

**NUTRITIONAL KNOWLEDGE AMONG ADOLESCENT  
STUDENTS IN PANKSHIN AREA INSPECTORATE  
OF EDUCATION**

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**ABSTRACT**

*The study aimed at determining nutritional knowledge among adolescent students in Pankshin area inspectorate of education of Plateau State. Survey research design was used for the investigation. Three research objectives were formulated for the study. Questionnaire was used for data collection. The sample for the study consisted of 564 adolescent students. Mean was employed in data analysis. It was discovered that adolescent students had high knowledge about nutrition (60.11%).*

## INTRODUCTION

To eat quality food is the very necessity of life, at least for quality and effective living. Every time we eat, we are preparing grounds for either good or poor health. Of course, this signifies the importance of nutrition in relation to the health status of individuals. Nutrition is being explained by Madden (1980) as the science that deals with the nature and composition of food, the amount of food required by the body, and the chemical and physical changes brought about by the intake of food. In the same vein, Udoh, Fawole, Ajala, Okafor and Nwana (1987) pointed out that nutrition is the process by which the body takes in food and derives nourishment for the cells. Nutrition is used in this work as the process, through which food is used by the body in order to nourish it. The choice of foods that contain the right nutrients required for body nourishment is the consequence of knowledge, which according to Rowtree (1981) is the body of information and understanding, which individuals acquire through life experience and education. The World Organization (WHO) (1996) viewed knowledge in relation to health as a prerequisite to any health action. Applied in the study, knowledge is the ability to reproduce the memory, facts and recipes and so on, related to nutrition. Nutritional knowledge therefore, is the knowledge on nutrients, sources of nutrients, and handling as it affects the body processes and health of persons, especially teenage students such as those in Pankshin Area of Inspectorate of Education (AIE) where the present study was conducted.

Adolescents are popularly referred to as teenagers because their ages go from thirteen through nineteen (Aina, Eha & Ziethin, 1992). These scholars described adolescence as that period of human development, which spans the period between childhood corresponding roughly to the age between twelve and eighteen years. They further stressed that adolescence is that period of human development, which begins at

twelve years of age and lasts until the individual gains social independence and adult status. Adolescence is referred to in this study as that stage of human existence between the ages of twelve and below twenty years of age. This period is recognized as a crucial and influential time for behavioural patterns (including eating habits) and self care which should be explored and used for more healthful living. This period can be observed as a border stage, which is full of behavioural changes. It is a state when adolescent's medical and nutritional needs may be seen in the context of children seeking to establish their identity in a changing adult world.

The characteristics of adolescence period call for close and careful monitoring. This contention is in line with the challenge of health education, which is to identify the means where by individuals can be helped to develop the capacity of understanding the issues in personal choice health behaviour (PCHB) including that of nutrition.

Guthrie (1976) generalized that evaluation of nutritive adequacy of the diets of young adults between ages 12 and 18 years in various regions in the United States indicated that the diet of boys were more adequate and less variable than those of girls. She also guessed that nutritional knowledge and food habits are not necessarily the same. Musaiger (1975) found that most secondary school level female students in Bahrain did not know the actual meaning of certain nutrition terms, such as, vitamins, proteins and carbohydrates. They were also ignorant about nutritional value of fruits, meat and vegetables.

Ashur (1977) also evaluated nutritional knowledge using 840 Jordan students. He claimed that concepts, which obtained lower scores at secondary school level, included recognition of balanced and nutritive value relationship with food calorie. Similarly, Okoro (1980) found high-level knowledge in the fifth form and low level knowledge about nutritional knowledge possessed by secondary school students in Mbano Local Government Area.

Ademowagun (1975) studied the patterns of selected personal health practices among university students. He found that more than half of the respondents included in self-diagnose and self-medication and, about half of them smoked and drank alcohol. He then wondered if assuming university students should possess higher level of health knowledge yet manifested such unacceptable or dangerous health behaviour, what pattern of personal health practices would then be expected of secondary school students who may possess lower level of health knowledge.

