Jurnal Konseling dan Pendidikan
Volume 12, Number 4 2024

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Author Name(s): Prihantini Prihantini, Ai Rukmini, Willius Kogoya, Bernadetha Nadeak, Atep Jejen

Publication details, including author guidelines
URL: https://jurnal.konselingindonesia.com/index.php/jkp/about/submissions#authorGuidelines
Editor: Zadrian Ardi

Article History
Received: 21 Aug 2024
Revised: 30 Nov 2024
Accepted: 31 Dec 2024

How to cite this article (APA)
Prihantini, P., Rukmini, A., Kogoya, W., Nadeak, B., & Jejen, A. (2024). Primary school health content gaps and school curriculum implications. Jurnal Konseling dan Pendidikan. 12(4), 305-319. https://doi.org/10.29210/1127300

The readers can link to article via https://doi.org/10.29210/1127300

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Jurnal Konseling dan Pendidikan
ISSN 2337-6740 (Print) | ISSN 2337-6880 (Electronic)

ISSN 2733-6740 (Print)
ISSN 2733-6880 (Electronic)

Jurnal Konseling dan Pendidikan

Volume 12 Number 4 (2024)
https://doi.org/10.29210/1127300

Article

Primary school health content gaps and school curriculum implications

Prihantini Prihantini[1*)], Ai Rukmini[2], Willius Kogoya[3], Bernadetha Nadeak[4], Atep Jejen[5]
[1] Master of Elementary School Teacher Education, Universitas Pendidikan Indonesia, Cibiru Campus, Indonesia
[2] Management of Islamic Education, Sekolah Tinggi Agama Islam Nida EL Adabi, Bogor, Indonesia
[3] Pancasila and Citizenship Education Study Program, Faculty of Teacher Training and Education, Universitas Cenderawasih, Papua, Indonesia
[4] Management of Education, Postgraduate Program, Universitas Kristen Indonesian, Jakarta, Indonesia
[5] Staff pendidik Sekolah Dasar Negeri Celak, Indonesia

ABSTRACT

This study aims to identify specific discrepancies between the health education content taught in primary schools and the content that should ideally be taught. The content taught includes personal hygiene, nutrition and healthy eating, and the dangers of smoking and addictive substances. Health education at the primary school age is particularly important because children at this stage are vulnerable to health risks, and early education has been shown to be effective in shaping sustainable health-conscious attitudes. The study employed a survey method in the Greater Bandung area, encompassing Bandung City, Cimahi City, Bandung Regency, and West Bandung Regency.A sample of 20 schools and 120 students was selected proportionately at random.Data were collected through structured questionnaires and in-depth interviews, and were analyzed descriptively to identify gaps in health education content. The results indicated that 65% of students did not receive adequate education on personal hygiene, including proper handwashing, bathing, and hair washing. Furthermore, 58% of students lacked sufficient understanding about nutrition and healthy eating, while 72% did not receive education about the dangers of smoking and addictive substances.These findings underscore the necessity to fortify the health education curriculum in primary schools. This study proposes the formulation of a more comprehensive and integrated school-based curriculum, including the delineation of specific time allocations for health education and the training of teachers in the effective delivery of health materials.Practical implications of this study include the necessity of raising awareness of the paramount importance of health education through collaboration between schools, parents, and communities to foster an environment that supports children's health.

Keywords:

Personal hygiene
Addictive substance
Nutrition Education

Corresponding Author:

Prihantini Prihantini,
Indonesian Education University
Email: prihantini@upi.edu

Introduction

Health is a valuable asset for every individual and the dream of every human being. Knowledge and habituation of healthy living behavior must be processed through education from childhood because it will have an effect when they are adults. Elementary school-age children are the right age to be given knowledge about the importance of maintaining health to help their growth and development as healthy and prosperous individuals (Hege et al., 2021). Being a healthy individual is not only about

avoiding illness but also having the opportunity to follow the education process well. As is known, with a sick condition, children lose the opportunity to follow the learning process optimally, which impacts low concentration in learning and poor achievement (see Puspita et al., 2020).

In reality, elementary school children are susceptible to diseases; dental caries is the most common disease among children. Dental health problems are mostly experienced by elementary school students in Indonesia, reaching 93% (Riolina et al., 2020). Other health problems experienced by elementary school children include worms, malnutrition, overweight (Botero-Meneses et al., 2020), and anemia (Puspita et al., 2020). These health issues underline the importance of providing health education in elementary schools.

However, elementary schools do not yet have a written health education curriculum. Even if there is health content, it is not explicitly stated but implicit in certain subjects. This problem reduces the focus teachers give to health education in learning. Without health education from a young age, health disorders in adulthood are more likely. Health literacy and habituation of healthy living behavior are critical aspects for children. By having health literacy, children can make positive choices to maintain their health (Hyman et al., 2020a). Health literacy can build and foster awareness of a person's health behavior. Health literacy that students learn in school impacts their understanding of the importance of maintaining health in adulthood.

