

MEASUREMENT OF THE LEVEL OF HEALTH AWARENESS AMONG MIDDLE SCHOOL STUDENTS IN SAUDI ARABIA IN THE EASTERN PROVINCE

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Abstract:

The study aimed to measure the level of health awareness among middle school students and to identify the significance of the difference in health awareness according to the variables of gender and grade level.

To achieve the objectives, the researchers adopted the health awareness scale which consisted of (30) items formulated in the style of declarative phrases, in front of each of which there were three alternative answers: "It applies to me completely," "It applies to me to some extent" and "It does not apply to me completely." At the time of correction, the grades (3, 2, 1) are given for the items formulated with the measurement of the concept of health awareness, and the correction is reversed for the items formulated reflecting the measurement of the concept of health awareness, so it becomes 1, 2, 3. The validity of the scale was verified through its apparent validity and stability through the use of Cronbach's alpha equation. The scale was applied to a sample of research from (350) male and female students who were selected by stratified random sampling. The data was analyzed and processed statistically using the Statistical Package for the Social Sciences (SPSS). The results showed that the level of health awareness was weak among preparatory school students. The results also showed that there were no statistically significant differences in health awareness due to the variables of (gender), and grade level. In light of the results, the researchers presented a set of conclusions, recommendations, and proposals.

Keywords: Health awareness, Middle School Students, Eastern Province, Adolescence, Educational Interventions, Saudi hospital, Public Health.

Introduction:

In recent years, the importance of health awareness has gained significant attention, especially among school-age populations. Adolescence is a critical period for the development of lifelong health habits, making it imperative to assess the level of health awareness among middle school students. [1]

Health awareness: Ahmad (2020) defined it as "knowledge, understanding, and the formation of inclinations and attitudes towards some health issues appropriate to the age group in a way that reflects positively on healthy behavior". [2]

Mezher and AlKasi (2022) defined it as "the process of motivating students and convincing them to learn correct or practical health practices and translating known health facts and concepts into healthy behavioral patterns that lead to raising the health level of students by following different educational methods". [3]

The theoretical definition of the researchers is the student's mastery of the correct health information and practices and the ability to apply them when facing health problems. The operational definition: The score that the respondent obtains during his answer to the items of the health awareness scale used in this research.[4]

Health awareness is an educational process aimed at encouraging people to adopt a healthy lifestyle and practices to raise the health level of the community and reduce the spread of diseases. Health education achieves this goal by spreading healthy health concepts in the community, educating people about the dangers of diseases, and guiding them on how to prevent them. [5]

There is a valuable piece of information that says, "If 2.5% of the budget of any community is scientifically spent on health promotion programs, it would lead to a decrease of 25% in the rates of diseases and the cost of healthcare". [6]

The cognitive aspect: Refers to the availability of scientific information about health and the individual's role and personal responsibility for his health. The affective aspect: It refers to the individual's feelings and attitudes towards health and disease. The behavioral aspect: It refers to the individual's actual behavior about health. [7]

Health awareness is based on three aspects: The cognitive aspect: This refers to the individual's knowledge and understanding of health and disease. It includes information about the importance of health, the factors that affect health, and the different types of diseases. The affective aspect: This refers to the individual's feelings and attitudes towards health and disease. It includes things like the individual's motivation to stay healthy, their willingness to take care of their health, and their fear of disease. The behavioral aspect: This refers to the individual's actual behavior about health. It includes things like the individual's diet, exercise habits, and use of tobacco and alcohol. [8]

Health awareness can be divided into several domains.