Musiager (1975) explained that there were differences in food consumption patterns and food preferences of school pupils. He recorded that the consumption of milk, egg and cheese by girls at breakfast was greater than that of boys. As stressed by Hubley (1988) that it is a common complain that members of a community (including adolescents) ignore advice and continue to practice health-damaging behaviour (nutrition included) even if they know that such behaviour is harmful. Turner (1971) had established that knowledge is an essential factor-affecting behaviour. Observations seem to suggest that adolescents (especially the females) may not have knowledge or awareness about the importance of adequate diet to health. As a result, the adolescents are faced with problems of food choice. This is because they (the females especially are looking for those food items that could make them maintain good shape. This is an indication that their knowledge about adequate nutrition may be deficient which could affect their belief and behaviour towards it. Except a better understanding of the adolescent knowledge about adequate nutrition is achieved, attempts to encourage nutrition education campaigns in order to improve their eating habits may well be based on false assumptions. The aforementioned stressed the need for the present study to determine nutritional knowledge among adolescent students in Pankshin AHE.

In the present study, the investigators adopted Ashur's (1977) criteria for describing the level of knowledge. According to him, a proportion of less than 40 per cent indicated correct responses in any variables being tested is to be considered "low"

level knowledge. 40-59 percent "average", 60-80 per cent "high" and above 80 per cent "very high" level of knowledge.

Specifically: the study considered the following objectives as a guide:

1. to determine the level of knowledge possessed by adolescent students about nutrition,
2. to compare the level of nutritional knowledge possessed by male and female adolescent students, and,
3. to compare the level of nutritional knowledge possessed by adolescent students in junior and senior classes.

The survey research design was adopted for this study. This design is considered appropriate because it permits investigation on a cross sectional sample of the entire population (Eboh, 1998).

The population for this study consisted of all JS1 and SS1 students in government owned co-educational secondary schools in Pankshin AIE of Plateau State, Nigeria. Based on records available, Pankshin AIE had at that time of the study 568 students.

The investigators with the help of the form masters of the selected classes in each of the schools administered 568 copies of the questionnaire. The students were allowed some times to complete the instrument. This was done under strict supervision to ensure that none of them influenced the responses of the other. The returned copies of the questionnaire were checked for completeness of responses. Out of the 568 copies returned, 551 copies were found useable giving a return rate of 97.7 percent.

The responses to the questionnaire were converted into raw scores, and presented in frequency tables. Percentages using Asher (1977) criteria for assessing knowledge were used to answer the research questions.

## RESULTS

Table I: Level of Knowledge Possessed by Adolescent Students on Nutrition

N = 551

Aspects of Nutrition	Responses			
	Correct		Incorrect	
	f	%	f	%
Meaning of Nutrition	408	74.	184	33.94
Essential food nutrients	396	71.87	164	29.76
Carbohydrates	387	70.24	143	25.95
Functions of protein	396	71.87	155	28.13
Vitamin	354	64.25	197	35.75
Daily needs orderly	370	67.15	181	32.85
Vitamin Deficiency disease	258	46.82	293	53.18
Protein energy Nutrition	252	45.74	299	54.26
Effects of poor instructor	251	45.55	300	54.45
Reason for adequate	272	49.36	279	50.64
<b>Overall</b>	<b>60.11</b>		<b>39.89</b>	

Table I shows the adolescent students had high level knowledge on six of the nutrition aspects tested and average knowledge on the other four items. Their percentage correct response scores shown in the table indicates that, "meaning of nutrition" had the highest correct response with 408 (74.05%) students who responded correctly. "Effects of poor nutrition had the least percentage score with 251 (45.05%) response.

As indicated in the table, there are varying knowledge level percentage scores on the nutritional aspect tested. The table revealed an overall 60.11% percent correct response. Based on Asher's (1977) criteria for assessing level of knowledge on nutrition therefore the students had high knowledge about nutrition.