Getting accustomed to healthy living behavior is easier when initiated in childhood rather than adulthood. Health literacy and healthy living habits are strategic when processed through education. Health education provided since childhood at the elementary school level, supported by committed and responsible educators, significantly contributes to students' health status and behaviors.. Through health education, students become competent in maintaining and developing health and managing health-risk behaviors (Serin & Ateş kan, 2021).

The Indonesian Government's policy in the Independent Curriculum grants schools the authority to develop a curriculum based on their needs. This policy implies that schools with a vision of preparing a healthy generation should develop a health education curriculum. Schools play a central and strategic role in promoting health education (El Kazdouh et al., 2022), as they serve as a hub where young people spend considerable time. Health education can enhance students' physical, mental, and social health (Serin & Ateş kan, 2021). In other words, health education can reduce health risks (Popham & Iannelli, 2021; see also Pueyo-Garrigues et al., 2019). To ensure consistent implementation of health education, a written curriculum is necessary to guide learning. Teachers adhere to the written curriculum and maintain its essential learning principles, rarely improvising its implementation.

Education and health are interrelated elements forming a cause-and-effect relationship. Education provides students with knowledge about healthy and clean living behaviors and how to live healthily. Conversely, physical, emotional, and mental health supports educational success. With this interrelationship, health and education significantly influence a person's life. To instill the importance of health and healthy living habits in students, it is imperative to develop a health education curriculum in schools. This goal requires schools to adopt a healthy school policy supported by a written curriculum as a guideline for health education.

This study analyzes health content areas to identify gaps between the health content currently taught in schools and what should be taught according to health standards (see also Garira, 2020). Through this analysis, health content can be identified, leading to solutions and recommendations for developing school-based health education curricula at the elementary school level. Based on the issues discussed, this study aims to conduct an in-depth analysis of relevant and essential health content areas for elementary schools. Comprehensive understanding of health aspects is crucial for forming a foundation of knowledge and healthy living habits from an early age. This study identifies and evaluates various health areas to be integrated into the elementary school curriculum, providing clear guidelines for an effective and relevant curriculum.

Additionally, this study has interconnected objectives to enhance health education in elementary schools. First, it identifies key health content areas, including personal hygiene, good nutrition, physical activity, mental health, and disease prevention. By identifying these areas, the study provides a framework for essential health topics. The study also evaluates health education needs, considering current health conditions, public health trends, and specific regional needs, ensuring the curriculum addresses students' and communities' real needs. Based on this analysis, the study develops recommendations for creating or updating elementary school health education curricula. These recommendations aim to assist policymakers and educators in designing effective health education programs applicable in various contexts. Furthermore, the study seeks to improve health education quality in elementary schools, fostering a generation that values health and has the knowledge and skills to maintain it. Enhancing health education quality is expected to elevate overall life quality.

This study provides practical guidance for teachers and school administrators in implementing the health education curriculum. The guidance includes teaching strategies, required resources, and evaluation methods to ensure program effectiveness. By offering this guidance, the study aims to facilitate smooth curriculum implementation and achieve its objectives. Overall, this study significantly contributes to improving health education in elementary schools, equipping students with lifelong healthy knowledge and habits. The study identifies and analyzes relevant health content areas for the elementary school curriculum. It emphasizes personal hygiene, good nutrition, physical activity, mental health, disease prevention, and basic human anatomy understanding. The study evaluates health education needs from students, teachers, and the school community perspectives to understand regional and group-specific requirements. The findings provide insights into neglected health areas or those needing improvement in elementary school health education.

Based on the analysis, the study provides recommendations for developing an effective health education curriculum. The curriculum aims to be practically implementable in elementary schools, positively impacting students' health. It identifies effective teaching methods, including interactive approaches, educational technology use, and health education integration into other subjects. Ultimately, the study seeks to raise students' health awareness and understanding, enabling better health decisions and adopting healthy lifestyles from an early age. By focusing on health content area identification, analysis, and development in the elementary school curriculum, this study establishes a strong foundation for school-based health education. Its findings aim to assist policymakers, educators, and schools in designing comprehensive health education programs, equipping students with essential knowledge and skills for lifelong health.

Methods

The research method applied a survey to a number of elementary schools located in the Greater Bandung area. The Greater Bandung area includes two cities and two regencies, namely Bandung city and Cimahi city, Bandung regency and West Bandung regency. School samples were taken proportionally, 5 schools from each regency and city so that the number of school samples was 20 schools. The subjects of the study were elementary school students. Each school was sampled proportionally randomly, amounting to 6 students, so that the number of research subjects was 120 students. The following table illustrates the sampling of the study.

