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A Study of The Relationship Between Nutritional Status and Scholastic Achivement Among Primary School Students in Wadi Eldawasir City in Kingdom of Saudi Arabia

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Abstract: Nutritional status has been played an important role for the effect on physical growth, cognitive development, and physical work capacity, and it consequently influences human performance and Heath. The study aims to examine the association between results of educational tests and the nutritional status of School children.

The methodology of the study included 150 school children in wadi eldawasir city, educational achievements were assessed by their score in mathematics, Arabic score, English score, Sciences score and Social score. Nutritional status was evaluated by anthropometric measurements, determining elements of the 24-hour recall of dietary intake, diet history. The most important results have shown that there are with respect to Arabic score, it correlated significantly positive with animal protein ($p<0.05$) ($r=0.155$) and total protein ($p< 0.01$) ($r=0.173$and "B_6" ($P<0.05$) ($R=0.137$ AND 0.117) respectively .Also there is a positive correlation coefficient between science score and vitamin "C" and "B_6" ($P<0.05$) ($R=0.137$ AND 0.117) respectively. In the end this study has found that there is a positive relationship between nutritional status and educational achievement .

Keywords: Anthropometry - Nutritional status – socio - economic scholastic achievements - Wadi Eldawasir.

دراسة العلاقة بين الحالة الغذائية والتحصيل الدراسي بين تلاميذ المدارس الأولية بمدينة وادي الدواسر المملكة العربية السعودية

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الملخص: تلعب الحالة الغذائية دورا هاما في التأثير علي النمو البدني والتنمية المعرفية والقدرة علي العمل البدني، وبالتالي فهو يؤثر علي الأداء البشرى وتهدف الدراسة إلى دراسة العلاقة بين نتائج الاختبارات التعليمية والحالة الغذائية لأطفال المدارس . وقد اشتملت منهجية الدراسة على 150 تلميذة بالمدارس الأولية بمدينة وادي الدواسر وتم تقييم التحصيل الدراسي من خلال درجات الاختبارات في الرياضيات والعربي والانجليزي والعلوم والدراسات الاجتماعية وتم تقييم الحالة الغذائية من خلال القياسات الجسمية وتحديد العناصر الغذائية خلال 24 ساعة والتاريخ الغذائي.

وقد أوضحت اهم النتائج ان هناك علاقة ارتباطية إيجابية بين درجات اللغة العربية والمستوي المأخوذ من البروتين الحيواني ($p\leq0.05$, $r=0.155$) والبروتين الكلي ($p\leq 0.01$, $r= 0.173$) و فيتامين B6 عند ($R=0.137$ AND 0.117) ($P<0.05$) وهناك أيضا معامل ارتباط

إيجابي بين درجة العلوم وكل من فيتامين C, B6 (R=0.137 and 0.117) (P<0.05) علي التوالي . وجدت هذه الدراسة ان هناك علاقة إيجابية بين الحالة الغذائية والتحصيل الدراسي.

الكلمات المفتاحية: المقاييس الجسمية، الحالة الغذائية، النواحي الاجتماعية والاقتصادية التحصيل الدراسي، وادي الدواسر.

Introduction

Nutrition is not only responsible for building up the body but it also plays a role in orientation of man's behavior socially, morally, intellectually as well as personally . To build a healthy body from newborn through childhood, it is very important to stress that food consumed should adequately supply the body with all its requirements for growth, repair and energy both qualitatively and quantitatively. Therefore, good health depends on an adequate food supply (Gerald Wiseman, 2006).

Nutritional support for growth and development in such diverse circumstance as eating disorders, competitive sports, and pregnancy follows specific principles. Modifications may be required to ensure that physical development is normal and continuo in the face of wide swings in nutritional requirement based on the characteristics of a childhood life. The nature of psychological development requires that the most sophisticated counseling techniques available today be applied in helping children change long-standing food-related behavior than that impair their nutritional health. (International journal of applied and basic nutritional science, 2009). Nutritional assessment will help in developing good understanding of the nutrition status of the children in preventing malnutrition before it develops and in understanding of the reasons underlying the incidence of malnutrition. An important part of the nutritional status assessment is the measurement of growth and development of the individual. Physical measurement reflect the total nutritional status over the lifetime. Some measurements (Amoriim, Paulo, et al. 2006). Such as height, reflect past nutritional or chronic nutritional status. Others such as mid-arm nutritional status. Malnutrition affects physical growth, cognitive development, and physical work capacity, and it consequently influences human performance and Heath (El Hioui M et al 2016). Finally, the recognition that food can affect brain development, function, and behavior has generated considerable interest, among the scientific community and the public.

Iron has been implicated in the lack of attention children pay to relevant stimuli and thus potentially impairs both learning and memory (Kanarek and Marks Kaufman, 1991), and consequently alters educational achievement, and mental functions (Sandstead, 1990). It is impossible to say whether malnutrition per se, contributes more or less to the depressed cognitive development of previously malnourished individuals than do unfortunate social and environmental conditions (Anonymous, 1973). For this reasons, it had been recommended to study the relationship between dietary intake and their biochemical indicators with the childhood's scholastic achievement and other psychological tests.

AIM OF THE STUDY:

The objective of this work is to study the relationship between the nutritional status, school performance of the children, their cognitive potential and certain socioeconomic and demographic factors of their households in wadi eldawasir city .

Examine the association between results of educational tests and the nutritional status of School children.

3-Review of literature

3-1-Socioeconomic and sociocultural factors affecting, Nutritional status.

Child malnutrition is a major public health and development concern in most of the poor communities leading to high morbidity and mortality. Various studies have highlighted the factors involved. The present study focuses on socioeconomic inequality resulting in malnutrition. Objectives of the Study were to find the Impact of socio-economic factors on nutritional status in primary school children (Babar et al 2010).

Two billion people live in about 100 poor under-developed nations of the world; per capita income in these nations ranges from moderate to extreme poverty.

Throughout the world, poverty and ignorance had been reported to be Leading causes f malnutrition. Inflationary food costs in recent years have worsened the plight of the poor (World health and population, 2006). Poverty, low literacy rate, large families, food insecurity, food safety, women's education appears to be the important underlying factors responsible for poor health status of children from low socioeconomic class. It requires economic, political and social changes as well as changes for personal advancement mainly through educational opportunities to improve the nutritional status of the children. (Babar et al 2010).

The characteristics of nutrition problems, their causes, options for solutions and their variation within countries. So that, suggestions could be made for relative priorities of options based on typology of problems and situations. According to, the SCN, the main socioeconomic and sociocultural characteristics affecting nutritional status were classified under the following heading; (a) characteristics of countries, e.g. by income level, government expenditures especially on health, education, and social I security, population factors (density, growth rate, urbanization); (b) specific factors relative to household. Food security, such as dietary energy! Availability, dietary patterns, proportion of income spent on food; (c) nutrition and infectious disease, including infant and child mortality rates, access to health.

