

Association between some socioeconomic characteristics, food habits and specific weekly food intake of Sudanese primary school pupils in Riyadh City, Kingdom of Saudi Arabia

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Abstract: This study was conducted to explore the relationship between some socioeconomic characteristics, food habits and specific weekly food intake of Sudanese primary school pupils living in Saudi Arabia. Spearman correlation coefficient analysis was used to investigate the determinant factors of the respondents' food habits and specific weekly food intake. The study covered 400 primary school Sudanese pupils with age between 6 and 12 years (200 boys and 200 girls). The results revealed that the distribution of the respondents according to their socio-economic characteristics, food habits and specific weekly food intake varied between boys and girls. The determinants of the girls' food habits were paternal and maternal education while monthly income was the only factor for boys' food habit. The determinants of the girls' specific weekly food intake were age, paternal and maternal education, income and mother work while those of the boys were age, family members, income and mother work.

Keywords: Sudanese pupils; Food habit; Respondents; Socioeconomic; determinant factors

1. Introduction

The health behavior of children and young people has been of interest to many researchers, especially in recent years. A proper lifestyle, which includes proper eating habits, is considered the basis for the health status of adolescents and adults and it should be monitored to ensure children's correct physical and psychological development (Mazur et al., 2008). Many studies indicated the existence of numerous irregularities in the nutrition of children and adolescents (Kromhout et al., 2002) which result in malnutrition such as overweight and obesity. The consumption of soft drinks is usually associated with lower intake of milk, natural juices and calcium as well as many health problems, including diabetes (Vartanian et al., 2007; Story et al., 2002; Cluskey et al., 2008). The change in eating pattern results in consumption of excess fat, saturated fat, trans fats, and added sugars along with insufficient consumption of micronutrients such as calcium, iron, zinc, and potassium, as well as vitamins A, D, and C and folic acid (Bowman et al., 2004). Such habits are not consistent with dietary recommendations due to lack of content of certain nutrients, vitamins and minerals (Monge-Rojas, 2001). Chandon and Wansink (2007) stated that the increased prevalence of fast-food restaurants and lack of awareness and failure to appreciate the damages, leads to increase the rate of consumption of fast-food with soft drinks and lowered the rate of fruits and vegetables

consumption. Bere and Kleppk (2005) stated that people income, knowledge and access to information have direct impact on their consumption of fruits and vegetables and tendency to eat outside home. Liu et al. (2006) showed that the amount of snacks intake, which contributed about 8% of the amount of energy consumed by children and adolescents, is positively related to the income level of the Chinese families and they observed a direct correlation between the consumption of soft drinks and age. Nutrition education in schools is considered useful in improving knowledge about nutrition, but few studies suggest that it is effective in altering eating behaviors in the absence of environmental change (Story et al., 2002). Dietary habits may contribute to the incidence and severity of overweight in children and adolescents (Daniels et al., 2005). Skipping breakfast has been associated with higher adiposity measures in children/adolescents and is more prevalent than in the past among many groups (Deshmukh-Taskar et al., 2010). Compared to breakfast consumers, those who skipped breakfast had reduced intakes of many nutrients, including vitamins, minerals and dietary fiber (Timlin et al., 2008), that were rarely compensated for at other meals. Breakfast skippers were also less likely to meet the daily recommendations for food groups such as vegetables and fruits (Utter et al., 2007). Many different factors influence food habits in a complex interactive way. Parents and the family environment are very important for young children to learn and develop food preferences and eating habits in a dual way (Story et al., 2002). The present work was conducted to study the correlation between socioeconomic characteristics and food habits and weekly intake of Sudanese primary school pupils in Riyadh City, Kingdom of Saudi Arabia.