These domains include Personal health: Domain includes things like personal hygiene, nutrition, and exercise. Nutrition: This domain includes things like the importance of eating a

balanced diet, the types of foods that are healthy, and the risks of eating unhealthy foods. Safety and first aid: This domain includes things like the importance of safety precautions, how to respond to emergencies, and how to provide first aid. Environmental health: This domain includes things like the importance of protecting the environment, the risks of pollution, and the importance of recycling. [9]

Mental and emotional health: This domain includes things like the importance of mental and emotional health, the signs of mental and emotional problems, and how to cope with stress. Tobacco, alcohol, and drugs: This domain includes things like the dangers of tobacco, alcohol, and drugs, the risks of addiction, and how to get help with addiction. Diseases and prevention: This domain includes things like the different types of diseases, how diseases are spread, and how to prevent diseases. Consumer health: It aims to protect the health of the consumer, whether it is by adhering to the facts about advertising food or evaluating advertising campaigns, health insurance, or correcting unhealthy beliefs, as well as superstitions and myths. [10]

Sex education: This aims to educate individuals about the anatomical and functional composition of the reproductive system in humans, marriage, motherhood, fatherhood, and the stages of embryo formation and sexual health problems. [11]

The measurement of health awareness is based on the behavioral approach, which relies on the measurement of health awareness based on the prevailing behavior, on the assumption that the behavior issued, whether at the individual or collective level, is only a reflection of knowledge, attitudes and health values, and health awareness can be measured through five main indicators. [12]

Preventive health awareness index: It can be measured through the behaviors that the individual adopts to maintain his health and avoid disease. Personal health awareness index: It can be measured through the behaviors that individuals practice, from habits to behaviors that work to maintain the health of their bodies. Nutritional health awareness index: It is a specific indicator of behaviors related to food or eating habits that are prevalent among individuals. Sporting health awareness index: It measures the level of awareness and understanding of citizens of the importance of sports and their extent of practice. [13]

Environmental health awareness index: It is one of the important indicators of health awareness because it indicates the extent of awareness and understanding of citizens of the surrounding environment and how to preserve it, and it is measured by identifying the most important environmental behaviors that individuals practice towards the surrounding environment. [14]

The structural-functional theory for interpreting health awareness: "Robert" "Merton" is one of the pioneers of structural theory, as he refers to the source of knowledge to the structure of the prevailing culture in society, and he believes that the behavior of the individual is related to the social structure and the prevailing social culture, which form the frame of reference for the awareness of the individual, as well as the rules and procedures allowed for the behavior of the individual. [15]

The individual's response and behavior result from his awareness of these cultural components, either by compliance as a result of the individual's acceptance of the rules that enable him to achieve these goals or by alienation as a result of his non-conformity with them, and thus the behaviors resulting from the individual's awareness of the situations that do not match his goals are issued. [16]

Rejection and trying to change reality cannot be done without the individual's awareness of what is going on in society and his awareness of the importance of the change that appears in his behavior. Here, "Robert Merton" emphasizes the role of cultural factors in interpreting human behavior. In light of this theory, the levels of health awareness of students in society can be attributed to the impact of customs, traditions, and cultural heritage on the behavior of individuals who comply with them and follow them. [17]

A related study shows The study by Nagy and Kovács 2017 study aimed to reveal the level of health awareness among female students in community colleges in Jordan. The study sample consisted of 678 students, who were selected by stratified random sampling. The study tool was a test to measure the level of health awareness, which consisted of 32 items. The psychometric properties of the test were verified for validity and reliability. The results showed a decrease in the level of health awareness, as it was below the acceptable level (80). [18]

A study by Patel et al., 2022 The study aimed to determine the health awareness of students at the College of Physical Education at the University of Muthanna. The study sample consisted of (1902) students who applied the study tool, which is represented by the health awareness scale and the source of obtaining health information. The results of the study showed that the level of health awareness among the individuals in the study sample was low. It also found that there were statistically significant differences according to the gender variable in favor of females. It was also found that there were statistically significant differences according to the specialization variable in favor of scientific specializations. [19]

This study focuses on Saudi Arabia, specifically the Eastern Province, aiming to provide insights into the current state of health awareness among middle school students in the region. By understanding the existing levels of awareness, educational institutions and policymakers can tailor interventions to enhance health education and promotion, ultimately contributing to the well-being of the younger generation.

