Dietary Patterns of University Students: A Case Study of the University of Sennar

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Abstract: *Purpose: In Sudanese universities the students are accommodated when they arrive from remote and rural territories in boarding houses affiliated to the National Fund for support of the students, and at the University of Sennar a large number of students are moved to live in a dormitory and the diet changes affecting their health. The aim of this study to identified daily food pattern for female students and its impact on health. Method and Material:- 300 sample of students are interviewed to collected information about daily food pattern and how change affecting their health. used Questionnaire. The importance of this study comes, to the importance of nutrition in this stage of the students life because they are linked to academic achievement was information-gathering questionnaire use of female students. data analysis using statistical packages for the social sciences, SPSS and statistics used occurrences and the percentage results revealed 40% of students in critical growth stage and 33, 33% are simple financial expenses in the month and 68, 33% they drain the food 5 pounds Sudanese and is less than one dollar a day and the food is poor style in content of nutrients and showed signs poor nutrition in 2, 33% cheilosis, Pallor conjunctivitis 33% and 1% glossiti, And search out several recommendations including food culture for students and periodic follow-up.*

Keywords: dietary pattern, diet, student, sennar university , university life

1. Introduction

University life is a challenging period especially for first year students who have to leave their familiar surroundings and settle in a new environment. The unfamiliar environment may have an impact on their personality, attitudes and behavior [8]

The diet of University students has been modified by the influence of technology, fast food and social conditions [5] Data on food consumption, surveys are useful on determining change in food habits and trends in consumption of various foods in the different geographic locations and between social economic groups. Food consumption and dietary habits information are essential for the promotion of nutrition improvement programmers. They are also an important item in policies related to food subsidies, nutrition intervention programmers and nutrition education to prevent and control of nutritional problem [2]. A nutritional valuation is that which evaluates the correct growth and development, somatic, psychological and social, avoiding deficiency states. The nutritional needs vary in function of the development stage and the genetic and metabolic differences in each individual [1][26] A good nutrition helps prevent diseases and to develop physical and mental potential. Hence the importance of an adequate diet and nutrition at the stage of university studies since it is a period of life in which people generate greater productivity from the economic and social point of view [25][30] Evaluation of the nutritional state it´s been used as an indicator of the health state and in the location of risk groups for deficiencies and excesses, which can be a risk factor in many of the most prevalent chronic diseases nowadays [2][1] Nutritional problems of adolescents, whether under nutrition or related to chronic diseases, are mainly the result of dietary inadequacies. These may be linked to a number of physiological, socio-economic and psychosocial factors. The last group of factors is probably the most important as the search for identity, the struggle for independence and acceptance, and concern about appearance, tends to have a

great impact on lifestyle, eating patterns among adolescents [6][4] Some illnesses are known to be lifestyle related like coronary diseases , obesity , high blood pressure , diabetes , and to a certain extent, osteoporosis. [5] [7][1][2]Unfortunately assessment of nutritional status of adolescent girls has been the latest explored area of research particularly in rural India. Malnutrition prevails in rural area due to low economic status, less awareness about healthy diet of adolescent girls [15] . The diet of any individual, whether child, adult, or adolescent, is the result of the intermeshing of a range of factors, many of which are complex and conflicting. This complexity increases when the focus is placed on young people , who are at stage of development described as "turbulent "and characterized by major physical and psychological changes [6] This topic review discuss characteristic adolescent eating habits, including skipping meals, fast food consumption, frequent snacking, and dieting behaviors [1] Knowledge There have been considerable changes in human . Lifestyle all over the world in the recent decades. Especially in recent years, the lifestyle has rapidly been changed. These changes appeared in diet, types of food, cooking time, etc. Nowadays processed foods are rapidly replacing organic food. Another change is the rapid increase in the number of restaurants and in people's tendency to eat fast food. Proper nutrition is one of the most important aspects of lifestyle [1] The university stage is a very important biophysical social process in which an inadequate diet may affect the performance and intellectual capacity of individuals, this may be of special relevance to life quality in developing countries, where its habitants face adverse socioeconomic, cultural and nutritional conditions [4.]

