

THE LEVEL OF HEALTH LITERACY IN RELATION TO ACADEMIC VARIABLES AMONG STUDENTS OF HOME ECONOMICS AT NAJRAN UNIVERSITY

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ABSTRACT: *The current study is an attempt to identify the level of health literacy among students of Home Economics program. It also aims to identify the significant differences among the sample responses due to the academic variables of grade, academic level, father education, and mother education. The descriptive approach utilized and a health literacy scale applied to a sample of (97) female students of Home Economics program at Najran University. The results concluded that the level of health literacy among the participants is low since their performances are less than the adequate level identified by the study. The statistical analysis shows that there are significant differences among respondents due to grade since students with high grades achieve a higher level of health education. In addition, there are significant differences among respondents due to father education and mother education, as health literacy is directly proportional to the academic level of parents. However, there are no significant differences attributed to the variable of student academic level.*

KEYWORDS: Health Education, Academic Variables, Home Economics

INTRODUCTION

The human resources are one of the most important pillars of any community because they constitute its basic fortune. Additionally, any economic or social development can't be achieved with human development; unless it combines the human and the environment. Public health and sound nutrition are the most significant features of cultural evolution and progress in both the developed and developing countries. Accordingly, family and taking care of it from the health and nutrition perspectives are the top priorities of the different countries. That is, enjoying good health and proper nutrition are closely related to their high ability to work and produce. Additionally, health problems are at the top of the problems that hinder the comprehensive human development in the developing countries because of the diseases resulting from malnutrition due to lack of food or ignorance of healthy nutrition in the different age groups.

Being healthy doesn't mean that the body is free from disease or disability; rather it is a case of full health, as well as the physical, mental, and psychological competence (Giordan, 2000). Furthermore, being healthy helps the human fulfill the assigned role in the development and increase the national income. Consequently, one of the national duties for governments and institutions is to promote the health condition of people because when it declines in a certain society, many problems emerge, affecting the society's progress and development, including weak productivity, declining living standard, raising expenditure on health and medical care, as well as poor return on educational investment (Elsebaey, 2000).

Because of the great importance of proper nutrition in natural growth, optimal mental development and maintaining good health, many studies revealed that health and proper nutrition are not only responsible for bodybuilding, but they play a significant role in guiding the social, moral, and

intellectual behavior of the person and they are an indirect evidence on the social and economic development, as well (Obied, 2002). Furthermore, several studies and researches reported that malnutrition and the spread of many diseases are not caused by the decrease or increase of financial resources only, but they are due to the low nutritional awareness and information among individuals and groups and inappropriate nutritional practices, as well (Elbalouny and Shteeffy, 2003).

It is known that many diseases may be avoided by promoting the level of health and nutrition awareness that may be achieved when everyone identifies the causes of diseases and follows proper nutrition behaviors, especially during adolescence that is characterized by rapid development and easily acquired and changed nutrition habits. This may be achieved by offering proper and purposeful educational programs in light of student growths characteristics to enable them to enjoy a healthy life and have appropriate food.

Additionally, the acquisition of health literacy is a major objective of health literacy through translating health information and knowledge to proper healthy behavioral patterns on the level of the individual and society. Saleh (2003) argues that health literacy has emerged as one of the most important key components of the curriculum at all educational stages, due to many of the most important justifications, including:

1. Students at all levels of education represent a high proportion of the total population. Accordingly, interest in them implies interest in the broad base of society.
2. Meeting each other in schools, allows the transmission of infectious diseases among students and to their families, in turn. As a result, the size of the problem expands.
3. Apparent lack of playing the assigned health awareness role by many families due to the economic conditions that force the mother and father to work increases the burden on the school in achieving and developing health awareness.
4. Increasing the manifestations of behaviors that reflect the lack of health awareness among the members of the broad base of society indicates that they need adequate plans that help achieve health awareness.

Authors almost agree on the importance of health literacy and the great role of media in achieving it. Achieving several indicators show the availability of health awareness in the community, including handling the prevalent health problems and infectious diseases, being aware that protecting their health is primarily their responsibility, and properly benefiting from health services and facilities (Haneesh, 2017; Shaheen, 2016).