Table 1. Research Sample

Location	School Sample	Student Sample
Bandung	5	30
City of Cimahi	5	30
Bandung Regency	5	30
West Bandung Regency	5	30
Amount	20	120

This study used a proportional random sampling technique to ensure fair representation of each school involved. The process began with population identification, where the total student population of the 20 schools was calculated. Data on the number of students from each school was collected to determine the proportion of the population. Next, a proportionality calculation was conducted, where the number of students drawn from each school was determined based on a certain percentage of the total population. For example, if a school has 200 students out of a total population of 2400 students in 20 schools, then the sample proportion for that school is calculated using the proportionality formula.

Once the sample size of each school was determined, the randomization process was conducted. Students were randomly selected from the list of students in each school using statistical software or the lottery method, which ensures randomness and avoids bias. In total, 120 students were drawn from the total population of 20 schools, with the distribution of the sample size of each school reflecting the calculated proportionality. To illustrate, School A with 200 students had 10 students drawn as a sample, while School T with 100 students had 5 students drawn. This technique has the advantage of ensuring that the sample size reflects the distribution of the population across schools, making the research results more representative. In addition, the transparency in the calculation and randomization process strengthens the validity of the research results. With this approach, the study was able to provide a more accurate picture of the student population as a whole.

The data collection instrument used a questionnaire distributed to elementary school students. The questionnaire included statements about health content, with the aim of obtaining data on students' recognition of health content that had been studied and that had not been studied at school. The questionnaire was arranged in a closed form of 15 statement items, serial numbers 1 to 14 provided two alternative answer choices, ever or never. One question number 15 asked students to choose health content that was still needed to be studied. The validity of the questionnaire was confirmed by applying the construct validity and content validity methods based on the considerations of health material experts. To measure the readability aspect, the questionnaire was tested on a group of elementary school students outside the research location. In addition to using the questionnaire, it was supplemented with in-depth interviews when needed to obtain incomplete data through the questionnaire and cross-check the accuracy of the questionnaire answers. The health content statements in the questionnaire were classified into four areas, namely personal hygiene, personal hygiene habits at school, nutrition and healthy eating patterns, the dangers of smoking and addictive additives (tables 1, 2, 3, 4).

Table 1. Statements in the Questionnaire on Personal Hygiene

No. Sequence	Statement
1	I learned how to wash my hands at the right pace.
2.	I learned about the importance of bathing at least 2 times a day to keep my body clean
3.	I learned about the importance of washing my hair at least 2 times a week.

Table 2. Statements in the Questionnaire on Personal Hygiene Habits at School

No. Sequence	Statement
4.	The teacher always checks the cleanliness and neatness of my clothes.
5.	The teacher always checks the hygiene of my nails.
6.	The teacher always checks the cleanliness and neatness of my hair.
7.	I was getting lessons on how to brush my teeth properly.

Especially for questionnaire number 15 asks for students' opinions by choosing answers about the health content needed to be studied. Questionnaire item: Please choose from the following health content needed to be studied. Questionnaire items: 15 Please select from the following health content

that is required to be studied. 1) Dental and oral health. 2) Illegal/dangerous drugs. 3) Danger of cigarettes. 4) Nutrition and healthy diet. The purpose of the study was to identify the gap between the health education content areas that have been studied and the content that is still needed to be studied by elementary school students, so data processing was carried out using simple statistical analysis. The data collected included the nominal data category, not the results of measurements, so data processing used simple descriptive statistical analysis techniques using Excel.

Table 3. Statements in the Questionnaire on Nutrition and Healthy Eating Patterns

No. Sequence	Statement
8.	I learned about the benefits of consuming fruits and vegetables for health.
9.	I received lessons on healthy eating
10.	I received lessons about healthy snacks at school
11.	I received lessons about the characteristics of healthy food.

Table 4. Statements in the Questionnaire about the Dangers of Cigarettes and Additives

Sequence Number	Statement
12.	I received lessons about the dangers of cigarettes.
13.	I received lessons on additives and addictions.
14.	I received lessons about the dangers of preservation for health.

The data collected from the questionnaire was processed using percentage calculations with the formula:

$$P = \frac{F}{N} x\ 100\%$$

P = Percentage, F = Frequency of Answers, N = Total of Research Subjects

The results of the percentage calculation are classified into high, medium, and low categories with the following criteria.

Table 5. Data Processing Results Percentage Categories

Range %	Category
80%-100%	High/always
50%-79%	Moderate/occasional
≤ 49%	Low/never

Results and Discussion

A total of 120 elementary school students were involved in filling out a questionnaire containing confessions about health content areas (HCA) that had and had not been studied at school, as well as choices of health education content areas that needed to be studied. Students as research subjects were selected as grade 5 and 6 elementary school students considering that they were already able to understand the instructions for filling out the questionnaire and understand the intent of the statements in the questionnaire. The results presented in this section provide answers to the research objectives, namely to identify health content that had and had not been studied by elementary school students and students' opinions about health education content that students still needed to be studied at school. For the purpose of identification, HCA was classified into four, namely: 1) personal hygiene, 2) personal hygiene habits at school, 3) nutrition and healthy eating patterns, 4) the dangers of cigarettes and addictive substances, and 5) analysis of HCA that students still needed to be studied at school.