Problems and Research Questions

There is no doubt that culture and knowledge play an important role in the development of the human personality. Therefore, he must follow what is going on around him from information, especially what is related to the health of the body, mind, and soul, which the human being is supposed to know some of, regardless of his field of work, especially the segment of students, as they bear the responsibility of leading the country and its progress and advancement. As we know, the progress, advancement, and renaissance of societies depend to a large extent on the level of public health and the health status of their individuals. [20]

The researchers' observations of the unhealthy practices of students, the crowding of students in doctors' clinics, the spread of diseases, and the non-practice of healthy habits resulted

from the lack of health awareness of individuals in society. Also, the lack of interest in health and environmental awareness and the lack of allocation of a curriculum and lessons for health culture in schools contributed to the absence of health awareness in society, which prompted the researchers to study this problem. From here, the problem of the current research is reflected in answering the following question:

What is the level of health awareness of preparatory school students?

Importance of the Study

Health is an essential requirement and a strategic goal that the world's countries, organizations, and individuals strive to achieve, and they work hard to achieve it for a healthy life, through which man contributes to the different development efforts for himself, his family, and his community. The issue of health awareness and its acquisition and dissemination emerges as one of the priorities and main goals of health education in the era of technological and industrial progress, in which the individual is exposed to increasing health and environmental risks. Among what is measured by the progress of nations and peoples is the high level of health awareness among their members. Health awareness represents one of the main indicators that researchers and scholars rely on in classifying advanced societies and others that are underdeveloped.

As (Rafiei et. al, 2023) indicate, the concept of health awareness means creating a culture among individuals and raising their awareness to change their behaviors and health habits, especially in the case of the spread of diseases and epidemics within the community and instilling healthy social customs and traditions that would support the health aspect and develop it, such as practicing sports activities, healthy nutrition, and good postural habits. The issue of playing in health awareness and the success of instilling it in individuals has a close relationship with the formation of an important aspect of their personalities. Therefore, this issue must receive great attention, planned and intentional, like the regular educational process at any academic level. [21]

Shakerian and Fallahi (2020) defines health awareness as the positive behavior that has a positive impact on health and the ability to apply this information in daily life in a continuous manner, giving it the form of a habit that directs the individual's abilities in defining his integrated household duties that preserve his health and vitality within the limits of his abilities), and he mentions that the person who is aware of health is the person who enjoys high degrees and levels of health represented by the physical, psychological, mental, social, and health aspects, and that practicing games and sports activities work to prevent the most important modern diseases such as diabetes, heart diseases, obesity, overweight, respiratory diseases, and postural deformities, considering that the health aspect includes two main aspects, namely health culture, which is represented in acquiring health knowledge and information, and health awareness, which is represented in applying that knowledge and information in practice. [22]

There is no doubt that health awareness is necessary to educate the individual to preserve his safety and the safety of his environment, and it is one of the responsibilities and tasks of the school administration to preserve the safety and security of its students. Therefore, the

relationship between health and education is an inevitable and continuous one, taking into account how education can provide students with a variety of health knowledge, support it, and develop it with the appropriate educational means due to the strong link between education and health. [23]

Aim of the study

The current research aims to identify and measure the level of health awareness among preparatory school students.

- The significance of differences in health awareness according to the variable of sex (male, female).
- The significance of differences in health awareness according to the variable of grade level.

Methodology

Study Sample

The sample is a part of the population on which the study is conducted, which the researcher selects to conduct his study according to special rules so that it represents the population in a correct representation. The current study sample included (350) male and female students from preparatory school students, with (175) male and (175) female students distributed over (8) schools that were selected by stratified random sampling distributed according to the variables of gender and grade level, and Table (1) explains this.

The study sample was selected from the major schools in the eastern province based on the availability of resources and academic capabilities so that the problem could be estimated at its lowest level. Eight schools were selected, as follows:

Data for this study are collected from Six schools located in the Eastern Province of Saudi Arabia, namely:

1. British International School Al Khobar
2. ISG British School Dhahran
3. ISG American School Dhahran
4. ISG Dammam School
5. ISG Jubail School
6. Lycée Français International d'Al Khobar
7. The International Programs School
8. Rowad Al Khaleej International Schools Baraem Al Dana

The study involved a diverse sample of middle school students from eight schools located in the Eastern Province of Saudi Arabia. The distribution of the sample across these schools is presented in Table 1. Each school contributed a subset of students to the overall study sample.

