

Food Habits of Female Students of the Faculty of Education for Home Economics at Umm Al-Qura University and its Relation to Some Variables for the Academic Year 2017-2018

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Abstract

This study aimed to identify the degree of applying food habits among Umm Al Qura University students and its relation to some variables (level of study, specialization, social status, cumulative average) for the academic year 2017/2018. The study sample consisted of (150) students who are chosen randomly from the students of Home Economics College in Makkah. The researchers used the descriptive analytical approach, which is based on the study of any phenomenon as it exists in fact, and describe it qualitatively or quantitatively. To achieve the objective of the study, a questionnaire was applied after verifying its validity and stability. It consisted of (30) paragraphs that included a set of healthy food habits and constructed according to the Likert scale quintet. The data were analyzed using the statistical packages (SPSS). The findings indicate that there were statistically significant differences at the level of ($\alpha \geq 0.05$) due to the level of study and for the fourth year students. Whereas, there are no significant differences in the level of function ($\alpha \geq 0.05$) between the application of food habits due to the variable of the social situation, specialization, and the cumulative rate. The researcher recommended in the light of the study results: Adopting a national strategy at the level of public and private universities through the development of curricula related to food and nutrition and inclusion in the early stages of education years. More nutrition research is needed across all age groups in the first stages of schooling.

Keywords: Food habits, Umm Al-Qura University students, cumulative average, level of study, social status, specialization, college of home economics.



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1. Introduction

Proper nutrition and healthy food habits play a major role in maintaining and improving the health of individuals. The Almighty said: "Eat and drink and do not be distracted. He does not love the extravagant." [Al-A'raaf: 31], that is, moderation, balance and non-waste in food, are required.

The Gulf society has witnessed many changes in the social, economic and health aspects, which have led to a shift in food habits and lifestyle (Maysaqer, 1997). As a result of the scientific progress and the explosion of knowledge today, which led to developments in all areas of life, and perhaps the most important of which is the health of our children who are the builders of the future of this young society, improve the health and nutrition, and raise the level of public health of the community to which they belong, is mainly related to the level of awareness of these students in that society (Al-Razzahi and Abdul-Wareth, 1999).

In Saudi Arabia, the changes in food habits and practices led to the up growth of some food and health problems among its members (Al-Harbi, 2004). This resulted in an increase in some nutritional and health problems, including the spread of obesity and associated diseases, especially among our students (Hussein, 2001).

The family, has a significant impact on taking care of the health and safety of their children, through follow-up them of what they gain of concepts, principles and trends of positive food and stabilizing them. This will reduce the spread of food problems, and diseases of malnutrition that spread among them (Maysaqer, 2004). However, the unhealthy food habits are a threat to the regular classical food habits (breakfast, lunch, dinner) and the shift to random eating habits - eating anywhere and anytime - especially in youth that are equivalent to the university level and beyond (Baleidi, 2008).

Thus, the university stage is the stage of rapid start and freedom for students to acquire good or bad food habits, because they are out of the house for irregular and long periods, where they have many different options of unhealthy foods, and tend to eat fast food which rich in fats and carbohydrates, as well as juices that contain high sugars and some unnatural preservatives, without taking into account the necessary nutrients for the body. For that, this study comes to reveal the extent to which the application of these healthy and healthy food habits of these students at this important university stage for the academic year 2017/2018.

2. Study Questions

Because of the importance of nutrition education, which aims to achieve a significant change in food habits and habits; to improve the nutritional status and health of the individual and society. This study comes to investigate the extent to which the food habits of female students at the College of Education for Home Economics at Umm Al-Qura University in Makkah in Saudi Arabia for the year 2018 have been applied and their relation to some variables by answering the following questions:

Q1: What is the degree of application of dietary habits of female students of the College of Education for home economics at Umm Al-Qura University in Mecca in 2018?

Q2: Are there significant statistical differences at the level of ($\alpha \geq 0.05$) for the extent of application of food habits in the sample members, due to the variable level of study?

Q3: Are there significant differences at the level of ($\alpha \geq 0.05$) for the extent of application of the food habits of the sample members due to the achievement variable (cumulative rate)?

