Gap between the pattern of food consumption with interests in boy student's

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Abstract: Many of habits and food's profferings are forming in the age of adolsece and youth. One of the most important obstruction's factors of degenerative disease in elderly, is following of balanced and accurate diets. The aim of this study was determining of Gap between the pattern of food consumptioon with interests in boy student's in Mazandaran University of medical sciences in 2012. This cross sectional- descriptive study was done on 350 boy student in Mazandaran University of medical sciences. Researcher questionnaire was used to collect data. In oreder to comparision of food consumtions with students interest in the main meal and the middle meals and also all of food's goods used of t-test and to comparision of gap number in main meal food and middle meal food was used of repeated measurerrs and in ordet to comparision of the gap between consumption and interest of students who is living in dormistory and out of dormitory was used of one-sided variance test and Post Hoc test likeLSD test. Result showed that there is difference between consumption and interests in five main meals (two middle meal and three main meals). Difference mean in three main meal and two middle meal is obtained (-14.3) and (-11.9), respectively. Difference between gap between food consumption and interests in three main meal was significant (p=0.0001).If education presents with food needs and attention to correct food's pattern, habit and food resources, it could be hopefull about development of health education in university students.

Keywords: Gap; food patterns;interests; boy student

1. Introduction

Nutrition has an important and key role in creation, maintance and health promotion, because the nutrition is necessary for all of vital activity of body (WHO,2001). Malnutrition is one of the roots of poverty, economical retardation and political dependence (Contento,Randell,Basch,2003). Some of the reasons of death and disability among adults, such as vessel- cardiac diseases, cancer, diabetes, brain and lung disease is related to life style and diets in United State and about 65% of adults who were above 20 years old are overweight and fat (Khalili et al. ,2011). In each community, provision of nutrition health make saves the costs of medical services, productivity in investment of educational section and finally, the best education for future generation that is warrantee for political and economic's independence. Respecting to quality and quantity about situation of children's nutrition has placed above the health outline (. Pipes ,Trahms1996). It's seemed that one of the important ways to challenge to problems which associated with malnutrition in children and adolescence is education (Yoon et al, 2000).

        Behavioral properties such as food patterns are rare in teens and this is the creative causes of many of mortalities in elderly age, because many of health and unhealthy behaviors which is based in this age will be shown them as consistent behaviors in future (Gupta, Kochar, 2009). Since, young human sources is mentioned as national wealth for sustainable development in each community, planning is uncover able for improving nutrition and health situation in this group. By identifying adolescences problems, presentation of proper procedure is possible (Gracey et al,1996). With respect to the importance of food receiving according to interests and main meal and middle meal to provide nutrition needs and boy student's health, this study was done with goal to assign the gap between pattern of food consumption with boy student's interests. The results could be a good guide to managers in planning, change of identity, and an enrich program for food educational planning.

   This cross sectional- descriptive study from practical type has been done on 350 boy students in Mazandaran University of medical sciences in 2011. The method of sampling was multi step process. Students determined base on faculty, educational degree and educational course and students who were finished at least one semester. Then in each category the number of required test were selected randomly. In this study researcher questionnaire to was used to collect nutrition's data in 3 month. This questionnaire was included two questionnaires that called the main

food meals and the middle food meals with whole food groups of 60 goods. For completion this questionnaire, it is wanted from students that anything which have consumed at 3 recent months, at first, they ticked in checklist and whatever was significant consumption entered in main questionnaire. In second stage, it is wanted from students expect of any things that they have used, each goods that they would like to consumption in main and middle meals determine in checklist and those food were more interested inserted in main questionnaireIn the present study we investigate herb species richness (spermatophyte) in terms of taxonomical diversity and species composition in relation to oak and pine forests in Central Himalayan forests.