Health and nutrition education and interest in the proper health behavior at home and school is an essential objective for the educational institutions, rather it is a shared objective in all courses in general. Therefore, the study plan of Home Economics Program, Najran University includes many courses that address the general health of the mother and child in order to provide the student with information, knowledge, and skills necessary to qualify her to fulfill her future role as a mother and a teacher of Home Economics at public education schools. They also help her play an effective role in preparing a healthy aware generation that can take the appropriate health and nutrition decisions and live a healthy life.

If being familiar with the knowledge and information related to health and disease is important for everybody, it is more important to teachers. That is, teachers must be qualified in a way that enables them to handle safety, health, and food (Robertson, 2010). Zarzour (2008) assures that it is important

to provide the teacher with the information and knowledge that enable him to master his role in developing the student's health literacy and to qualify him to work to modify their behavior to healthy practices. As a result, the preventive role of education, in general, and that of science and home economics, in particular, is prevailed in providing the learner with the required information and acquiring the functional experience related to life and daily behaviors at home, school, and environment in order to get rid of danger and benefit him.

Specialists assert that Home Economics is an integral part of the general education system because it helps achieve the general objectives of education in society. It is also in harmony with other areas of knowledge in order to develop the learner to think and solve social problems, aiming to change the learner's cognitive and performance behavior (Lutfi and Azer, 2000).

Specialists almost agree that Home Economics cover many fields, including food, nutrition, and food science; clothing and textile; home management and economics of the family; childhood and family relationships, as well as housing (Badawi, 2011). Deabes (1996) argues that the development of Home Economics philosophy enables him to achieve the desired objectives; effectively contribute to family life development; develop community by teaching the concepts, facts, and information; and develop the ideas, attitudes, behaviors, and values related to family life. In public education, Home Economics is a multidisciplinary subject that is interested in investigating the relation of the person to family, society, and environment. It also defines many issues, e.g. family education and feminine education (Shommo, 2001).

Elhalaby (2000) reports that Home Economics has two parts. While the theoretical part investigates laws, principles, fundamentals, and ideas that are interested in man and environment as well as the relation between them, the applied part discusses acquiring the applied skills that translate the theoretical knowledge into behaviors acquired and developed by students.

Literature displays a set of general objectives of home economics. For example, Badawi (2000) argues that Home Economics is interested in:

- 1.Applying research results to Home Economics and the relevant fields.
- 2.Helping family achieve short-term and long-term objectives.
- 3.Benefiting from cognitive and scientific development in improving the standard of living.
- 4.Creating the optimal family environment that is appropriate to the current situation while considering the dominant traditions and believes.
- 5.Benefiting from the social and economic factors that affect life.
- 6.Improving the nutrition and health standards, as well as solving the problems related to food and nutrition in society.

Mckenzie and Niger (2013) report that health literacy is a learning and teaching process within which the health behavior is modified. Therefore, it is one of the most important areas of modern public health and it mainly aims to change the individuals' concepts and help them recognize the concept of health with its permanent evolution and evaluate the wrong customs and behaviors with healthy ones.

This issue received a great attention by authors in educational institutions. That is, some authors were interested in analyzing science books to identify if they imply the healthy information required to

qualify the person. For example, Elrazehy (2002) and Elfera and Abuhedrous (2016) concluded that the health content in science books was weak and limited. Because of the importance of health literacy development, authors such as Hussein and Saeed (1997), Keirle et al. (2000), Abdelsalam and Rashid (2002), Eddj (2003), Khater (2006), Mutawe (2006), Khaled and Yahya (2008), Sawady (2008), Badawi (2011), Elkhalefa (2011), Al-Ghamdi (2013), Hejazi (2012), Abdelfattah and Abdelfattah (2013), Al-Zahrani (2014), Reda and Abdelsalam (2014) and Eldarawy (2016) designed and tested study programs and units which concluded the effectiveness of these programs

Other studies attempted to identify the relationship of health literacy to some variables. For example, Ezzat (2007) and Massany (2011) reported that the social, economic and educational level and health literacy level. Eltanawy (2001), Alahmady (2002), Khatiba and Rawashdeh (2003), Elaseh et al. (2011), Furnham, et al. (2011), Ratnapradipa et al. (2011), Abdelhaq et al. (2012), Magdy and Mohamed (2013) and Elfera and Abuhedrous (2016) addressed defining the level of health literacy by applying health literacy scale. They concluded that this level was low among the sample.

