A Meta-Synthesis Study on International Studies on School Health Education

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Abstract

School health education is an important tool in sustaining the health of societies and is increasingly being included in studies. The aim of this study is to systematically identify and bring together school health education studies conducted in the last 10 years at the international level and to conduct a meta-synthesis. In this context, 25 journal articles conducted between 2015-2025 were analyzed with a planned meta-synthesis study within the qualitative research design. Google Scholar, ERIC and Web of Science databases were used to determine the studies to be included in the study. In the school health education studies examined in this study, more studies were reached in the fields of nutrition and oral health. In addition, in the school health education studies examined, the effects of education on the participants were generally examined using quantitative methods and data collection tools. In the studies examined, the study group generally consisted of primary and secondary school students; the studies were generally conducted over a 6-18 months study period. Finally; in the school health education studies examined in the study, more studies conducted in Indonesia, America and China were reached. It is expected that this study will provide a detailed look at the school health education studies conducted in recent years and inspire future health education studies.

Keywords: school health education, meta-synthesis, international, study

1. Introduction

School health education is the general name of preventive and protective health support and interventions carried out in schools. The purpose of education to create permanent behavioral changes in individuals; serves health education at this point. The starting point of health education is to combine the health and education sectors by choosing schools as safe areas to provide behavioral changes in health (Kwatubana et al., 2022).

Health education; attaches importance to the role of individuals' health behaviors in the sustainability of health. Teaching and gaining healthy lifestyle behaviors is also a priority with health education. Individuals' awareness and taking responsibility for their behaviors are among the goals of health education (Koelen & Van den Ban, 2023). The goals of school health education are as follows:

- Detection of possible health problems in students
- Finding and improving solutions to existing health problems
- Efforts to protect and maintain normal health
- Informing to protect health
- Acquiring a healthy lifestyle (Kolbe, 2019).

Health education serves as a tool for health knowledge, attitudes and behaviors for everyone in society. In this regard, it can reach a wide audience, especially teachers, students and their families (Sharma, 2021). On the other hand, the content of health information needs to be adapted to the curriculum. With school health education programs, children acquire information about daily life health and health problems. They also ensure that both themselves and their families are aware of healthy lifestyle behaviors (Appleby et al., 2019).

With the widespread use of health education, the sustainability of the health of societies is ensured, and this is a very important situation for future generations (Guzmán et al., 2021). Accordingly, it is seen that studies on health education

are gradually increasing (Chester et al., 2019; Greer et al., 2019; Rich et al., 2020; Lysgaard & Simovska, 2020; Vamos & McDermott, 2021; Seel et al., 2022; Shorey & Chua, 2023; Hendriks et al., 2024; Sulz et al., 2025). Accordingly, it is envisaged that this study will contribute to future studies by revealing educational trends and gaps in the literature by examining the studies conducted in the field of school health education.

2. Method

Meta-synthesis is an important qualitative approach in which a systematic procedure is performed. In meta-synthesis, studies are selected, compared and interpreted according to the determined criteria by conducting a detailed literature review (Hoon, 2013). The meta-synthesis approach, one of the popular qualitative review methods, is being used in more and more studies (Cihan and Ilgar, 2018).

2.1 Procedure

The focus of this study is to systematically identify and bring together international school health education studies and conduct a meta-synthesis. The steps followed in this direction are as follows (Lazazzara et al., 2020):

Step 1: Framing the research questions

The research problems to be examined were determined in order to determine the general outline of this meta-synthesis study. The research problems determined in this direction are as follows:

- "What are the variables affected by school health education?"
- "What are the areas of interest of school health education?"
- "Which study groups were preferred in school health education?"
- "Which methods and data collection tools were used in school health education?"
- "In which countries is school health education studies given priority?"

Step 2: Determining relevant studies

In this step, various types of studies such as articles, theses, books and book chapters were accessed by using Google Academic, ERIC and Web of Science databases. The keywords "school health" and "school health education" were used to access the studies in the databases and 526 articles have been reached.

Step 3: Inclusion/exclusion criteria in the decision of the studies

In this step, the criteria were determined by the researchers to ensure studies suitable for meta-synthesis and the studies were eliminated. The determined criteria are as follows:

- The study must have been carried out in the last 10 years (between 2015-2025).
- The study must include applied school health education.
- The effects of the health education applied in the study should be examined.

Accordingly, more review or systematic review studies or studies on opinion and perception were encountered in the literature on school health education and 364 studies were eliminated. Therefore, the study was narrowed down with the keyword "school health education effect(s)". Studies with older study years were also eliminated and 25 studies were included in the study.

Step 4: Coding the data

The data obtained from the studies were coded under the relevant headings, converted into tables and compared with each other. The articles included in the study were coded as A1, A2, A3,..A9 and presented in the results accordingly. In order to increase reliability and validity, expert opinion was sought and the analyses were carried out separately by the researchers.

3. Results

In this section, the findings obtained from the studies examined within the scope of the research are given in tables under the relevant research questions.

Question 1: "What are the variables affected by school health education?"