2. Material and Methods

This cross sectional- descriptive study from practical type has been done on 350 boy students in Mazandaran University of medical sciences in 2011. The method of sampling was multi step process. Students determined base on faculty, educational degree and educational course and students who were finished at least one semester. Then in each category the number of required test were selected randomly. In this study researcher questionnaire to was used to collect nutrition's data in 3 month. This questionnaire was included two questionnaires that called the main food meals and the middle food meals with whole food groups of 60 goods. For completion this questionnaire, it is wanted from students that anything which have consumed at 3 recent months, at first, they ticked in checklist and whatever was significant consumption entered in main questionnaire. In second stage, it is wanted from students expect of any things that they have used, each goods that they would like to consumption in main and middle meals determine in checklist and those food were more interested inserted in main questionnaire. For analyzing data was used of statistical program (Spss 13). In oreder to comparision of food consumtions with students interest in the main meal and the middle meals and also all of food's goods used of t-test and to comparision of gap number in main meal food and middle meal was used of repeated measurerrs and in ordet to comparision of the gap between consumption and interest of students who is living in dormistory and out of dormitory was used of one-sided variance test and Post Hoc test likeLSD test.

3. Results

Findings showed that there is difference between consumption and interest in five main meals (three main meals and two middle meals). Differenc mean in three main food meal and two middle food meal was obtained (-14.3) and (-11.9), respectively.

Differenc between gap of food consuption and interests in three main food meal was significant (p=0.0001). By assigning all of goos, there was negative gap in some cases in the both of main and middle food meals. The most gap in main food meals was related to dried fruits and grains (pistachio) 46.6 and the least gap is related to meat groups (hen) -0.6. Also, the most gap in the middle food meals was related to dried fruits and sweet noodles and crushed ice (Faloodeh) -34 and the least gap was related to grains group (split pea) -3.1. frequency distribution of samples in 13 course and six faculty persented in table 1 from experienced and expert's level. (Table 1: Frequency distribution of samples).

According to findings, if consumption was more than interestes, then this gap considered positive between consumption and interestes. But rice versa, if consumption is less than interests, this gap has cosidered negetive. Table two has shown the percentage of consumption and intereste and also negative and posetive gap rate. (Table 2: Comparison of gap between consumption and interest of the main meal) (Table3: comparison of Gap between consumption and interest in the middle meal).

Table 1: Frequency distribution of samples

Faculty	Major	Sample value	level
Health	Public health	30	undergraduate
	Environmental health	30	undergraduate
	Occupational health	30	undergraduate
paramedical	Laboratory sciences	30	undergraduate
	Anesthesiology	30	undergraduate
	Operating room	30	undergraduate
	Radiology	30	undergraduate
	Medical emergency	30	PhD
	Information technology	10	undergraduate
Medicine	Medicine	30	PhD
Pharmacy	Pharmacy	30	PhD
Nursing and midwifery	Nursing	30	undergraduate
Dentistry	Dentistry	10	PhD

4. Discussions

Today the social convenient in different counteries is evaluated based on various variables such as their nutritional situation and those communities is considered advanced counteries which its people have appropriate health and nutrition. Adolsence ages is the best time for consolidation of correct habit in order to prevent of health and nutritional problems in the next periods of life. Nutritional science is essnetial for developing of nutrition and health (Alam et al, 2010).

