

Promoting Healthy Living among In-School Adolescents Through Dietary Intake: Health Counselling Implication

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Abstract: The study which adopted a descriptive survey design, investigated the role of dietary intake in promoting healthy living among in-school adolescents in Enugu State, Nigeria. The population of the study comprised all the 2015-2016 Senior Secondary class two (SSII) students with the population of 3.303. The sample was 200 senior secondary class two in-school adolescents randomly selected from four schools in the in Enugu Education Zone. The instrument for data collection was a questionnaire entitled Dietary Intake and Healthy Living Questionnaire (DIHQ). The data for the study was collected through direct delivery and retrieval of the questionnaire to 200 respondents (JSS III students) in the zone studied. The data was analyzed using mean and standard deviation. The findings showed a need for in-school adolescent's adoption of proper feeding pattern. Based on the findings, some recommendations were made amongst which are, that counsellors should counsel parents and guardians on the need for proper nutrition for their adolescents, organize seminars and workshops in schools for food vendors with a view to acquainting them with information on and the implications of improper dietary practices, counselling and reorienting adolescents who are victims of improper dietary practices, for proper readjustment.

Key words: Healthy living, Adolescents, In-school Adolescents, Dietary intake, Counselling, DIHQ

INTRODUCTION

Health is the overall physical and mental status of an individual which may be good or bad depending on the way of life adopted by the individual. Health as defined by World Health Organization (2004) is a state of complete physical, mental and social well-being and not merely the absence of disease and infirmity. It is a product of healthy living style. Healthy living is about taking responsibility and making beneficial health choices for today and for the future. Healthy living is the steps, actions and strategies one puts in place to achieve optimum health according to World Health Organization (2003) which consist of good nutrition and good feeding habit, regular exercise, non-smoking, non-alcoholic consumption, safe drug use,

avoidance of casual and unprotected sex and upholding traditional value (Akinyemi, 2016). In this study, good nutrition and good feeding habit will be the focus based on the fact that promoting healthy living without healthy dietary practices cannot and will not achieve the desired result.

Adequate dietary intake is very important in the maintenance of the highest level of physical, mental and social well-being of an individual, more so during the adolescence period (a transitional period between childhood and adulthood) characterized by dramatic physical, psychological and cognitive development (Abudayya *et al.*, 2009). Adolescence is a time of great change for young people when physical changes are happening at an accelerated rate. Adolescence is not just

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marked by physical changes, young people (adolescents) also experience cognitive, social/emotional and interpersonal changes as well (Spano, 2004). Adolescence is a challenging period for both children and their parents due to the fact that the period encapsulates a window of time when bodies are metamorphosing and evolving into that of an adult (Lulinski, 2001). It is a time when the adolescent tries to establish his own identity yet desperately seeks to be socially accepted by his peers. The period is also accompanied by increase in energy, nutritional requirement and parent/adolescent conflict according to psychologists. Adopting healthy eating practices therefore, is one of the most important ways to meet the nutritional needs of adolescents and ensure healthy living.

Adolescents are individuals who are in the process of growing or maturing into adulthood. It is a stage in human life when rapid physical growth is experienced. The term 'adolescent's refers to young people who experience a transition period after the onset of puberty which marks the changes from childhood to adulthood, especially within the ages of 10 and 20 years. In this study, in-school adolescents are those individuals in the period of adolescence and in secondary school (Mikaye, 2012). Adolescents need to adopt healthy eating patterns that will ensure adequate dietary intake to cater for their increased energy needs. Dietary intake is a set of guidelines for the daily intake of nutrients like vitamins, protein and fats and other food components such as fiber that include recommended daily allowances, adequate daily intake values for nutrients having undetermined recommended daily allowances and tolerable upper level values of daily intake. Adolescents that are growing and developing need these nutrients in certain amount for them to function well. Adequate nutrient intake during adolescence is very important for many reasons. During adolescence, according to Lulinski (2001) hormonal changes accelerate growth in height and the increased nutritional needs at this stage as stated by Mikaye (2012) is based on the fact that adolescents gain up to 50% of their adult weight, more than 20% of their adult height and 50% of their adult skeletal mass during this period. The adolescents, therefore, face series of nutritional challenges which would impact on this rapid growth spurt as well as their health as growing adults.