Q4: Are there statistically significant differences at the level of ($\alpha \geq 0.05$) for the extent of application of food habits of the sample members due to the variable specialization?

Q5: Are there significant differences at the level ($\alpha \geq 0.05$) for the extent of application of the food habits of the sample members due to the variable level of social mobility?.

2.1. The Hypotheses of the study

1. There is no implementation of the food habits among the students of Umm Al-Qura University in Mecca for the academic year 2017-2018?

2. There were no statistically significant differences at the level of ($\alpha \geq 0.05$) for the extent of application of food habits in the sample population, due to the variables of the study: Specialization, social status, and achievement level (GPA)?

3. There were no statistically significant differences at the level of ($\alpha \geq 0.05$) for the extent of application of food habits in the sample population, due to the achievement variable (cumulative average).

4. There were no statistically significant differences at the level of ($\alpha \geq 0.05$) for the extent of application of food habits in the sample population, due to the specialization variable.

5. There were no statistically significant differences at the level of ($\alpha \geq 0.05$) for the extent of application of food habits in the sample population, due to the variable social situation.

2.2. Study Limitations

2.2.1. Location Limit

Umm Al Qura University, Makkah, Kingdom of Saudi Arabia.

2.2.2. Time Limit

This study was applied in the second semester of the year 1439 in the spring of the second month of April of the academic year 2017/2018.

2.2.3. Qualitative Limit

This study was limited to a representative sample (10%) of the students of the Faculty of Education Home Economics at Umm Al-Qura University, randomly selected from the first year to the fourth year of 2018.

3. Literature Review

Due to the importance of food habits for the health of the individual and society, many studies have been conducted on this subject in many countries with different cultures.

[Yahia et al. \(2008\)](#) evaluate the prevalence of overweight and obesity and examine the dietary habits of a sample of students from the Lebanese American University (Beirut) of 220 students (43.6% males and 56.4% females) Between 20 and 1.9 years of age, this study showed several results: weight gain and obesity were more common among male students compared with females (37.5% and 12.5% vs 13.6% and 3.2%, respectively). As for the food habits, the students showed that the majority (61.4%) reported eating meals regularly, and the students showed healthy eating habits compared to male students in terms of daily breakfast. With no statistically significant differences between the sexes.

[Bukhari \(2010\)](#) identify the nutritional status of gifted students (males and females) in the area of Mecca. The questionnaire was used on a sample of (278) gifted and gifted students enrolled in talent centers in Makkah, Jeddah and Taif. The results showed that more than half of the sample (72.50%) belonged to families with a high economic and social level with a high level of parental education. The sample practice some good eating habits such as having breakfast (68.3%), eating three meals at home (70%), on the other hand the statistical analysis of the food for the past 24 hours showed that the sample does not address the daily needs of vitamins and minerals. The study confirmed that more than 33% of the gifted and 50% of the gifted are obese and also have some poor eating habits.

[Cefai and Camilleri \(2011\)](#) aimed at discovering the food habits of Maltese University students and identifying their health practices by sex, faculty members and academic year. To achieve the goal, a self-administered questionnaire was prepared via the Internet and sent to a sample of 494 students. The study found several results: half of the students ate 1-2 portions of fruit and vegetables per day. More than half of the sample chose to eat

unhealthy food. Less than half of the sample eat a regular healthy breakfast, while a third of the sample consumes soft drinks regularly, and students are more aware of their diet.

Melhem and Al-Wedian (2013) conducted a study aimed at identifying the daily food habits and behaviors of the students of the Faculty of Physical Education at Yarmouk University in Jordan and determining the differences in food habits and behaviors according to the gender variables, the school level and the cumulative average. The study was conducted on a sample of (79) male and female students from the Faculty of Physical Education at Yarmouk University. A questionnaire was used consisting of (19) statements. The results showed a high degree of adherence to the habits and behaviors of healthy food, while there were no significant differences in the food habits and behaviors among the sample according to the variables of gender, and academic level, and the cumulative rate.