Due to the lack of knowledge in the Sudanese population especially in universities, students tend to practice wrong eating habits such as fast foods, this sort of food has no value to their nutrition what so ever but during the past years students seem to have diverted from home cooked meals to university cafeterias. As the foundation of Sudanese eating habits started in early childhood they paved the way for their current food choices. There are certain factors that leads to

this, the most important one is the globalization phenomena that shows that there is a change in life style and nutritional habits not only in Sudan but worldwide. Due to the massive effect of the media that may give people mixed messages about what to eat to advertise their products,, the rapid spread of restaurant's that causes .people to divert to such places rather than eating at home due to the lack of motivation and due to the fast life nowadays, fast foods became the main diet taken by the Sudanese population, particularly among students at various levels of education [7] . The objective of this study was to identify the food pattern of University students of dormitories, Faculty of Education University of Sennar.

2. Materials and Methods

In this research sample of students dormitories of the University of Sennar in Sudan's new College of education undergraduate (freshman) and applied a questionnaire to gather information on the pattern of food and medical examination for students search for sample note virtual skin tags what nutrition medical examination by a doctor clinic.

Table 4: Favorite foods in the sample

The meal	Percentage	Frequency
Bread	84%	252
kssera with salts alwikia	49.33%	148
Krash	90%	270
Teardrop	96.33%	289
Tahnieh	51.66%	155
Fresh vegetables	50%	150
Fresh fruit	95.66%	287
Eggs	83.33%	250
Meat	96%	288
Beans	22%	66
MILK	66%	198
Hot drinks	100%	300
Cold drinks	68.33%	205

Table 4 shows that More favorite foods to five respondents are: 100% hot beverages such as tea, coffee and traditionally eaten in abundance and porridge with salts neighbors Talia three floors down 85.19% which is a popular snack and 96% meat and fruits 93.66% walk rash 90% and is a popular cooking rather than eaten with bread. The times get favorite foods was 10.33% consume 99.61% once and drink (2-5) times a week and 8.33% do not support on their favorite foods during the week faculty analyzed data with spss to extract the frequencies and percent

3. Results

Table1: The age of the Sample

Age repetition for	Percentage	frequency
Years (18-20)	40%	120
(21-23) years	23.33%	70
(24-26) years	36.66%	100
Total	100%	300

Table 1 Shows Age groups of respondents were highest in the age group (18-20 years) with 40% and 23.33% in category (21-23) and 36.66% in a category (24-26) years.

Table 2: Monthly budget and expenditure on food

Monthly expenses	Percentage	frequency
Less than 150 pounds	33.33%	100
pound (300-150)	46.66%	140
More than 300 pounds	20%	60
shows the per diem on the food		
5 pound	68.33%	205
pound (10-5)	26.66%	80
(10-15) pounds	5%	15

Table 2 indicates painful monthly stipend students take him where he found that the 33.33% taking 150 pounds and 46.66% deal (150-300) and 20% deal amount to more than 300 pounds. And expense the students daily on food as behavior 68.33% 5 pounds a day.

Table 3: Eating patterns food Choices and Consideration

Number of meals per day	Percentage	frequency
One meal	6.66%	20
two meals	76.66%	230
Three meals	13.33%	40
Four meals and more	3.33%	10
Total	100%	300

Table 3 shows that the majority of the students 76.66% have 2 meals per day.

Table 5: Planning to Daily Meals

The meal	Percentage	Frequency
Yes	59%	177
No	7.66%	23
Rarely	33.33%	100
The planning basis for the daily diets of respondents		
Purchasing power	40%	120
Available food	7.33%	22
nutritional value	3.33%	10
Desire	6.66%	20

Table (5) shows that 59% of respondents planning to daily meals and this group belong to discrimination while 7.66% no planning and 33.33% rarely planned and this result shows the ignorance of the importance of planning when asked respondents about the basis of planning responses were as follows: 40% depending on the estimated purchasing power is highest and3.33%housing planning .

Table 6: The Decision to Eat

	Percentage	Frequency
An individual decision	40%	120
decision group	60%	180
Total	100%	300

Table 6 shows that 40% of respondents take their meals individually while 60% making the decision to eat within a group known as the discrimination so as to pay equal money

for the food and planning budget for meals during the week and be a joint decision of the members of the Group

Table 7: how to buy food with the respondents

	Percentage	Frequency
Home cooked food is ready	25.33%	76
Are concocted by the students	34.66%	104
Fast food (sandwiches)	%40	120
total	100%	300

Table 7 shows that 34% Cook alone in dormitories and order food home 25.33% cooked ready, 40% of respondent ate fast food (Sandwiches)

