



(RESEARCH ARTICLE)



ROLE OF FOOD ACCESSIBILITY AND NUTRITION EDUCATION IN PROMOTING HEALTHY EATING HABITS AMONG TEENAGERS IN SECONDARY SCHOOL STUDENTS IN IKA SOUTH LOCAL GOVERNMENT AREA, DELTA STATE, NIGERIA

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ABSTRACT

The study investigated the role of food accessibility and nutrition education in promoting healthy eating habits among teenagers in secondary school students in Ika South LGA, Delta State, Nigeria. The main purpose of this study is to examine the role of food accessibility and nutrition education in promoting healthy eating habits among teenagers in secondary school students in Ika South Local Government Area, Delta State. Three research questions were raised and one hypothesis was formulated, tested at 0.5 level of significance. The study adopted a descriptive survey research design. the population consisted of 12,500 students enrolled in the 22 public secondary schools and 15 government approved private secondary schools and sample was a total of 240 respondents from six selected secondary schools in the study area, three public and three private secondary schools. The instrument used for data collection was a structured questionnaire and data collected were analyzed using descriptive statistics mean and standard deviation. Inferential statistics of t-test were used for the hypotheses, and tested at 0.5 level of significance. It was revealed that food accessibility" had a high degree of influence on healthy eating practices of secondary school students, respondents generally perceived nutrition education as having a high extent of influence on healthy eating habits among secondary school students and also respondents generally perceived the identified social, family, economic, behavioural, school and media-related factors as contributing to unhealthy eating habits among secondary school students to a high extent. The study has concluded that adolescents' food access, and nutrition education are significant factors in the promotion of healthy eating habits among adolescents in secondary schools, Ika South Local Government Area, Delta State. It was recommended that healthy school food policies should be put in place by school administrators that limit the availability of sugary drinks, highly processed snack foods and junk foods in the schools.

Keywords: Food Accessibility, Nutrition Education, Healthy Eating Habits, Teenagers, Secondary School Students.

1 INTRODUCTION

Good nutrition is vital to secondary school students' growth and development, learning and wellbeing. Adolescence is a sensitive period of development where food preferences and food behaviour are set. World Health Organization (WHO),

2026) highlights that healthy diets should be sufficient, balanced, moderate and varied and should include plenty of fruit and vegetables, whole grains, legumes and other nutritious foods. Food prices and food availability or affordability are factors that influence food choices and highly processed foods are easier to obtain and tend to be less costly. The availability of food is an important determinant of food choice. If healthy foods including fruits, vegetables and well-balanced meals are readily available, affordable and convenient, students are more likely to eat them. But, when it is easier to obtain, cheaper and more attractive to eat, unhealthy food options are selected by teenagers. The school food environment has been found to significantly impact students' eating habits and health outcomes. (Olatona, Onabanjo, & Adeniyi, 2021). Nutrition education is an educational process that involves teaching individuals about food and nutrition, balanced nutrition, food nutrients, and the link between food and health. It enables people to acquire knowledge, attitudes and skills that will help them make healthy food choices and maintain good health. Nutrition education is a tool that can be used to teach students what and how to eat to make a healthy decision. Nutrition education can increase students' knowledge of balanced diets, food groups, what is too much or too little, and the importance of eating fruits and vegetables. WHO (2026) advises to educate children and adolescents on nutrition and healthy dietary practices, to encourage schools to support healthy eating. Adeoya et al (2023) stated that nutrition education helps to impart knowledge, promote healthy eating habits, and modern diets are specifically nutrition deficient, made up of meals consumed out of home including fast food, instant food, energy dense snacks and soft drinks. These tend to be higher in calories, saturated fat, salt, and cholesterol, and lower in fiber, calcium and iron, which can result in severe malnutrition. Adeoya et al (2023) showed that the food content in the lunch packs of public primary school pupils is of poor quality. Moreover, the menu in the school lunch tends to be largely determined by individual vendors in Nigeria, which forces pupils to make their own food selections, and school lunch is rarely monitored. It is found that in some Public Primary Schools in Ibadan, students consume junk food like chin chin (snack fufu), meat pie, buns, macaroni, ice cream and biscuit for the mid-day meal than the local good food (beans, rice, yam porridge, vegetables and fruits). Nutrition education fosters knowledge and promotes a healthy diet. For optimum impact, a healthy message about food should be reinforced in the school environment and through meals. Proper nutrition and healthy nutrition knowledge are crucial for adolescents as it contributes to their healthy growth and cognitive function, and also helps prevent nutrition-related diseases like obesity, according to Ariyo, Oladipo, Alimi, & Atojoko (2023).