Health literacy is still fertile and a multidisciplinary issue, especially among the groups entrusted with the responsibility of the young and enlightening them from the healthy and educational perspectives, including the students of Home Economics Program. Hence, the present study aims to define the level of health literacy among this important group of the educational community and to develop the programs of preparing Home Economics (family education) teachers to equip them with an adequate level of health education.

Statement of the problem

Accordingly, and in response to the recommendations of many Arabic and local studies, e.g. Eltanawy (2001), Elaseh (2004), Ezzat (2007), Elaseh et al. (2008), Al-Ghamdi (2013) and Al-Zahrani (2014) that revealed the low level of health literacy among many groups in the community and recommended conducting further studies and the importance of health literacy at Home Economics Program, the author was motivated to conduct the study. Its problem was defined by asking the following major question:

- What is the level of health literacy among students of Home Economics Program, Najran University?

It is, further, sub-divided into the following minor questions:

1. What is the degree of awareness of health information among the students of Home Economics Program, Najran University?
2. Are there any statistically significant differences in the degree of awareness of health information among students of Home Economics Program, Najran University due to grade (excellent, very good, good, or pass) at the level of ($\alpha \leq 0.05$)?
3. Are there any statistically significant differences in the degree of awareness of health information among the students of Home Economics Program, Najran University due to academic level (5th, 6th, 7th, or 8th) at the level of ($\alpha \leq 0.05$)?
4. Are there statistically significant differences in the degree of awareness of health information among the students of Home Economics Program, Najran University due to mother education (uneducated, pre-university or university) at the level of ($\alpha \leq 0.05$)?

5. Are there statistically significant differences in the degree of awareness of health information among the students of Home Economics Program, Najran University due to father education (uneducated, pre-university or university) at the level of ($\alpha \leq 0.05$)?

Objectives

The present study aims to:

1. Define the degree of awareness of health information among the students of Home Economics program, Najran University.
2. Reveal the significance of differences among the responses of the participants according to some academic variables of the student and her family.

Significance

It is a significant study because:

- 1- It reveals the level of the students' health literacy according to the various academic levels to those in charge of teaching and developing Home Economics courses.
3. It may help assess the courses and study plan of Home Economics Program based on the results.
4. It provides an integrated perception of the reality of health literacy in an important group in the educational community to the officials of the concerned educational institutions.
5. It reveals the level of health literacy as well as the effect of some academic and social variables on the level of health literacy achievement in an important group in the community to the people in charge of the health and social issue in Saudi Arabia.

Limitations

It has been limited to:

Objective limitations:

- Measurement of health literacy among the students of Home Economics Program according to the test prepared by the author.
- Identifying the effect of some academic variables of grade, academic level, father education, and mother education.

Human limitations: The students of the 5th, 6th, 7th, and 8th levels at Home Economics Program, Najran University.

Temporal limitations: The study was applied during the first semester of the academic year 2017.

Definition of terms

Health Education

It is defined as having an adequate amount of basic health information to enable the person to understand, interpret, and utilize it in facing daily health issues and problems in a way that helps

improve health condition, follow healthy habits and avoid health behavior that may cause physical, economic, or social dangers (Eltanawy, 2001).

According to Hussein and Saeed (1997), it is the information, skills, attitudes, and behaviors that a person may need in relation to his physical, psychological, and sexual needs and enable him to practice the appropriate health behavior in order to prepare him to face and overcome the problems related to health.

It is also the information and basic facts on physical, psychological, mental, and environmental health that a person shall be aware of in order to maintain the integrity of his health and that of his community by practicing the sound health habits and avoid the harmful behaviors at all levels (Qaem, 2016).