Ozkok (2015) aims to assess the food habits of students of Konya University, Turkey. The study was conducted on university students aged between 17 and 35. Data were collected in a sample questionnaire of 310 students selected randomly (59.7% of males and 40.3% of females). It was found that most students ignore meals ($30.0 \geq$). Only 16.8% of them ate three meals a day. Breakfast is the most neglected (60.6%) meals, and they eat dinner regularly at home. Lunch is usually taken outside the house. There were statistically significant differences for daily energy (calorie consumption) and nutrients taken in favor of males.

Walid *et al.* (2015) aimed at identifying the food habits of undergraduate students in Finland and their commitment to healthy diet during the 2013-2014 school year. The sample was 1,189 university students. The results revealed high levels of food commitment for most unhealthy foods, moderate adherence to most health food (over 50%), Less than 50% for adherence to principles, guidelines and dietary and health advice. Most respondents consider eating healthy as important (78.8%).

Samia and Abd El- Mouty (2016) conducted a cross-sectional study between (607) students and (17) dining hall inside Mansoura University from March to June 2014. The aim of the study was to investigate the factors affecting the food habits of Mansoura University students in Egypt, The results of the study revealed that the level of food habits is not satisfactory among the sample and 99% with regard to: type of meal, eating habits, food selection habits, food safety. More than three-quarters of the sample (83%) had a weak knowledge of the healthy diet, and the study proved that students practiced many unhealthy eating habits on campus, and there are many factors attributed to eating habits that can be either individual or factors which enable students to easily access unhealthy foods.

Hoque *et al.* (2016) aimed at building healthy food habits in childhood and studying attitudes, knowledge and eating habits of schoolchildren in Malaysia. To achieve this goal, a survey was conducted on the food habits of the sample of 400 primary school students in standards 4 to 6 in the state of Selangor, Malaysia. The results showed that students understood the mistake of not eating healthy food and foods that are considered healthy. There was also a large consumption of fried foods and contained sugar, salt and saturated fat. When choosing food, two main factors contributed to student decisions: cleanliness (65.8%) and preference of parents (12.3%). It was recommended that, through the application of the Integrated School Health Program (ISHP) correctly, food habits can be improved for students by establishing a school with a healthy environment.

Abraham and Noriega (2018) outlined the food habits of students in the College of Bethel, Indiana, USA and their nutritional needs. A descriptive approach was used to achieve the goal of the study and the study revealed that the students are aware that they eat unhealthy meals containing Additives, because of their good taste, although the majority recognized the intake of fresh fruit, and a large number of processed foods such as potato chips, cakes and cereals on the basis of ease of preparation. Drinking soft drinks were less used habits, and the study also proved that the students have good knowledge of health food requirements.

4. Methodology

4.1. Data Collection and Participants

The nature of the present study and its predetermined objectives imposed the use of the analytical descriptive approach, which is based on the study of reality or phenomenon as it exists in reality and is concerned as a precise description and expressed in qualitative or quantitative terms (Adas, 1999). The study society is the Faculty of Education for Home Economics, specializing in designing costumes, housing and housekeeping for the second semester of the academic year 2017/2018. Where the total number (1432) student, the total sample size was (150) students, (10%) of the study society was taken Obeidat (2004).

4.2. The Instrument

A questionnaire was constructed to reveal the food habits of the sample and its relation to some variables for the academic year 2017/2018. Each statement of the questionnaire was given a weight which graded according to the Likert scale (always, often, sometimes, rarely, never) and represented digitally responses (1.2.3.4.5). The standard judgment was calculated using the equation the relative weight to determine the extent of agreement about the areas of the questionnaire and its statements, Thus, we clarify the answers to the questionnaire, its grades and the criterion of judgment.

Response (1) represents (never) and the judgment criterion (mean) is 1.1-1.8 and the answer is null

Response (2) represents (rarely) is the criterion (mean) of 1.81-2.6 and the answer is weak

Response (3) represents (sometimes) and the judgment criterion (mean) is 2.61-3.40 and the answer is average

Response (4) represents (often) and the judgment criterion (mean) is 3.41-4.2 and the answer is high

Response (5) represents OK (always) and the judgment standard (mean) is 4.21-5 and the answer is very high

The study instrument (questionnaire) was presented to a jury with experience and the specialization from the faculty members in Saudi and Jordanian universities to investigate its validity. After adjustments were made in accordance with the suggestions and views of the jury members, which had had a positive impact on the finalization of the items of the instrument, It was agreed on (30) statements instead of (38) statements.