Personal Hygiene

Figure 1 below is the result of data processing from the percentage of student confessions about personal hygiene content that has or has not been studied at school.

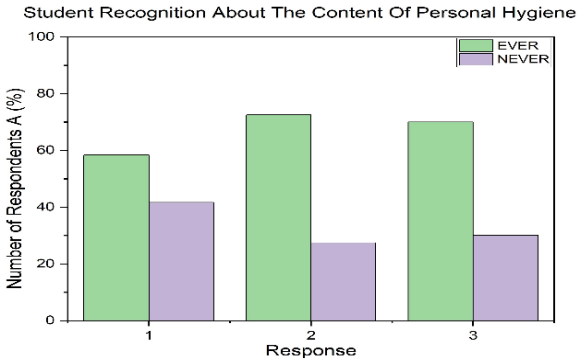

Figure 1. Students' Recognition about The Content of Personal Hygiene That Was/Never Studied at School

Table 6. Statements in the Questionnaire on Personal Hygiene

No. Sequence	Statement	Ever	Never
1	I learned how to wash my hands at the right pace.	58.33%	41.67%
2.	I learned about the importance of bathing at least 2 times a day to keep my body clean	72.50%	27.50%
3.	I learned about the importance of washing my hair at least 2 times a week.	70%	30%

Statements about personal hygiene content are developed in three statements (see table 1). Statement number 1 is about how to wash hands properly. Figure 1 identifies that 58.33% of elementary school students admit that they have learned how to wash hands properly but 41.67% admit that they have never. Statement number 2 is about the importance of bathing at least twice a day to maintain body cleanliness, identified from figure 1 that 72.50% of students admit that they have received lessons on the importance of bathing to maintain body cleanliness, and 27.50% admit that they have never. Statement number 3 is about the importance of washing hair at least twice a week, figure 1 shows that 70% of students admit that they have learned at school but 30% of students admit that they have never learned the material at school. The results of data processing of students' confessions about the personal hygiene content that has been learned are in the range of 58.33 - 72.50%. Based on the percentage criteria set (table 5) it can be said that the personal hygiene content is processed in learning at school not optimally but sometimes.

Personal Hygiene Habituation at School

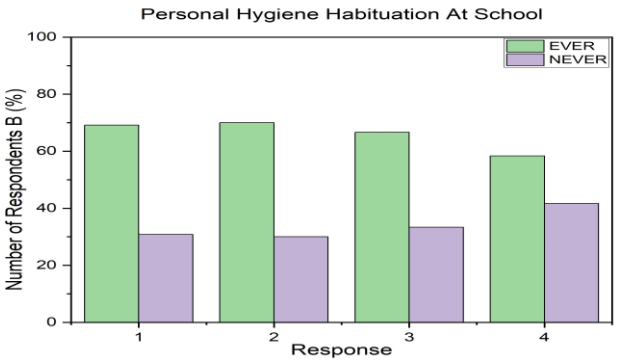

Figure 2. Students' Recognition about Personal Hygiene Habituation at School

Table 7. Statements in the Questionnaire on Personal Hygiene Habits at School

No. Sequence	Statement	Ever	Never
4.	The teacher always checks the cleanliness and neatness of my clothes.	69.17%	30.83%
5.	The teacher always checks the hygiene of my nails.	70%	30%
6.	The teacher always checks the cleanliness and neatness of my hair.	66.67%	33.37%
7.	I was getting lessons on how to brush my teeth properly.	58.33%	41.67%

In the statement of personal hygiene habits in schools, 4 statement items were developed (table 2), namely number 1 teachers always check the cleanliness and neatness of students' clothes, number 2 teachers always check the cleanliness of students' nails, number 3 teachers always check the cleanliness of students' hair, and number 4 teachers check dental hygiene and teach the practice of brushing teeth properly. Figure 2 shows that statement number 1, identified 69.17% of students admitted that teachers always check the cleanliness and neatness of clothes but 30.83% admitted never. Statement number 2 shows 70% of students admitted that teachers always check the cleanliness of nails but 30% of students admitted never. This percentage is the same as Statement number 3, identified 66.67% of students admitted that teachers always check the cleanliness and neatness of hair but 33.37% of students admitted never. Statement number 4 about dental hygiene checks and the practice of brushing teeth properly, identified58.33% of students admitted that they were always checked and 41.67% of students admitted that they never were.The results of data processing on the personal hygiene habit area are in the range of 50-79%. When weighed based on the established percentage criteria (table 5), it can be said that the habit of checking personal hygiene of elementary school students is not always or routinely carried out at school but only sometimes.

