The Availability of Health Education Standards in the Self-learning Curriculum for Kindergartens

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Abstract

The study aimed at determining the availability of health education standards in the self-learning curriculum for kindergartens. It was based on the analytical descriptive approach. The study population consisted of all the books of self-learning curriculum for kindergartens approved by the Ministry of Education in the year 2005-2006 in the Kingdom of Saudi Arabia which amounted to seven books. The sample of the study was 42.86% of the curriculum books which are three books, the book of the unit of water, the book of the food unit, and the book of educational units summary. In order to achieve the objective of the study, the researcher used a tool for content analysis to collect data and information and analyze the content of the self-study textbooks for kindergartens. The researcher prepared a list of the standards of health education required for the pre-school child, which was finalized in seven main criteria and 67 secondary standards. The results of the study showed that the number of procedural objectives related to the standards of health education and indicators reached (127) goals out of (1184) targets for the units by 10.73%. The results also indicated that the standard of dietary education in the daily activities of education ranked first by 50%, followed by the standard of physical activity by 90%, and behavioral habits by 24.62%. In the last place came the criterion of environmental health and consumer health by 0.41%. The study recommended rethinking the content of the self-learning curriculum of kindergartens to include the standards of health education that were lacking, thus contributing to raising the health level of the child and society as a whole.

Keywords: Health Education Standards, Self-Learning Curriculum, Kindergartens

1. Introduction

The stage of childhood is one of the most important stages in the future of the child. At this stage, the child's basic ideas and concepts are formed and this in turn have a significant effect on the formation of his personality. This stage requires the child to be taught healthy behavior in life; the health of children is linked to the extent to which they practice healthy health behavior. This depends on the child's knowledge of the health concepts such as "hygiene, proper nutrition education, and learning about it" (Abdullatif washroom, 2010). Based on the UN report in its 2012 report, the child has the right to the highest health standard in accordance with the Universal Declaration of Human Rights (article 12).

Therefore, childhood is of particular importance in teaching the child proper health behavior and the importance of that stage is that the child learns the behavioral patterns that continue with him throughout his life, the behavior of hygiene and dirt and other children learn in the first lesson of his treatment with family members. The point of view of health education is one of the most important stages affecting the child's behavior and his view of health, hygiene, and health habits because of what his family members see or hear. (Bigelow & Lutzker 2001, p126).

Kindergarten programs seek to develop all aspects of the child's different development as well as develop skills and concepts. The most important knowledge and information that children should learn at this stage are the concepts of health education that help them to preserve their lives, protect them from exposure to risks and getting infected by infectious diseases, and guiding them to eat the good and healthy food (Bailey, 2006). The child's knowledge of health concepts is the correct way to guide him on how to prevent diseases and thus maintain his health. This is a basic goal that most countries seek; to raise the health level of their children in general because they are the foundation of the future by providing them with health concepts aimed at Healthy Generation (EL-masty, 2015).
The child also needs to be protected from the accidents he is often subjected to because of his tendency to move and play. This can be achieved by providing a safe environment for children, teaching them safety rules, and how to protect themselves through appropriate methods for their age (EL-nashef 2005).

2. Problem of the Study

In response to the recommendations of international conferences and their interest in health education, efforts in all Arab countries have focused on the need to include health concepts in the curriculum components and textbooks to implement the goal of human protection. It is not a separate branch of science or an independent subject matter, but it is to be adopted in accordance with the principle of lifelong integrated learning (UNESCO, 1989).

Hence, it is necessary to draw the attention of the curriculum makers to the health change affecting the society, which, if neglected, will exacerbate the problem, and create a generation that is not interested in its health, thus causing great losses and huge medical expenses (Hitti, Ali & Khalaf, 2009). Therefore, the current study of the analysis of the contents of the units of self-learning curriculum to determine the availability of health standards, by answering the following main question:

What is the availability of health education standards in the self-learning curriculum for kindergartens? It is divided by the following three questions:

• What is the availability of health education standards in the procedural objectives of the self-learning curriculum for kindergartens?
• What is the availability of health education standards in the daily activities of the self-learning curriculum for kindergartens?
• What is the order of the standards as reported in the content of the self-learning curriculum for kindergartens?

3. Objectives of the study

The present study aimed to:

• Identify the availability of health education standards in the procedural objectives of the self-learning curriculum for kindergartens.
• To determine the availability of health education standards in the daily activities of the self-learning curriculum for kindergartens.
• To determine the order of the standards as they appear in the content of the self-learning curriculum for kindergartens.

4. Importance of the Study

The development of educational processes depends on the results of the studies of the analysis of the different curricula in the educational process. Therefore, the importance of the study is as follows:

• The results of the study may contribute to the development of kindergarten curricula by providing basic knowledge in the light of which curriculum content can be updated.
• Assisting kindergarten curriculum planners and guiding curriculum development practitioners to the importance of including health concepts in kindergarten programs as the main entry point for health education and its importance in educating children about the health problems they face.
• This study may reveal some important health education standards lacking in the self-learning curriculum of kindergartens.
• The current study may open the door for those interested in studying the books of the modules of the other self-learning curriculum and its relation to the health concepts necessary for children.

5. Study Terminology

Content Analysis: It is defined as a method of studying and analyzing textbooks in a structured scientific way in order to understand the aspects of learning involved in concepts, generalizations, and skills (Hasaballa, 2001).