Table 2: Comparison of gap between consumption and interest of the main meal

Food group	Food items	Consumption (percentage)	Interest (percentage)	Gap (percentage)
Bread	Bread	97.1	88.9	+8.2
	Rice	93.4	85.1	+8.3
	Pasta	75.7	82	-13.7
grains	Bean	59.4	69.7	-10.3
	Pea	46.9	68.9	-22
	Lentil	60.6	75.7	-15.1
	Spilt pea	50.6	64.3	13.7
Vegetables	Potato	82.9	90	-7.1
	Onion	54.9	66.3	-11.4
	Tomato	82.3	88.4	-6.1
	Cucumber	70.6	78.9	-8.3
	Leave vegetables	64.6	79.4	-14.8
Fruits	orange	59.4	74	-14.6
	Kiwi	45.7	74.9	-29.2
	Banana	59.1	84	-24.9
	Pear	38.3	79.1	-40.8
	Peach	42	82	-40
	Nectarine	38.9	65.7	-26.8
	Cherry	36.6	69.4	-32.8
	sour cherry	32.9	63.4	-30.5
	Apples	71.1	89.1	-18
	Other fruits	37.4	68.6	-31.2
Meat	Red meat	74.6	82.3	-7.7
	Hen	84.3	84.9	-0/6
	Fish	80.3	86.9	-6.6
	Egg	90.6	87.1	+3.5
Dairy products	Milk	84.3	90.9	-14.6
	Yogurts	86.6	86.3	+0/3
	Creamy cheese	68	86.3	-26.3
oils	Vegetable oil (solid)	55.1	42.3	+12.8
	Animal butter	58	47.1	+10.9
	Vegetable butter	48	66.6	-18.6
	Margarine (vegetable oil (liquid)	66	64.6	+1.4
Candy and sweets	Sugar	71.7	71.1	+0/6
	Dates	74.3	87.7	-13.4
	Honey	67.7	90.9	-23.2
Carbohydrate salts and sausage	Pickled cucumber	57.1	59.4	-2.3
	Pickled cabbage	38.6	46	-7.4
	Other pickle	57.7	62.9	-5.2
Grains and dried fruits	Walnut	68.3	82	13.7
	Almond	37.1	76.9	76.9
	Pistachio	33.1	81.7	81.7
	Sunflower seed	38.3	74.6	74.6
	Squash seed	33.1	61.1	61.1
	other	23.7	35.1	35.1
Candy products (confectionary)	Candies	42.9	72.3	72.3
	Ice cream	38.6	52	52
	Faloodeh	28.3	49.4	49.4
	Industry cake	43.7	66.3	66.3
	Biscuit	42	50.3	50.3
Drinks	Doogh (yogurt and water)	73.7	80	80
	beverage	53.1	59.1	59.1
	Barely water	48.3	63.1	63.1
	Industry juice	40	56	56
	Natural juice	44.9	60.6	60.6
	Tea	71.4	87.7	87.7
	other	34.3	35.1	35.1
Other foods		29.1	45.1	45.1
Total		56.7	71.02	71.02

Table 3: comparison of Gap between consumption and interest in the middle meal

Food group	Food items	Consumption (percentage)	Interest (percentage)	Gap (percentage)
Bread	Bread	84	71.7	+12.3
	Rice	-	-	-
	Pasta	-	-	-
grains	Bean	30.9	33.4	-3.5
	Pea	20.3	29.4	-9.1
	Lentil	29.1	36.9	-7.8
	Spilt pea	22.3	25.4	-3.1
Vegetables	Potato	52.9	51.4	+1.5
	Onion	34.7	32.6	+2.1
	Tomato	57.1	63.1	-6
	Cucumber	51.4	73.4	-22
	Leave vegetables	41.7	55.1	-14.4
Fruits	orange	57.4	89.4	-32
	Kiwi	48.9	69.7	-20.8
	Banana	67.3	96.3	-29
	Pear	44	75.7	-31.7
	Peach	44.9	65.7	-20.8
	Nectarine	43.1	61.1	-18
	Cherry	40.3	63.4	-23.1
	sour cherry	40.6	60.6	-20
	Apples	72.6	90.9	-18.3
	Other fruits	37.7	47.1	-9.4
Meat	Red meat	32.9	54.3	-21.4
	Hen	38.3	53.1	-14.8
	Fish	-	-	-
	Egg	71.1	64.6	+6.5
Dairy products	Milk	73.7	86	-7.7
	Yogurts	61.1	55.4	+5.7
	Creamy cheese	50	66	-16
oils	Vegetable oil (solid)	-	-	-
	Animal butter	31.1	20	+11.1
	Vegetable butter	30.3	22	+8.3
	Margarine (vegetable oil (liquid)	31.1	28.9	+2.2
Candy and sweets	Sugar	48.3	57.1	-8.8
	Dates	58.1	70.6	-12.5
	Honey	47.7	77.1	-29.4
Carbohydrate salts and sausage	Pickled cucumber	26.6	19.7	+6.9
	Pickled cabbage	20.3	12	+8.3
	Other pickle	28.9	34	-6.9
Grains and dried fruits	Walnut	56	65.4	-9.4
	Almond	43.7	71.7	-28
	Pistachio	47.4	76.6	-29.2
	Sunflower seed	46	67.1	-21.1
	Squash seed	34.9	68.3	-34
	other	24	53.4	-29.4
Candy products (confectionary)	Candies	45.1	45.1	-19.8
	Ice cream	51.7	51.7	-16.6
	Faloodeh	34.3	34.3	-34
	Industry cake	47.7	47.7	-12.9
	Biscuit	46.3	46.3	-18.3
Drinks	Doogh (yogurt and water)	50.6	50.6	-20.3
	beverage	34.6	34.6	-7.7
	Barely water	48.9	48.9	-7.1
	Industry juice	38	38	-25.1
	Natural juice	42.9	42.9	-10.2
	Tea	74	74	+3.1
	other	25.7	25.7	-
Other foods		26.3	26.3	-3.3
Total		42.6	42.6	-11.9