It is procedurally defined as having the general health information and the ability to act right when facing some health problems. It is measured by the score obtained by the student on the tool.

Home economics

It is the science that is interested in studying the family and its needs and components at the home, environment, and community levels in order to achieve a better family life by educating learners in the various fields of home economics, especially food and nutrition to improve the health and nutrition condition and family education system of the people (Kojack, 2001).

It is also defined as an applied science that covers a set of systemic educational experiences that is interested in improving individual, family and community life and increasing the learner's health and nutrition awareness (Badawi, 2011).

Home Economics Program

It is a program at the College of Education, Najran University that offers the Bachelor degree. It aims to prepare alumni scientifically and practically qualified in the fields of Home Economics to carry out educational, research, and community duties. Most of the graduates tend to work as teachers of family education in public education schools.

Its current plan covers (15) units of university requirements, (32) units of professional preparation requirements, and (78) units of the scientific discipline, including nutrition and food science, public health, clothing, and textiles...etc.

Procedures

Method

It adopted the descriptive (survey) approach that is based on studying the phenomenon as is, describing it accurately, and qualitatively or quantitatively expressing it (Adas et al., 2003).

Population

The population of the study comprised all the students of Home Economics enrolled in the academic year 2017, numbered (295) in the academic levels from the 1st to the 8th.

Sampling

Based on its objectives, the study was limited to the students of the last two years (i.e. the 5th, 6th, 7th, and 8th levels), numbered (105). Because of the absence of some students and dismissing incomplete cards, the sample comprised (97) students, as shown in table (1).

Table (1): Distribution of the sample according to the variables

Variable	Categories	Frequency	Variable	Categories	Frequency
Grade	Excellent	16	Academic Level	Fifth	17
	Very Good	35		Sixth	28
	Good	30		Seventh	26
	Pass	16		Eighth	26
Mother Education	Uneducated	38	Father Education	Uneducated	12
	Pre-University	37		Pre-University	40
	University	22		University	45

Tool of the Study (Health literacy Culture)

Preparing the scale of health literacy took the following steps

1. *Setting the objective:* The scale aims at identifying the degree of Home Economics students' awareness of the health information.
2. *Developing vocabulary and drafting instructions:* Relevant literature was reviewed and utilized, including Elfefy et al. (2011) and Shreim (2012). In its preliminary form, the scale comprised (44) multiple choice questions with (4) choices for each question and only one is correct. The questions were preceded by simplified instructions for how to answer with a given illustrative example. In this stage, the model answer was prepared.
3. *Testing the validity of the scale:* Based on the validity of the content, the validity of the scale was verified. The scale was submitted, in its preliminary form, to a group of specialists (numbered 12) from the faculty members of the program, biologists, measurement and evaluation specialists, and physicians to review the questions according to accuracy of information and idioms, suitability for the targeted group, appropriateness of the alternatives and defining the relevant academic variables. After that, (6) questions were deleted for various reasons. After considering the reviewers' notes, the final form of the scale was defined in (38) questions.
4. *Pilot study:* To verify the test's reliability, defining the questions' clarity, as well as calculating the required time, the test was applied to a pilot sample of (25) students at Home Economics Program. It illustrated that the questions are clear and easily understood. The time was set to (30) minutes. Regarding the reliability of the tool, it was calculated using (test-retest). After two weeks of the test, it was retested on the same sample. Then, Pearson Correlation Coefficient was estimated between their responses on the whole test. It was (0.89), confirming that it was fairly reliable.
5. *Setting the criterion:* Before starting data analysis, the author was keen on setting a criterion to review the performance of the sample on the scale in accordance. In addition to reviewing, many relevant studies were reviewed, e.g. Eltanawy (2001), Elasemy (2004), and Elashq et al. (2008), some specialists in tests and scales were consulted to set the level of acceptable performance level. Accordingly, the criterion was set to (75%) that was equal to (28.5) out of (38) scores.