The Self-Learning Curriculum for Kindergartens: It is an integrated and comprehensive source of the Kindergarten Teacher in Saudi Arabia and trainees in this field. A resource contains multi-faceted technical information that has been put into a specific instructional educational template. The theories have been integrated into daily life experiences (Smadi Marwa 2006).

Standards: Defined as a measure by which a person can judge the quality, relevance, and discipline of things, and is used to estimate the value, quality, and degree of the object (Decker, 2003).
Health: As defined by the World Health Organization (WHO), it refers to the physical and mental health and well-being. It is not just the absence of disease or disability in human (Elnajar, 2019).

Health Education: The process of creating multiple learning experiences for the good impact on the individual's habits, behavior, attitudes, and information, thus raising the level of health and health of the society in which he lives (Salama, 2002).

Standards of Health Education: These words determine the accuracy of the topics of health education that should be provided to learners at a specific age. Furthermore, it also determines the level of performance and the extent required to master these subjects and the various skills related to them. This is together with the activities and performance of students to demonstrate the criterion (El-gendy, 2019).

6. Theoretical Framework

Health Education

Health education in education can be defined as the process of educational learning, in which systematic educational methods are used to provide students with knowledge, facts, concepts, and health behaviors. This contributes to the modification of their behavior and development to fit the correct health orientations of the society (Abdel Wahab, 2003; Bdah, Masjid & Badran, 2010; Al Barakati, 2014). Teaching students facts, knowledge, concepts, and healthy health behaviors will enable them to live healthily. Thus, they are factors that promote the health of society as a whole. Health is a strong indicator of the quality of life, in general, and achievements at the level of education in particular (Salem, 2007).

Kindergarten Role in Child Health Education

Kindergarten is one of the institutions responsible for the health guidance of the child. It continues the work of the family and emphasizes the health habits because of some factors such as: receiving kindergarten at the age of upbringing, which enables them to instill their health habits. As a result, children spend most of their time in kindergarten. The United Nations Educational, Scientific and Cultural Organization (UNESCO), as the first organization concerned with health and education matters, stressed that health education is an important part of public education and a vital tool for schools to provide. Kindergarten children are exposed to many health problems such as infectious diseases, chronic diseases, malnutrition, and oral and dental diseases (EL-gendy, 2019). Furthermore, kindergarten institutions educate children in personal aspects by relying on life skills such as washing the mouth and taking into account the provision of food for the child's full nutrients. Kindergartens also raise awareness of children at this age by providing them with some of the nutritional information that identifies them with nutritious foods that make their bodies strong and healthy. Through the experience of the child in kindergarten, he/she can learn the concepts of culture, with the participation of the teacher in the preparation and tasting of meals with children. Early childhood cooking is a good opportunity to experiment, explore, and share with peers and teachers in the preparation of food (Osman, 2016).

The Importance of Health Education for kindergarten

Kindergarten children need to acquire knowledge and life skills to develop attitudes and values that will preserve their health and develop their health balance. They also need to know how to protect themselves and those around them from common diseases that spread in their environment and society. In addition, they need to know that the health education of a kindergarten child not only provides information but is associated with practical skills to maintain and improve the health and self-care of others and to improve them to become a pattern of living and daily life, valuable great importance of personal, social and in top priority (soldier, 2008).

Standards of Health Education in Kindergartens

Personal Health

This standard is based on strengthening the health of the individual, by paying attention to everything related to his health such as: nutrition, hygiene, appropriate sleep periods, exercise to strengthen the body and raise the general fitness rate, as well as interest in periodic medical examinations and dental care. This is in addition to everything that would maintain the health of the individual (Weiler & Robert 2000).

Food Education

The first years of the child's life are the most important in the educating him about food because at this age, eating habits are formed that would continue throughout his lifetime. It states that it is easy to encourage healthy habits during the growth of behavior to change the existing behavior. Hence, nutrition education must begin with because it has a positive impact on the eating habits of the child.
Also, it helps children at an early age to develop a perception of the relationship between good eating habits, good nutrition and the right body. Dietary education is crucial for children because the quality of the food they eat affects their growth and development. Positive eating habits developed in the early years affect the child's choice of food and thus his nutritional status throughout his life, which can have a lasting effect on his health (Sobhi, 2011).

**Safety and Injury Prevention**

This standard is concerned with first aid. It is the primary and temporary care that a person receives as a result of sudden exposure to an emergency medical condition that leads to bleeding, wounds, fractures or fainting. First aid treatment is given to save his life until he is provided with specialized medical care by the arrival of the doctor to the scene or transferred to the nearest hospital or medical clinic. The goal of first aid is to save the life of the injured first and minimize, as much as possible, the harmful effects of injury while calling the ambulance at the same time to transport the injured to the hospital where he/she is administered to effectively (Eagles et al., 2012).

**Physical Activity and Behavioral Habits:**

One of the most important health behaviors to be followed by the child when eating include:

- Keeping as much as possible the appointments of breakfast, lunch, and dinner as eating between meals prevents children from controlling appetite during meals. Hence, the child takes his food quietly when he is hungry.
- Keeping calm while eating meals and alert children not to play while eating.
- The child must have sufficient play and sleep before eating.
- Do not use unclean eating utensils.
- Leisure and going to the parks for the convenience of the child (Morbidity and Mortality Weekly Report, 2011).