Table 8: Style dining in the dormitories at sample research

Daily food pattern	Percentage	frequency	
Breakfast-	10%	30	No
	60%	180	1-6 times/week
	30%	90	Daily
lunch-	11%	33	No
	66.66%	200	1-6 times/week
	22.33%	67	Daily
Dinner	%5	15	No
	21%	63	1-6 times/week
	74%	222	Daily
Snack	4.66%	14	No
	55.33%	166	1-6 times/week
	40%	120	Daily

Table 8 shows that pattern of food intake per day where there is an absence of basic food for some respondents, such as breakfast 10%, lunch 11% and dinner 5%

Table 9: Foods eaten during the day usual

Daily food pattern	Percentage	frequency	Total deal a day
Bread	-	-	No
	73.33%	220	(1-3) times
	26.66%	80	more than three times
Tahnieh	3.33%	10	No
	70%	210	(1-3) times
	26.66%	80	more than three times
Chicken	92.33%	277	No
	7.66%	23	(1-3) times
	-	-	more than three times
Beef	58.66%	176	No
	8%	24	(1-3) times
	-	-	more than three times
Fish	48%	144	No
	-	-	more than three times
Milk	29%	87	No
	41.66%	125	(1-3) times
	3%	9	more than three times
Cheese	51.66%	155	No
	37%	111	(1-3) times
	11.33%	34	more than three times
Yogurt	48%	144	No
	52%	156	(1-3) times
	-	-	more than three times
Adass	0.66%	2	No
	88.33%	265	(1-3) times
	11%	33	more than three times
Bean	-	-	No

	89.33%	268	(1-3) times
	11%	33	more than three times
Fresh vegetables	-	-	No
	85%	255	(1-3) times
	15%	45	more than three times
Fresh fruit	22%	66	No
	66.66%	200	(1-3) times
	11.33%	34	more than three times
Coffee	2%	6	No
	70.66%	211	(1-3) times
	21.33%	64	more than three times
TEA	-	-	No
	93%	289	(1-3) times
	3.66%	11	more than three times
Soft drinks	2%	6	No
	91.66%	275	(1-3) times
	6.33%	19	more than three times
Fruit juices	22%	66	No
	34.66%	104	(1-3) times
	10%	30	more than three times

Table 9 shows that the proportion of foods traditionally eaten on the day that high bread consumption 73.33% three times a day and eat the milling reached 70% of (1-3) times a day and women tend to gain weight is by eating habits in the manifestation of beauty and lack of eating chicken and beef 92% for 58.66% and amounted consumed 48% and 41.6% milk and cheese for lacking 51.66% and 52% were eating yogurt category (1-3) times and results of animal products were dealt with as they are expensive The price and eat lentils at 87.38% and 99.29% reached in peanut class from (1-3) times indicating that the key food legumes students dormitories for vegetables (dakoh) for 85% and this is a good exercise diet fresh fruit 66.66% of (1-3) times and 22% do not eat fresh fruits which affects their health and for coffee 70.66% and tea 93% (1-3) times a day and this affects. The intake deal with natural juices 34.66% (1-3) times a day and these are usually good for students promotes health with soft drinks totaled 96.4% .

Table 10: The Impact of Students' Dietary Patterns on their Health:

Tag mall nutrition	Percentage	frequency
There is no	93.33%	280
Cheilosis	2.33%	7
Pallor conjunctivitis	3.33%	10
Glossators	1%	3
Total	100%	300

Table 10 shows that some signs of poor nutrition began to appear, cheilosis to 2.33%, which demonstrates the lack of vitamin and Glossators 1%, and 3.33% pallor conjunctivitis.

4. Discussion

This study could show light on the pattern of student's dormitories of the University of Sennar, Sudan. The results on demographic data revealed that, age of most students was ranging from 18 to 20 years (40%) results showed that a large number of the findings suggest that these amounts are low does not meet the needs of the student of the commitments , refers to expense the students daily on food as behavior 68.33% 5 pounds a day, and this percentage is high and indicates that the students don't care to spend on food but the Exchange in other areas including cosmetics probably because few expenses and cost of living in this time

which affects their health . And this agrees with the study [8] about the adequacy of the allowance for food needs answered 66.66% to monthly expenses are not enough meet their needs of food and the lack of access to meet their needs . The results suggest the students indicated that they one meal per day and took two Meals per day, The results suggest That pattern of rotation causes a lack of many custom food daily and therefore does not satisfy the daily needs and the risk to the health of the students and the study [6,13]