The stability of the study instrument was proved by calculating the internal consistency method (ALPHA). Before applying it to a sample of 20 students from outside the study community. The stability of the instrument as a whole was 76.1% the following table (1-1) details the stability values of the tool axes:

Table (1-1). The Stability of the Instrument as a Whole

The Instrument	Sequence of statements	The stability value of the instrument as a whole
Food habits	(1-30)	76.1 %

These values indicate the stability of the instruments at a good rate, or indicate that the scale is an acceptable degree of stability, which makes it valid for what has been put to it, and also valid for application. (Malhotra, 2004)

4.3. Statistical Procedures

After collecting and reviewing questionnaires, the Statistical Package for Social Sciences (SPSS) was used to analyze data statistically as follows:

1. Descriptive statistics: frequency, mean and standard deviation to describe study variables.
2. Analysis of differences such as ANOVA and T-TEST. This analysis was used to determine if there were significant differences between the averages of more than two groups and their relationship to the dependent variable.

The frequency and percentage of information on the demographic factors of the study population were extracted. Responses can be summarized in Table (1-2) as follows"

Table (1-2) Distribution of Study Sample by Academic Level

SDU-Level	Number	Percentage
1 st year	37	26.62
2 nd year	35	25.18
3 rd year	34	24.46
4 th year	33	23.74
Total	139	100%

Table (1-2) shows the distribution of the study sample according to the academic level of the students, as 26.62% of the sample members are first year students of the total sample size. And (23.74%) of the sample of the study are students of the fourth year of the total sample size.

Table (1-3). Distribution of Study Sample by Degree of achievement

Degree of achievement	Number	Percentage
Med	4	2.9
Good	23	16.5
Very Good	69	49.6
Excellent	43	31
Total	139	100%

Table (1-3) shows the distribution of the sample of the study according to the degree of achievement, with the highest percentage (49.6%) for the students with a very good estimate, while the percentage of students with an average grade of 2.9% The respondents are very good students.

Table (1-4). Distribution of Study Sample by Specialization

Specialization	Number	Percentage
Fashion design	40	28.78%
House Management	99	71.22%

Table (1-4) shows the distribution of the study sample according to the level of specialization. The largest percentage (71.22%) of the study sample consisted of female students who specialize in the management of the house from the total sample size. And (28.78%) of the study sample members are students of fashion design.

Table (1-5). Distribution of Study Sample by Social Status

Social Status	Number	Percentage
Married	35	25.18%
Single	104	74.82%

Table (1-5) shows the distribution of the study sample according to the social situation where 74.82% of the study sample were unmarried students of the total sample size, while the percentage of female students married was (25.18) studying.

4.4. The Study Hypotheses

The first hypothesis " There is no application of food habits among the students of the Faculty of Education for Home Economics at Umm Al-Qura University for the academic year 2017/2018". To validate the hypothesis, the average calculation and standard deviation of the instrument as a whole were calculated in Table (1-6):

Table (1-6). The Average Calculation and Standard Deviation of the Instrument

Paragraph	Mean	Std. Deviation
q1	3.3165	1.02176
q2	3.4173	1.23886
q3	4.2374	.92143
q4	3.2374	1.21335
q5	3.4460	1.13043
q6	3.1367	1.29212
q7	2.9065	1.23882
q8	3.6547	1.27241
q9	3.8345	1.09410
q10	3.4101	1.28994
q11	3.6906	1.09577
q12	2.8058	1.27903
q13	2.6619	1.40162
q14	3.9281	1.18346
q15	3.7122	1.36331
q16	4.7770	.61436
q17	3.6331	1.21072
q18	3.6403	1.22774
q19	3.5899	1.10213
q20	4.2086	.95154
q21	3.6547	1.41274
q22	3.7698	1.19368
q23	3.8129	1.17688
q24	4.0935	1.04875
q25	3.7698	1.29836
q26	3.1511	1.44921
q27	3.0576	1.44849
q28	2.7698	1.35837
q29	2.6978	1.45789
q30	3.4317	1.34083
Total Average	3.50	

The Table (1-6) shows the mean of the instrument as a whole is (3.50). This average is higher than the average measuring instrument for this study and is between the degree of neutrality (+ 3) and the degree of approval (+ 4). This indicates that the application of food habits among the sample for the academic year 2017/2018, has a high degree, and thus reject the hypothesis of nihilism.