2. Research methods

The study was conducted in Riyadh city, Saudi Arabia (2012-2013) which hosts most of the Sudanese workers in Saudi Arabia because of good job opportunities. A simple random sample of 400 primary school Sudanese pupils of age between 6 and 12 years (200 boys and 200 girls) was selected using tables of random numbers. The mean of age of both sexes showed no difference between boys (9.05 year) and girls (9.19 year). Data about the socio-economic characteristics of the respondents' families (family member, father and mother education level, family income and mother work) were collected through personal interview using a questionnaire. Additionally, food frequency questionnaire with questions on dietary habits; number of meals per day, breakfast place, meal at restaurant, preference of food, food taboo, special diet regime, consumption of vitamins and supplements; soft drinks, sweets and consumption of potato chips was obtained for each participant. All questionnaires were specially designed for the study and were previously pretested and validated. Data were collected by trained dietitians during a personal interview with each participant and their mother or person responsible for feeding the child for those (young boys and girls) who are unable to answer some of the questions. The nature and objectives of the study were explained to the respondents and they were told to feel free to participate or not. To investigate some of the determinant factors of the respondents' food habits and intake, Spearman correlation

coefficients between socioeconomic characteristics of the respondents' families and some food habits and intake were calculated using the SPSS program.

3. Results and discussion

3.1. The respondents' socioeconomic characteristics

Table 1 shows the socioeconomic characteristics of the respondents. The majority of the respondents (62.5%) belong to families that consisted of more than 5 members. This reflects the Sudanese and Saudi culture that favor large families. The educational level of the male and female respondents' parents is comparable and the majority have high school certificate followed by those who have university education. The percentage of parents with postgraduate education was low. Duflo (2012) reported that comparison between paternal and maternal education might be obscured by a correlation between maternal education and unobserved characteristics of her husband, through the functioning of the marriage market; more educated women are most likely be married by men who have relatively high socioeconomic status. Mothers' education appears to be an important factor for children's nutrition status. Association between increased maternal education and child survival and development are consistent and strong. Educated mothers make better use of health service and provide better child care including breastfeeding (Reed et al., 1996). Also, father's education is necessary for sound child nutrition status because the main household income earners in Saudi Arabia are predominantly males. The level of monthly income of most families' respondents was found to be medium and a low percentage had high income. Regarding mother work, most of the respondents' mothers dislike to work and the percentage of working mothers of boys and girls were 15 and 18.5%, respectively.

3.2. Frequency distribution of the respondents according to food habits

Table 2 shows the frequency distribution of Sudanese pupils (boys and girls) according to food habits. The results showed that most of the respondents under investigation used to eat three meals per day. Television and other media use may disrupt the healthy eating habits; media use may have an impact on both the amount of time that spent to eat and the time at which meals are planned. To resolve this problem, Van den Bulck (2000) suggested that when a conflict arises between the television programme schedule and family eating habits, meal times may be shifted to allow family members to watch certain programmes. The majority of the respondents used to eat breakfast at school while the percentage of those who used to eat at home was low and only 0.5% of the respondents skipped breakfast. It has been reported that the breakfast skippers have relatively worse intake of various vitamins and minerals and nutrients that are lost as a result of skipping breakfast, which cannot be compensated by any meal of the day (Keski-Rahkonen et al., 2003). The reason that the respondents do not take breakfast at home could be due to a lack of appetite in the early morning or it may be as a habit practiced by the family. The prevalence of fast-food restaurants encouraged the majority of the respondents often to have meals outside the home and only 13.5% of the boys and 14.0% of the girls rarely used to have meals outside the home. Despite the prevalence of fast-

Table 1. Frequency Distribution of Sudanese Pupils (boys and girls) According to Socioeconomic Data.