**Table II: Knowledge of Male and Female Adolescent Students on Nutrition. Responses**

Aspects of Nutrition	Male (N=266)		Female		(N=285)			
	f	%	f	%	f	%	f	%
Meaning of Nutrition	185	69.55	81	30.45	202	70.88	83	9.12
Essential of food nutrition's	177	66.54	89	33.46	187	65.61	98	4.39
Carbohydrates	177	66.54	89	33.46	231	81.05	54	18.95
Functions of protein	174	65.41	92	34.59	202	70.88	83	29.12
Vitamin	147	55.26	11.9	44.74	205	71.93	80	28.07
Daily needs orderly	184	69.17	82	30.83	187	65.26	98	34.39
Vitamin k. deficiency disease	129	48.50	13.7	51.50	123	43.16	16.2	56.8
Protein energy malnutrition	129	48.50	13.7	51.50	123	43.16	16.2	56.8
Effects of poor nutrition	115	43.23	15.1	56.77	136	47.71	44	17.19
Reasons for adequate nutrition	155	43.09	15.1	56.77	157	55.09	12.8	44.91
<b>Overall</b>	<b>57.97</b>	<b>42003</b>	<b>61.26</b>	<b>35.19</b>				

Using Ashur's (1977) criteria, female adolescent students had very high knowledge response score in carbohydrate with 231 (81.05%) as revealed in table 2. The table also indicated that the females and male adolescent students' performance scores varied in all the nutrition aspects tested. While the female adolescent students had high nutrition knowledge as indicated by their overall 61.26 percent correct

responses, their male counterparts had average knowledge on nutrition with overall 57.97 percent.

**Table III: Knowledge of Adolescent Students in different classes on Nutrition**

Aspects of Nutrition	JS I (N=310)		SSII (N=241)					
	Correct	Incorrect	Correct	Incorrect	Correct	Incorrect		
Meaning of Nutrition	207	66.77	103	33.23	180	74.69	61	25.31
Essential food nutrition	199	64.19	111	25.81	165	68.46	76	31.54
Carbohydrate	197	63.55	113	36.45	211	87.55	30	12.45
Functions of protein	208	67.10	102	32.90	118	78.01	53	21.99
Vitamins	180	58.06	130	41.94	174	72.20	67	27.80
Daily meals orderly	183	59.08	127	40.97	184	76.35	57	23.65
Vitamin K. deficiency disease	118	38.06	192	61.94	140	58.09	101	41.91
Protein energy	141	45.48	169	54.52	111	46.06	130	53.94
Effects of poor nutrition	122	39.35	188	60.65	129	53.53	112	46.7
Reasons for adequate nutrition	137	44.19	173	55.81	135	56.02	106	43.98
<b>Overall</b>	<b>54.58</b>							

Table 3 revealed that JS I adolescent showed their highest knowledge about nutrition with 208 (67.10%) students responding correctly. They scored highest in carbohydrates with lowest knowledge about nutrition in vitamin k deficiency disease with score of 38.06 percent. The SS1 scored least in protein energy malnutrition with 46.06 percent.

Generally table 3 revealed the SS1 students scored higher than the JS1 counterparts in all aspects of nutrition tested, JS1 students had average knowledge about nutrition while SS1 student have high knowledge on nutrition.



## DISCUSSION

The finding in table 1 reveals that adolescent students had high (60.11%) knowledge about nutrition. This was not surprising because the students could have acquired the knowledge during their biology, home economics or integrated science lesson.

The findings in table 2 indicate that female student had high (61.26%) knowledge of nutrition, while their male counterpart possessed average (57.97%) knowledge. This was expected and therefore not surprising. This is because in Nigerian culture in general and particularly Pankshin Education inspectorate zone, the female bears the sole responsibility of preparing meals for the family. This result disagrees with that of Musaiger (1975) where most secondary school female students did not know the actual meaning of some nutritional terms and were ignorant about nutritious values of fruits, meat and vegetation.

The finding in table 3 showed that the adolescent students in JS1 had average (54.48 %) knowledge about nutrition while their counterparts in SS1 had high (67.22%) knowledge. These results were expected and therefore not surprising because the senior students have been exposed to more nutrition lessons like biology, health science, home economics, agricultural science and or health education. Other attributes for the senior students to have acquired higher knowledge about nutrition included Journals, dailies, magazines, televisions and their ability to read nutrition related topics with more internalization than their junior counterparts.

Based on the findings and discussions above, it is concluded that the adolescent students in Pankshin AIE had high knowledge about nutrition. Also, gender had influence in the knowledge about nutrition in the area. Based on the findings, it is recommended that there is the need for the introduction and proper monitoring of nutrition education programme at all tiers of our educational system since there were varied responses to the nutritional aspect as observed based on gender and class.

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