Table 1. Variables Examined in School Health Education

Variables	Articles	frequency (f)
Nutritional knowledge/ behaviors	A2, A3, A5, A11, A14, A15	6
Dental health problems	A1, A4, A6, A16, A22, A23	6
Exercise habits	A2, A12, A17	3
Sexual knowledge/ attitudes	A18, A19, A20	3
Mental health knowledge	A10, A24, A25	3
Practice requirements	A8, A25	2
General health knowledge	A13, A21, A25	2
Cognitive outcomes	A9	1
Cleaning habits	A7	1

When Table 1 is examined, it is seen that school health education is generally examined in terms of the effects of participants' nutritional knowledge / behaviors and dental health problems.

Question 2: "What are the areas of interest of school health education?"

Table 2. School Health Education Areas of Interest

Area of interest	Articles	frequency (f)
Oral health	A1, A4, A6, A16, A22, A23	6
Nutrition	A2, A3, A5, A11, A14, A15	6
Physical activities	A2, A9, A12, A17	4
General health	A8, A13, A21, A25	4
Sexual health	A18, A19, A20	3
Mental health	A10, A24	2
Cleaning	A7	1

When Table 2 is examined, it is understood that school health education is mostly done on oral health and nutrition areas.

Question 3: “Which study groups were preferred in school health education?”

Table 3. School Health Educations’ Participants

Participant	Articles	frequency (f)
Primary students	A1, A3, A5, A6, A12, A15, A16, A17, A22, A23	10
Secondary students	A3, A4, A7, A11, A14, A15, A16, A17, A24	9
High school students	A3, A13, A15, A16, A17, A19, A20	7
Student, teacher, parent	A2, A18	2
Teacher, director	A8	1
Parents	A21	1
Older adults	A9	1
University students	A10	1

As seen in Table 3, it is understood that health education is generally applied to primary and secondary school students.

Question 4: “What methods and data collection tools were used in school health education?”

Table 4. School Health Educations' Methods

Method(data collection tool)	Articles	frequency (f)
Quantitative (Questionnaire)	A1, A3, A4, A5, A6, A7, A9, A10, A11, A12, A13, A17, A19, A20, A21, A22, A23, A24, A25	19
Qualitative (Interview)	A2, A14, A15, A16, A18	5
Quantitative and qualitative	A8	1

When Table 4 is examined, it is seen that quantitative methods are mostly used in the studies to examine the effects of school health education and surveys are preferred as data collection tools.

Question 5: "What is the period interval in school health education?"

Table 5. School Health Education Study Periods

Study period	Articles	frequency (f)
Uncertain	A2, A4, A10, A7, A8, A16	6
0-6 months	A12, A15, A19, A20, A21, A24	6
6-18 months	A3, A5, A6, A11, A13, A14, A17, A18,A23, A25	10
18-48 months	A1, A9, A22	3

Question 6: "In which countries is school health education given priority?"

Table 6. School Health Educations' Countries

Country	Articles	frequency (f)
Indonesia	A7, A16, A21	3
America	A9, A13, A19	3
China	A14, A17, A25	3
Italy	A3, A5	2
Nigeria	A1, A24	2
Australia	A2	1
Canada	A8	1
Scotland	A6	1
India	A20	1
Estonia	A12	1
Uganda	A18	1
Iran	A4	1
Irland	A10	1
Israel	A11	1
Norway	A15	1
Brazil	A22	1
Greece	A23	1

4. Discussion

The aim of this study is to closely examine school health education studies, which are the basis of public health, with a meta-synthesis approach. In this direction, the areas of nutrition and oral health were more prominent in the school health education studies examined in the study. Similarly, many school health education studies on nutrition and oral health can be found in the literature (Bramantoro et al., 2021; Abu-Baker et al., 2021; Annan et al., 2021; Koutsaki et al., 2022; Zhang et al., 2023). It was found that quantitative methods and data collection tools were used more in the

evaluation of the results of the school health education studies examined in this study. Similarly, in the meta-synthesis study conducted by Mousa et al. (2021), it was found that quantitative methods were preferred more in the health studies examined. In addition, it was observed that the results of school health education on participants were generally positive in the studies examined in this study. Similarly, Page et al. (2021) conducted a study in which it was found that school health education generally yielded positive results. Finally, more studies were found in Indonesia, America and China in the school health education studies examined in this study.

This study is limited to school health education study articles conducted in the last decade in the literature. The following suggestions can be made in line with the results of this study:

- Considering the comprehensive nature of health, school health education studies can be carried out in greater numbers and in all areas of health.
- Considering that health concerns everyone in society, school health education practices and studies should be included all over the world.
- School health education can be offered to almost every age group at every level of education, either as a separate education or by being included in the curriculum.

5. Conclusion

In this study, current school health education studies were examined in detail and the variables examined were given with their results. The study is limited to the examined year range and database, the study can be expanded with other years and different databases. It is expected that this study will inspire future health education studies by providing a detailed look at school health education studies conducted in recent years.

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Authors contributions

Dr. E. was responsible for study design and literature search; and Prof. Dr. UT was responsible for revision. All authors read and approved the final draft.

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The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

Data sharing statement

No additional data are available.