Variable	Boys		Girls	
	Frequency	Percent	Frequency	Percent
Family members:				
<5	75	37.5	64	32.0
>5	125	62.5	136	68.0
Fathers education:				
Illiterate	3	1.5	4	2.0
Primary	19	9.5	16	8.0
Intermediate	7	3.5	4	2.0
Secondary	77	38.5	67	33.5
Institute	2	1.0	-	-
University	66	33.0	65	32.5
Postgraduate	26	13.0	44	22.0
Mothers education:				
Illiterate	11	5.5	5	2.5
Primary	23	11.5	22	11.0
Intermediate	20	10.0	19	9.5
Secondary	82	41.0	82	41.0
Institute	2	1.0	4	2.0
University	46	23.0	40	20.0
Postgraduate	16	8.0	28	14.0
Family Income:				
Low	37	18.5	29	14.5
Medium	129	64.5	124	62.0
High	26	13.0	25	12.5
Very high	8	4.0	22	11.0
Mother working:				
Yes	30	15.0	37	18.5
No	170	85.0	163	81.5

food restaurants, it is clear from the study that the percentage of girls and boys who always have meals at restaurants was low as well as those who do not have any meal outside the home. Bowman and Vinyard (2004) indicated that those who are younger and living in larger households are more likely to report consuming fast-food. The increase in the prevalence of fast-food restaurants in Saudi Arabia and lack of awareness and failure to appreciate the damages, led to an increase in fast-food consumption with soft drinks at the expense of fruit and vegetables consumption. As shown in Table 2, more than half of the respondents preferred to take specific kind of food, but

Table 2. Frequency Distribution of Sudanese Pupils (boys and girls) According to Food Habits.

Variable	Boys		Girls	
	Frequency	Percent	Frequency	Percent
No. of meals:				
1	0	0	1	0.5
2	16	8.0	13	6.5
3	184	92.0	183	91.5
4	0	0	3	1.5
Breakfast place:				
At home	60	30.0	63	31.5
At school	139	69.5	136	68.0
Skipping	1	0.5	1	0.5
Meal at restaurant:				
Not taking	5	2.5	4	2.0
Rarely	27	13.5	28	14.0
Sometimes	156	78.0	164	82.0
Always	12	6.0	4	2.0
Preference of food:				
Yes	115	57.5	112	56.0
No	85	42.5	88	44.0
Refuse to eat food (food taboo):				
No	38	19.0	38	19.0
Rarely	23	11.5	31	15.5
Sometimes	116	58.0	106	53.0
Always	23	11.5	25	12.5
Special diet regime:				
Yes	0	0	0	0
No	200	100.0	200	100.0
Vitamins and supplements:				
Yes	44	22.0	40	20.0
No	156	78.0	160	80.0
Soft drinks:				
No	12	6.0	18	9.0
Rarely	23	11.5	23	11.5
Sometimes	100	50.0	109	54.5
Always	65	32.5	50	25.0
Sweets:				
No	4	2.0	3	1.5
Rarely	19	9.5	18	9.0
Sometimes	122	61.0	105	52.5
Always	55	27.5	74	37.0
Potato chips:				
No	6	3.0	5	2.5
Rarely	3	1.5	9	4.5
Sometimes	96	48.0	102	51.0
Always	95	47.5	84	42.0

the rest preferred to eat any kind of food provided. Similar results were reported in a study conducted by Al-Aqeel (2000) who showed that an equal ratio of boys and girls preferred to eat certain foods. Fritzpartric et al. (2007) reported that the dietary habits of children and their preference for certain foods are strongly influenced by the habits of their parents or their cares in infancy. The respondents did not refuse to eat all food provided and only 11.5% of the boys and 12.5% of the girls refused to eat food provided (table 2). The study showed that the respondents did not follow any planned or special diet regime due to lack of knowledge about the importance of diet regime. Regarding vitamins and supplements, the results showed that the majority of the girls and boys did not take any vitamins or supplements and only 22.0% of the boys, and 20.0% of the girls have vitamins or supplement to their diet. According to the data collected half of the respondents frequently used to take soft drinks and 32.5% of the boys always used to take soft drinks compared to 25% of the girl. On the other hand, the percentage of the girls who always take sweet exceeded that of the boys. Some of the respondents used to take potato chips frequently and some of them constantly.