Services, sanitation, disease patterns; and (d) assessment of caring capacity, perhaps using such data as female literacy rates and other, measures of women's status.

Several studies have indicated that the quality of dietary intake is a result of many variables. For example, it has been found to be related to socioeconomic status, family income, family size, ethnicity

mother's occupational status, and knowledge of sound nutritional practices, although the last is not consistently observed (World health and population, 2006).

3-1-A-Education and ignorance

The diets of the families was found to relationship to education of mother. The education of mother I effect on quality of foods intake parents who are less educated tends to deficiency of nutritive value of diets.

3-1-B-Family size

Household size has an influence on food habits and nutrition. Particularly among low income household depending on cash income for the purchase of food.

With the increase of the size of the household one may observe that the consumption of animal foods will decrease and cheaper ones or decrease as wi11 replace staple foods. Miladis (1998) showed that the amount of protein caloric intake decreased when family size increases. According to the A.R.E National Food Consumption Survey (1990), the level of food consumption is correlated with the household size the large number of families were consume fewer foods and purchased cheap foods such as cereal starchy food. As found that the intake of animal protein and total caloric Influenced by family size.

3-1-C-Income

Income directly affects the purchasing power of a family. Therefore, it effects food choice. High income lead to more elasticity in food's demand. There is abundant evidence in both developed and developing countries demonstrating that food choice are related to income. The total budget, and it was found that the food expenditure increase with low-income families.

3-1-D- Occupation

The influence of different occupation on food consumption is primarily dependent on the level of income of such occupation.

Awad (1995) stated that the influence of different occupation on food consumption is primarily dependent on the level of income of such occupation. A nutrition survey was carried in rural Egypt to compare the difference in food consumption of industrial workers, landowners and agriculturists. The study showed that industrial workers enjoying a higher income and consume more meat, fish, milk, green vegetables, and fruits than their agriculturists.

4-Childhood growth and development

1- Physiologic growth

During these stages, rapid growth takes place. There is an increase in height and weight because of increase in the bone and muscle mass. Children use up a lot of energy in playing. They normally carry their lunch, which should be nutritious and interesting or monotonous in which case the packed lunch box comes back home unfinished or unopened. Special efforts should be made so that they do not meet their energy needs from junk food. Children growth is characterized by an increase in cell number, cell size and reproductive maturity. This striking difference in adolescent growth between males and females influences nutritional needs. Because the children males' experiences greater gain in bone and lean tissue than the females does, he requires more protein, iron, zinc and calcium than the female for development of these tissues. (Schlenker, et al., 1996).

4-2-Nutritional Requirement Of children:

4-2-A- Energy:

More energy per kg body weight is required for .

A. Rapid growth .
B. Enhanced physical activity .
C. High BMR as compared to an adult .

Table (1) Recommended energy intakes for children.

Age (Years)	Average Allowance (Kcol-cm height)	Average Allowance (Kea/day)
	Females	Females
10- 12	14.0	3500

* Average energy allowance (kilo -calories) and median height (cm) for the age group (Recommended Dietary Allowance 1989).

4-2-B - Proteins:

Good quality proteins should be included to take care of bodybuilding and maintenance of tissues. Milk proteins are complete protein and provide calcium as well. Protein intakes to be 15% to 20% of energy consumed. During periods of catch-up growth, protein requirements increase (Trahms and Pipes, 1997). Amino acids are essential for every body, from transmission of the genetic information. Necessary to every species, to the growth and maintenance of the cells of the individual organism. Body cells are able to build their own protein from amino acids, and any out many essential functions. By means, protein can also serve as a source of energy. When carbohydrate and fat intake or reserves are inadequate for energy needs, protein can be (Gerald Wiseman, 2002).

4-2-C - Carbohydrates and fats:

They provide calories and spare proteins from being oxidized for energy. Refined carbohydrates and poor dental hygiene are the reasons for dental caries in children. The consumption of fruits and vegetables, both cooked and uncooked, should be encouraged. Junk food and beverages should be discouraged. Fat, the most energy concentrated nutrients, supplies between 40% and 50% of the energy consumed in infancy and approximately 40% of the energy consumed after infancy by individuals in developed countries, (Gerald Wiseman, 2002).

4-2-D- Vitamins and minerals:

If the diet is, well planned keeping the principles of menu planning in mind supplements may not be necessary. Vitamins are, by definition, organic compounds that (a). Are requited in trace amounts by the body (b) perform specific metabolic functions, and (c) are not synthesized at all in the body and so must be provided by dietary sources. Vitamin do not produce energy, and they differ widely from one to another in chemical structure and thus in biochemical functions. Vitamins serve as essential enzyme cofactors and structural components of the body (Davis and Baker, 2005).The most recommended amount is extrapolated from other age groups. Many of vitamin allowances are the same as hose in adult because of the higher growth.

5- Nutritional problems:

5-A- Nutritional Anemia:

Krause and Mahan, (2006) said that nutritional anemia is caused by absence of any dietary essential that involved in hemoglobin formation or by poor absorption of these dietary essentials. Some anemia have been reported to be caused by a lack of either dietary iron or high quality protein or by a lack of pyridoxine V. B6, which catalyzes the synthesis of the hemeprotein of the hemoglobin molecule or by a lack of vitamin (C) which decreases the rate of iron absorption as well as release of iron from transferring.

6-Points to be considered:

A- Regular meal timings.

B- No nibbling low nutrient dense snacks between meals

C- Do not force feed let the normal appetite return.

D- Meal timings should be pleasant.

E- Food should be appetizing and attractively served. Finger foods should be preferred for children.

F- Packed meals should not be messy to eat.

G- Attractive colors and shapes appeal to children and with a little imagination eating green vegetables and drinking milk could become more interesting, (Sunetra Roday, 2007).

7-Dietary Assessment:

Gibson (1990) said that nutritional assessment is used to define nutritional status at a particular time and evaluate the adequacy of recent nutrition intake. It also help to detect over and sub-clinical malnutrition and identify individuals requiring support such studies provide guidelines of relative amounts of nutrients required.

Nutritional assessment is the identification and quantification of the nutritional status of the individual (James et al., 1995).

7-A- 24 – hour recalls:

A 24-hour dietary recall of everything consumed during the last 24 hours, including the amounts and times that foods were eaten. Although this method is quick and easy, it is likely to be quite inaccurate for several reasons. Not everyone has a good memory, a

of a client's typical eating habits, and clients may not be honest about their intakes, especially of junk food and alcohol. (Leeds, 1998).