Statistical processing

SPSS software was utilized in analyzing the results of the scale (test) application to a sample of the students. Arithmetic means and standard deviations were estimated to define Home Economics students' awareness of the health information. Additionally, One-way analysis of variance (ANOVA) was used in revealing the differences in the responses of health information according to the variables. In order to define the direction of the statistically significant differences among the variables' level, post-hoc comparisons using Scheffé test were adopted.

RESULTS

Answer to the 1st question

In order to answer the first question “what is the degree of awareness of health information among the students of Home Economics Program, Najran University?” The arithmetic means and standard deviation of the students’ awareness of health information on the whole test were calculated, as shown in Table (2).

Table (2): Arithmetic means and standard deviation of the sample performance on the whole scale.

The whole scale	Number	Arithmetic mean	Standard deviation	Criterion	Level
Awareness of health information	97	19.51	5.176	28.5	Low

Table (2) shows that the arithmetic means of the students’ performance on health literacy scale scored (19.51) and a standard deviation of (5.176). By comparing the arithmetic mean to the criterion (28.5), it was less than the criterion, indicating that the students’ general performance on the scale was less than the acceptable level (i.e. 75%). That is, the level of health literacy among the students of Home Economics Program was low.

It may be interpreted by linking it to the results of literature. By comparing this result to the results of Eltanawy (2001), Alahmady (2002), Khatiba and Rawashdeh (2003), Elasemy (2004), Elaseh et al. (2011), Ratnapradipa et al. (2011), Furnham et al. (2011), Abdelhaq et al. (2012), Magdy and Mohamed (2013) and Elfera and Abuhedrous (2016) that were interested in defining the level of health education, it could be concluded that despite the difference of environments, whether foreign, regional, or local, they all concluded that the level of health literacy among the sample was lower than the criterion. As a result, the present study does not largely differ from the similar ones, affirming that mechanisms and programs of health literacy in the various educational institutions shall be developed.

Answer to the 2nd question

In order to answer the 2nd question “are there statistically significant differences in the degree of awareness of health information among students of Home Economics Program, Najran University due to grade (excellent, very good, good, or pass) at the level of ($\alpha \leq 0.05$)?”, the arithmetic means and standard deviations of the degree of awareness of health information among the students of Home Economics Program according to the degree were estimated, as shown in table (3).

Table (3): Arithmetic means and standard deviation of the sample performance according to grade

Grade	Number	Arithmetic means	Standard deviations
Excellent	16	25.94	3.568
Very Good	35	20.94	2.645
Good	30	17.83	3.534
Pass	16	13.06	4.464
Total	97	19.51	5.176

Table (3) shows that there are apparent differences among the means of students' performance on health literacy scale due to their different grades. While the students who obtained "excellent" achieved the highest performance with a means of (25.94), those who obtained "pass" achieved the lowest performance with a means of (25.94), and those who obtained "very good" and "good" had different means that matched their grades with means of (20.94) and (17.83), respectively.

It is also noted that no groups achieved the criterion (28.5), including the group of those who obtained "excellent".

To define the significance level and significance of differences among the means, ANOVA was used, as shown in Table (4).

Table (4): ANOVA of the sample's performance according to grade

Source of variance	Total of squares	Freedom degrees	Statistical Means of squares	F	Level
Between groups	1482.32	3	494.107	42.161	.000
Within groups	1089.92	93	11.720		
Total	2572.24	96			

Table (4) shows that the calculated F value was (42.161) which was statistically significant with a level of (0.000) at the level of ($\alpha \leq 0.05$). That is, there are statistically significant differences in Home Economics students' awareness of the health information according to grade. In order to define the differences among the levels of the variable, post-hoc comparisons using Scheffé test were adopted, as shown in Table (5).

Table (5): Post-hoc comparisons using Scheffé test

(L) grade	(J) grade	Difference	Significance level
Excellent	Very Good	4.995*	.000
	Good	8.104*	.000
	Pass	12.875*	.000
Very Good	Good	3.110*	.006
	Pass	7.880*	.000
Good	Pass	4.771*	.000

Table (5) shows that there were statistically significant differences of Home Economics students' awareness of the health information according to grade at the level of ($\alpha \leq 0.05$) in favor of the highest grade. That is, students with the highest academic grade excelled their peers of the lower grade in response to the questions of health literacy scale.