Healthy eating patterns in adolescence also promotes optimal health, growth and intellectual development, prevents immediate health problems such as iron deficiency, anemia, obesity, eating disorders and dental caries and may prevent long-term health problems such as coronary heart disease, cancer and stroke. Healthy eating patterns established in the home from childhood most times are carried over to adolescence unfortunately, adolescents in some cases do not adopt these healthy

practices but rather consume more of snacks and carbonated drinks among others which may result to malnutrition. For example, previous studies by Ene-Obong, Akosa (1993) found that female adolescents had more varieties of snacks and skipped meals less often. The contribution of snacks to the daily energy intake was lower than what was observed in Scottish children where snacks contributed 26% of the total daily energy intake (Ruxton *et al.*, 1996). Cases of high snack intake among adolescents have been reported by Adamson *et al.* (1996) in a survey conducted in 379 UK children, 11-12 years old which revealed that eating outside the home accounted for 30% of daily energy intake. In a study on the nutrient Intakes of Adolescent Girls in Secondary Schools and Universities in Abia State of Nigeria, Anyika, Uwaegbute *et al.* (2009) reported that snacks contribution to the daily nutrient intakes of the adolescent female secondary school students were significantly higher ($p < 0.05$) than those of the university students except for the carbohydrate intake (146.66 vs. 170.26 g), respectively. The adolescent secondary school and university girls in this study adopted a "grazing" pattern of eating which is characterized by small meals at frequent intervals or a series of snacks.

Patterns of eating had been observed to be important for healthy living. Resnicow (1991) reported that those who skip breakfast are most likely to have difficulty in concentrating by mid-morning and are more likely to consume snacks high in fat, salt and sugar at other times during the day. In the eating habit behaviour carried out by Nigerian schools between 1985 and 2001, the trend showed that intake of fruits and vegetable decreased while intake of sweet and soft drinks increased within the same period. Age was regarded as a strong indicator of the negative development of eating habits. In 2001, the data showed that fruits and vegetables consumption decreases between the age of 11 and 15 and intake of sweet and soft drinks increases. Statistics revealed that boys eat less fruits and vegetables than girls and consume more soft drinks.

The trend of poor nutrition has not abated despite the primary and secondary school nutrition and health curriculum content taught and media programs that should enlighten in-school adolescents on the proper dietary practices as adolescents in schools are always seen eating one snack or the other with carbonated drinks to cap the food. The evidence of poor nutrition can be noticed in some nutritional health problems among adolescents such as obesity and iron deficiency among others. Healthy eating among in-school adolescents plays a substantial role in preventing chronic diseases such as coronary heart or cardiovascular diseases, cancer, stroke and obesity among others (Williams *et al.*, 2002). The United States Department of Health and Human Services

(2010) also reported that healthy dietary practices in adolescence stage, promotes optimal growth and intellectual development, prevents health problems such as iron deficiency, dental caries and reduces the risk for many chronic diseases. Since, good nutrition is an important part of leading a healthy lifestyle, engaging in-school adolescents in healthy dietary practices can lower their risk for the above related chronic diseases, lay the path for an optimal health and promote healthy living. The problem of this study therefore is to establish the efficacy of dietary intake in promoting healthy living among in school adolescents and its implication to counselling.

Purpose of the study: The general purpose of the study is to establish the efficacy of dietary intake in promoting healthy living among in-school adolescents. Specifically, the study seeks to identify:

- The pattern of food intake of in-school adolescents
- What influences in-school adolescents food choice
- The effect of the food intake on in-school adolescent’s health

MATERIALS AND METHODS

Descriptive survey design was adopted for the study purposefully because it tends to give room for the collection, description and interpretation of data on dietary intake and health status of the population of the study. This study was carried out in Enugu Education Zone in Enugu State of Nigeria. Enugu Education Zone is made up of three local government areas and there are 25 public secondary schools in the Zone. The population of the study comprised all the 2015-2016 Senior Secondary class two (SSII) students with the population of 3.303. (Enugu State Post-Primary School Management Board 2015-2016 Session). The 200 senior secondary class two in-school adolescents randomly sampled from four schools in the zone were used for the study. The instrument for data collection was a researchers-developed instrument entitled Dietary Intake and Healthy Living Questionnaire (DIHQ). The data for the study was collected through direct delivery and retrieval of the questionnaire to 200 respondents (SSII students) in the zone studied. The data was analyzed using Mean and standard deviation.