**Growth and Development**

The growth and development criterion refers to indicators of the location of different parts of the body and organs, explanation of differences between males and females, and the classification of children in terms of height and weight (Suleiman et al., 2017).

**Health Promotion and Disease Prevention**

This can be achieved by putting into consideration the following: Enhance the importance of preventive health services in day care centers (kindergartens), improve training and rehabilitation opportunities, provide support to work with parents, and work on preventive measures for diseases through health awareness and prevention of communicable diseases by controlling the cause of these diseases and preventing the transmission of the pathogen (Mazahra, 2014).

**Infectious diseases are prevented and controlled as follows:**

- Cleaning of residential neighborhoods and control of household insects.
- Wash your hands thoroughly with soap and water and disinfect them before eating and after using the toilet.
- Ensure the safety of water and washing fruits and vegetables very well before use (EL-Abd et al., 2009).

**Environmental Health and Consumer Health**

This standard aims to improve the environment in which people live and to eliminate the health problems that affect the health of individuals by taking care of the sources of drinking water and its validity and safety, as well as providing modern methods for the disposal of garbage and the waste of all kinds. This is done so as not to cause the spread of diseases and epidemics, monitoring and following-up the quality of food sold in the community, and controlling its validity and sources. To avoid pollution, citizens in the area should reside in places that are well ventilated and that have access to uninterruptable power supply. They should fight insects in the environment in which they live and everything that affects their health negatively (Gad, 2016).

The activities of the child's health environment is linked to other parallel activities such as environmental protection, adaptation to climate change, primary health care and health care in specialized hospitals, emergency response, disaster risk reduction, school activities, housing initiatives, and many other activities. However, this collaborative links should be established with each of the preceding purposes (Dagestani, 2010).
Content Analysis

It is defined as one of the methods of scientific research aimed at the objective, systematic, and quantitative description of the apparent content of communication material (Taemeh, 2004).

One of the practical objectives that the Saudi Educational Development Team give emphasis to was to analyze the content at its website www.tarwer.gov.sa. They include:
- Preparation of daily educational plans.
- Derivation of teaching objectives.
- Selection of appropriate education strategies.
- Selection of teaching aids and appropriate techniques.
- Tabling or categorizing content element doors to facilitate quota execution.
- The construction of collection tests where the analysis of the level in the selection of a representative of all aspects of the material to be included in the test to achieve comprehensiveness and balance in the achievement test.

7. Previous Studies

The Abuhula and Balawi Study (2006) aimed at identifying the extent to which the science curricula of the intermediate stage in Saudi Arabia contain the appropriate health and environmental concepts for the middle school student. The results showed the availability of health concepts by 30.96% at the level of science books in the intermediate stage for the three grades and 70% for the availability of environmental concepts. The study also revealed some of the health concepts that were absent. The first-grade science book lacked 87 health concepts at 86.13% and the average 88 health concepts at 87.12% with a healthy concept of 88.11%.

The study of EL-gendy (2008), which dealt with the development of health awareness of pre-school children in the identification of standards of health education agreed upon in kindergartens, highlighted a set of educational methods that can have a lasting impact on the behavior of the child inside and outside the kindergarten. The study was applied to a sample of 60 children (boys and girls) divided into two experimental groups consisting of 30 children (boys and girls). The study found a number of results, and the most important of which is that there are statistically significant differences between the average scores of children in the experimental groups in the post-application to test the health awareness of pre-school children in favor of the children of the experimental group.

The study of Jar Allah (2009) sought to reach a list of Islamic behavior and to verify the availability of that list in the objectives and content of the curriculum of kindergartens scheduled for 2004 - 2005 in the Republic of Yemen. The researcher analyzed the objectives and content of the kindergarten curriculum in the light of the list collected, taking the idea and repetitions unit of the count and this reached a number of results. The most important is that the researcher reached a list of Islamic behaviors. In addition, the frequency of the arts was included in the objectives of the curriculum of kindergartens for the three age groups "97". The number of behaviors, which is estimated at 67.85% of the total literature, has not received any attention based on the goals of the kindergarten curriculum. This suggests that Islamic behavior for children was not considered in terms of the planning and development of the curriculum of Riyadh children.

A study by Moray and Mashhour (2012) aimed at determining the availability of life skills in the content of the curriculum of kindergartens in the three categories in Syria. To achieve this, a list of life skills were used. The list included ten basic life skills areas with 71 sub-skills. The results of the analysis in the three-level scales showed that learning skills were well achieved. Decision-making skills are achieved in a medium degree, while self-esteem skills, social skills, communication skills, conflict resolution skills among children, leadership skills, and unmet citizenship skills are not available in the content of kindergarten curricula.

The study of Al-Azzam and Al-sour (2012) aimed to identify the extent to which the Islamic Education curriculum included the eighth grade of basic health education standards from the point of view of the teachers of Islamic Education in the first Irbid administration. The study sample consisted of 82 teachers. The results of the study showed that the degree of inclusion of the Islamic education curriculum for the eighth grade from the point of view of the teachers of Islamic education in the first Irbid administration was medium. The average of the calculation was 3.06. The researchers recommended rethinking based on the content of the Islamic education curricula for the basic stage by incorporating them into the subjects of health education.
The study of Al-Shanwani (2013) analyzed the book of the parameter guide for self-learning curriculum for kindergartens in Saudi Arabia. The study also developed a questionnaire for measuring standards. The questionnaire included twelve fields. Each field included five paragraphs. Thus, the results showed a weak ability of the book to comply with these standards.