7-B-Diet history:

Diet history depending on the assessment needs information about food habits may be obtained by a comprehensive nutrition interview or a tested questionnaire filled out by the individual or parent and followed up by a brief personal review as needed by the nutritionist. Whatever its form a careful nutrition history, including related living situation and other personal, psychosocial, and economic problems, as well as any drugs being used, is a fundamental base of nutrition assessment (Schlenker, et al., 1996).

7-C- Food Frequency Questionnaire:

The assessment tool provides information about an- individual's food intake over an extended period of time, useful data when studying a group's disease risk and incidence. It has two basic parts: (I) a list of foods, and (2) a scale for checking frequency of use over a given period of time.

Completed by individuals or by professionals based on questioning of clients.

If intake of specific nutrients is of concern, frequency data can be collected only for intake of foods high in that nutrient. Suppose, for example, that an older woman is hospitalized with a bone fracture. The hospital dietitian might want to quickly assess her calcium intake and could do this by asking the patient to recall who many times in a week she consumes high-calcium foods, such as milk, yogurt, cheese, small fish with bones, firm tofu (a soybean product), and green leafy vegetables (Leeds, -1998) .

8-Anthropometric Measurements:

Illustrated that anthropometric are physical measurements that provide an indirect assessment of body composition and development.

Anthropometrics describe body morphology by a series of measurements. Those most commonly used are body weight, triceps skin fold, and arm muscle circumference (Weinsier, et al., 1993).

Schlenker, .et al., (1996) said that anthropometry is the process of measuring various dimensions of the human body. Several of these body measures provide valid estimates of muscle and fat components of body composition. They have the advantage of being inexpensive and simple to obtain. Skill gained through careful practice will minimize the margin of error. Selection and maintenance of proper procedures and equipment, as well as attention to careful technique, will help secure accurate data.

9- Nutritional status and scholastic achievement.

Quality education plays a pivotal role in the economic, social and political development. Currently, getting children into schools is not enough; government ensure that children attain the basic knowledge and skills needed for personal well-being .Primary school is an important stage in the development of consciousness and personality of the child.

Nutrition is also a vital component of human health, life, and brain development through the entire lifespan. Balanced nutritious is crucial for endurance, physical growth, cognitive development and productivity. As well, malnutrition is considered a pressing problem that affects the ability of children to learn and causes them to perform at a lower level in school. Under nutrition is a major public health challenging affecting academic school achievement. Ethiopia is one of the sub-Saharan African countries affected by child malnutrition. Previous studies conducted in different areas have shown that under nutrition is common among school-age children; it was reported in the form of stunting range from 11 to 48.7% and underweight from 7.2 to 59.7% (Sama MSWD 2013). A study conducted in eastern Ethiopia reported that the prevalence of stunting was 8.9%, of which, 2% had severe stunted among school-aged children. Though evidence about the prevalence of malnutrition is well studied in Ethiopia, there is insufficient evidence regarding nutritional status allied with academic performance among school-age children (Sama MSWD 2013). The association between nutritional status and educational achievement among school-age children in developing countries have not been recognized well. Stunting is referred as the best indicator for a chronic type of under nutrition. Children who are stunted have low ability to learn at school and poor scholastic achievement. Furthermore, poor feeding practices are associated with stunted and impaired brain development.

On this background, there is a necessity to overlook the relationship between nutritional status and educational performance among school-age children in the Debre Markos town. This study was aimed to determine nutritional status and correlation with academic performance among first cycle governmental primary school in Debre Markos Town, northwest Ethiopia (Biachew Asmare et al 2018).

Materials and methods:

The study subject

primary school number (150) .

1- The sample consists of (150) females students their ages ranged between 10-12 years.

2- The sample from primary school in Waid Eldwasir city.

It represents about (17.77%) from total school students.

Our study is a descriptive cross-sectional survey was conducted using a structured questionnaire.

- Demographic and anthropometric indicators: age, sex, weight, height, arm circumference, Body Mass Index, Triceps skinfold, Arm muscle circumference.

Socio-economic data: the family's income, the parents' educational status, the number of family members.

The indicators of nutrition (The nutritional status was assessed using a set of measurements, anthropometric, determining elements of the 24-hour recall of dietary intake, diet history.

Table (2) Measurements and specific tests carried out on the studied sample

Type of measurement	Specific test	Unit of expression
1-Selected socioeconomic characteristic of school students	Age, sex, father's education, income, number of room, crawdad ness, number of females, sleeping hours, studying hours, father's income, mother's income, father's and mother's employment mother's education	
2- Nutritional elements of the 24hr.recall of dietary intake compared with RDA, 1989	Estimation of essential intake/day Energy Protein Calcium-Phosphorus Zinc-Magnesium-Iron Potassium-Sodium	 K.cal g. mg.
	Carbohydrate-Fat Vitamin B_1, B_2, B_6, Vitamin B_{12}, folate Vitamin C Vitamin A Vitamin D Vitamin E	g. mg. (ug) Mg. (ug RE) (ug) (mg Te)
3- Anthropometric measurements	Body weight Body height Arm circumference Triceps skinfold Arm muscle circumference	Kg Cm Cm Mm Cm

Type of measurement	Specific test	Unit of expression
	Body Mass Index (BMI)	Weight Kg/square Height m^2

Statistical Analysis:

T-test, means and standard deviations of each variable were calculated. Dietary and anthropometric values were compared with the standards. Correlation coefficients between all the variables of this study were obtained, and their significances were identified Frequency distribution and percentage of nutrients consumption of the sample compared to the RDA was done. Percentage of carbohydrate, protein, and fat from the total calories was also considered. T-test, means and standard deviations of each variable were calculated. Dietary and anthropometric values were compared with the standards. Correlation coefficients between all the variables of this study were obtained, and their significances were identified Frequency distribution and percentage of nutrients consumption of the sample compared to the RDA was done. Percentage of carbohydrate, protein, and fat from the total calories was also considered. Frequency distribution and percentage of anthropometric measurements of sample compared to the standard. (Jelliffe, 1966) was also done . Differences were considered statistically significant at a $p < 0.05$.

RESULTS AND DISCUSSION:

Table (3) represent the characteristic of the study sample.

Variables	Females	
	Frequency	%
School grade 4	40	26.6
School grade 5	45	30
School grade 6	65	43.3
Total	150	100.0
Studying status		
Stayed	40	26.6
Passed	110	73.3
Total	150	100.0
Ventilation status		
Moderate	20	13.3
Good	130	86.6
Total	150	100.0
Unsuitable	-	-

Variables	Females	
	Frequency	%
Home sanitation		
Unsuitable	20	13.3
Healthy	130	86, 6
Total	150	100.0
Education level of Father		
I11iterate	15	10
Read & Write	20	13.3
Primary	5	3.3
Preparatory	10	6.6
Secondary	12	8
College	88	58.6
Total	150	100.0
Father employment		
Employer	80	53.3
Free works	70	46.6
Total	150	100.0
Education level of mother		
I11iterate	26	17.3
Read & Write	20	13.3
Secondary	16	10.6
College	88	58.6
Total	150	100.0
Mother employment		
Housewife	100	66.6
Employer	50	33.3
Total	150	100.0

The results of table (3) represent the characteristic of the study sample.