RESULTS AND DISCUSSION

Research question one: What is the pattern of adolescent food intake? Mean and standard deviation analysis of adolescent’s pattern food intake. Data analysis in

Table 1: Mean and standard deviation analysis of adolescent’s pattern food intake

Adolescent’s pattern of food intake	\bar{X}	SD	Remark
Yam	3.25	0.75	Very often
Pasta (indomie, spaghetti, macaroni)	3.36	0.76	Very often
Rice	3.32	0.79	Very often
Beans	3.23	0.84	Very often
Ukwa	3.31	0.85	Very often
Corn meal (igbangwu)	3.17	0.89	Very often
Okpa	3.41	0.72	Very often
Ijiriji	3.33	0.76	Very often
Meat, fish, egg	2.81	0.95	Often
Cakes	2.80	1.23	Often
Biscuits	2.79	1.04	Often
Fries/chips	3.21	0.84	Very often
Sandwiches, buns, doughnut	3.28	0.78	Very often
Pear (local and Avocado)	3.26	0.77	Very often
Oranges	3.22	0.96	Very often
Guava	3.27	0.84	Very often
Pineapple	3.13	0.75	Very often
Garden egg	3.06	0.93	Very often
Cabbage	3.21	0.78	Very often
Carrot	3.19	0.85	Very often
Malt drinks	3.07	1.11	Very often
Milk drinks (viju, bobo, yoghurt)	3.08	0.77	Very often
Soymilk	3.32	0.88	Very often
Kunu	1.80	0.89	Rarely
Zobo	3.37	0.73	Very often
Carbonated drinks(coke, spirit, lacasara)	3.27	0.89	Very often
Alcoholic drinks	3.45	0.71	Very often

Criterion Mean (\bar{X}) = 2.50; \bar{X} = Mean; SD = Standard Deviation; n = 200

Table 1 shows the mean and standard deviation of adolescent’s pattern of food intake. The analysis reveals that the adolescent’s patterns of food intake to all the items are within the criterion mean of 3.06-3.45 except 9, 10, 11 and 24. This reveals that the adolescent’s pattern of food intake includes yam, pasta, rice, beans, ukwa, corn meal, okpa, ijiriji, fries, sandwiches, pear, oranges, guava, pineapple, garden egg, cabbage, carrot, malt, milk, milk drinks, soymilk, kunu, zobo, carbonated drinks and alcoholic drinks. In addition, the high mean scores of items 27 (\bar{X} = 3.45) 7 (\bar{X} = 3.41), 2 (\bar{X} = 3.36) and 8 (\bar{X} = 3.33) further showed that the adolescents take okpa, pasta and ijiriji regularly than other foods. The closeness in the adolescent’s responses on the items also affirms that they like those foods except items 9, 10, 11 and 24.

Research question two: What are factors that influence food choice? data analysis in Table 2 shows the mean and standard deviation of the factors that influence food choice. The analysis shows that the mean scores of factors that influence food choice to items 1, 3 and 5 are within the range of 3.11-3.36. This implies that the personal choice, economic reasons and school regulations on food sale influence adolescent’s food choice very often. On the other hand, the analysis shows that the mean scores of factors that influence food choice to items 2 and 4 are within the range of 2.16 and 2.84. This further implies that foods friends love influences

Table 2: Mean and standard deviation analysis of Factors that influence food choice

Factors that influence food choice	\bar{x}	SD	Remark
Personal choice	3.36	0.76	Very often
My friends love the foods	2.16	1.08	Sometimes
For economic reasons	3.08	0.76	Very often
Availability of the food	2.84	0.98	Often
School regulations on food sale	3.11	0.49	Very often

Table 3: Mean and standard deviation analysis of the effects of feeding habits

Effects of feeding habits	\bar{x}	SD	Remark
Low energy	3.16	0.80	Agree
High blood pressure	1.73	0.77	Disagree
Anorexia	1.75	0.68	Disagree
Bulimia	1.46	0.74	Disagree
Obesity	3.39	0.49	Agree
Anemia	3.28	0.58	Agree
Diabetes	2.98	0.99	Agree
Weight loss	3.31	0.85	Agree

Criterion Mean (\bar{x}) = 2.50; \bar{x} = Mean; SD = Standard Deviation

adolescent's choice of food sometimes while availability of the food often influences adolescent's choice. The closeness in the standard deviations of the items 1 and 3 showed that no difference exists between the responses of adolescents.

Research question three: What are the effects of feeding habits? Data analysis in Table 3 shows the mean and standard deviation of the effects of feeding habits. The analysis shows that the mean scores of effects of feeding habits to items 1, 5, 6 and 8 are within the range of 3.16-3.39. This implies that Low energy, Obesity, anemia and weight loss are very often, the effects of feeding habits of adolescents. The mean scores of items 2-4 are within the range of 1.46-1.76 showing that High blood pressure, Anorexia and Bulimia are rarely the effects of feeding habits of Adolescents.