Nutrition and Dietetic Education

The content area of nutrition and healthy eating patterns was developed into four statement items (table 3), namely the importance of consuming fruits and vegetables, healthy snacks at school, healthy eating patterns, and characteristics of healthy food. The results of data processing are shown in Figure 3 below.

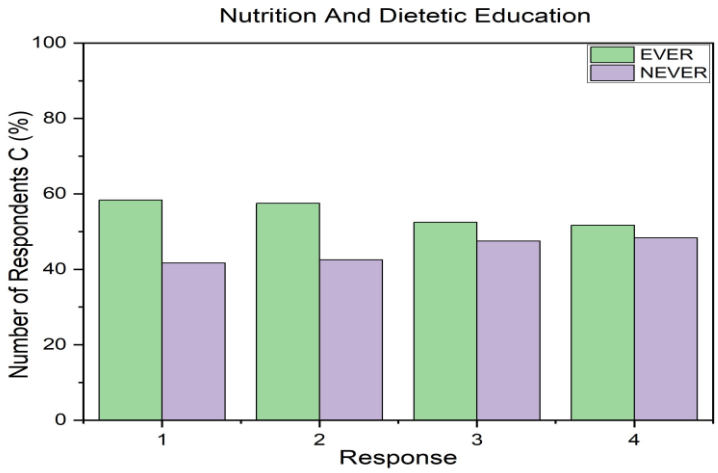

Figure 3. Students Recognition about Nutrition and Dietetic Content

Table 8. Statements in the Questionnaire on Nutrition and Healthy Eating Patterns

No. Sequence	Statement	Ever	Never
8.	I learned about the benefits of consuming fruits and vegetables for health.	58.33%	41.67%
9.	I received lessons on healthy eating	57.50%	42.50%
10.	I received lessons about healthy snacks at school	57.50%	42.50%
11.	I received lessons about the characteristics of healthy food.	51.67%	48.33%

Figure 3 provides information that statement number 1 about the importance of consuming fruits and vegetables, 58.33% of students admitted that they had studied at school and 41.67% admitted that they had never studied. Statement number 2 about healthy snacks at school, 57.50% of students admitted that they had studied but 42.50% of students admitted that they had never studied at school. Statement number 3 about healthy eating patterns was identified 57.50% of students admitted that they had studied but 42.50% of students admitted that they had never studied at school. Statement number 4, 51.67% of students admitted that they had studied about the characteristics of healthy food and 48.33% of students admitted that they had never studied. The percentage of students' admissions of having studied about nutritional content and healthy eating patterns when compared to the percentage criteria (table 5) is in the range of 50-79%. This figure shows that nutritional content and healthy eating patterns have not been studied by all elementary school students and less than 60% of students admitted that they had studied.

Danger of Cigarettes and Addictive Substances

The danger areas of cigarettes and addictive substances are developed into three statements (see table 4). The results of processing student questionnaire data are shown in the following figure 4.

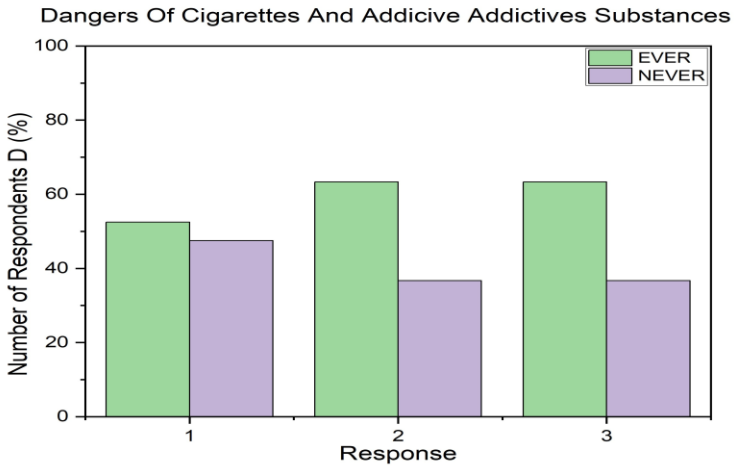

Figure 4. Students' Recognition about Content of Cigarettes and Addictive Substances

Statement number 1 has ever received lessons about the dangers of cigarettes, 52.50% of students admitted that they have but 47.50% admitted that they have never. Statement number 2 about additives and adhictive substances, 63.33% of students admitted that they have studied and 36.67 admitted that they have never studied. Statement number 3 about the dangers of preservatives to health, 63.33% of students admitted that they have studied but 36.67% admitted that they have never studied.

Table 9. Statements in the Questionnaire about the Dangers of Cigarettes and Additives

No Sequence	Statement	Ever	Never
12.	I received lessons about the dangers of cigarettes.	52.50%	47.50%
13.	I received lessons on additives and addictions.	63.33%	36.67%
14.	I received lessons about the dangers of preservation for health.	63.33%	36.67%

From the results of processing the questionnaire data on the health content of the dangers of cigarettes and adhictive substances, it shows that it is in the range of 50% -79% which means that students are currently or sometimes studying the content. The percentage of those who admitted to having studied reached less than 70%.