The study of khallaf (2013) aimed to design a list of the appropriate citizenship values for the kindergarten child, to determine the extent to which the kindergarten programs in Saudi Arabia respect the values of citizenship, and to determine the extent to which the kindergarten activities take into account the values of citizenship from the point of view of the teachers. Among the tools prepared by the researcher are: A list of the appropriate values of citizenship for kindergarten children and their indicators, and a questionnaire for kindergarten teachers on the extent to which kindergarten activities are considered for citizenship values. The results indicated that the units included in the self-learning curriculum for kindergartens in the Kingdom of Saudi Arabia are considered some of the appropriate citizenship values for kindergarten children. The curriculum of self-learning is as follows: The initiative, Security, Amnesty, Responsibility, Justice, Democracy, National affiliation, Freedom, System, Cooperation, and Religious affiliation. The objectives of educational units did not include the values of satisfaction i.e. rationalization of consumption.

The study of Barakati (2014) aims to investigate the concepts of health education in science books developed for the middle stage in Saudi Arabia in light of the concepts of global health education. The study concluded that the science textbooks developed for the intermediate stage included 35 concepts and 85.4%. Science books for the second intermediate grade were the most widely used textbooks on health education concepts, 33 concepts and 80.5% (48.8%). The most frequent areas are personal and physical health, and the lowest is mental health and well being, where no concept is mentioned.

The study of Al-masry (2015) sought to identify the role of the Birds of Paradise channel in providing pre-school children with some health concepts and identify the quality of health concepts that are offered to children from 4-6 years represented (healthy food, hygiene, and oral and dental health). The study used the analytical survey method. A number of 79 songs were analyzed through a complete TV cycle from 1/4/2013 to 1/3/2014. The researcher used the content analysis form. The study concluded that the media should pay attention to the provision of meaningful and appropriate songs for pre-school children and to the existence of a specialized scientific body that will monitor the children. It also highlights the importance of the content of the information materials provided to the child to present more health concepts.

The study of Othman (2016) identify the role of kindergartens in educating kindergarten children about the concepts of health culture from the point of view of teachers, as well as the extent of children’s awareness of the concepts of health culture from the point of view of mothers of children enrolled in kindergarten. The study found that the role of kindergartens and mothers is positive in educating the child about the concepts of health culture. The study also found that there are significant statistical differences between the assessment of kindergartens to educate the child about the concepts of health culture according to the specialization variable and the years of experience.

The study of Sulaiman et al. (2017) aims to investigate the degree of inclusion of health concepts in science books for the first three grades in Jordan according to international standards. A list of health concepts proposed to be included in the targeted books was developed in the light of international standards. It included 23 health concepts distributed in the following fields: Growth and development, personal health and community health, injury prevention and public safety, mental and social health, and environmental health. The results of the study revealed that the number of health concepts in the science books as 13 concepts out of 23 concepts proposed by 56.5% and recurrence 486 times. The field of growth and development was the highest (47%). This is followed by the area of personal health and community health, and the field of injury prevention and public safety with rates 10.3% and 8.4%, respectively. In contrast, mental and social mental health concepts were not repeated.

The study of Balochi and Sharia (2017) aim to investigate the extent to which science books for grades 9 and 10 were included in Jordan for concepts, trends, and health practices. To achieve the objectives of the study, we analyzed 16 books for the sciences studied in the 2013-2014 academic year. The results showed that the highest percentages in the study sample were the health concepts and the lowest trends.

Comment on Previous Studies

The previous studies have confirmed the importance of health education in Kindergarten children such as the study by soldier (2008), Al-masry (2015), and Osman (2016).
The studies in this field have tried to diagnose the reality of health education, whether by measuring health information, trends and health habits in children or by analyzing the content of programs and curricula such as the study of Salih, Al-Rasa'i and Al-Halalat (2017) and Al-Barakati (2014). The present study has benefited from previous studies in enriching theoretical literature by preparing the list of health education standards and indicators and discussing the results just like the study of khallaf (2013).

8. Methodological Study Procedures

Study Approach

The researcher used the analytical descriptive method in order to suit the nature of the study by analyzing the self-learning method in light of the health education standards that are required for the kindergarten child.

Study Society

The study community consists of all the books of the self-learning curriculum for kindergartens approved by the Ministry of Education in the Kingdom of Saudi Arabia in the year 2005-2006, totaling seven books. The unit consists of one book (the teacher guide for self-learning curriculum for kindergartens). The detailed educational units contains five books (the food unit, the water unit, the unit of life in the dwelling, the unit of sand, the unit of hands) which includes health and safety unit, clothing unit, family unit, writing unit.

The Study Sample

The sample of the study was 42.86% of the children's self-learning curriculum books. Three books were chosen intentionally because they are expected to include a wider set of health education standards. The books included in the study sample were the Water Unit. The module contains aspects of experience, procedural objectives, knowledge content, description of unit activities, unit evaluation form, and additional activities and skills.