1.1 Problem of study

Good eating habits in the adolescent years are crucial for physical growth, brain development, school achievement, and for avoiding chronic diseases. Accessibility of food is one of the key factors which can be considered as influencing a teenager's food choice. Students should learn about the types of foods that are available to them in their homes, around their school, and in local food outlets, in order to make appropriate food choices. Even if nutrition education is provided, however, it may not be delivered effectively or appropriately, leaving students without enough information on balanced diets, the importance of portion sizes, food selection and the impact of poor nutrition. Thus, a concern is that teenagers' poor eating patterns may continue, even when nutrition information and food choices are available at their community level. Adolescent unhealthy eating behaviors can result in undernutrition, overweight/obesity, micronutrient deficiencies, diminished attention span and higher risk of non-communicable diseases. There is therefore a need to know whether the provision of healthy foods and nutrition education is really working towards supporting healthy eating patterns of secondary school students in Ika South LGA, Delta State.

1.2 Purpose of the study

The main purpose of this study is to examine the role of food accessibility and nutrition education in promoting healthy eating habits among teenagers in secondary school students in Ika South Local Government Area, Delta State. Specially the study seeks to:

- To what extent does food accessibility promote healthy eating habits among teenagers in secondary school students.?
- To what extent does nutrition education promote healthy eating habits among teenagers in secondary school students.
- What are the factors influencing unhealthy eating habits among secondary students.

1.3 Research Hypothesis

Tested at 0.05 level of significance.

- There is no significant difference between male and female students on the influence of food accessibility in promoting healthy eating habits among teenagers in secondary school students.

2 METHODOLOGY

2.1 Research Design

The study adopted a descriptive survey research design. The descriptive survey design was considered appropriate because it enabled the researcher to gather information directly from respondents.

2.2 Population of the Study

The population of the study consisted of all public and private secondary school students (Junior Secondary Class 1 to Senior Secondary Class 3) in Ika South, Delta State. Based on the records from the Delta State Post Primary Education Board (PPEB), Agbor Zone, there are approximately 12,500 students enrolled in the 22 public secondary schools and 15 government approved private secondary schools within the Ika South Jurisdiction for 2025/2026 academic season.

2.3 Sample and Sampling Techniques

The study selected a total of 240 respondents from six selected secondary schools in the study area. The respondents were drawn from both public and private secondary schools to ensure adequate representation of students in the study. The sampling techniques involved the use of purposive sampling technique and simple random sampling technique.

The selected schools were:

Public Secondary Schools

- Alihame Mixed Secondary School, Agbor
- Ogbemuden Model Secondary School, Agbor
- Ozanogogo Secondary School, Agbor

Private Secondary Schools

- Supreme Child Academy, Agbor
- Peakrise Academy, Agbor
- Staff Model Secondary School, Agbor

Firstly, purposive sampling technique was employed in selecting the six secondary schools used for the study.

Secondly, simple random sampling technique was used in selecting the respondents from the chosen schools. Through this technique, students were randomly picked from different classes without bias.

2.4 Distribution of Respondents

S/N.	School	Number of Respondents
1	Alihame Mixed Secondary School, Agbor.	55
2	Staff Model Secondary School, Agbor.	45
3	Ogbemuden Model Secondary School, Agbor.	50
4	Ozanogogo Secondary School, Agbor.	25
5	Supreme Child Academy, Agbor.	35
6	Peakrise Academy, Agbor.	30
	Total.	240

2.5 Instrument for Data Collection Technique

The instrument used for data collection was a structured questionnaire designed by the researcher titled: "Role of Food Accessibility and Nutrition Education Questionnaire (RFANEQ)". The questionnaire was divided into two sections. The questionnaire was structured using a four-point Likert scale: **Very High Extent (VHE)**, **High Extent (HE)**, **Low Extent (LE)**, and **Very Low Extent (VLE)**.

2.6 Reliability of the Instrument

The reliability of the instrument was established using Cronbach's Alpha. The questionnaire was administered to 20 respondents who were not part of the main study, and the responses were analyzed using SPSS. The analysis yielded a Cronbach's Alpha coefficient of 0.982 was obtained

2.7 Ethical Consideration

Permission was obtained from the school authorities before conducting the study. Respondents were informed about the purpose of the study and participation was voluntary. The respondents were assured of confidentiality and anonymity. Information collected from the respondents was used strictly for academic purposes only. The researcher also ensured that no respondent was forced to participate in the study.