Health Content Areas that Students still need to Learn

For questionnaire number 15 as the last item in the questionnaire. The students' confessions are shown in Figure 5.

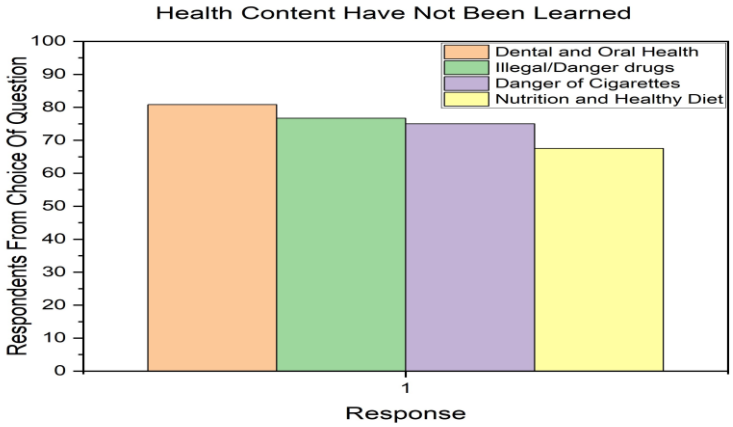

Figure 5. Students' Recognition about Health Content Areas That They Still Need to Learn

Table 10. Students' Recognition about Health Content Areas That They Still Need to Learn

No. Sequence	Statement	Result (%)
1.	Dental & Oral Health	97
2.	Illegal/Danger Drugs	92
3.	Danger of Cigarettes	90
4.	Nutrition & Healthy Diet	81

Four answer choices are provided in the questionnaire to obtain information on the health education content needed by elementary school students. The four answer choices provided include dental and oral health, illegal/danger drugs, danger of cigarettes, nutrition and healthy diet. From the four answer choices, the results of data processing showed that 97% of students admitted that they needed to learn about dental and oral health content, 92% illegal/danger drugs, 90% danger of cigarettes, and 81% nutrition and healthy diet. The percentage of recognition is in the range of 80-100% (table 5). This percentage is included in the high category, thus the four health education contents are still needed by students to learn and are expected to be obtained from lessons at school.

Health content area (HCA) should be a consideration for teachers in schools to be taught at all grade levels by adjusting the needs of students at each grade level (Bezeau et al., 2020). Health education is strategic if it is processed from elementary school, because it can provide knowledge, attitudes and skills to children to be healthy and successful when they are adults (Serin & Ateş kan, 2021). Health education is important to process since elementary school age because elementary school age children are vulnerable to health risks. It has been proven that health education is easier to process in children since elementary school to form a health conscious attitude and will be held until they grow up. Through health education, students have the competence to maintain and develop health and increase control over health-risk behavior. Schools play an important role in promoting health education (Fernandez et al., 2019) supported by an adequate health education curriculum as a guideline for the learning process (El Kazdouh et al., 2022).

With health education, students are processed to acquire the knowledge, attitudes, and skills needed to achieve health literacy, implement healthy living behaviors to improve health, and take the initiative to promote health to others (Videto & Dake, 2019). Therefore, schools need to develop a health education curriculum so that teachers are helped to process students' health literacy, because health literacy is an important aspect for students to be able to determine positive choices regarding their health (see also Hyman et al., 2020b).

With the Independent Curriculum policy in Indonesia, schools basically have the opportunity to make policies to compile school operational curriculum or school-based curriculum. If the principal and teachers understand and realize the importance of health education for students to lead them to grow and develop healthily into adulthood, then a health education curriculum needs to be compiled.

The curriculum plays an important role in school institutions (Forero et al., 2022). Formally and substantively, there is no term for health education in school subjects, however, if the content of health education is analyzed, much is needed for the survival of healthy and prosperous humans. Therefore, school-level policies need to be built to develop health education that is useful for preparing a healthy generation.

Every country in the world certainly has a goal to create healthy and prosperous citizens, therefore knowledge, attitudes, and healthy living skills are very important to be processed through education. In this case, a health education curriculum is important for schools to have in order to guarantee the learning process because it can almost be recognized that teachers in teaching always adhere to the formal curriculum. With the absence of a health education curriculum in schools, health education is less prioritized in the learning and habituation process, because schools are busy with other academic achievement targets. Analysis of the health education content area through this survey is a process of identifying the gap between the health content that is currently processed and what should be. Analysis through this survey is expected to help produce solutions to bridge the gap. Formal curriculum interventions containing health education must then be developed based on assessment and needs analysis (Garcia, 2020).