3.3. Association between some socioeconomic characteristics and food habits of the respondents

Table 3 shows the correlation between socioeconomic characteristics and daily food habits of the respondents under investigation. Most of the independent variables that are expected to be determinants had relatively small influences on the number of meals per day for the respondents. The number of meals per day for the girls inversely and significantly ($P \leq 0.05$) correlated with father education and also inversely correlated with the mothers education level but the level was not significant. An educated mother and father are fully aware of how to deal with the girl and have to provide all the requirements even at the expense of her nutritional status like cell phone, computer etc. Some of the independent variables such as father education, mother education and monthly income inversely correlated with boys chance to take the breakfast and those for the girls were family members and mother education but the association between the independent variables and the respondent chance to take the breakfast was very weak. A study showed that children's food habits and meal patterns are associated with family socioeconomic status (Samuelson, 2000). As the number of the girls' family members increased, the chance for the family to take meals outside the home (at restaurant) was increased as indicated by a significant ($P \leq 0.05$) and positive correlation between the girls' family members and the chance to have meal outside the home. However, the number of family members inversely affected the chance for boys' family to have meal outside the home but the correlation was not significant. The other variables either positively or negatively associated with the chance of the respondents' families to have meals outside the home but the correlation was not significant. The increasing popularity of fast-food may be in part due to the fact that more women are in the workforce, a greater proportion of households with children are single parent households, and less time is available for food preparation activities. Personal variables associated with greater fast-food restaurant included less concern about

healthy eating, more perceived barriers to healthy eating such as poor taste of healthier foods, lack of time to eat healthy foods, and lower perceptions of maternal concern for their child's healthy eating (French et al., 2002). The respondents' preference for special food was either positively or negatively associated with the variables but the degree of association was found to be insignificant. With age, the girls became aware of the importance of food as a source of nutrients and thus eat all food provided as indicated by a positive and significant ($P \leq 0.01$) correlation between the girls' age and the ability to eat food provided. However, father education and monthly income inversely and significantly ($P \leq 0.01$) correlated with the girls' ability to eat food provided. Moreover, the mother work as an independent variable encourage the girls to eat food provided as indicated by a positive and significant ($P \leq 0.01$) association. The inverse association between father education and the girls to eat food provided can be explained by the fact that educated father can control feeding practice to encourage moderation rather than overconsumption and emphasize healthful food choices rather than restrictive eating patterns. Regarding the effect of monthly income on the respondents to eat food provided, Kapila et al. (2012) reported that parents are always vigilant and concerned about eating habits and nutritional levels of their children and the status of parents and their monthly income were inversely related to family nutrition levels. The number of family members as an independent variable significantly ($P \leq 0.01$) encouraged the boys to eat food provided. Highly educated mothers encourage the girls to skip some meals so as to avoid the problem of overweight or obesity, as indicated by a significant ($P \leq 0.05$) and negative association between mother education and the chance of the girls to skip some meals. Monthly income had a great and significant ($P \leq 0.01$) effect on the boys to skip some meals. Matheson *et al.* (2002) reported that food security and preschooler nutritional status are influenced by the interaction of income and gender of the head of household rather than simply one or the other. With age, the boys realized the importance of food supplements and vitamins for growth and well-being as indicated by a positive and significant ($P \leq 0.01$) correlation between the boys' age and food supplements and vitamins intake. Moreover, family members as a character positively and significantly ($P \leq 0.01$) correlated with the habit of the boys to take supplements or vitamins. Mother education and mother work were also found to have a significant ($P \leq 0.01$) and positive influence on the boys' nutritional status (food supplements and vitamins). However, monthly income of the family significantly ($P \leq 0.01$) and inversely influenced the chance of the boys to take supplements or vitamins.