With regard to school grade, it was found that about (25%) of females Ingrid 4 whereas (42.5%) of females Ingrid 5. Also for school grade, 6 it was found that about (32.5%) of females were in this grade. As for studying status, it was found that the majority of females (96.25%) were passed: however, rest of females were stayed.

Also for ventilation status, it was found that the majority of females (86.25%) were living in homes with good fresh air: and as for home sanitation, (97.5 %) of the studied sample from females were living in healthy homes.

With respect to education level of father, the higher percentages of students were having education level (56.25%) for females had females had fathers with college certificates. The lowest

percentages had illiterate fathers (3.75 %) for females. With regard to father employment, the higher percentages of the study sample had fathers in governmental jobs (employees) (75%) for females followed by fathers who work as sample: however the fathers who free work were representing (25%) for females sample .With respect to education level of mother, the higher percentages of students were having college certificates of mothers (41.25%) for females: however (15%) for females their mother, were able to read and write .

Table (4) Represent the means and standard deviations of nutrients intakes compared with RDA2003.

Nutrients intake	Females (n= 150)			T	P
	Mean	SD	RDA %		
Calories	2114.5	547.97	96.14	3.406	0.001***
protein	91.18	35.62	207.2	1.624	0.105
Fat	57.95	21.85	-	2.209	0.028*
Carbohydrate	307.07	90.25	-	3.348	0.001***
Fiber	6.47	2.95	-	0.32	0.749
Calcium	563.96	257.94	46.99	2.613	0.009**
Phosphor	1361.2	450.89	113.4	3.297	0.001***
Iron	17.08	7.92	113.9	2.300	0.022*
Sodium	3344.9	1078.4	-	-1.64	0.102
Potassium	2328.8	783.63	-	2.114	0.035*
Zinc	14.05	7.96	117.1	2.285	0.023*
Magnesium	323.80	160.43	107.9	1.034	0.302
Vitamin "A"	250.28	142.41	31.29	0.258	0.796
Vitamin "D"	1.05	0.906	10.49	2.538	0.012**
Vitamin "E"	14.19	8.78	177.4	0.232	0.816
Vitamin "C"	43.83	37.22	73.06	2.522	0.012**
Vitamin "B_1"	1.68	0.732	152.4	1.564	0.119
Vitamin "B_2"	1.95	1.34	149.7	3.182	0.002**
Vitamin "B_3"	17.72	7.63	118.1	1.821	0.07*
Vitamin "B_6"	1.45	0.57	96.42	2.136	0.03*
Vitamin "B_{12}"	3.24	2.09	162.04	-0.93	0.352
Folat	284.19	108.46	157.88	1.612	0.108
Cholesterol	265.23	145.97	-	-0.94	0.346

*: p<0.05, **: p<0.01, *** p<0.001

The results of table (4) represent the means and standard deviations of nutrients intakes compared with RDA, 1989 .

It could be noticed that calories intake by students was lower than recommended dietary allowances tending to (96.14) of females sample ($p<0.001$). The results of this study with respect to caloric intake are more than the result obtained from the study that done by Mona (1988) on girls from 12-15 years at Cairo city (1936 K. cal) .

The percentages of protein intake was high for females (207.23 %) the recommended allowance. As for carbohydrate and fat there was significant ($p<0.001$). . With respect to the percentages of minerals intake by students (Females), It could be observed that daily intake of calcium was lower than the standard, RDA for females, (46.99 %) of the requirement ($p<0.01$). Severe calcium deficiency causes rickets in children and osteomalcia in adults; they are more likely to be caused by shortage of vitamin (D) than byalack of calcium in the diet .Vitamin (D) is necessary for the absorption of calcium (**Gaman and Sheringtion, 1990)**. The consumption of phosphorus for females (113.43%) of RDA, ($p<0.001$), also dietary intake of Iron for females exceeded the recommended allowances, (113.89%), ($p<0.05$). As for magnesium intake, it was higher for female's sample (107.93%) of RDA.

The excess intake of minerals attracts the attention as its value may by questionable. **According to Whitney, Eleanor and Rolfes, Sharon (1993)**, excess of certain minerals (Ca, Fe, P, K & Na) may cause intoxication . For (Ca) symptoms are constipation, interference with other minerals and increased risk of urinary stone formation and kidney dysfunction for (Fe): nausea, vomiting, diarrhea, rapid, heart beat, weak pulse, and shock, for (p): excess (p) may draw calcium out of the body in being excreted, for (K): muscular weakness and vomiting for (Na): edema and acute hypertension and for Zinc: lowering, the body's Copper content which lead to degeneration of heart muscle accelerate atherosclerois, vomiting, diarrhea, fever exhaustion reduced hemoglobin production and possibly renal failure . The considerable increase of minerals intake than RDA may be also dangerous.

The results illustrated in table (4) shows the vitamins intake by females. It is clear that the daily intake in all vitamins was higher for females ($p<0.05$). Except for vitamin (B_{12}). The daily intakes of vitamin (E) (177.38 %), vitamin (C) (73.06 %), vitamin (B_1) (152.4 0%), vitamin (B_2) (149.7 %) vitamin(B_3) (118.13 %), vitamin (B_6) (96.42 %) and Folic acid (157.88 %)of the recommended dietary allowances for females .

Deficiency of vitamin (A) was found (31.29 %) of RDA for females. The deficiency of vitamin (A) causes a condition known as night blindness and xerophthalmia . Vitamin (D) in females, (13.08 %) ($p<0.05$). Deficiency of vitamin (D) results in a failure to absorb calcium and softening of the bones. In adults an inadequate supply of vitamin (D) causes osteomalacis . Vitamin (B_{12}) in females was (162.04%). A deficiency of cyanocobalamin causes pernicious anemia (**Gaman and Sherrington, 1990**), of the recommendation there for much care should be given for the consumption of dairy products as rich source of carotene. In conclusion, for the previous results it can be noticed that female's consumption of nutrients exceeded the consumption.

Table (5) percentage of protein, Fat, and carbohydrate from the total calories.

Variables	Females (n= 150)
E- Protein	17.40%
E- Fat	24.59%
E-Carbohydrate	58.01%

Table (5) shows the percentage of protein, fat and carbohydrate from the total calories

It can be noticed that the percentage of protein consumption represents (17.40%) from the total calories intake for females. The recent results are more than the results obtained by Tahoone (1998) for protein, which was (12.23%) for females .

