

Health Implications of Feeding Habits as Perceived by Upper Basic Education Students in Ona-Ara Local Government Area, Oyo State, Nigeria

Onifade, O. A. (Ph.D.) Adigun, J. O. (M.Ed.) Moradeyo, C. O. (M.Ed.) Ogungboye, R. O. (M.Ed.)
Abikoye, A. I. (M.Ed.)

Department of Health Promotion and Environmental Health Education
Faculty of Education, University Of Ilorin, Nigeria

Abstract

Eating a healthy diet is the cornerstone of all round growth and development for infants, children and adolescents therefore; too much intake of foods that contain large amounts of saturated fats, sugars and salt, combined with a low intake of fruits, vegetables and cereal foods lead can result to health problems. This study examined health implications of feeding habits as perceived by upper basic education students in Ona-Ara Local Government Area, Oyo State, Nigeria.

The descriptive research design of the survey method was used for this study. The population used for the study comprised all upper basic education students (public mixed schools) in Ona-Ara Local Government, Oyo State. Multi-stage sampling technique, consisting of simple, proportionate and systematic sampling technique was used to select 439 respondents in upper basic education schools (public mixed schools) in Ona-Ara Local Government, Oyo State. Researcher-designed questionnaire validated by 3 experts drawn from the Department of Health Promotion and Environmental Health Education, University of Ilorin, Nigeria, was used for data collection. A reliability co-efficient of .84r was obtained through Split-half method using Pearson Product Moment Correlation (PPMC). Data collection was conducted by the researcher and three trained research assistants. Data collected were analyzed using descriptive statistics of frequency counts and percentage for demographic information as well as inferential statistics of Chi-square (X^2) to test the hypotheses at 0.05 alpha level.

The findings of the study showed that:

- i. Eating habits have significant influence on diseases as perceived by upper basic education students because calculated X^2 value (70.05) > critical value (12.59);
- ii. Eating habits have significant influence on body weight as perceived by upper basic education students because calculated X^2 value (68.05) > critical value (12.59); and
- iii. Eating habits have significant influence on body posture as perceived by upper basic education students because calculated X^2 value (496.63) > critical value (12.59).

The study concluded that eating habits have significant influence on diseases, body weight and body posture among upper basic education students in Ona-Ara Local Government, Oyo State. The findings implied that food intake can determine the overall wellbeing of the students, excessive intake and preference of some classes of food can lead to weight gain and intake of poor diet can result to bad posture. It was recommended that upper basic education students in Ona-Ara Local Government area of Oyo State should be given more enlightenment by health educators on diseases associated with poor feeding habits and proper orientation on exercises and food rich in calcium to avoid bad posture should be given to them.

Keywords: eating habits, diseases, body weight and body posture.

Introduction

Children born into most families in developing countries are deprived of basic necessities of life, that is, food, shelter and clothing. Golden (2007) observed that many scholars are of the opinion that heredity, that is; genetic composition of any individual form the basic foundation for the health status of the individual. However, it should be noted that, there is the possibility of environmental factors such as education, income and eating habit exerting influence on the hereditary functioning of an individual (Joseph, 2010).

One is what he/she eats. Scientific research increasingly confirms that what we eat may have a significant influence on our health, quality of life and longevity (Jordans, 2010). In the United States, high intake of fat and saturated fat with low intakes of calcium and fiber-containing foods such as whole grains vegetables and fruits are associated with several chronic health conditions that can impair the quality of life and hasten mortality. In particular, 14% of all deaths have been attributed to poor diets and/or sedentary lifestyles (McGinnis and Williams, 1993). Eating a healthy diet is the cornerstone of optimal growth and development for infants, children and adolescents, therefore too much intake of foods that contain large amounts of saturated fats, sugars and salt, combined with a low intake of fruits, vegetables and cereal foods lead can result to overweight (National Health and Medical Research Council, 2003).

Taking a critical look at the way people eat in developing countries, hardly could one see a family or an individual that feed on adequate diet (Neumann, 2002). Mostly, people eat to keep soul and body together. Some eat whatever they could only afford, some think they eat adequate diet but in wrong proportion because they could not afford adequate diet due to lack of adequate information and economic power. Others feed excessively or taking nutrients, using wrong proportions because they have economic power to do so and some people feed on what is available. The categories of feeding patterns identified above are all not adequate for human health (Olafimihan, 2007). Boon, Stroebe, Schut and Ijntema (2002) affirmed that the only appropriate category of feeders are those people that eat food which contains all the classes of foods (nutrients) in adequate quantities and qualities, that is, in correct proportions and at appropriate times. This is hardly possible because of dearth of knowledge about how to make adequate diets, economic power and time required for the preparation (Kar, Rao & Chandramouli, 2008).