3.4. Frequency distribution of the *respondents* according to specific food intake per week

The frequency distribution of food intake per week of Sudanese boys and girls is shown in Table 4. All boys used to drink milk while 9.0% of the girls do not. With increase in number of times per week the percentage of boys and girls who used to drink milk fluctuates and reached a maximum percentage of 48.5% and 48.0% for boys and girls, respectively who used to drink milk more than 5 times per week. Regarding laban (kind of liquid yoghurt) intake, the results showed that a high proportion of girls (28.0%) do not drink laban, but 20.5% of them drink laban more than 5 times per week compared to 17.0% of boys. However, less percentage of the boys (0.5%) did not drink laban per week. The study showed that the percentage of boys and girls used to eat cheese more than five times per week was higher compared to 1.0% of boys, and 3.0% of girls who do not eat cheese. About 5.5% of the girls do not eat chicken per week but all boys do. About 6.0% of boys used to eat chicken once a week compared to 17.0% of girls who used to eat chicken once a week, higher percent of girls (35.0%) used to eat chicken twice a week compared to 21.5% of the boys, while 24.0% of the boys and 20.0% of the girls used to eat chicken three times a week. The percentage of the girls who do not eat meat per week was higher (26.0%) compared to that of boys (0.5%). The percentage of boys and girls who used to eat meat once a week was 26.5% and 25.5%, respectively. About 25.5% of the boys and 21.0% of the girl's used to eat meat twice a week. Moreover, 0.5% of the boys like to eat meat five times a week compared to 2.5% of the girls. Also, 22.5% of the girls and none of the boys like to take fruits twice a week, but 8.0% and 8.5% of boys and girls, respectively like to take fruits five times a week. All boys like to take fruits per week but only 4% of the girls dislike taking fruits. About 0.5% of the boys and 10.5% of the girls did not take raw vegetables per week. However, the percentage of the girls who like to take raw vegetables more than five times per week was 46.5% compared to that of boys (39.5%). All boys used to take fruit juice per week but 2% of the girls did not. Among boys and girls about 80.0% of the boys used to take fruit juice more than five times a week compared to that of the girls (35.5%). The results showed that about 1.5% of the boys and 2.0% of the girls do not eat cooked vegetables but 45.5% of the boys and 42.0% of the girls like to take cooked vegetables more than five times a week and an equal ratio of boys and girls like to take it three times a week (13.5%). Regarding cereals, 38.0% of the girls and 1.0% of the boys dislike taking cereals, while 38.5% and 13.5% of the boys and girls, respectively like to take cereals once a week. About 21.0% of the boys and 12.5% of the girls used to take cereals more than five times a week. The results revealed that the percentage of boys and girls used to take cereals varied depending on sex and frequency during the week. About 42.0% of the girls like to take eggs more than five times a week, 22.5% take it four times a week compared to 56% and 7.5% of boys who respectively used to take eggs more than five and four time weekly. The percentage of the boys who like to take eggs five times a week was 16.5% compared to that of girls (3.5%). A small percentage of boys (0.5%) dislike to take eggs compared to 4% of the girls. The results indicate that both boys and girls had an ideal diet with a reasonable amount

taken every week and accordingly the growth performance of the group under investigation expected to be normal with few exception expected to have overweight or underweight. In our previous study, the assessment of such groups showed that the respondents' average daily intake of protein, carbohydrates, unsaturated fat, some vitamins and iron was significantly higher than that of the DRI (Khayri et al., 2015). Koivisto (1999) reported that the development of children's food habits is influenced by a multitude of factors. Parents play an important role in the formation of food habits and preferences of young children. Children tend to be afraid of new foods and do not readily accept them. However, experience is known to enhance preference, and earlier experiences of a particular food are the major determinants of the development of children's food acceptance patterns. Thus, parents should be encouraged to make healthy foods easily available to the child and serve these foods in positive mealtime situations in order to help their child to develop healthy food habits.