This result indirectly matched Ezzat (2007) and Massany (2011) that reported that there was a direct proportionality between the social, economic, and educational status and health education.

This may be interpreted that the health literacy of Home Economics students is part of their general academic achievement. Therefore, excellent students have a better health literacy than those with a lower academic achievement.

Answer to the 3rd question

In order to answer the 3rd question “are there statistically significant differences in the degree of awareness of health information among the students of Home Economics Program, Najran University due to academic level (5th, 6th, 7th, or 8th) at the level of ($\alpha \leq 0.05$)?”, the arithmetic means and standard deviations of the degree of awareness of health information among the students according to the academic level were estimated, as shown in Table (6).

Table (6): Arithmetic means and standard deviation of the sample performance according to academic level

Academic Level	Number	Arithmetic means	Standard deviations
Fifth	17	16.47	5.724
Sixth	28	20.39	5.065
Seventh	26	19.73	5.400
Eighth	26	20.31	4.145
Total	97	19.51	5.176

To define the significance level and significance of differences among the means, ANOVA was used, as shown in Table (7).

Table (7): ANOVA of the sample's performance according to academic level

Source of variance	Total of squares	Freedom degrees	Statistical Means of squares	F	Significance level
Between groups	196.680	3	65.560	2.567	.059
Within groups	2375.568	93	25.544		
Total	2572.247	96			

Table (7) shows that (F) calculated value scored (2.567) that was statistically significant at the level ($\alpha \leq 0.05$), indicating that there were no statistically significant differences of the awareness of Home Economics students of health information according to the academic level. In other words, students' progress in the academic levels has no clear impact on their health literacy level.

This result disagreed with the results of Ezzat (2007) and Massany (2011) that reported that there was a direct proportionality between the social, economic, and educational status and health education. It also disagreed with Khatiba and Rawashdeh (2003) that concluded that the students of the 2nd year excelled those of the 1st year.

This may be due to the shortage of providing the student with health information in one course in a certain academic level (i.e. the 6th). In other words, there are no courses or activities that are distributed to the academic levels to be concerned with the continuity of health education.

Answer to the 4th question

In order to answer the 4th question “are there statistically significant differences in the degree of awareness of health information among the students of Home Economics Program, Najran University due to mother education (uneducated, pre-university or university) at the level of ($\alpha \leq 0.05$)?”, the arithmetic means and standard deviations of students’ performance according to mother education were estimated, as shown in Table (9)

Table (9): Arithmetic means and standard deviation of the sample performance according to mother education

Mother Education	Number	Arithmetic means	Standard deviations
Uneducated	38	17.08	4.801
Pre-University	37	19.27	4.800
University	22	24.09	3.100
Total	97	19.51	5.176

To define the significance level and significance of differences among the means, ANOVA was used, as shown in Table (10).

Table (10): ANOVA of the sample’s performance according to mother education

Source of variance	Total squares	of Freedom degrees	Statistical Means of squares	F	Level
Between groups	688.369	2	344.184	17.174	.000
Within groups	1883.879	94	20.041		
Total	2572.247	96			

Table (10) shows that there are statistically significant differences in the degree of awareness of health information among the students of Home Economics Program, Najran University due to mother education. In order to define the direction of the statistically significant differences among the variables’ level, post-hoc comparisons using Scheffé test were adopted, as shown in Table (11).

Table (11): Post-hoc comparisons using Scheffé test

Mother Education		Difference	Significance level
Uneducated	Pre-University	-2.191-	.111
	University	-7.012-	.000
Pre-University	Uneducated	2.191	.111
	University	-4.821-	.001

Table (11) shows that there were statistically significant differences in the awareness of the students whose mothers were uneducated and those whose mothers had a university degree. Additionally,

there were statistically significant differences in the performance of the students whose mothers had a university degree and those whose mothers had a pre-university degree in favor of the former. That is, the mother education level positively impacted the health literacy level of the student.