According to Odulana (2012), eating habits of the pregnant mothers do affect the health status of the child even till adulthood. He noted that, children and adolescents are the groups that require adequate diet most, due to the fact that they need food for development, growth and to stay healthy. Unfortunately, children and adolescents are the most affected; they are told to wait for their turn when they will be adults to eat what they want. Whereas, at adult stage, their bodies require lesser nutrients and if taken in excess, they create health problems to the ageing body (Melanie, 2013).

Odulana (2012) stressed that food is a major factor in the development of individual, and has greater impacts on children than it does in adults. However, there are two extremes to be avoided for both adults and children, these are over-eating and hunger. The former results into a condition known as obesity (which is a serious health problem in adults and children alike) while the latter could result in different health problems ranging from poor growth; wasting; diseases of various forms like scurvy, rickets, goiter and high risks to infections; to mention but a few (Finkelstein, Hill & Whitaker, 2008). Food is as important as life, in fact food is life; good food is needed for a person to grow well, work hard and stay healthy.

Adewoye (2012) asserted that eating right helps the body resists sickness. Also, Alade (2012) observed that, a well fed person will have everything required of him to perform excellently well in all areas of life; at home, working place and community. Therefore, the issue of diet should not be treated with negligence especially among living things particularly human beings (Odulana, 2012). Without food, no living being can survive, whereas survival on its own is not enough but the quality of life that one lives which could be healthy or unhealthy living. This can be traced majorly to the quality of food intake (Larissa, 2007). A healthy eating plan includes: fruits and vegetables, whole grains, fat-free or low-fat versions of milk cheese, yoghurt and other milk products, lean meat; poultry, fish, dry beans or peas, egg and nuts, saturated fat, trans fat and cholesterol. (WHO, 2006.).

Delving into the different literatures on nutrition and dietetics by different individuals and bodies such as WHO and United Nations Children's Fund (UNICEF), it is observed that despite the richness of information supplied by the aforementioned on nutrition, eating behaviours, importance of healthy eating and the implications of unhealthy eating habits, many people (children and adolescents inclusive) are still found wanting when it comes to eating well.

According to Black, Story and Resnick (2008), problem emanating from poor eating habits are beyond immediate issues, they extend to the future of the young ones and even the whole generation. Also, UNICEF (2009) submitted that, poor eating habit are the major causes of serious nutritional health problems such as poor sight, dental decay, skinny legs and arms, type-2 diabetes and death among children and adolescents. In addition, WHO (2004) concluded that majority of the diseases that affect young ones is as a result of poor eating. It was estimated that worldwide, more than fifty percent children are suffering from malnutrition, the majority being residents of developing countries (Gan, Mohd, Zalilah & Hazizi, 2011).

Moreover, researches have been done on related topics such as upper elementary students' perception of school meals (Meyer, 2005), malnutrition in children (Olafimihan, 2007), No food no strength (Thomas, 2007) and Nutritional diseases in Britain Benard (2006) to mention but a few. With all these past studies and many others reviewed, it is believed that much work has been carried out on nutrition, food and health but one gap in the previous studies is that while several studies treated impacts of nutrition on health, none to the best knowledge of the researcher has yet been conducted on upper basic education students in Ona-Ara Local Government Area Oyo State, Nigeria.

Therefore, the state of children and adolescents' health is so enormous in that, the impression will be for many years, it is important to critically consider the health implications of feeding habits as perceived by upper basic education students in Ona-Ara Local Government Area, Oyo State.

Obesity is the most frequently occurring nutritional disorder among children and is a major risk factor for cardiovascular disease in adulthood (Freedman, Khan, Dietz, Srinivasan and Berenson, 2001). Young and

Nestle (2002) described obesity simply as accumulation of excess fat stored under the adipose tissue of an individual. This is usually caused by poor eating habit either ingestion of excess fats into the body or inability to burn the fat due to sedentary mode of life or lack of exercise. Children who consume large quantities of energy dense foods are likely to become overweight and obese especially if they are sedentary (Booth and Smith, 2001).

The prevalence of obesity among children aged 6 – 11 years has more than doubled in the past twenty years among adolescents aged 12 –19 years has more than tripled (Young and Nestle, 2002). Childhood obesity has become a serious public health problem. According to 2003 data, one in four children under the age of 18 is at risk for overweight and 15% are overweight (Ogden, Carroll and Flegal, 2003). The prevalence of overweight among 4 - 5 year olds increased from 5% to 10.4% from 1976 to 2000 (Stolley, 2003). Moreover, Magarey, Boulton and Cockington (2003) noted that, obese children tend to become obese adults, putting them at greater risk for heart disease, hypertension, diabetes and cancer.

