DIFFERENCES IN THE NUTRITIONAL STATUS OF YOUNG SCHOOL CHILDREN FROM PUBLIC AND PRIVATE OWNED PRIMARY SCHOOLS IN EKITI STATE, NIGERIA

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Abstract

This paper investigated the nutritional status of a randomly selected school age children from public and private owned primary schools in Ekiti State, Nigeria with the aim of determining if differences exist between them and providing a baseline data for the state in this regard. Four hundred and fifteen (415) children with their age range between 4 and 10 years participated in the study. Anthropometric measurements were carried out and Body mass index (BMI) was used as a measure of physical growth. Percentage and frequency counts, mean (X) and standard deviation (sd) were used to describe the data while student "t" test set at 0.05 was used to test the significant difference between means from the two groups of school children. The findings revealed that the nutritional status of the school children was generally poor and a significant difference existed between the school children from the public and private owned primary schools in Ekiti State with the School Children from Private owned Primary schools having a higher nutritional status than the school children from public primary schools. Improved nutrition enlightenment and feeding approaches were recommended for the parents and the government.

Keywords: Nutritional status, School children, Public and Private Primary Schools

Introduction

The importance of food to mankind most especially the growing up children has been stressed over the years. Taking of adequate nutrients from foods, both in quantity and in quality and the body's capability to utilize them appropriately to meet its metabolic needs of

health and fitness describes the concept of nutritional status. During childhood, a lot of biochemical activities that lead to adequate growth and development are going on in the body that requires adequate nutrition. If the body fails to provide the necessary volume of the nutrients required for these activities, such a body pays dearly for its failure with sickness and diseases that lead to stunted growth and development.

Although, there are no reliable data on malnutrition among school children in Ekiti State on which generalization could be based. However, a cursory observation of the school children by the researchers shows a look of undernourishment among them. And in the words of Babatunde (2003), the most common nutritional problems that are common are protein energy malnutrition (PEM), anemia due to iron deficiency, vitamin A & iodine deficiency respectively.

The main purpose of this study was to assess the nutritional status of the school children from both public and privately owned primary schools in Ekiti State with the aim of providing a baseline data and intelligent suggestion that would improve their nutritional status for adequate health and fitness.

Hypothesis

There is no significant difference between the nutritional status of children in public and private primary schools in Ekiti State.

Method and Procedure

The ex-post- facto type of the descriptive research design was employed in this study. The sample for the study was made up of four hundred and fifteen (415) school children aged between 4 years and 10 years who were selected using simple and stratified random sampling techniques from public and private owned primary schools in the state. A data retrieval form was designed to gather the demographic information about the participants and the floor type model Z-T/60 stadiometer was used in evaluating the anthropometric parameters (Height & Weight) to calculate the Body Mass Index (BMI).

Anthropometric Measurements

Weight: The participants were asked to remove their shoes and clothing while the researchers ensured that the surface of the scale was gently switched on until the printer showed zero. These participants were asked one after the other to stand upright with their arms hanging loosely at the sides and their eyes looking straight. They were all weighted and their weights were recorded to the nearest 0.1kg.

Height: The participants were made one after the other to stand correct with both feet placed on the drawing surface of the platform without shoes, looking straight ahead and the height was recorded to the nearest of 0.5 cm.

Data Analysis

Both descriptive and inferential statistics were employed in analyzing the data gathered for this study. The mean, standard deviation and Student 't' test were employed to treat the data. The hypothesis was tested at 0.05 level of significance.

Results and Discussion:

Table 1. Frequency & % Distribution of Nutritional status of Primary School Children in Ekiti State.

Nutritional Status	F	%	BMI	
Malnourished	205	49.4	Below 20.0	Stunting & Underweight
Normal	189	45.5	20.00-25.00	
Overweight	19	13.7	25.00-30.00	
Obesity	2	0.5	Above 30.00	
Total	415	100		

Nutritional status is an integral part of the overall health of an individual and provides an indicator of the well being of children living in a particular region.

Table 2. Mean & Standard deviation of Nutritional Status of School Children by their Demographic Variables

Variables	Category	M	X	5.0
Sex	Male Female	219 196	20.76 20.06	6.25 3.48
Age	4-6 7-9 10+	51 208 156	16.73 19.49 22.79	4.27 2.38 6.74

Table 2 shows that the nutritional status of the male children in the sampled Ekiti Schools with the mean of 20.76 $\pm$ 6.25 is higher than that of the female school children with a mean of 20.06 $\pm$ 3.48. The table also reveals that the children between age 4-6yrs have the least mean of 16.73 $\pm$ 4.29, followed by children between 7 and 9 yrs with 19.49 $\pm$ 2.38 and the children of 10yrs and above had a mean score of 22.79 $\pm$ 6.74.