This result indirectly matched Ezzat (2007) and Massany (2011) that reported that there was a direct proportionality between the social, economic, and educational status and health education. It also matched Ali (2002) that concluded that the level of health literacy is related to the level of the mother and father education. It disagreed with Hossam (1996) that concluded that the level of mother education did not affect the level of health literacy of the student.

Answer to the 5th question

In order to answer the 5th question “are there statistically significant differences in the degree of awareness of health information among the students of Home Economics Program, Najran University due to father education (uneducated, pre-university or university) at the level of ($\alpha \leq 0.05$)?”, the arithmetic means and standard deviations of students’ awareness of health information according to father education were estimated, as shown in Table (12).

Table (12): Arithmetic means and standard deviation of the sample performance according to father education

Father Education	Number	Arithmetic means	Standard deviations
Uneducated	12	14.58	4.981
Pre-University	40	18.83	4.798
University	45	21.42	4.590
Total	97	19.51	5.176

To define the significance level and significance of differences among the means, ANOVA was used, as shown in Table (7).

Table (13): ANOVA of the sample’s performance according to father education

Source of variance	Total of squares	Freedom degrees	Statistical Means of squares	F	Level
Between groups	474.578	2	237.289	10.633	.000
Within groups	2097.669	94	22.316		
Total	2572.247	96			

Table (13) shows that there were statistically significant differences in the degree of awareness of health information among the students of Home Economics Program, Najran University due to father education. In order to define the direction of the statistically significant differences among the variables’ level, post-hoc comparisons using Scheffé test were adopted, as shown in table (14).

Table (14): Post-hoc comparisons using Scheffé test

Father Education		Difference	Significance level
Uneducated	Pre-University	-4.242-	.028
	University	-6.839-	.000
Pre-University	Uneducated	4.242*	.028
	University	-2.597-	.045

Table (14) shows that there were statistically significant differences regarding students' awareness of health information due to the level of father education between "uneducated" and "university" in favor of "university". Additionally, there were statistically significant differences between "pre-university" and "uneducated" in favor of "uneducated". That is, the higher education level of the father positively impacts the student's level of health education.

This result indirectly matched Ezzat (2007) and Massany (2011) that reported that there was a direct proportionality between the social, economic, and educational status and health education. It also matched Ali (2002) that concluded that the level of health literacy is related to the level of the mother and father education.

This may be interpreted that the individual culture, in general, is affected by the social atmosphere and that health literacy is an integral part of the general culture. Health information acquired by Home Economics student is not only from the academic program, but the family also plays a great role in enriching her knowledge, as well as applying and practicing such health information. Hence, it is noted that the students who belong to families with a high level of education perform better than their peers who belong to families with the lower level of father or mother education.

RECOMMENDATIONS

The following recommendations are made:

1. Conducting a comprehensive review of all the aspects of teaching health literacy at Home Economics Program, aiming to develop them and handle their shortages.
2. Paying more attention to health literacy through an integrated strategy for health literacy where the efforts of the concerned parts of the university and pre-university education collaborate.
3. Offering in-service training programs that are interested in promoting the level of health literacy for the graduates of Home Economics Program in order to handle the shortages in the preparation programs.
4. Listing health literacy on continuing education programs and engaging local community institutions in defining the educational needs and making action plans for such programs.
5. Supporting the teaching of health information at Home Economics Program by diversifying the teaching strategies, using effective evaluation methods, utilizing extracurricular activities, as well as promoting the applied aspect and health practice of information.
6. Interest in the professional development of the persons in charge of health-related- courses and offering them opportunities to review the updates by holding symposia, attending conferences and providing them with health and scientific journals.
7. Supporting literacy programs and increasing the opportunities for elder education as it was reported that the level of parental education remarkably affects enhancing the level of health literacy of the children.
8. Utilizing mass media, modern technology, and social media in disseminating health awareness.

Further Studies:

The following studies are suggested:

- 1.The level of health literacy among family education teachers in public education schools.
- 2.The reality of teaching health literacy at Home Economics Program.
- 3.The effectiveness of using mass media in developing health literacy of Home Economics students.

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