Study Tool

To achieve the objectives of the study, the list of primary and secondary health education standards was designed according to the nature of the age stage to be used in analyzing the content of the self-learning curriculum for kindergartens approved by the Ministry of Education in the Kingdom of Saudi Arabia in 2005-2006. After reviewing the educational literature and previous studies on the standards of health education in kindergartens such as the study of Azzam and Alsrour (2012) and Egyptian (2015), they prepared a tool for analysis, which included seven criteria for health education in kindergartens. The study tool is constructed using the following steps:

- A preliminary list of the standards of health education required in the self-learning curriculum for kindergartens has been identified based on the content of the pre-school health programs according to Association for Childhood Education, International National Association for the Education of Young Children and California State Board of Education in 2008. The standards of the Palestinian Authority for Health and Safety includes standards for pre-school child health education, International Council for Research standards, and early developmental learning standards for the age of 3-6 years in the Kingdom of Saudi Arabia. Several studies have been used in the past, notably the study of the Soldier (2008) and the study of Sulaiman, Saleh, Al-Rasa'i and Al-Mahalat (2017).
- Preparation of the content analysis tool. The tool included four main criteria: personal health, nutrition education, safety and prevention of injury, physical activity and behavioral habits, growth and development, health promotion and disease prevention, environmental health and consumer health.
- Setting sub-criteria as partial indicators to include the main criteria areas to facilitate the analysis and monitoring of duplicates.
- Arbitration of the tool by presenting it to a group of arbitrators from the faculty members specialized in the field of kindergarten, curriculum, and teaching methods to ensure the comprehensiveness of the tool and the extent to which the proposed health education standards are suitable for the kindergarten child.
- The list has been modified in light of the judges' opinions, which have been prepared in its final form. They are composed of seven main criteria, and the number of 67 sub-standards for health education is required for kindergarten children. This can be seen in the table below:
Table 1. The main and secondary standards of health education that are required for kindergarten children

| Personal Health | Food education | Safety and injury prevention | Physical activity and behavioral habits | Growth and development | Health promotion and disease prevention | Environmental Health and Consumer Health |
|-----------------|----------------|-----------------------------|----------------------------------------|------------------------|----------------------------------------|----------------------------------------|
| mouth and teeth’s health | Healthy food | Home accidents (electricity - sharp tools) and how to deal with them. | Benefits of physical activity | Learn about the meaning of growth | Obesity diseases | Health environment specifications (toilets) |
| hands and nails cleanliness | Basic food items | Accidents related to kindergarten and how to deal with them. | The importance of participating in active play and physical activities on an ongoing basis. | Identification and classification of different body parts. | Infectious diseases. | Causes of air pollution in the environment |

Body hygiene

| Types of food | Traffic Safety and Traffic Accident Prevention Methods. | The importance of maintaining food is extravagant. | Recognize the functions of body parts | eyes illnesses | Causes of water pollution in the environment |

Hair cleanliness

| Burnout Aid | The importance of eating breakfast | Recognition of the five senses. | respiratory system diseases | Unhealthy foods |

nose cleanliness

| Identification early warning signs | Exercise healthy eating habits | Identify the functions of the five senses | Oral and dental diseases | Corrupt Food |

ears cleanliness

| Aid box | Distinguish between right and wrong behaviors towards food | Recognition of human organs | Methods of disease transmission. | Healthy way to get rid of waste. |

clothes cleanliness

| Misuse of medication. | Exercise behaviors that keep water, air and food from pollution. | Means to maintain the organs of the body | Pathogens. | Recycling of environment raw materials |

Special tools

| Risks of approaching animals and poisonous insects. | Practice behaviors not to overdose water | Ability to understand and accomplish healthy activities | Disease symptoms | Vendors |

general look

| Prepare and cook foods | Safe and appropriate behavior when dealing with strangers | Cover the nose with a tissue when sneezing or coughing and get rid of it properly. | The ability to separate from the family and the desire for independence. | Ways to prevent the spread of diseases such as immunizations | Identify safe and unsafe products |

Eating habits

| Safety and injury prevention | The benefits of sleep and rest are important for proper growth | Insulation | Anonymous foods |

The Accuracy of the Study Tool

The veracity of the list was verified through the use of the sincerity of the arbitrators. Here, the analysis tool was presented to four members of the teaching staff specialized in kindergartens and curricula and methods of teaching for arbitration. Also, they were asked to make their observations and opinions on the appropriateness of the tool, the affiliation of the sub-criteria of the main standards, and the possibility of adding or deleting some paragraphs as appropriate to the areas of study and the integrity of the linguistic construction.

Authenticity of Internal Consistency

The validity of the internal consistency was obtained by calculating the correlation coefficients between the degree and the total score of each instrument criterion. The correlation coefficients were as follows:

Table 2. The correlation coefficients between the degree of each axis and the total degree of the tool

| Standard | Coefficient of correlation |
|----------|---------------------------|
| Personal Health | •,•,¥ |
| Food education | •,¥ ¥ |
| Safety and injury prevention | •,• |
| Physical activity and behavioral habits | •,¥ |
| Growth and development | •,¥ |
| Health promotion and disease prevention | •,¥ |
| Environmental Health and Consumer Health | •,¥ |

Where: ¥ indicates a strong correlation, • indicates a weak correlation.
It is noted from Table 2 that the correlation coefficients between the score of each standard and the total score of the parameters are statistically significant at the indication level (0.05) indicating that the tool is applicable.