The British International School Al Khobar, with a total student population of 780, contributed 50 students to the study sample. Similarly, the ISG British School Dhahran, ISG

American School Dhahran, ISG Dammam School, and Lycée Français International d'Al Khobar each provided 50 students, despite variations in their total student populations.

Notably, ISG Jubail School, boasting a larger student body of 4000, also contributed 50 students to the study. This strategic sampling approach ensures representation from different school environments, considering both smaller and larger institutions.

The International Programs School, with a student population of 1370, and Rowad Al Khaleej International Schools Baraem Al Dana, with 500 students, both contributed 50 students each to the study sample. This deliberate selection across schools of varying sizes aims to capture a comprehensive view of health awareness levels among middle school students in the Eastern Province.

The distribution strategy of selecting 50 students from each school standardizes the sample size across diverse educational institutions, facilitating a more balanced and comparable analysis of health awareness levels among middle school students in the Eastern Province of Saudi Arabia.

Table 1: Distributed sample among (8) schools.

No.	School Name	Number of students	Study Sample from each School
1	British International School Al Khobar	780	50
2	ISG British School Dhahran	700	50
3	ISG American School Dhahran	1200	50
4	ISG Dammam School	700	50
5	ISG Jubail School	4000	50
6	Lycée Français International d'Al Khobar	581	50
7	The International Programs School	1370	50
8	Rowad Al Khaleej International Schools Baraem Al Dana	500	50

The research tool: The health awareness scale

To achieve the objectives of the research, the researchers adopted the health awareness scale of the researchers, which consisted of (30) items formulated in the style of declarative statements. Three answer alternatives were placed in front of each item: They apply to me perfectly, they apply to me to some extent, and they do not apply to me perfectly. The scores (3, 1, 2) were given for the items that were formulated with the measurement of health awareness, and the correction was reversed to become (1, 2, 3) for the items that were formulated in the opposite direction of measuring health awareness.

Face validity

The face validity of the health awareness scale was verified by presenting it to a group of experts in psychological counseling, psychology, measurement, and educational and

psychological evaluation, totaling (12) specialists, to express their opinions on the suitability of the scale items, alternatives, and weights, and to make the appropriate modifications and changes. Based on their opinions, no item was excluded or modified, and they were all valid. The approval of (10) or more judges was adopted as a criterion for the validity of the items in measuring what they were set for because the difference between the calculated value of (T) and the tabulated value of (T) will have statistical significance at the level of (0.05) with a degree of freedom (1).

Stability

Stability means that the test gives the same results if it is applied again to the same individuals under the same conditions. To calculate the stability of the health awareness scale, the researchers adopted the method of Cronbach's alpha equation. The stability coefficient extracted by this method for the current research was (0.82), which is a good stability coefficient. The health awareness scale is internally consistent because the equation reflects the extent of consistency of the items internally.

Application of the scale in its final form

After the health awareness scale adopted in this research was ready for application by ensuring its psychometric properties and aimed to achieve the objectives of the current research, it was applied to the research sample of (350) male and female students from preparatory school.

Statistical analysis

The results obtained by the researchers will be displayed and analyzed, Data were fed to the PC and analyzed using IBM SPSS software package version 20.0. (Armonk, NY: IBM Corp). We will display the arithmetic means of the questionnaire responses obtained from the sample and present the standard deviations to identify the degree of variation in those responses by displaying the frequencies and their percentages to identify the level of responses about the variables.

Results and Discussion

When the health awareness scale was applied to the research sample of (350) male and female students, the results of the answers showed that the mean was less than the theoretical mean. To know the significance of the difference between the mean and theoretical means of the scale, the researchers used the one-sample t-test. The results showed that the calculated t-value was (4.645), which is higher than the tabulated t-value of (1.96) at the significance level of (0.05) with a degree of freedom of (198), as Table (2) shows.