Personal Hygiene and Habituation at School

Based on the results of data analysis that personal hygiene content has not been maximally processed in elementary schools (Figure 1), the process of learning to wash hands properly has only been obtained by 58.33%, understanding the importance of bathing for body cleanliness is only 72.50% of students and the importance of washing hair to maintain cleanliness has only reached 70%. There are still 41.67% who have never been processed to practice how to wash hands properly, 27.50% of students who have not been processed to learn about the importance of bathing at least twice a day, and 30% of students who have never learned about the importance of washing hair at least twice a week.

Personal hygiene is personal hygiene behavior that is very important to do in everyday life to avoid the risk of various diseases. It is important for elementary school students who are susceptible to disease to know so that they form a habit of maintaining personal hygiene behaviors (Personal Hygiene Behaviors). Washing hands properly needs to be accustomed to children, because hands are the initial entry point for germs or bacteria that are generally less realized by children. Maintaining hand hygiene is very much needed because the factor of unclean hands used for eating has an impact on worm diseases suffered by children (Puspita et al., 2020). That is the importance of getting into the habit of washing hands in the correct way and schools need to provide hand washing facilities so that the process of hand washing practice and habit can be carried out continuously (Lin et al., 2018). Therefore, the importance of personal hygiene behaviors (PHBs) not only needs to be known by elementary school students but also needs to be made a habit. The formation of habits in a person must begin with knowledge first, because knowledge comes from the process of a person sensing an object through the senses they have (eyes, nose, and ears), which then influences perception and awareness.

Thus, to form PHBs of elementary school children, in addition to the learning process, it also needs to be a habit. However, the results of the identification of personal hygiene habits of elementary school students have not been implemented routinely. As in Figure 2, only 69.17% admitted that their clothes were always checked for cleanliness and tidiness, 70% always checked for nail cleanliness, and 66.67% always checked for hair cleanliness and tidiness. In the habituation process, the availability of facilities and infrastructure is a driver of behavioral change (Nasiatin et al., 2021). For example, to get elementary school students used to always washing their hands as a personal hygiene behavior, schools need to provide hand washing facilities in each class.

Nutrition and Dietetic Education

The percentage of students' recognition of nutritional content and healthy eating patterns (figure 3) shows that not all elementary school students have learned about nutritional content and healthy eating patterns at school. A healthy diet with adequate nutrition contributes to maintaining and

improving health, increasing life expectancy, and improving physical and mental health. Poor eating habits of children aged 6-12 years (elementary school students) can seriously endanger health. Therefore, schools play a role in promoting healthy eating patterns (Poelman et al., 2019) and teachers are key agents to promote it (Cotton et al., 2020; Poelman et al., 2019). The impact of poor diet is obesity and possible malnutrition. Teachers are the main factor in providing students with knowledge about nutritious food and the importance of fruit and vegetable intake (Hege et al., 2021; Ramirez-Brisson, 2020). The results of the study proved that interventions in learning about nutrition had an effect on students' knowledge about nutrition and formed awareness of eating habits (Botero-Meneses et al., 2020; Cotton et al., 2020). Thus, the content of nutrition and healthy eating patterns needs to be included in health education taught in schools.

Danger of Cigarettes and Addictive Substances

From the results of processing the questionnaire data on the dangers of cigarettes (Figure 4), it shows that 52.50% of students have learned about the dangers of cigarettes and 47.50% have not, which means that students have not studied much material about the dangers of cigarettes.It is important to teach about the dangers of smoking, considering that smoking has an impact on health.Smoking has been shown to harm the development of the brain, respiratory and cardiovascular systems, affect the development and immunity of the body. It affects memory and concentration in learning, and increases the risk of tobacco-related diseases in adulthood (Di et al., 2022). Therefore, teaching children about the dangers of smoking from elementary school is more important than teaching adults who already enjoy smoking (Di et al., 2022). Previous research has been produced by Alpert et al.(2016) that cigarettes tend to contain addictive substances.

The results of a study in China in 2019 showed that many children under the age of 18 bought cigarettes in 30 days. The age group consisted of 83.0% males and 85.2% females; and 76.5% of junior high school students and 87.6% of high school students (Di et al., 2022). While the Chinese government has set a tobacco control policy in the health education curriculum, banned smoking in schools, promoted smoke-free households, and campaigns and advocacy. But in reality, there are still teenagers of junior high and high school age who are used to smoking. Compared to Indonesia, it is more worrying because schools have not taught health content about the dangers of smoking and the health education curriculum is not formally owned and written by schools (see also Nuryunarsih et al., 2021).

Additive and adhictive substances are also important to teach to elementary school students because the earlier they know the dangers to health, the more students can make decisions to avoid them. Addictive substances are clearly contained in cigarettes, but they need to be taught through proof, not just lectures to convince students. Addictive substances are drugs and active ingredients that when consumed by humans can cause dependence or addiction that is difficult to stop and has the effect of wanting to use them continuously. Additive substances are sometimes used by snack vendors to make snacks last longer, more flavorful, or chewier. These dangerous additive substances are very important for elementary school children to know so that they have a selective attitude when buying snacks at school. In introducing additives and adhictive substances, teachers must apply the inquiry method in learning. With the inquiry method, students can immediately find out the dangers of additive substances and prove the characteristics of foods that contain additives and are not safe to consume. Learning with proof or the inquiry method is a characteristic of science learning and has a positive impact on knowledge and can convince students because it is through a scientific process (Wafi & Arif, 2020).