Table 3. T.Test Summary of Nutritional status of pupils in Public and Private owned Primary schools

Group	n	$\dot{X}$	s.d	d.f	t.cal	t.table
Public Schools	140	15.46	3.10	414	3.919	1.960
Private Schools	275	16.66	2.36			

p>0.05

Table 3 presents the t-test summary of the nutritional status of pupils both in public and private owned primary schools in Ekiti State. The table shows that pupils selected from the privately owned primary schools had higher nutritional status with a mean of 16.66 $\pm$ 2.36kg compared to those in public primary schools with a mean of 15.46 $\pm$ 3.10 kg. The calculated t.value of 3.919 was found to be higher and greater than the table t-value of 1.980 at 0.05 level of significance. This result therefore provided a premise for the rejection of the stated hypothesis that stated that there is no significant difference between the nutritional status of children in public and private owned primary schools in Ekiti State. The hypothesis

was thereby rejected. It showed that there is a significant difference in the nutritional status of children in public and private owned primary schools in Ekiti State.

Discussion

This study investigated the differences between the nutritional status of school children from public and private owned primary school in Ekiti State, Nigeria. Nutritional status is the balance between the intake and utilization of food nutrients by man in the process of growth and development and according to Goon et al (2011) and Dutta et al (2009) is an integral component of the overall health of an individual and provides an indicator of the well-being of children living in a particular region.

The findings of this study revealed that the nutritional status of the school children in Ekiti State fell below the class regarded as normal using the World Health Organization (WHO) (1996) BMI norms. It showed that 49.4% of the children sampled are underweight. This finding is in agreement with the findings of Goon et al. (2011) on the schoolchildren in Makurdi, a metropolis in Nigeria, where 52.7% of the children were underweight. However the magnitude is not as high as the percentage (60.9%) of underweight children found among school children in some part of India (Osei et al, 2010). The finding is in contrast to the findings of Heath and Pamaretto (2005) who found more children in their study tending towards overweight and obesity than underweight.

When the nutritional status of school children in the Public and Private owned primary schools in Ekiti State were compared, the results showed that there was a significant difference between them. The children in the private primary schools had a higher mean value of 16.66 $\pm$ 2.36 kg-2 than that of the children of public primary schools who had a mean value of 15.46 $\pm$ 3.10 kgm^{-2}. This difference is statistically significant when t-test was employed. This finding is supported by the findings of Olanipekun et al. (2012) who found that the nutritional status of children in private (fee paying) primary schools in Ibadan was higher than these children in the public (Non fee paying) primary schools. They found the prevalence of malnutrition to be significantly higher among the public (NFP) schools than the private (FP) schools.

The reasons for this difference in the nutritional status of these two groups of school children might not be far from the socioeconomic background, types of food common in the environment and storage and preparation modalities and the general environmental factors that pervade the state. The findings revealed that most of the parents of the children in public primary schools are low income earners while those of the children in the private owned schools are high income earners. In other words, the parents of the children in the private

own primary schools would be able to afford the foods containing the necessary nutrients for their children while the parents of the low-income may not be financially adequate to afford such food items for their wards. Also the statement of Akinsola (1993) that economic capacity to obtain food from the available supply is an important determinant of nutritional status of an individual supported these claims. In the words Manandhaar et al. (2008), nutritional status is significantly related to blood pressure, breastfeeding, eating of fast foods, canned or bottled drinks, income and educational background of the parents. In the same vein, parents without good education may not be able to select healthy nutrition for their children from the arrays of the available food items. Most of the parents of children in public primary schools in the state are farmers, petty traders and the likes who could not adequately select what could bring better health from the food items available in the environment. This is in line with the submission of Hamitton (2002), who stated that parents with low socioeconomic status cannot afford first class proteins like milk, egg, meat etc. which are sourced mainly from animals. And children that consume less vegetable and dairy products are significantly likely to suffer from anemia, iron depletion, and eosinophilia (Health and Pamaretto 2005), which are diseases associated with low nutritional status.

Conclusion

From the findings of this study, it can be concluded that school children in Ekiti State are malnourished as most of them are underweight and also that the nutritional status of the school children in public primary schools differs from those of the children in the private owned primary schools because they are more nourished than their counterparts in the public primary schools.

It is therefore evident that the nutritional status of the school children in the public schools needed to be improved through various interventions such as improved nutrition enlightenment, improved feeding approaches, environmental renewal etc. targeted at providing, necessary upliftment in the feeding habits/nutritional status of the children in the state.

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