For protein, which was (12.23%) for females.

With respect to the percentage of fat consumption from the total calories, it was representing (24.59%) for females .

For fat, which was (20.19%) for females . The results are more than the results obtained by Tahoone (1998) for fat, which was (20.19%) for females .Finally, 150 of females, sample (58.01%) of carbohydrate from the total caloric intake. The recent results are lower than the results obtained by Tahoone (1998) which was (68.53%) for females, and these results are similar to the results obtained by El- Naggar (1997) which ranged between (63.14%) for females.

Table (6) the frequency distribution of nutrients intake percent as compared with the standard RDA, 1989, among males and females student

Nutrients intake	Females (n = 150)											
	Less than 25%RDA		25:<50% RDA		50:<75% RDA		75:<100% RDA		100:<125% RDA		More than 125%$_{RDA}$	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Calories			5	2.8	27	14.9	70	38.7	58	32.0	21	11.6
Protein			2	1.1	3	1.7	5	2.8	20	11.0	151	836.4
Calcium	38	21.0	68	37.6	53	29.3	22	12.2	-	-	-	-
Phosphor	-	-	9	5.0	23	12.7	41	22.7	45	24.9	63	34.8
Iron	3	1.7	9	5.0	27	14.9	44	24.3	34	18.8	64	35.4
Zinc	5	2.8	24	13.3	27	14.9	39	21.5	19	10.5	67	37.0
Magnesium	-	-	25	13.8	39	21.5	28	15.5	22	12.2	67	37.0
Vitamin "A"	83	45.9	63	34.8	35	19.3	-	-	-	-	-	-
Vitamin "D"	163	90.1	18	9.9	-	-	-	-	-	-	-	-
Vitamin "E"	9	5.0	12	6.6	18	9.9	11	6.1	24	13.3	107	59.1
Vitamin "C"	64	35.4	25	13.8	12	6.6	11	6.1	3	1.7	66	36.5
Vitamin "B_1"	-	-	12	6.6	14	7.7	18	9.9	22	12.2	115	63.5

Nutrients intake	Females (n = 150)											
	Less than 25%RDA		25:<50% RDA		50:<75% RDA		75:<100% RDA		100:<125% RDA		More than 125%$_{RDA}$	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Vitamin "B_2"	-	-	11	6.1	42	23.2	34	18.8	23	12.7	71	39.2
Vitamin "B_3"	-	-	13	7.2	27	14.9	34	18.8	35	19.3	72	39.8
Vitamin "B_6"	-	-	22	12.2	31	17.1	49	27.1	39	21.5	40	22.1
Vitamin "B_{12}"	16	8.8	12	6.6	17	9.4	17	9.4	17	9.4	102	56.4
Folat	-	-	-	-	16	8.8	16	8.8	30	16.6	119	65.7

The result of table (6) shows:

Subjects satisfied either (125% or above, 100-125%, 75<100%50<75%, 25<50 or less than 25%), categories of the RDA, number and percentages of students in each category are shown in those table.

With respect to calories intake, satisfied from more than (125%) of the standard whereas no one found females was (11.6%), obtained, (100-125%) RDA females represent (32.0%), obtained, (75<100%), females was (38.7%), satisfied (50< 75%) females were representing, (14.9%) of the standard RDA, obtained, (25<50%) RDA, (2.8%) of females, satisfied from less than (25%),

Also for protein intake more than (125%) RDA was (83.4%) of females, satisfied from, (100-125%) of the standard, (11.0%) of females obtained (75<100%),) (2.8%) of females obtained (50<75%) RDA, females was (1.7%) obtained (25<50%) (1.1%) of females of the standard.

As for we could be noticed that the calcium intake more than (125%) RDA, (100-125%) RDA, females it did not found any one, satisfied from (75<100%) RDA (12.2%) of females, satisfied from (50<75%) (29.3%) of females. Satisfied from (25<50%) RDA female was (37.6%). However, there is no one found females from less than (25%) of the recommended dietary allowances.

As for phosphorus intake for female was (34.8%) student satisfied (125%) and over of recommended dietary allowances (24.9, 22.7, 12.7 and 5.0%) of female's students satisfied (25%) to less than (125%) of recommended dietary allowances.

With regard to iron intake, obtained more than (125%) RDA, females was (35.4%), satisfied from (100-125%) females were representing (16.3 Vs 18.8%) obtained (75<100%) RDA, females was (24.3%), obtained (50<75%) and (14.9 %) of females, satisfied from (25<50%), females were representing (1.7Vs 5.0%), satisfied from less than (25%) there was no one found females was (1.7%) of the recommendations.

Zinc intake, satisfied from more than (125%) of RDA, females were representing (37.0%), obtained (75<100%) of the standard females was (21.5%), satisfied from (50<75%) RDA, (14.9%) of

females, obtained (25<50%) females ere representing (13.3%), satisfied from less than (25%) of the standard females were representing (5.2 Vs 2.8%) .

Result of magnesium intake obtained more than (125%) RDA, female was (37.0%) obtained (100-125%), females was (12.2%) satisfied from (75<100%) RDA, females was (15.5%) of RDA, obtained (50<75%) RDA, females was (21.5%) of RDA, obtained (25<50%) RDA females were (13.3%) satisfied from less than (25%) RDA, there is no one of females.

As regard to vitamin "A" intake satisfied from more than (125, 100-125 and 75<100%) RDA there are no one among this percents while obtained (50<75%) RDA females was (19.3%) of RDA obtained (25<50%) RDA, females was (34.8%) RDA satisfied from less than (25%) RDA, females was (45.9%) of RDA.

Also vitamin "D" intake satisfied from more than (125%) and obtained (100-125%, 75< 100% and 50<75%) RDA there more no one of females, obtained (25<50%) RDA female was (9.9%) RDA obtained less than (25%) RDA, (90.1%) of females.

With respect to vitamin "E" intake obtained more than (125%) RDA, female was (59.1%), obtained (100-125%) RDA, female was (13.3%), obtained (75<100%) RDA, (6.1%) of females, satisfied from (50<75%) RDA, female was (9.9%) satisfied from (25<50%) RDA, female was (13.8%) obtained (25<50%) RDA, (6.6%) of females obtained less than (25%) RDA, females was (5.0%).

Result of vitamin "C" intake satisfied from more than (125%) of the standard females was (36.5%), obtained (100-125%) RDA for females was (1.7%), obtained (50<75%) RDA for females was (9.9%), satisfied from (25<50%) females (13.8%), obtained less than (25%) RDA, females (35.4%) .