The results showed that meals More favorite foods to five respondents are: 100% hot beverages such as tea, coffee and traditionally eaten in abundance and porridge with salts neighbors Talia three floors down 85.19% which is a popular snack and 96% meat and fruits 93.66% walk rash 90% and is a popular cooking rather than eaten with bread. The results show that times get your favorite foods do not support on their favorite. The result showed that 59% of respondents planning to daily meals and t meals during the week to affect food and meet their needs due to limited purchasing capacity and current economic situation. The results showed his group belong to discrimination while 7.66% no planning and 33.33% rarely planned and this result shows the ignorance of the importance of planning when asked respondents about the basis of planning responses were as follows: 40% depending on the estimated purchasing power is highest and 6.66%, taste and 7.33 based on available foods and 3.33% housing planning based on nutritional value and the result is a high degree of food knowledge.

The results showed that respondents take their meals individually while 60% making the decision to eat within a group known as the discrimination so as to pay equal money for the food and planning budget for meals during the week and be a joint decision of the me The above table indicates that 34% Cook alone in dormitories and order food home 25.33% cooked ready, 40% of respondents ate fast food (sandwiches) and which are dangerous in terms of health and food on the health of female students [5]

The results showed that the pattern of food intake per day where there is an absence of basic food for some respondents, such as breakfast and lunch, 10% 11% 5% the dinner meals are important because they help enough daily food requirements affecting academic achievement is due to the ignorance of the effect on long-term And this agrees with the study [6,7]

The results showed that the proportion of foods traditionally eaten on the day that high bread consumption 60.38% three times a day and eat the milling reached 70% of 1-3 times a day and women tend to gain weight is by eating habits in the manifestation of beauty and lack of eating chicken and beef 92% for 58.66% and amounted consumed 48% and 41.6% milk and cheese for lacking 51.66% and 52% were eating yogurt category (1-3) times and results of animal products were dealt with as they are expensive The price and eat lentils at 87.38% and 99.29% reached in peanut class from 1-3 times indicating that the key food legumes students dormitories for vegetables (dakoh) for 85% and this is a good exercise diet fresh fruit 66.66% of 1-3 times and 22% do not eat fresh fruits which affects their health and for coffee and tea 70.66% 93% (1-3) times a day and this affects And this agrees with the reports made by other researchers [7, 10]

The intake juices 34.66% 1-3 times a day and these are usually good natural students promotes health with soft but drinks totaled 96.4% is considered high and its health risks, these findings indicate that most students do not receive recommended daily meals And this agrees with the study [5] .This is due to the ignorance of health nutrition when asked respondents if they have knowledge of the healthy diet they 85.45% answered don't know.

Data from the clinic showed that (93.33%) of all the students who visited the clinic had clinical signs (physical signs) of malnutrition of more than five nutrients. The other (6.66%) had malnutrition of less than five nutrients. The common signs listed were corners of the mouth 2.33%,pale whit eye (3.33%), glossitis of gums (1%). Data from students' eating patterns, nutritional values of their meals and their lack of variety show some form malnutrition, either under or over. The findings regarding the impact of students' dietary patterns indicate that students do not get all the nutrients in recommended daily quantities these percentages indicate the seriousness of the situation and for the sample if the Cracking and redness and inflammation of the corners of the mouth 2.33%, which demonstrates the lack of vitamin re is no intervention to improve food with style And this agrees with the study [6][8].

5. Conclusion

The main thrust of the study pattern recognition lunch for students of the University and its impact on health. Highlights of the findings of the food intake pattern consists of legumes (lentils) 88, 33% and lack of eating beef, 58, 66% and 33%, 92, chicken and fish, 84% and 29% milk and eat Halva tahnieh (1-3) times a day 70% and 22% not intake fruits and focus on coffee and tea three times a day 11, 33% and 33%, respectively, of this type of food is poor in content vitamins and minerals elements the important comply with him the nutritional needs of students because of the lack of money spent on food, and lack of To the knowledge of the planning of daily food pattern that has led to some signs of malnutrition, such as cracked corners of mouth virtual and bleaching eye redness and swelling of the tongue.

Recommendations

- National Fund showed support students on campus distribute food to provide cash.
- Educate students on their needs of food and proper nutrition, balanced.
- Assessment of health status of the students should be carry in regular and necessary consultations.
- There is a strong need for further research to understand the behavioral and psychological factors that contribute to better eating habits.
- Encourage the students for healthy eating in this critical period of growth.
- Periodic follow-up of university students is received and appeared to have signs of malnutrition and providing treatment and support needed.

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