- **The Stability of Analysis Tool**

  The researcher verified the stability of the analysis tool through the stability of the agreement between the researcher and an external analyst where the researcher analyzed one unit of the summary units "health and safety unit" sample of the study. Also, the researcher also analyzed the same unit after agreeing on all procedures required for analysis.

  The percentage of agreement between the two analysis periods was calculated using the Holsty equation to obtain the stability coefficient between the researcher and the external analyst (Taaima, 2004). The percentage was 92% and the stability coefficient is considered high and acceptable for the purposes of the study.

**Analysis Procedures**

- Units of Analysis: The operators analyzed the content on the division of units of analysis into five basic units: unity of the word, the unity of the subject or idea, the unity of personality, the unity of natural unity of the material, units of space and time measurements (Ozi, 2008).

  The analysis category is the health education standards and indicators included in the analysis tool. Each module was analyzed separately, and each page was reviewed over the frequency of items in the form of a descriptive analysis. The analysis also included procedural objectives and a detailed description of daily activities. Knowledge content and parameter instruction in the application of activities and forms of assessment were excluded from the analysis process to avoid duplication.

**Limitation of the Study**

- The study was limited to the analysis of the content of the self-learning curriculum for kindergartens approved by the Ministry of Education in the Kingdom of Saudi Arabia in the academic year 2005-2006. It was also limited based on the analysis of the book of the water unit, the book of the food unit, and the textbook of summary educational units for children of first and second level in kindergartens.

  The study was limited to the standards of health education required in the kindergarten standard of personal health, Standard of nutrition education, safety and prevention standard, the standard of physical activity and behavioral habits, the standard of growth and development, the standard of health promotion and disease prevention, environmental health standard and consumer health.

**Statistical Methods**

In the current study, the researcher used frequencies and percentages as well as the average for their suitability for study purposes to calculate the stability ratio using Holsty equation.

**9. Results of the Study**

Presentation and discussion of the first question: What is the availability of health education standards in the procedural goals of the self-learning curriculum for kindergartens?

To answer this question, the frequency and percentages of health education standards included in the procedural objectives of the self-learning modules of kindergartens were used. Table 3 illustrates this.
Table 3. Frequency and percentages of health education standards contained in the procedural objectives of the modules of self-learning curriculum for kindergartens - sample of the study

Table 3 shows that the number of objectives of the units associated with the standards of health education and indicators is 127 out of the total of 1184 targets for the units by 10.73%. This therefore indicates the lack of the emergence of health education standards and indicators in the procedural goals of the curriculum of self-learning.

Thus, this is one of the most important axes of learning and teaching children at that age. As for the objectives of each unit separately, the highest percentage of 20.27% in the health and safety unit was followed by water unit by 11.62%. The above table shows that the existence of health education standards for the total number of these criteria (67 criteria) reached the highest values in the health and safety unit 43.28% followed by the food unit 38.81% noting that the criterion of nutrition education is the most available among the criteria. This is because nutrition education is one of the most important topics that we must pay great attention to to raise awareness of how to eat well. It would in determining the quantity and quality of food that are sufficient for human and to help him to carry out his work and activities based on his age and sex. This will help to prevent malnutrition. The role of kindergartens and mothers is positive in educating children about the concepts of health culture. It differs from the study of Barakati (2014), which concluded that the science books developed for the intermediate stage included 35 concepts with a percentage of 85.4%. For science books for the second grade, the average of the most books deals with the concepts of health education, including 33 concepts with a ratio of 80.5%. Also, the ratio of the first and third class is 48.8%. The field with the highest frequencies is the field of personal and physical health, while the least field is the area of mental health and well-being. The researcher believes that the absence of such concepts will create a defect in the construction of the child's health concept and reduce his experience in this field.
Presentation and Discussion of the Second Question: What is the availability of health education standards in the daily activities of the self-learning curriculum for kindergartens - units of study sample?

In order to answer this question, the daily activities of the units - the sample of the study - were analyzed by the self-learning approach in the light of the health education standards and indicators that were previously identified and the percentage of availability of the appropriate health education standards for kindergarten child as shown in the following tables:

- The Standards of Health Education in the Water Unit: To determine the availability of the necessary health education standards for the kindergarten child in the water unit, the water unit was analyzed throughout and detailed activities in the light of the health education standards and indicators was also analyzed. The frequencies and percentage of each criterion and the total score of the unit were calculated as shown in Table 4.