As regard to vitamin "B_1" intake obtained more than (125%) RDA for females was (63.5%), obtained (100- 125%), for females (12.2%) satisfied from (75<100%), females were (9.9%), obtained (50<75%) RDA for females was (7.7 %), obtained (25<50%) RDA for females was (6.6%). Satisfied from less than (25%) RDA there is no one found.

Vitamin "B_2" intake satisfied from more than (125%) RDA for females

(39.2%), obtained (100-125%) RDA, females were (12.7%), obtained (75<100%) RDA for females was (18.8 %), obtained (50<75%) RDA for females was (23.2 %), (25<50%) females (6.1%), obtained less than (25%) RDA there were no one found among females.

As for vitamin "B_3" intake obtained more than (125%), females (39.8%) obtained (100-125%) of the standard females (19.3%), satisfied from (50<75 %), females was (14.9%), obtained (25<50%) RDA, females was (7.2%) and there were no one found among females from less than (25%) of the recommended allowances.

Result of vitamin "B_6" intake satisfied from than (125%) of the standard, females was (22.1%), obtained (100- 125%) RDA, females was (21.5%) obtained (75<100%) RDA, females was (27.1%),

satisfied (50<75%) RDA, females was (17.1%), satisfied from (25<50%), females was (15.7% and 12.2%), obtained less than (25%) RDA no one found among females only.

With regard to vitamin, "B_{12}" intake obtained more than (125%) RDA, females was (56.4%), obtained (100- 125%) RDA, females was (9.4%) satisfied from (75<100%) females was (9.4%), obtained (50<75%) RDA, females was (9.4%), obtained (25<50%), females was (6.6%) satisfied from less than (25%) RDA females was (8.8%) of the recommendations.

Finally result of "folat" intake obtained more than (125%) of RDA, females was (65.7%) obtained (100- 125%), females was (16.6%) satisfied from (75<100%) RDA females was (8.8%) obtained (50<75%), females was (8.8 %) and there are no one found among females for less than (25%) of the standard.

Table (7) Frequency distribution of anthropometric measurement percentages as compared with the standard, Jellife, 1966

Anthropometric measurements	Females (n=150)									
	25-<50%		50-<75%		75-<100%		100-125%		More than 125%	
	NO	%	NO	%	NO	%	NO	%	NO	%
Weight	-	-	1	0.6	47	26.0	29	50.8	41	22.7
Height	-	-	-	-	98	54.1	83	45.9	-	-
Arm circumference	1	0.6	1	0.6	80	44.2	88	48.6	11	6.1
Triceps skin fold thickness	6	3.3	18	9.9	61	33.7	30	16.6	66	36.5
Arm muscle circumference	1	0.6	-	-	90	49.7	83	45.9	7	3.9

Table (7) Frequency distribution of nutrients intake percent as compaed with R DA, 2003.

From data of table (8) it is noticed that frequency distribution of anthropometric measurements as percentages of standard (Jelliffe, 1966) was as follows .

With respect to weight (0.6%) of females satisfied (50-<75%) of the standard. females was (26.0%) satisfied (75-<100%), (50.8%) of females satisfied (100-125%). (22.7%) of females satisfied more than (125%) of the standard.

As regard to height, (54.1%) of females satisfied (75-<100%) also (45.9%) of females satisfied (100-125%) of standard.

As for Arm circumference, (0.6%) of females satisfied (50-<75%) of the standard. (44.2%) of females satisfied (75-<100%), and (48.6%) of females satisfied (100-125%), and (6.1%) of females satisfied more than (125%) of the standard.

In addition, triceps skin fold thickness (3.3%) of sample satisfied (25-<50%) of the standard. (9.9%) of females satisfied (50-<75%) (16.6%) of females satisfied (100-125%), (36.5%) of females satisfied more than (125%) of the standard.

Finally as regard to arm muscle circumference, (0.6%) of females satisfied (25-<50%) of the standard. (49.7%) of females satisfied (75-<100%), and (45.9%) of females satisfied (100-125%) and (3.9%) of females satisfied more than (125%) of the standard.

Table (8) Interco relation between anthropometric measurements

Anthropometric	Height	Weight	B . M. I	A . C	T.S.F	A.M.C
Weight	0.436***					
Body	0.175***	0.809***				
Arm circumference	0.171***	0.130**	0.043			
Triceps skin fold thickness	0.056	0.567***	0.590***	0.119*		
Arm Muscle circumference	0.166***	0.060	0.030	0.992***	0.005	

*p<0.05 ** p<0.01 *** p<0.001

Data presented in table (8) show the Inter correlation between anthropometric measurements.

A positive correlation coefficient between height and weight, body mass index, Arm circumference and Arm muscle circumference (p<0.001) (r = 0.436, 0.175, and 0.166) respectively.

With respect to weight, it correlated significantly positive with body mass index and triceps skin fold thickness (p<0.001) (r = 0.809 and 0.567) respectively; and arm circumference (p<0.01), (r = 0.130).

As for there is a positive correlation was found between body mass index and triceps skin fold thickness (p<0.001), (r = 0.590).

With respect to arm circumference, it correlated significantly positive with triceps skin fold thickness (p<0.05), (r = 0.119), and arm muscle circumference (p<0.001), (r = 0.992)

Table (9) correlation coefficient between anthropometric measurements and social variables.

Variables	height	weight	B.M.I	A .C	T . S. F	A . M . C
Age in months	0.090*	0.056	0.013	0.011	0.0107*	-0.002
Studying stage	-0.022	0.023	0.041	0.019	0.030	0.015
Child order	0.061	-0.082	-0.133**	0.064	-0.058	0.072
Family size	-0.008	-0.039	-0.041	-0.005	-0.025	-0.002
Pocket money	-0.084	0.007	0.066	-0.022	-0.055	0.000
Studying hours	0.086	0.126*	0.074	-0.059	0.050	-0.065
Sleeping hours	-0.011	-0.044	-0.041	-0.001	0.000	0.001
Number of I	0.057	0.116*	0.079	-0.023	0.099	-0.036
Rooms number	-0.087	-0.048	0.004	-0.066	-0.018	-0.064
Crowded	0.099*	0.113*	0.052	0.012	0.083	0.002

Variables	height	weight	B.M.I	A.C	T.S.F	A.M.C
Ventilation	-0.025	0.037	0.046	-0.167	0.009	0.170***
Home sanitation	0.023	0.040	0.031	0.016	0.029*	0.020
Water source	0.003	-0.075	-0.081	-0.046	-0.077	-0.037
Education le	-0.004	0.052	0.066	-0.121*	0.054	0.128**
Father employment	-0.031	-0.092	-0.085	-0.041	0.119*	-0.026
Income	0.047	0.066	0.33	-0.028	-0.002	-0.028
Education le	-0.019	0.017	0.033	-0.052	-0.035	-0.048
Mother employment	0.012	0.061	0.070	-0.021	-0.025	-0.018
Family income	-0.114	-0.075	-0.024	-0.355***	-0.123	0.356***

*P<0.05 **P<0.01 *** P<0.001

Table (9) explained the correlation coefficient between anthropometric measurements and social variables.