2.8 Statistical Analysis / Method of Data Analysis

Data collected from the respondents were analyzed using descriptive statistics mean and standard deviation. The mean and standard deviation was used to answer the research questions. The decision rule was based on a criterion mean of 2.50. Any item with a mean score of 2.50 and above was regarded as high extent, while any item below 2.50 was regarded as low extent, Hypotheses was tested at 0.5 level of significance

3 PRESENTATION OF DATA AND DISCUSSION

3.1 Research question 1

To what extent does food accessibility promote healthy eating habits among teenagers in secondary school students.?

Table 1: Mean and Standard deviation (SD) of the extent food accessibility in promoting healthy eating habits among teenagers in secondary school students.

S/N	Items	M	SD	Decision
1.	Easy access to fast foods increases healthy eating habits among students.	3.48	0.501	High extent
2.	Easy access to fresh fruits and vegetables encourages me to eat them more often.	3.50	0.501	High extent
3.	Availability of nutritious foods in my school encourages me to make healthier food choices.	3.47	0.500	High extent
4.	Availability of healthy food choices in my community influences my preference for nutritious foods.	3.48	0.501	High extent
5.	Having access to healthy food options at school helps me to eat breakfast and other meals regularly	3.47	0.500	High extent
6.	The availability of nutritious foods at affordable prices influences me to reduce my consumption of sugary and highly processed foods.	3.43	0.495	High extent
7.	Students consume more snacks because they are readily available.	3.45	0.499	High extent
8.	Access to safe and hygienically prepared foods encourages me to eat healthily.	3.43	0.512	High extent
9.	Easy access to balanced meals encourages me to eat a variety of foods.	3.38	0.486	High extent
10.	Food accessibility influences students' body weight.	3.29	0.455	High extent
	Grand Mean	3.44	00.49	High Extent

Table 1 shows the mean and SD of the participants regarding the effects of food accessibility on eating health on secondary school students. It is found that all 10 items were rated at high extent with mean scores of 3.29-3.50. The

grand mean of 3.44 and the standard deviation of 0.49 demonstrated that the respondents generally agreed that the extent of influence of food accessibility on students' healthy eating habits was high. The lowest mean was obtained for that of students' body weight on food accessibility ($M = 3.29$, $SD = 0.455$) for item 10. It had a higher rating, but a lower mean, indicating that the direct influence of food accessibility on body weight was believed to be less by the respondents than the influence of food accessibility on their daily food selection. The overall mean score of 3.44 shows that "Food Accessibility" had a high degree of influence on healthy eating practices of secondary school students.

3.2 Research question 2

To what extent does nutrition education promotes healthy eating habits among teenagers in secondary school students.

Table 2: Mean and Standard deviation (SD) on how nutrition education promotes healthy eating habits among teenagers

S/N	Items	M	SD	Decision
1.	Nutrition education helps me understand the importance of eating a balanced diet.	3.47	0.585	High extent
2.	Nutrition education helps me identify foods that are beneficial to my health.	3.50	0.517	High extent
3.	Nutrition education encourages regular breakfast consumption.	3.43	0.496	High extent
4.	Nutrition education encourages me to eat more fruits and vegetables. Vegies	3.47	0.500	High extent
5.	Students who receive nutrition education eat more fruits and vegetables.	3.37	0.483	High extent
6.	Nutrition education increases my knowledge and confidence in choosing healthy foods	3.44	0.497	High extent
7.	Students apply nutrition knowledge in selecting meals.	3.42	0.495	High extent
8.	Nutrition education promotes balanced diet among students.	3.52	0.549	High extent
9.	Nutrition education teaches me how to select appropriate portions of different foods	3.30	0.479	High extent
10.	Nutrition education encourages me to develop healthy eating habits that can be maintained into adulthood.	3.15	0.377	High extent
	Grand Mean	3.41	00.498	High extent

