical Approval

Not applicable.

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