Table 4. Frequency and percentages of health education standards contained in the book of the water unit according to the days and detailed activities

| Day / Title | Health Education Standards | Frequency | Percentage |
|-------------|----------------------------|-----------|------------|
| I / Water recognition | -Nutrition Education(1) -Physical Activity and Behavioral Attitudes(1) | 1 | 1.44% |
| Water resources | -Nutrition Education (3) | 3 | 2.16% |
| III / Water and rain | - | - | - |
| IV / Characteristics of water | -Growth and Development (2) -Nutrition Education (2) -Physical Activity and Behavioral Habits (2) | 1 | 4.32% |
| V / Water cases | -Nutrition Education(1) | 1 | 1.44% |
| Water usage etiquettes | -Physical Activity and Behavioral Habits (13) -personal hygiene (2) | 15 | 10.79% |
| VII / Water and ablutions | - Growth and Development (3) | 3 | 2.16% |
| VIII / Water and Hygiene | -Personal hygiene (12) -Nutrition Education (1) -Physical Activity and Behavioral Habits (1) | 10 | 7.94% |
| IX / Water and cooking | -Nutrition Education (23) -Physical Activity and Behavioral Habits (3) - Growth and Development (6) | 32 | 23.01% |
| X / Water and plant | - Growth and Development (3) | 3 | 2.16% |
| XI / objects in the water | - Growth and Development (3) | 3 | 2.16% |
| XII / Fish and water | -Nutrition Education (13) -Physical Activity and Behavioral Habits (3) | 18 | 12.95% |
| XIII / Means of transportation in water | | 1 | 1.44% |
| Water and professions | -Nutrition Education (10) - Growth and Development (3) -Personal hygiene (2) | 14 | 12.23% |
| XV / Review | -Nutrition Education (3) | 3 | 2.16% |
| Total | | 139 | 100% |
Table 4 shows that 46.67% of the days of the food unit contained one standard of health education, while 26.67% of the days contained two standards of health education. 20% of the days contained three standards of health education, and 6.66% of the days did not contain any standards of health education. The above table shows that the water unit covered 57.14% of the standards of health education, while the criteria that did not cover the percentage of 42.86% are standard health promotion and disease prevention, safety standard and injury prevention, environmental health standard and consumer health. The results showed that there is a wide disparity in the availability of standards of health education in the days and subjects of the food unit. This means that the water unit contained more than half the standards of health education which is contained in the study tool. This is a good proportion but these concepts were not presented in a sequential manner but came apart in the days and educational activities.

- Standards of Health Education in the Food Unit: To determine the availability of standards of health education necessary for the child kindergarten food unit, the food unit was analyzed through the days and detailed activities in light of the standards of health education and its indicators. The frequency and percentages of each criterion and the total score of the unit were calculated as shown in Table 5 below.

**Table 5. Frequency and percentages of health education standards in the food unit book according to the detailed days and activities**

| Day / Title | Health Education Standards | Frequency | Percentage |
|-------------|----------------------------|-----------|------------|
| 1. The concept of nutrition | Nutrition Education (23) Growth and Development (1) | 24 | 10.48% |
| 2. Plant and eat | Nutrition Education (23) Physical Activity and Behavioral Habits (3) Development and Improvement (1) | 14 | 6.11% |
| 3. Parts of the plant being eaten | Nutrition Education (9) Physical Activity and Behavioral Habits (4) | 13 | 5.67% |
| 4. Collection and classification of foods | Nutrition Education (23) Physical Activity and Behavioral Habits (3) | 26 | 11.35% |
| 5. Vegetables | Nutrition Education (24) Safety and Injury Prevention (1) | 25 | 10.92% |
| 6. Vegetable soup | Nutrition Education (17) Growth and Development (1) | 18 | 7.86% |
| 7. Fruits | Nutrition Education (17) Growth and Development (1) | 18 | 7.86% |
| 8. Milk and its products | Nutrition Education (15) | 15 | 6.55% |
| 9. Cereals and Bread | Nutrition Education (9) | 9 | 3.93% |
| 10. Egg | Nutrition Education (4) Physical Activity and Behavioral Habits (1) | 5 | 2.18% |
| 11. Cooking eggs | Nutrition Education (8) | 8 | 3.49% |
| 12. Meat | Nutrition Education (19) Physical Activity and Behavioral Habits (1) | 20 | 8.73% |
Table 5 shows that 73.33% of the days of the food unit contained two standards of health education that are required for kindergarten children, 20% of the days that contained one of the standards of health education required for the child kindergarten, and the proportion of 6.67% of the days contained three standards of health education required for the child kindergarten. The previous table shows that the food unit covered 42.86% of the standards of health education required for the kindergarten child, while the percentage of standards that didn't get covered was about 57.14%. They include the Personal Health Standard, the Health Promotion and Disease Prevention Standard, the Environmental Health and Consumer Health Standard. These standards contribute in instilling values and trends that help them in the prevention of diseases and protect their health.

In summary, to determine the availability of the standards of health education required for the kindergarten child in the summarized units, the detailed activities of the units were analyzed in light of the standards of health education and indicators. Also, the frequencies were calculated for each standard and the total degree of standards in the unit is shown in Table 6 below:

Table 6. Frequency of the standards of health education contained in the book of educational summarized units according to the activities of each unit
Table 6 shows that the criteria included in the detailed activities of the educational units are the criteria of education of food with a total frequency of 94, the standard of development and improvement with total frequency of 88, and the standard of physical activity and behavioral habits with total frequency of 70. The health promotion and disease prevention standard didn't appear appropriately, with a total frequency of 7. In addition, the criterion of environmental health and consumer health has a total frequency of 3.