The findings are discussed based on the research questions that guided this study. The study was conducted to determine the dietary intake of in-school adolescents in Enugu Education Zone of Enugu State Nigeria and its role in promoting healthy living. The findings indicated that the pattern of adolescent food intake is among the factors that promote healthy living. The findings in Table 1 revealed the pattern of adolescent food intake adopted in the area of study some of which include, energy giving foods such as yam, rice and pasta, body building foods like beans, meat and fish, protective foods like oranges, pears and garden egg, snack such as cake, biscuits and fries/chips, drinks such as malt, coke, zobo and alcohol. These findings are consistent with the view of Ene-Obong and Akosa (1993) who reported that female adolescents had more varieties of snacks and skipped meals less often. Cases of high snack intake among adolescents have been reported by Adamson *et al.* (1996) in a survey conducted in 379 UK children, 11-12 years old which revealed that eating

outside the home accounted for 30% of daily energy intake. The finding lends credence also to Anyika, Uwaegbute, Olojede and Nwamarah (2009)'s report that the adolescent secondary school and university girls in their study adopted a "grazing" pattern of eating which is characterized by small meals at frequent intervals or a series of snacks.

The data in table two revealed that the respondents agreed that personal choice, economic reasons and school regulations on food sale influence adolescent's food choice very often. This is consistent with Spano (2004) who noted that adolescence is a time of great physical, cognitive, social/emotional and interpersonal changes for young people. The researcher further stated that as they grow and develop, young people are influenced by outside factors such as their environment which is the school, culture, religion and the media. The influence of personal choice and economic reasons found in this study may be attributed to the cognitive changes in the adolescent that makes him try to establish an identity and consider financial independence from the parents. The data in Table 3 revealed that the respondents agreed that the effects of poor feeding habits include obesity, anemia, diabetes and weight loss. This lends credence to (McNaughton *et al.*, (2008) who reported that poor diet among adolescents can lead to an increased risk for high blood pressure, type 2 diabetes, depression and insomnia. The disagreement on high blood pressure by the adolescents in this study may be due to the fact that they are still totally under their parents care and do not have much pressure. Their agreement to anemia confirms the fact that good nutrition can prevent iron deficiency, dental caries and reduces the risk for many chronic diseases as reported by the United States Department of Health and Human Services in 2004.

CONCLUSION

The need for healthy living among adolescents in Nigeria is still a current issue as research reports from the earlier times to the present show that nutrition among adolescents have been problematic. This situation results to various diseases like high blood pressure, diabetes and anemia among others. However, the current study succinctly revealed that the pattern of adolescent food intake is among the factors that promote healthy lifestyle. The study has established that, personal choice, economic reasons and school regulations on food sale influence adolescent's food choice. It also revealed that poor feeding habits among adolescents have serious effects such as low energy, obesity, anemia, diabetes and weight loss.

IMPLICATIONS

Counselling is a helping relationship which assists in proper physical, mental and social adjustment. Counselling is a learning oriented process involving the counselor and the client whereby the counselor uses his professional psychological knowledge and skills to assist the client to attain proper development, maturity, improved functioning and ability to cope with life problems (Okeke 2003; Steyn *et al.*, 2001). In effect, counselling fosters self-understanding which translates to more clearly set goals and improved problem solving skills which are all marks of better development and adjustment in an individual. The findings from this study no doubt have implications for counselling practice. Counselors in secondary schools should ensure that adolescents are provided with the right information on healthy eating habits through individual and group counseling as often as possible because if these adolescents gain the needed knowledge, they are more likely to adopt proper dietary practices that promote healthy living.

Counsellors should also, liaise with the school health officer to ensure that foods sold in the school should include all the vital nutrients needed by these growing adults and affordable by them. Parents and guardians should be counselled on the need to ensure that their food preferences do not affect their dietary practices in the home because proper dietary intake promotes optimal growth and intellectual development and prevent health problems such as iron deficiency, weight loss, obesity, diabetes and low energy especially in the adolescents. There is need for counsellors to organize seminars and workshops for the food vendors in the school with a view to educating them about the benefits of proper dietary practices and the disadvantages of improper dietary practices on the students they serve and even their own children. Deliberate efforts should be made towards counselling and reorientation of adolescents who are victims to improper dietary practices, for proper readjustment.

RECOMMENDATIONS

Based on the findings of this study, the following recommendations are made. School counsellors should ensure that their school health programs is geared towards helping adolescents attain optimum health by providing them with the environmental reinforcement they need to adopt long-term, healthy eating behaviors. Parents should monitor their adolescent's feeding habits and ensure that they engage in proper eating pattern, so

as to prevent health problems such as iron deficiency (anemia) weight loss, obesity, diabetes and low energy since health is the greatest asset any family can boast of. Families who have adolescents should ensure that foods provided in the home meet their nutritional needs as often as possible irrespective of their economic status.

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