With respect to height, it correlated significantly positive with age in months, crowded and mother income (p<0.05). It can be noticed that the weight correlated significantly positive with studying hours, number of I and crowded, (p<0.050). As for there are correlated significantly negative between body mass index and child order, (p<0.01). Also arm circumference it correlated significantly positive with mother income (p<0.001) and there are correlated significantly negative with family income (p<0.001) ventilation (p<0.01) and education level of father (p<0.05).

And also triceps skin fold thickness it correlated significantly positive with age in months, number of I, Homes sanitation and father employment (p<0.05). A positive correlation coefficient between arm muscle circumference and ventilation, mother income and family income, (p<0.001) and education level of father (p<0.001).

Table (10) correlation coefficient between Anthropometric measurement and nutrients intake.

Nutrient intake	Height	Weight	BMI	AC	TSF	AMC
Calories	0.1075*	0.1251**	0.059	0.019	0.0121	0.021
Animal protein	0.012	0.073	0.073	0.06	0.114	0.46
Plant protein	0.1005	0.126**	0.0674	0.005	0.0332	0.009
Total protein	0.0504	0.0149	0.021	0.053	0.076	0.044
Animal fat	0.064	0.018	0.022	0.038	0.106*	0.025
Plant fat	0.0101	0.087	0.089	0.002	0.093	0.009
Total fat	0.049	0.083	0.059	0.022	0.009	0.023
Carbohydrate	0.115*	0.134**	0.061	0.004	0.039	1.000
Fiber	0.059	0.032	0.075	0.004	0.078	0.006
Calcium	0.114**	0.075	0.022	0.022	0.034	0.018
Phosphor	0.112*	0.097	0.029	0.014	0.002	0.013
Animal Iron	0.036	0.07	0.049	0.066	0.111*	0.052
Plant Iron	0.068	0.080	0.036	0.007	0.012	0.008

Nutrient intake	Height	Weight	BMI	AC	TSF	AMC
Total Iron	0.059	0.066	0.027	0.017	0.008	0.016
Sodium	0.050	0.025	0.06	0.069	0.041	0.746
Potassium	0.044	0.039	0.019	0.015	0.028	0.012
Zinc	0.121*	0.139	0.07	0.003	0.04	0.09
Magnesium	0.02	0.007	0.015	0.003	0.02	0.006
Vitamin "A"	0.008	0.02	0.01	0.007	0.02	0.009
Vitamin "C"	0.050	0.09	0.136**	0.025	0.08	0.035
Vitamin "D"	0.02	0.04	0.043	0.011	0.03	0.02
Vitamin "E"	0.107*	0.120**	0.07	0.04	0.11*	0.05
Vitamin "B_1"	0.02	0.004	0.001	0.02	0.03	0.02
Vitamin "B_2"	0.100	0.04	0.017	0.008	0.04	0.002
Vitamin "B_3"	0.02	0.04	0.017	0.001	0.001	0.001
Vitamin "B_6"	0.14**	0.094	0.003	0.01	0.04	0.007
Vitamin "B_{12}"	0.03	0.01	0.009	0.006	0.007	0.005
Folat	0.001	0.115*	0.112*	0.02	0.1	0.039
Cholesterol	0.05	0.04	0.001	0.001	0.001	0.002

*P<0.05 **P<0.01

Data of table (10) shows the correlation coefficient between anthropometric measurement and nutrients intake.

There is positive correlation coefficient between K. calories and height, (p<0.05) and weight, (p<0.01).

With respect to plant protein, it correlated significantly positive with weight, (p<0.01)

As for the animal fat, it correlated significantly positive with triceps skin fold thickness, (p<0.05).

Also carbohydrate it correlated significantly positive with height (p<0.05) and correlated positive with weight (p<0.01).

Calcium intake it correlated significantly positive with height (p<0.01).

** Also phosphor intake, it correlated significantly positive with height (p<0.05).

**A positive correlation was found between animal Iron and triceps skin fold thickness (p<0.05).

** Zinc intake, it correlated significantly positive with height (p<0.05) (r = 0.139).

A positive correlation was found between vitamin "C" and body mass index (p<0.01) (r = 0.136).

While vitamin "E" intake, it correlated significantly positive with height and triceps skin fold thickness (p<0.05) (r = 0.107 and 0.110) respectively and correlation with weight (p<0.01) (r = 0.126)

Also vitamin "B6" intake, it correlated significantly positive with height (p<0.01) (r= 0.144) .

Finally "Folat" intake it correlated significantly positive with weight and body mass index (p<0.05) (r = 0.115 and 0.112) respectively.

Table (11) correlation coefficient between scholastic achievement and social variables

Variables	Arabic	English	Arthmat	Science	Social	Total score
Age in months	-0.066	0.596***	0.027	0.781***	0.772**	-0.020
Studying stage	0.015	-0.084	0.006	-0.070	-0.283***	0.010
Child order	0.240***	0.080	0.136*	0.123*	0.061	0.106
Family size	0.255***	-0.044	-0.063	0.057	0.010	-0.050
Pocket money	0.006	0.026	-0.007	0.034	0.021	-0.005
Studying hours	-0.027	0.106	-0.009	0.209**	0.105	-0.017
Sleeping hours	0.118*	-0.091	-0.017	-0.123*	-0.070	-0.010
Number of I	0.083	-0.051	-0.112	0.075	0.035	-0.089
Rooms number	0.015	0.033	0.009	-0.047	-0.019	0.011
Crowded	0.017	-0.060	-0.100	0.088	-0.005	-0.084
Ventilation	0.023	-0.012	0.020	-0.072	0.083	0.016
Home sanitation	0.006	0.037	0.006	0.046	0.033	0.004
Education	-0.125	-0.102	-0.025	0.016	-0.025	0.022
Father employment	-0.009	-0.034	-0.009	-0.056	-0.007	-0.008
Income	0.030	-0.051	-0.044	-0.073	-0.61	-0.037
Education level	-0.63	-0.089	-0.059	-0.096	-0.007	-0.045
Mother employment	-0.075	-0.058	-0.012	-0.016	0.017	-0.007
Family income	-0.038	-0.016	-0.071	-0.042	-0.013	-0.065

*p<0.05 **p<0.01 ***p<0.001

Table (11) present the correlation coefficient between scholastic achievements and social variables.