- Standards of Health Education Curriculum Self-learning for Kindergartens: To determine the availability of standards of health education for the kindergarten child in the self-learning curriculum for kindergartens, the frequency and percentage of each criterion and the total score of the curriculum were calculated as shown in Table 7.

| Criteria | Total | Frequency | Ratio | Frequency | Ratio | Frequency | Ratio | Frequency | Ratio | Frequency | Ratio | Frequency | Ratio | Frequency | Ratio |
|----------|-------|-----------|-------|-----------|-------|-----------|-------|-----------|-------|-----------|-------|-----------|-------|-----------|-------|
| Personal Health | 52 | 17 | 32.08% | 9 | 1.6% | 0.60% | 1 | 0.02% | 0.08% |
| My book and friends | 10 | 11 | 55.00% | 15 | 15.50% | 6.25% | 0.6 | 0.06% | 0.30% |
| My health and safety | 25 | 8 | 32.00% | 16 | 16.00% | 6.25% | 1 | 0.02% | 0.08% |
| Clothing | 9 | 9 | 100.00% | 0.3 | 0.3% | 0.01% | 0 | 0% | 0.00% |
| Health and physical education | 20 | 20 | 100.00% | 0.6 | 0.6% | 0.02% | 0 | 0% | 0.00% |
| Total | 70 | 70 | 100.00% | 40 | 40.00% | 14.29% | 11 | 1.57% | 0.64% |

Table 7. Frequency and percentages of health education standards within the daily activities of the self-learning curriculum for kindergartens in the sample units of the study
It is clear from Table 7 that the criteria included in the activities of the units included in the self-learning curriculum for kindergartens in Saudi Arabia is the criterion of nutrition education, and it is the most available among the standards of health education in educational activities. The overall percentage was 50.90% in the curriculum followed by the standard of physical activity and behavioral habits by 24.62%, while the health promotion and disease prevention standard and the environmental health and consumer health standard were not adequately reflected. This finding is consistent with the study of Abu Hula and Balawi (2006), which revealed some of the hidden health concepts that the first class science textbooks lacked. This differs with the study of Alburkany (2014), which emphasized the need to acquire health concepts so that health education would become meaningful. The need to learn these concepts is that acquiring them is a step that must be overcome in order to reach the goals of health education, especially in an era of knowledge development in which knowledge and information are enormous. This emphasizes the need to include kindergarten curricula. Krause (2011) study concluded that child health education should be established to promote and encourage health education in kindergarten and to promote these services to promote the health of services for children. He further stated that children should be encouraged to engage in activities that promote health education and that guides them.

Presentation and Discussion of the Third Question: What is the order of the standards as they are included in the self-learning curriculum for kindergartens?

The percentages, the arithmetic average, and the order were calculated to determine the order of the health education standards that were included in the self-learning curriculum as shown in Table 8 below:
Table 8. The order of health education standards according to the percentage of their appearance in the curriculum of self-learning (units) sample of the study

| The sequence | Average | My book | The family | Clothing | My health and safety | Friends | % AA | % A | % A | % A | % A | Personal health education | Nutrition education | Safety and injury prevention | Physical activity and behavioral habits | Growth and development | Health promotion and disease prevention | Environmental health and consumer protection |
|--------------|---------|---------|------------|----------|---------------------|--------|-----|-----|-----|-----|-----|-----------------------------|---------------------|---------------------------------|-----------------------------------------------|-------------------|--------------------------------|-----------------------------------------------|
| 6            | 7.75    | 2.23%   |            |          |                     |        |     |     |     |     |     |                             |                     |                                 |                                              |                   |                                |                                               |
| 7            | 4.36    |         | 25.81%     |          |                     |        |     |     |     |     |     |                             |                     |                                 |                                              |                   |                                |                                               |
| 3            | 3.82    |         | 56.52%     |          |                     |        |     |     |     |     |     |                             |                     |                                 |                                              |                   |                                |                                               |
| 4            | 3.76    |         | 12.50%     |          |                     |        |     |     |     |     |     |                             |                     |                                 |                                              |                   |                                |                                               |
| 1            | 31.76   |         |            | 48.37%   | 17.39%              |        |     |     |     |     |     |                             |                     |                                 |                                              |                   |                                |                                               |
| 5            | 16.53   |         | 19.55%     | 13.05%   | 43.75%              |        |     |     |     |     |     |                             |                     |                                 |                                              |                   |                                |                                               |
| 2            | 4.97    | 3.23%   |            |          |                     |        |     |     |     |     |     |                             |                     |                                 |                                              |                   |                                |                                               |
| 1            | 1.97    |         |            |          |                     |        |     |     |     |     |     |                             |                     |                                 |                                              |                   |                                |                                               |

Table 8 shows the order of health education standards in the units of the self-learning curriculum. The sample of the study came in first place with an average of 43.36. Then came the second standard of physical activity and behavioral habits with an average of 3.76. The environmental health and consumer health criterion came last with an average of 1.97. This finding is consistent with the study of Abdul Rahim (2008), which indicates a low rate of emergence of environmental education standards. The total environmental health and consumer protection standards that are not available are 45, with 83.3%. It is noted that there is a clear deficiency in the curriculum of self-learning of kindergartens in the field of environmental health and consumer protection.

10. Recommendations

In light of the results of the study, the researcher recommends the following:

- Conducting analytical studies similar to other modules of the self-learning curriculum for kindergartens.
- The list of analysis used in this study may be used in the preparation, formulation, and development of kindergarten curricula.
• Include all standards of health education, which lacked the units of self-learning curriculum for kindergartens.
• Integrate international health education standards into kindergarten teacher education programs.

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