Table 2: T-test results for the health awareness scale

Variables	No. of clause	Theoretical mean	Arithmetic mean	SD	Degree of freedom	T Value	P Value
Health awareness scale	30	60	51.49	18.55	198	4.645	0.05

The results of the research indicate that the level of health awareness among the individuals in the research sample was low. This may be attributed to the following factors:

Lack of specific educational materials to raise awareness of students' health: In addition to the lack of interest of educational institutions in this aspect or the lack of enough time for such educational aspects, not to mention the unusual circumstances that the country is going through, such as the lack of health care, the lack of adequate medicines in hospitals, the absence of health supervision, the spread of spoiled medicines, and the abundance and spread of diseases,

The influence of the media: The media often promotes unhealthy behaviors, such as smoking, drinking, and unhealthy eating habits.

Family factors: Family members may not be aware of the importance of health and may not practice healthy behaviors themselves.

The outcomes of this investigation align with the conclusions drawn in the research conducted by Abdul Hussein et al. (2012), wherein it was observed that health awareness among students at the College of Physical Education was notably low. This consistency in findings is further corroborated by the parallel discoveries of Al-Khatib and Al-Rwashdeh (2000), whose study identified a similar trend of diminished health awareness among female students enrolled in civil society colleges in Jordan.

Nevertheless, a departure from these congruent findings is noted in the research by Karim (2018). In contrast to the aforementioned studies, Karim's investigation, which evaluated the level of health awareness among students at the College of Education, University of Qadisiya, reported a favorable status of health awareness. This variance in results underscores the contextual nuances that may influence the level of health awareness among students, emphasizing the importance of considering specific educational settings and demographics in the analysis of health awareness trends.

The results of the responses of the research sample showed that the mean for the male sample of (175) students was (46.55) and the standard deviation was (14.66), and the mean for the female sample of (175) female students was (53.45) and the standard deviation was (15.32). To determine the significance of the difference in the mean scores between the male sample and the female sample, the researchers used the independent sample t-test. The results showed that the calculated t-value was (1.212), which is less than the tabulated t-value of (1.96) at the significance level of (0.05) with a degree of freedom of (198). This means that the difference was not statistically significant. Table (3) shows this.

Table 3: Identifying the significance of differences in health awareness according to the variable of gender (males, females)

Gender	Number of students	Theoretical mean	SD	Degree of freedom	T Value	P Value
Male	175	46.55	14.66	198	1.222	0.128
Female	175	53.45	15.32	198		

The results of the responses of the research sample showed that the mean for the sample of students (145) students was (52.66) and the standard deviation was (15.88), while the mean for the sample of students of (205) students was (54.43) and the standard deviation was (16.79).

To know the significance of the differences in these mean scores between students, the researchers used the independent sample t-test. The results showed that the calculated t-value was (1.521), which is less than the tabulated value of (1.96) at the significance level of (0.05) with a degree of freedom of (198). This means that the difference was not statistically significant between the two grades. Table (4) shows this.

Table 4: identify the significance of differences in health awareness according to the variable of grade level.

Gender	Number of students	Theoretical mean	SD	Degree of freedom	T Value	P Value
Grade	145	52.66	15.88	198	1.521	0.458
Grade	205	54.43	16.79			

The results show that there are no statistically significant differences in the level of health awareness between students. This may be because all students have the same cultural and social level of awareness.

Conclusions:

Measurement of the level of health awareness among preparatory school students

1. The research results showed that the level of health awareness among preparatory school students was low and below the required level.
2. The results of the research showed that there were no statistically significant differences in the level of health awareness according to the research variables (gender and grade).

Recommendations:

Ministry of Health, Higher Education, and Education should give greater importance to public health, which can be done by the following:

1. Creating a textbook that deals with public health and increasing the level of health awareness that is taught in schools and universities.
2. Strengthening health control by tightening control over imported goods and medicines and paying attention to hospitals and health departments.
3. Developing health and educational plans and programs that would raise the level of health awareness among citizens.
4. Providing a database on the most common diseases and how to prevent them through books and publications.

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