3.5. Association between socioeconomic characteristics and specific weekly food intake of the respondents

Table 5 shows the correlation between the respondents' socioeconomic characteristics and their specific weekly food intake (weekly habit). The data showed that most of the independent variables were positively or negatively correlated with the dependent variables but the strength of its influence varied. The age of the respondents was found to be significantly ($P \leq 0.01$) and inversely affecting milk intake per week. However, the family size inversely and significantly ($P \leq 0.05$) affected milk intake per week for boys. Father education positively and significantly ($P \leq 0.05$) affected boys' milk intake per week. Also the respondents' mother work inversely and significantly ($P \leq 0.05$) affected boys' milk intake per week. Father education as an independent variable, is positively associated with girls' laban intake at $P \leq 0.01$ level of significance. On the other hand, boys' age is positively correlated with their chicken intake at $P \leq 0.05$ level of significance. Moreover, both father's education and mother's education are positively associated with girls' chicken intake at $P \leq 0.05$ and $P \leq 0.01$, respectively. Older girls dislike eating meat weekly as indicated by the inverse and significant ($P \leq 0.01$) association between the two variables. The boys' age and their fathers' education as independent variables had a positive and significant ($P \leq 0.05$) effect on their fruit intake. Moreover, mother's education also has a positive impact on the respondents' fruits intake as indicated by a positive and significant ($P \leq 0.01$) correlation between the two variables. The boys' age and their mothers' education were positively and significantly ($P \leq 0.01$) correlated with their intake from raw vegetables and the girls' family size and mother education were also positively and significantly ($P \leq 0.01$) correlated with their intake from raw vegetable. The girls' age was found to be inversely and significantly ($P \leq 0.01$) correlated with their fruit juice intake as well as cereals intake ($P \leq 0.05$). The boys' mother education and family monthly income were positively and significantly ($P \leq 0.05$) associated with their cereals intake. However, the girls' mother work inversely and significantly ($P \leq 0.01$) affected their cereals intake. The girls' father education and monthly income inversely and significantly ($P \leq 0.05$) affected their intake

of egg. Moreover, the girls' mother education also negatively impacted their eggs intake ($P \leq 0.01$). On the other hand, mother work inversely and significantly ($P \leq 0.05$) affected boys' intake of eggs but positively and significantly ($P \leq 0.01$) affected the girls' intake of eggs. This is likely to be due the fact that the mother will be away from home for a long time and boys do not prepare eggs by themselves while girls may do. Older girls used to take soft drinks every week as indicated by a positive and significant ($P \leq 0.01$) association between age and intake of soft drinks. Also the number of the family members is positively and significantly ($P \leq 0.01$) associated with the girls' intake of sweets. The results showed that as the age of the girls increased the number of times to take milk, meat, fruit juice and cooked vegetables per week decreased and the desire to take more soft drinks increased. Education reflects one's knowledge and attitudes that may help follow recommended behaviors, for example, adopting healthy food habits. However, these behaviors may be imbibed already in childhood reflecting parents' socioeconomic position and persist even through the life course. In addition to independent effects on food habits, it is likely that there are causal interrelationships and pathways between the socio-economic indicators. Furthermore, different indicators may show disparate effects on food habits. When studying food habits including consumption of fruit and vegetables, disposable income can be assumed to have an effect, as access to fruit and vegetables may be constrained by low income (Kirkpatrick and Tarasuk, 2003). This poses challenges for nutrition policies to improve the availability and supply of recommended foods for low-income people. Although education and occupational class have been shown to explain most of the income differences in other health behaviors, low consumption of vegetables and use of saturated fat on bread have remained more common among those with low income, even after adjusting for education and occupational class (Laaksonen et al., 2003). These previous findings are in accordance with our results indicating that girls descending from families with higher income are more likely to follow a healthy diet that is, consuming daily vegetables and fruit and using vegetable margarine on bread. However, among boys, income seems to be less important as a socio-economic determinant of healthy food habits. Instead, there was a strong association between healthy food habits and current economic difficulties felt by the respondents. Therefore, when focusing on the economic constraints behind the differences in food habits, difficulties in meeting everyday needs should be better reckoned with. Furthermore, persistent economic difficulties and unhealthy food habits may link socio-economic circumstances to the epidemiology of obesity as well (Shariff and Khor, 2005). Eating habits formed during childhood can persist into adulthood and can prevent or delay premature onset of a number of chronic diseases (Lien et al., 2002). Children's food choices are also shaped by individual, societal and cultural factors. Some of these factors are endogenous to the individual child, but others are environmental. Studies from several countries showed that children's food habits and meal patterns are associated with family socioeconomic status (Samuelson, 2000). In developed countries, irregular meal patterns as well as snack consumption are common, especially among girls in areas with low