According to Hofmann (2012), good posture is a life-long habit worth developing. It is a simple and doable something that is good and easy to do whether you are working at your desk, driving or lying on the bed. The benefits of good posture are numerous, for example, it can prevent injury, aid in breathing, saves energy, lessen stress level and improve digestion. Simply put, it makes one feel and look better. Nutrition is a critical element in recovery and long term health. The top killers-heart disease, cancer and diabetes have been shown to have significant dietary and nutritional components. On the other hand, a well structured diet along with sufficient intake of vitamins, minerals and other important biochemical provides the body with the fuels and tools to enter into an optimal state of health. On the whole, it seems evident that while good nutrition is a contributory factor to good posture, it is almost as likely to be found with poor posture. Poor nutrition is less likely to be found with good posture than is good nutrition with poor posture. While good nutrition is a contributing factor to good posture, it is by no means an indispensable condition (Hofmann, 2012).

Bone density in youth can determine vulnerability to osteoporosis and fractures in old age. Development in adolescence is the final opportunity to improve bone density before consolidation of the skeleton. Bone density is affected by a number of factors including nutrition. Analysis of cross-sectional data of about 1200 adolescents in Northern Ireland found that high intake of fruit was significantly related to elevated bone density in 12-year old girls even when controlling for potential confounders (McGartland, Robson, Murray, Cran, Savage, Watkins, Rooney & Boreham, 2004).

Research Hypotheses

The following hypotheses were postulated to guide the study

1. Eating habits will not have significant influence on diseases as perceived by upper basic education students in Ona-Ara Local Government.
2. Eating habits will not have significant influence on body weight as perceived by upper basic education students in Ona-Ara Local Government.
3. Eating habits will not have significant influence on body postures as perceived by upper basic education students in Ona-Ara Local Government.

Methodology

This study was carried out with the use of descriptive survey method. The study population comprised all upper basic education students (public mixed schools) in Ona-Ara Local Government, Oyo State. Multi stage sampling technique was used for sampling process. In the first stage, simple random sampling technique was used to select eight (8) upper basic education students (public mixed schools) in Ona-Ara Local Government, Oyo State. In the second stage, proportionate sampling technique was used to select 10% of each of selected upper basic education school to form the sample size four hundred thirty-nine (439) for the study. In the third stage, systematic sampling technique was used to draw the samples required for the study from upper basic education school.

A researcher-designed structured questionnaire that had been validated by three (3) experts from the Department of Health Promotion and Environmental Health Education, University of Ilorin was used for this study. The reliability of instrument was carried out using split half method. The correlational analysis data generated was done using Pearson Product Moment Correlation (PPMC). A reliability co-efficient of .84 was obtained. The researcher with the help of three trained research Assistants administered the instrument. The three postulated research hypotheses were tested with the use of inferential statistics of Chi-square (X^2).

Hypotheses Testing

Hypothesis 1: Eating habits will not have significant influence on diseases as perceived by upper basic education students in Ona-Ara Local Government.

Table 1: Chi-square analysis investigating the influence of eating habits on diseases as perceived by upper basic education students in Ona-Ara Local Government.

S/ N	ITEM	SA	A	D	SD	Row Total	Cal X ²	Df	Crit. Value	Rem.
1	Feeding on food not well cooked may cause diseases	135 (30.8%)	100 (22.8%)	171 (39.0%)	33 (7.4%)	439	70.05 Rejected	6	12.59	Ho
2	Many times food not prepared in my house gives me stomach-ache	138 (31.4%)	187 (42.6%)	98 (22.3%)	16 (3.6%)	439				
3	My inability to take breakfast causes stomach discomfort	137 (31.2%)	188 (42.6%)	96 (22.3%)	18 (4.1%)	439				
Column Total		410	475	365	167	1317				

Table 1 above shows that the calculated chi – square value was 70.05 and the table value was 12.59 with degree of freedom 6 at 0.05 alpha level. Since the calculated value of 70.05 is greater than the table value of 12.59, the null hypothesis was rejected which means that: Eating habits have a significant influence on diseases as perceived by upper basic education students in Ona-Ara Local Government Area of Oyo State.

Hypothesis 2: Eating habits will not have significant on body weight as perceived by upper basic education students in Ona-Ara Local Government.

Table 2: Chi-square analysis investigating the influence of eating habits on body weight as perceived by upper basic education students in Ona-Ara Local Government.

S/ N	ITEM	SA	A	D	SD	Row Total	Cal X ²	Df	Crit. Value	Rem.
1	Excessive intake of energy giving food (carbohydrates) may lead to weight gain.	30 (6.8%)	105 (23.9%)	236 (53.8%)	68 (15.5%)	439	68.05 Rejected	6	12.59	Ho
2	Preference for foods such as biscuits and popcorn against body building foods can affect body weight.	33 (7.5%)	127 (28.9%)	145 (33.0%)	134 (30.5%)	439				
3	Inability to eat food that contains proteins like beans can affect growth.	20 (4.6%)	130 (29.6%)	228 (51.9%)	61 (13.9%)	439				
Column Total		83	362	609	263	1317				

Table 2 shows that the calculated chi-square value was 68.5 and the table value was 12.59 with degree of freedom (Df) of 6 at 0.05 alpha level. Since the calculated chi-square value is greater than the table value of 12.59 the null hypothesis was rejected and upheld the alternative hypothesis and concludes that eating habits have significant influence on body weight as perceived by upper basic students in Ona-Ara Local Government area of Oyo state.