** With respect to Arabic score correlation significantly positive with child order and family size (p<0.001), and sleeping hours, (p<0.05).

** Also English score correlation significantly positive with age in months, (p<0.001).

** As for Arithmetic score correlation significantly positive with child order (p<0.05).

** There is a positive correlation coefficient between Science score and age in months, (p<0.001), and studying hours, (p<0.01) child order and sleeping hours, (p<0.05). Social score, it correlation significantly positive with age in months, (p<0.001). And there is a negative correlation was found between social and studying stage (p<0.001). Finally a positive correlation coefficient between philosophy and age in months (p<0.001) and it correlation significantly negative with studying stags (p<0.001) .

Table (12) correlation coefficient between anthropometric measurement and scholastic achievements.

Variables	Height	Weigh t	B.M.I	AC	T.S.F	A.M.C
Arabic score	0.057	0.100	0.073	0.015	0.083	0.006
English score	0.178**	0.158**	0.058	0.021	0.071	0.014
Arithmetic score	0.049	-0.086	-0.106	0.006	-0.063	0.011

Variables	Height	Weigh t	B.M.I	AC	T.S.F	A.M.C
Sciences score	0.153*	0.207**	0.120*	0.002	0.155*	-0.013
Social score	0.180	0.229	0.116	0.058	0.009	0.058
Total studying	0.023	-0.079	-0.097	0.004	-0.059	0.010

*p<0.05 **p<0.01

Results of table (12) explained the correlation coefficients between anthropometric measurements and scholastic achievements.

With regard to height correlated significantly positive with English score, (p<0.01), and Sciences score and Social (p<0.05).

And there is positive correlation was found between weight and English, Science and social (p<0.01) (r=0.158, 0.207, 0.192 and 0.229) respectively.

As for it correlated significantly positive with body mass index and science (p<0.05), (r=0.120).

Finally there is a positive correlation coefficient between triceps skin fold thickness and since score (p<0.05), (r=0.155).

Table (13) correlation coefficient between scholastic achievement and nutrients intake.

variables	Arabic score	English score	Arithmetic score	Science score	Social score	Total studying score
Calories	0.0919	0.051	0.0035	0.081	0.066	0.0677
Animal protein	0.1552	0.0443	-0.083	0.009	0.1058	-0.071
Plant protein	0.0572	-0.064	0.0543	-0.061	-0.091	0.0478
Total protein	0.1732	0.0053	0.054	-0.025	0.0493	-0.039
Animal fat	-0.079	0.0311	-0.007	-0.043	0.03	-0.005
Plant fat	0.014	-0.103	-0.056	-0.05	-0.057	-0.047
Total fat	-0.043	-0.062	-0.049	-0.071	-0.023	-0.841
Carbohydrate	0.1077	-0.04	0.0558	-0.069	-0.107	0.051
Fiber	-0.017	-0.029	0.0494	-0.037	-0.028	0.045
Calcium	-0.036	0.0179	-0.022	-0.088	-0.08	-0.015
Phosphor	-0.011	0.0023	0.0441	-0.05	0.0315	0.038
Animal iron	0.0116	0.0648	-0.063	-0.028	0.0232	-0.052
Plant iron	0.038	-0.002	0.0105	0.0183	0.0357	0.0077
Total iron	0.0398	0.0177	-0.01	0.0092	0.0421	-0.008
Sodium	0.0183	-0.072	1.1006	-0.126*	-0.134*	0.0915
Potassium	0.045	0.03	0.115	0.075	-0.009	0.08
Zinc	0.05	0.010	-0.018	0.018	0.03	-0.015
Magnesium	-0.011	0.02	0.05	-0.058	-0.025	0.045
Vitamin A	0.036	0.01	0.05	0.01	0.042	0.046
Vitamin C	-0.061	0.014	0.08	-0.047	-0.047	0.06

variables	Arabic score	English score	Arithmetic score	Science score	Social score	Total studying score
Vitamin D	-0.03	0.036	-0.061	-0.086	-0.086	-0.054
Vitamin E	-3.00E-04	-0.024	0.027	-0.038	-0.038	0.019
Vitamin B_1	0.001	0.05	0.027	0.02	0.02	0.024
Vitamin B_2	0.02	-0.002	-0.056	0.028	0.028	-0.048
Vitamin B_3	0.001	0.08	0.024	0.06	0.06	0.02
Vitamin B_6	0.104	0.069	0.0007	0.204**	0.204**	0.005
Vitamin B_{12}	0.009	0.05	0.009	0.15*	0.15*	0.01
Folat	0.04	0.09	0.005	-0.035	-0.035	0.0002
Cholesterol	-0.027	0.08	-0.029	0.026	0.026	0.025

*p<0.05 **p<0.01 ***p<0.001

Data of table (13) explained the correlation coefficient between, scholastic achievements and nutrients intake.

With respect to Arabic score, it correlated significantly positive with animal protein (p<0.05) (r=0.155) and total protein (p< 0.01) (r=0.173).

Also there is a positive correlation coefficient between science score and vitamin "C" and "B_6" (P<0.05) (R=0.137 AND 0.117) respectively and it correlated significantly negative with sodium (p<0.05) (r=-0.126).

As for social it correlated significantly positive with vitamin "B_{12}"

(P<0.05) (r=0.155) and vitamin "B_6" (p<0.01) (r= -0.1).

Finally this results are deferent from results which obtund by (El Hioui M et al 2016) because of the different research area and different dietary habits of people Finally, most of the research presented in this area differed from each other, for several reasons, the most important of which are the different research areas, which result in clear differences in the composition of the physical structure of students as well as the different dietary patterns of peoples as well as differences in social aspects and economic for families. One of the reasons for not referring to the good school is that all the students did not eat breakfast in the morning before attending school, which leads to a lack of energy level taken and communicated to the brain, which entails distraction and inattention, and it has been noted that this phenomenon is a habit of Saudi society as a whole.

Recommendation

1- Taking more dairy products as a good source of calcium, protein, riboflavin and vitamin "A".
2- The important of vegetables and fruits especially citrus fruits must be taken into consideration to cure the deficiency of vitamins especially vitamin "A" and "C", in addition to improving the preparation of vegetables, and green salad, with emphasis on the delicious taste and attractive looking .

3- Direction of the childhood and attention to practice a good food habits and implantation of a good consumption pattern by school nutrition education programs.
4- Direction of illiterate mothers by nutritional education programs.
5- Parents should be aware of the importance of good nutrition for children intellectual development.
6- Comprehensive nutrition education program is needed for all the levels to avoid under and over nutrition.
7- Authorities in the ministry of education should pay more attention to include the home economic course in the curriculum all education levels, so that student and their families know the principles of good nutrition throughout life cycle. This can lead to a happy for the whole society.

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