Health Content Areas that Students Still Need to Learn

From the four answer choices, the results of data processing showed that 97% of students admitted to needing to learn about dental and oral health content, 92% illegal/dangerous drugs, 90% danger of cigarettes, and 81% nutrition and healthy diet. The percentage of recognition was in the range of 80-100% (table 5). This percentage is included in the high category, student recognition is continuous with the results of the identification of health content that has not been studied by students as in Figure 1, Figure 2, Figure 3, Figure 4 and Figure 5. Based on the identification results, it was found: (1)

dental and oral health, (2) nutrition and healthy diet, (3) dangers of cigarettes, (4) dangers of additives and adhitives, including illegal drugs that have not been studied by all students at school. Thus, the results of the identification of content that has never been studied at school and health content that children still need show continuity.

Dental and oral health is an important priority in elementary school children's health education because based on research, dental caries and oral cavity diseases are still a public health problem (Chandregowda et al., 2020; Riolina et al., 2020). The results of the identification of dental and oral health, not all students have learned at school and not all students have learned about how to brush their teeth properly. The results of this identification are consistent with the students' recognition in questionnaire number 15 that they still need to learn about dental and oral health. Dental and oral health cannot be considered a simple problem, because tooth decay is the most common disease experienced by elementary school children and affects the oral cavity (Chandregowda et al., 2020). Primary tooth decay that occurs in children not only affects the ability to chew, pronounce and aesthetics, but also affects the development of children's permanent teeth and body growth (see also Lee et al., 2022). Therefore, it is very important to integrate dental and oral health content into the curriculum (Higgins et al., 2020). Previous research results have proven that the integration of dental and oral health content into the curriculum improves students' understanding of oral health concepts, improves students' oral health behavior, and improves their oral health (Lee et al., 2022).

Health content about illegal drugs and the dangers of cigarettes is important for schools to consider to be taught by teachers. However, information about illegal drugs and the dangers of cigarettes is important and needed by students so that they can make decisions to avoid them. Elementary school students are faced with the need to be able to maintain their own health, for example, by eating healthily, avoiding cigarettes and harmful substances. In this case, the authoritative role of schools is very important because easy access to social media is filled with general information about illegal drugs and cigarette advertisements can influence students.

Students' recognition of the required health education content shows that the health content area has not yet received priority in school learning. Health education in elementary schools is a strategic transformation process as a very important health promotion to improve the health of elementary school students and the habituation of healthy living behavior in children from an early age as health capital. Previous research results have proven that health education is a continuous, dynamic, complex and planned teaching and learning process that is implemented through 'partnerships' with professional health workers (Pueyo-Garrigues et al., 2019). Health education takes into account internal and external factors of students as individuals to improve their knowledge, skills, attitudes and beliefs in relation to their health needs and behaviors, in a positive health paradigm. However, the results of the analysis show that health education has not received serious attention according to children's needs.

Based on the results of the analysis of this study, it is necessary to emphasize the importance of implementing school-based curriculum policies. With the development of school-based curriculum, schools can modify the needs and priorities of health content areas, and allocate health education programs around 10-15% of the total curriculum time. Further targets after determining the health content area are the distribution of tasks and activities that are appropriate to the age of elementary school students and their phases (Billeaud, 2016; Cheung et al., 2016; Forero et al., 2022). Schools are institutions that must actively support the implementation of health education (Bezeau et al., 2020), the availability of a formal and quality health education curriculum is a requirement to meet the needs of 21st century skills (Serin & Ateş kan, 2021).

Conclusion

The results of the analysis of health content areas in elementary schools show a gap, namely the health content that has been received by elementary school students at school is not in accordance with the health content areas that should be learned by elementary school students. Based on the

results of data analysis, personal hygiene content has not been maximally processed in elementary schools with a record of around 41.67% not practicing how to wash hands properly and 27.50% of students who do not know the importance of bathing at least twice a day. Meanwhile, regarding the dangers of smoking, 47.50% of students do not know much about the dangers of smoking. The percentage of students' knowledge of nutritional content and healthy eating indicates that not all primary school students have received lessons on nutritional content and healthy eating at school. Of the four, the results of data processing show that 97% of students recognize that they need to learn about oral health, 92% about illegal / dangerous drugs, 90% about the dangers of smoking, and 81% about nutrition and healthy eating. The percentage of recognition is in the range of 80-100%.

Acknowledgment

The author would like to thank the Research and Community Service Institute of the Indonesian Education University for providing budget assistance to carry out the research.

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