Hypothesis 3: Eating habits will not have significant influence on body posture as perceived by upper -basic education students in Ona-AraLocal Government.

Table 3:

Chi-square analysis investigating the influence of eating habits on body posture as perceived by upper basic education students in Ona-Ara Local Government.

S/ N	ITEM	SA	A	D	SD	Row Total	Cal X ²	Df	Crit. Value	Rem.
1	Taking of inadequate diets may cause bad posture.	20 (4.6%)	61 (13.9%)	273 (62.2%)	85 (19.4%)	439	496.63	6	12.59	Ho Rejected
2	Insufficient intake of food rich in calcium (such as milk, fish, cheese) leads to bad posture.	63 (14.4%)	168 (38.3%)	124 (28.3%)	84 (19.1%)	439				
3	Exposing the body to exercise helps to achieve good posture.	285 (64.9%)	67 (15.3%)	57 (13.0%)	30 (6.8%)	439				
Column Total		368	296	454	199	1317				

Table 3 above shows that the calculated chi-square value was 496.6 against the table value of 12.59 and degree of freedom (Df) of 6 at 0.05 alpha level. Since the calculated chi-square value of 496.63 greater than the table value of 12.6 thus the null hypothesis was rejected and upheld the alternative hypothesis which means that eating habits have significant influence on body postures as perceived by upper basic education students in Ona-AraLocal Government area of Oyo State.

Discussions of Findings

Hypothesis 1: Eating habits will not have significant influence on diseases as perceived by upper basic education students in Ona-Ara Local Government.

The result of the tested hypothesis showed that there was a significant influence of eating habits on diseases as perceived by upper basic education students in Ona-Ara Local Government area of Oyo State. This finding is corroborates with the finding of Adewoye (2012) who asserted that eating right help the body resists sickness. The finding also corroborates Rodrigo and Andres (2008) who affirmed that poor nutrition weakens the body's ability to resist all kinds of diseases.

Hypothesis 2: Eating habits will not have significant on body weight as perceived by upper basic education students in Ona-Ara Local Government.

The findings of hypothesis two revealed that there was a significant influence of eating habits on body weight as perceived by upper basic education students in Ona-AraLocal Government area of Oyo State. This finding is in line with the assertion of National Health and Medical Research Council (2003) that claimed over-reliance on foods that contain large amount of saturated fats, sugars and salt, combine with a low intake of fruit, vegetables and cereal foods can lead to adverse health consequences such as overweight and associated social rejection. The finding also affirmed the assertion of Booth and Smith (2001) who stated that children who consume large quantity of energy dense foods for example, are likely to become over-weight and obese especially if they are sedentary.

Hypothesis 3: Eating habits will not have significant influence on body posture as perceived by upper basic education students in Ona-AraLocal Government.

The findings of hypothesis three revealed that there was a significant influence of eating habits on posture as perceived by upper basic education students in Ona-AraLocal Government area of Oyo State. This finding is in line with the finding of Hofmann, (2012) who asserted that good nutrition is a contributing factor to good posture. McGartland et al., (2004) equally claimed that adequate intake of fruits contributes greatly to elevated bone density.

Conclusions

Based on the findings of this study, it was concluded that;

1. Eating habits have a significant influence on the diseases as perceived by upper basic education students in Ona-Ara Local Government area of Oyo State. This implies that the food intake can determine the overall wellbeing of the students.
2. Eating habits have a significant influence on body weight as perceived by upper basic education students in

Ona-Ara Local Government area of Oyo State. This signifies that excessive intake and preference of some classes of food can lead to weight gain.

3. Eating habits has a significant influence on posture as perceived by upper basic education students in Ona-Ara Local Government area of Oyo State. This implies that intake of poor diet can result to bad posture.

Recommendations

Based on the conclusion drawn from this study, the following recommendations were made:

1. Upper basic education students in Ona-Ara Local Government area of Oyo State should be given more enlightenment by health educators on the diseases associated with poor feeding habits.
2. Feeding habits should be strictly controlled by the parents and teachers by ensuring that adequate diets are given to the children and students (respectively) to avoid poor body weight
3. Upper basic education students in Ona-Ara Local Government area of Oyo State should be given proper orientation on exercises and food rich in calcium to avoid bad posture.

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