socio-economic level (Hoglund et al., 1998), while adolescents with a higher socio-economic level tend to show a higher consumption of vegetables, fruits and high fiber foods and a lower consumption of meat, meat products and fats than their counterparts from a lower socio-economic level (Samuelson, 2000). It has been reported that children and young people from a lower socioeconomic background and those whose mothers had a lower level of education showed a higher consumption of sweets and high-fat bakery products as well as sugary and salted snacks, but lower vegetables intake (Aranceta et al., 2003). Lower education and socio-economical family background is associated with less healthier dietary patterns which may lead to higher risk for overweight both for children and adults in the family (Aranceta et al., 2003). A study of Aranceta et al. (2003) highlighted the importance of enhancing school-based and community based actions to promote healthy eating and physical activity addressed to children and young people.

4. Conclusion

The study revealed that the gender of the respondents influenced both food habits and food type item intake. The determinant factors of the respondents' food habit and specific weekly food intake were found to be differed between boys and girls. The determinant factors of the girls' food habits are father and mother educational level while monthly income is the sole determinant factor of the boys' food habit. The determinant factors of the girls' food type intake are age, father and mother education, monthly income and mother work while those of boys include respondent age, number of family members, monthly income and mother work. For the girls we observed that father and mother education influenced both food habit and food type intake.

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العلاقة بين بعض الخصائص الاجتماعية والاقتصادية، والعادات الغذائية وأنواع الأغذية المتناولة أسبوعياً للتلاميذ والتلميذات السودانيين بالمدارس الابتدائية في مدينة الرياض، المملكة العربية السعودية

المخلص: أجريت هذه الدراسة لاستكشاف العلاقة بين بعض الخصائص الاجتماعية والاقتصادية، وأنواع الأغذية المتناولة أسبوعياً، والعادات الغذائية للتلاميذ والتلميذات السودانيين بالمدارس الابتدائية الذين يعيشون في مدينة الرياض بالمملكة العربية السعودية. تم استخدام تحليل معامل ارتباط اسبيرمان لمعرفة العوامل المحددة للعادات الغذائية للمبحوثين. وشملت الدراسة 400 تلميذاً وتلميذة في الفئة العمرية ما بين 6 و 12 سنة (200 تلميذة، و 200 تلميذ). وأوضحت النتائج أن توزيع العينة وفقاً لخصائصهم الاجتماعية والاقتصادية، والعادات الغذائية وأنواع الأغذية المتناولة أسبوعياً؛ كانت متباينة بين البنين والبنات. كذلك أوضحت الدراسة أن العوامل المحددة للعادات الغذائية للتلميذات؛ هي تعليم الأب والأم، في حين كان الدخل الشهري العامل الوحيد المرتبط ارتباطاً معنوياً بالعادات الغذائية للتلاميذ. وكانت محددات نوع المتناول الغذائي الأسبوعي للتلميذات، هي: عمر التلميذة، ومستوى تعليم الأب والأم، والدخل الشهري للأسرة، وعمل الوالدة، في حين كانت العوامل المحددة للاستهلاك الأسبوعي للتلاميذ، هي: عمر التلميذ، وعدد أفراد الأسرة، والدخل الشهري للأسرة، وعمل الأم.

الكلمات المفتاحية: التلاميذ السودانيون، العادات الغذائية، المستويان الاقتصادي والاجتماعي.