According to result of this study, the main meal is very important because of the most energy is obtained of them and also defined in the food program of all community. In this study, there is significant difference from the comparision of gap between consumption and interest in the main meal (p=0.0001) and this gap is related to fruits group. But the most of energy's providing in main meal in both interests and consumption field, is related to bread, grains,meat, hen and dairy products. The least consumption is allocated to dried fruits and seeds and the least interests is related to salt and spices groups in the main meal. Students has stated parts of energy and food menu about interesting and consumption to the middle meal as well as light, energetic and nutrition foods. In this study, there was significant difference between consumption and interests in the middle meal (p=0.0001)., as the most gap in middle meal was related to dried fruits and seeds (squash seed) and bakery products group (faloodeh) (-34), and the least gap was related to grains group (split pea) that was -3.1. The most consumption was related to bread and grains in middle meal and the least interest was related to fats and oils groups. In Decarli study and et al, in Switerland, the part of breakfast, lunch and dinner in the procurement of daily energy were 31%, 19% and 29%, respectively. And the part of middle meal was 23% (Decarli et al, 2000).

In middle meal, afternoon snack and lunch in main meal have the most part of consumption. Apple and banana has the most consumption in fruits grups. In the study of consumption pattern in Iran, apple is introduced as the most consumption in families (Kianfar et al,2006).other study state that middle meal has a lot of effect on improvement, concentration powerness, learning and even fatness (Benton et al. 2007). In Esferjani study and et al, in east area of Tehran, the most consumption in middle meal of adolsence were cake, sandwich, fruits, chips, artificial juice and beverage (Esferjani et al, 2006). In current study, ten food of that have the most consumption of main food in student were: bread, rice, egg, yougurt, milk, hen, potato, tomato, fish and date but interested food in main meal were milk, honey, tomato, bread, potato, apple, rice, egg, yogurt and fish. But in middle meal the most consumption food were bread, tea, milk, apple, egg, banana, yogurt, date, citrus fruits and tomato, but the most interested food in middle meal was related to banana, apple, citrus, milk, honey, pistachio, cucuber, bread, almond seed, yogurt and water.

In Santich study and et al, on American teenagers, the most consumption in middle meal was related to rock candy and cabonated drink (Santich, 1995). In Dadkhosh's study, the most procurement of daily energy in main meal was related to lunch (28%)

and the middle meal was allocated to afternoon snack (22%). The middle meal was forms the 40% daily energy in students. The middle meal had the key role in the procurement of daily energy even in some parts is more important than main meal like breakfast (Dadkhah et al,2009). Findings in the most students confirm each other, especially in consumption main and middle meals. In the end, the following possibly reasons for describing the gap between intersted and consumption showed that may be it didn't seem in other simillar studies in various population groups and those are:

1. Dormitory,s life in most students
2. having closely nutrition clusters
3. some of nutrient foods are not available easily
4. simillar level of economic situation in students

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