The second hypothesis said "There were no statistically significant differences at the level of α (0.05) for the extent application of food habits in the sample, due to the variable level of study.

Table (1-7). Tests of Between-Subjects Effect for the Dependent Variable Food Habits

Source	Sum of Squares	Di	Mean Square	F	Sig	Eta Squared
SDU-Level	1.958	3	.653	30656	.014	.075
Error	24.098	135	.179			
Total	1743.538	139				
Corrected Total	26.056	138				

a.R Squared = .075 (Adjusted R Squared = .055)

Table (1-7) indicates that there are statistically significant differences at the level of $\alpha \geq 0.05$ between the application of food habits and the variable of the academic level, where the level of sig (.014) is less than ($\alpha \geq 0.05$). The nihilistic hypothesis is rejected.

Table (1-8) shows differences between school years and the extent to which food habits were applied. The Scheffe test was used to show these differences. It was found that there were differences between years of study for fourth year students.

Table (1-8) Multiple Comparisons Dependent Variable: Eating habits

(I)SDU-Level	(J)SDU-Level	Mean Differences (I-J)	Std. Error	Sig	Interval	
					Lower Bound	Upper bound
1 st - year	2 nd year	8.852E-02	9.962E-02	.852	-.1935	.3709
	3 rd	.3813	.1004	.054	-2.87E-03	.5655
	4 th	-2.233E-02	.1012	-.997	-.3087	.2641
2 nd - year	1 st year	-8.852E-02	9.962E-02	.852	-.3706	.1935
	3 rd	.1928	.1017	.314	9.962E-02	.4808
	4 th	-.1109	.1025	.038	-.4011	.1794
3 rd -year	1 st -year	-.2813	.1004	.054	-.5655	2.869E.03
	2 nd	-.1928	.1017	.314	-.4808	9.525E.02
	4 th	-.3036	.1032	.038	-.5959	-1.13E.02
4 th -year	1 st -year	2.233E-02	.1012	.997	-.2641	.3087
	2 nd	.1109	.1025	.761	-.1794	.4011
	3 th	.3036	.1032	.038	1.133E-02	.5950

Based on observed means

*.The mean differences is significant at (.05) level

The third hypothesis said "there were no statistically significant differences at the level of ($\alpha \geq 0.05$) for the extent of applying the food habits of the sample, due to the achievement variable (cumulative rate)".Table (1-9) shows the results of the analysis of the test, the mono-valence, averages and standard deviation of the achievement variable:

Table (1-9). The Mono-valence, Averages and Standard Deviation of the Achievement Variable

ACH	Mean	Std. Error	95% confidence Interval	
			Lower Bound	Upper Bound
Med	3.442	.219	3.009	3.874
Good	3.571	.091	3.391	3.751
Very Good	3.483	.053	3.379	3.587
Excellent	3.543	.067	3.411	3.675

Dependent Variable: Food habits

Whereas Table (1-10) below indicates that there are no statistically significant differences at the ($\alpha \geq 0.05$) level between applying food habits and the achievement variable (GPA), where the level of sig (.792) is greater than ($\alpha \geq 0.05$) depending on the achievement variable, where the null hypothesis is accepted:

Table (1-10). Tests of Between-Subjects Effects

Source	Sum of	Di	Mean Square	F	Sig	Eta
ACH	.199	3	6.621E-02	.346	.792	.008
Error	25.857	135	.192			
Total	1743.538	139				
Corrected Total	26.056	138				

R Squared=.008 (Adjusted R Squared=.014)

The fourth hypothesis" there were no statistically significant differences ($\alpha \geq 0.05$) for the extent to which food habits were applied in the sample Table (11.1) refers to the mean and standard deviation of the specialization variable:

Table (1-11). The Mean and Standard Deviation of the Specialization Variable

Specialization	N	Mean	Std Deviation	Std. Error Mean
English habits design	40	3.5600	.4359	6.892E-02
Manage	99	3.4970	4349	4.371E-2

Table (1-12). Independent Sample Test

	Levene's Test for Equality of Variances				T-Test for Equality of Means					
	F	sig	T	Df	Sig (2-tailed)	Mean Differences	Std. error differences	95% confidence interval of the differences		
								Lower	Upper	
Equal Variance Assumed	.158	.698	.773	137	.441	6.303E-02	8.153E-02	-9.82E-02	.2242	
Equal Variance Not Assumed			.772	72.043	.442	6.303E-02	8.161E-02	-9.97E-02	.2257	

Table (12-1) indicates the results of the test analysis (T-Test) to the absence of statistically significant differences at the level of significance ($\alpha \geq 0.05$) between the application of food habits and the variable of specialization, where the level of indication of sig (.441) is more than ($\alpha \geq 0.05$) according to the specialization variable, where the null hypothesis is accepted.

The fifth hypothesis "there were no statistically significant differences ($\alpha \geq 0.05$) for the extent of application of food habits in the sample." Table 13.1 refers to the mean and standard deviation of the social status variable:

Table (1-13). The Mean and Standard Deviation of the Social Status Variable

Social Status	N	Mean	Std. Deviation	Std. Error Mean
Married	35	3.6286	.4088	6.910E-2
single	104	3.4769	.4381	4.296E-02

Table (1-14) shows the results of the test analysis (T-Test) to the absence of statistically significant differences at the level of ($\alpha \geq 0.05$) between the application of food habits and the social status variable where the level of sig (.074) is more than ($\alpha \geq 0.05$) according to the variable of the social situation, where the null hypothesis is accepted.

Table (1-14). T-Test Results

	Levene's Test for Equality of Variances				T-Test for Equality of Means					
	F	sig	T	Df	Sig (2-tailed)	Mean Differences	Std. error differences	95% confidence interval of the differences		
								Lower	Upper	
Equal Variance Assumed	.983	.323	1.800	137	.074	.1516	8.423E-02	-1.49E-02	.3182	
Equal Variance Not Assumed			1.864	62.291	.067	.1516	8.137E-02	-1.137E-02	.3143	

5. Results

To answer the first question, "What is the degree of application of food habits of female students of the College of Education for home economics at Umm Al-Qura University in Mecca in 2018?", the means and the standard deviations were calculated for all the statements of the questionnaire and for the questionnaire as a whole. Table (6-1) shows that the highest mean of the students' responses to the statements of the study instrument was (4.77). For instance, the statement (16), which states that "ensure that the food is clean before eating" scored a very high rating and falls under the box "always". Followed by statement (3), which states: "I eat the daily meal (lunch)" with an average of 4.23 that considered a very high score and fall under the box "always". Statement 20, which states " Be sure to chew food well before swallowing" scored an average (4.20) with a high rating that falls under the box "often".

While the minimum mean (2.66) was for statement (13), which states that "I take supplements to maintain my health and body safety without consulting the specialists," and with a moderate score tend to decrease and are listed under the box "sometimes". Followed by statement (29), (28). (Ensure to now the calorie content of the food I eat) and (I am affected by commercials when buying food) with average (2.69) and (2.76) which considered a moderate average that falls under the box "sometimes". On the other hand, the mean of the instrument as a whole scored (3.50) and with a high rating falls under the box "often", indicating that the students of the College of Education for Home Economics at Umm Al-Qura University have good eating habits.

To answer the second question, "Are there differences of statistical significance for the food habits of the sample due to the level of the study(the school year?)", (ANOVA and Scheffe) have been used and the results showed that there were statistically significant differences for the fourth year (level 7 and 8).

To answer the third question, "Are there any statistically significant differences in the food habits among the sample due to the cumulative rate (achievement)?", table (1-10) shows that there are no statistically significant differences in the food habits of the sample due to the achievement variable (Cumulative rate).

In order to answer the fourth question, "Are there any statistical differences in the food habits among the respondents due to specialization (fashion design, housing and housekeeping)?". Table (1-12) shows that there are no statistically significant differences in the food habits of the sample attributable to specialization variable.

To answer the fifth question, "Are there differences of statistical significance for the food habits of the sample due to the variable of the social situation (married, unmarried)?". Table (1-14) shows that there are no statistically significant differences in the food habits of the sample attributable to the social status variable.

6. Discussion

The first question results indicated that study sample practiced good food habits with a mean of 3.50 and a high degree of evaluation. This may be due to the nature of some of the subjects studied in college which are related to food education. As most of the students in the lagoon of late adolescence, which is dominated by the search for the girl about beauty and agility. This finding was consistent with the study of [Yahia et al. \(2008\)](#), which proved that the majority of students eat regular meals, and that female students practice healthier eating habits than male students and with [Bukhari \(2010\)](#), study where she indicated that the sample exercise good eating habits. Moreover, ([Melhem and Al-Wedian, 2013](#)) study indicates that students' degree of commitment to health food habits and behaviors is high. The highest mean of this study was (4.77) for statement 16 "Ensure the cleanliness of food before eating it", and this result was agreed with [Hoque et al. \(2016\)](#), which indicated that the most important factor for students to make a decision on food, (65.8%) of them chose its cleanliness. This finding differed with the [Cefai and Camilleri \(2011\)](#), [Walid et al. \(2015\)](#), [Samia and Abd El- Mouty \(2016\)](#) and [Abraham and Noriega \(2018\)](#), all of which indicated that there were unhealthy food habits and behaviors in different samples and countries where these studies were applied.

The results of the second question indicate that there are statistically significant differences in the food habits of the sample members due to the level of the students study and for the fourth year students (level 7 and 8). This result is due to the fact that the fourth year students studied most courses, including food and health, and also because they are more mature and most of them married and mothers, and do not lose sight of the importance of their search for beauty and elegance and are about to graduate and engage in work outside the walls of the university. This result was different with [Melhem and Al-Wedian \(2013\)](#), which indicated that there are no differences in food habits attributed to the variable level of study.

Results for the third question showed that there were no statistically significant differences in food habits due to the cumulative average. This result was agreed with [Melhem and Al-Wedian \(2013\)](#), indicating that there were no statistically significant differences in the food habits of students according to the cumulative average variable.

The results related to the fourth and fifth questions indicate that there are no statistically significant differences due to the variables of specialization and social status. The reason for the specialization is that students study general and cultural subjects, including subjects on nutrition and in the same hall and time for the two sections. As for the social situation, the students have the same stage age groups and thus have the same concerns and aspirations, and increase the chances of impact on peers and influence them. And also because they live in the same environment and society.

7. Summary of Results

There is an application of food habits of female students of the Faculty of Education for Home Economics at Umm Al-Qura University, and to a high degree for the academic year 2017/2018.

- There were statistically significant differences at the level of ($\alpha \geq 0.05$) for the extent of application of food habits among female students of the Faculty of Education for Home Economics at Umm Al-Qura University, due to the variable level of study and for the fourth year students.
- There were no statistically significant differences at the level of ($\alpha \geq 0.05$) for the extent of the food habits of Umm Al Qura University students due to the achievement variable (cumulative average).
- There were no statistically significant differences at the level of ($\alpha \geq 0.05$)for the extent of application of food habits among female students of the Faculty of Education for Home Economics at Umm Al Qura University, due to the variable specialization.
- There were no statistically significant differences at the level of ($\alpha \geq 0.05$)for the extent of application of food habits among female students of the Faculty of Education for Home Economics at Umm Al Qura University, due to the variable social status.

8. Recommendations

- Adopting a national strategy at the level of public and private universities through the development of curricula related to food and nutrition and their inclusion in the early stages of education years.
- Attention and continuity in the dissemination of food culture among females, especially in university education, in order to improve their knowledge and awareness in the planning and implementation of

healthy meals, and modify some misconduct, which is reflected on the nutrition of all members of the family.

- To raise awareness of the importance of food and the basics of nutrition in schools and universities in which all concerned parties (eg, Ministry of Health, Ministry of Education, Ministry of Higher Education, Ministry of Agriculture and Community Organizations) are involved.
- Conduct further field research to detect the nutritional and nutritional status of primary school students.

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