Table 2 presents the mean and standard deviation of respondents of the extent to which nutrition education promotes healthy eating habits among teenagers in secondary schools. The results indicate that all ten items were rated High Extent, with mean scores ranging from 3.15 to 3.52. The grand mean of 3.41 and standard deviation of 0.498 indicate that respondents generally perceived nutrition education as having a high extent of influence on healthy eating habits among secondary school students. Item 8, "Nutrition education promotes balanced diet among students," had the highest mean score of 3.52 ($SD = 0.549$). This indicates that respondents strongly perceived nutrition education as an important means of helping students understand and practice balanced eating. Item 2, "Nutrition education helps me identify foods that are beneficial to my health," recorded the second-highest mean of 3.50 ($SD = 0.517$). This suggests that nutrition education enhances students' ability to distinguish nutritious foods from less healthy alternatives. Items 1 and 4 also recorded relatively high mean scores of 3.47 each. This indicates that nutrition education helps students understand the importance of a balanced diet and encourages greater consumption of fruits and vegetables. Item 6 ($M = 3.44$, $SD = 0.497$) further shows that nutrition education increases students' knowledge and confidence when choosing healthy foods. Item 3, concerning regular breakfast consumption, had a mean of 3.43 ($SD = 0.496$), while item 7, concerning the application of nutrition knowledge when selecting meals, recorded 3.42 ($SD = 0.495$). These findings suggest that nutrition education goes beyond providing theoretical knowledge and can influence students' practical

food-selection behaviour. Item 5, which states that students who receive nutrition education eat more fruits and vegetables, recorded a mean of 3.37 (SD = 0.483). Although this was lower than several other items, it was still interpreted as a high extent. Item 9 (M = 3.30, SD = 0.479) indicates that nutrition education helps students understand appropriate food portions. The lowest mean was recorded by item 10, “Nutrition education encourages me to develop healthy eating habits that can be maintained into adulthood,” with M = 3.15 and SD = 0.377. Although this was still rated high extent, the relatively lower score may suggest that respondents were less certain about the long-term sustainability of nutrition-related behaviours.

3.3 Research question 3

What factors contribute to unhealthy eating habits among secondary school students?

Table 3: Mean (M) and Standard deviation (SD) on the factors contribute to unhealthy eating habits among secondary school students

S/N	Items	M	SD	Decision
1.	Peer influence contributes to unhealthy eating habits.	3.60	0.492	High extent
2.	Lack of parental supervision affects students' eating habits.	3.44	0.497	High extent
3.	Excessive television and phone usage encourage unhealthy eating.	3.45	0.499	High extent
4.	Poverty contributes to poor food choices among students.	3.43	0.513	High extent
5.	Busy school schedules affect healthy eating habits.	3.47	0.500	High extent
6.	Consumption of fast foods contributes to obesity.	3.43	0.497	High extent
7.	Lack of nutrition knowledge leads to unhealthy eating habits.	3.43	0.513	High extent
8.	Advertisements influence students to consume junk foods.	3.33	0.488	High extent
9.	Sedentary lifestyle contributes to obesity among students.	3.53	0.516	High extent
10.	Frequent consumption of snacks increases obesity risk.	3.22	0.435	High extent
	Grand Mean	3.43	0.49	High extent

Table 3 presents the mean and standard deviation of respondents' perceptions of the factors contributing to unhealthy eating habits among secondary school students. The results show that all ten items were rated High Extent, with mean scores ranging from 3.22 to 3.60. The grand mean of 3.43 and standard deviation of 0.49 indicate that respondents generally perceived the identified social, family, economic, behavioural, school and media-related factors as contributing to unhealthy eating habits among secondary school students to a high extent. The highest-rated item was peer influence, with a mean of 3.60 (SD = 0.492). This indicates that respondents perceived peer influence as the most prominent factor contributing to unhealthy eating habits among students. Adolescents may adopt the food preferences and eating practices of their friends because of the desire to belong to a peer group.

The second-highest mean was recorded for sedentary lifestyle, with M = 3.53 (SD = 0.516). This suggests that prolonged inactivity and limited physical activity are perceived as important contributors to unhealthy lifestyle patterns among students. Busy school schedules also recorded a high mean of 3.47 (SD = 0.500), suggesting that academic demands and limited time may make students more likely to select convenient foods.

3.4 Hypothesis 1

There is no significant difference between male and female students on the role of food accessibility in promoting healthy eating habits among secondary school students.

Table 3 indicates that there was no significant difference between male and female student on the influence of food accessibility in promoting healthy eating habits among secondary schools' male students (M = 34.61, SD = .583) and female students (M = 34.36, SD = .877), $t(1238) = 1.841$, $p = .074$. Therefore, the null hypothesis was retained. This means that there is no significant difference between male and female students on the influence of food accessibility in promoting healthy eating habits among in secondary schools.

Table 4: T-test of independent sample on the difference between male and female students on the influence of food accessibility in promoting healthy eating habits among secondary school students.

Variable	Gender	N	Mean	Std. Deviation	df	t	Sig. (2-tailed)	Decision
Food Accessibility	Male	23	34.61	0.583	238	1.841	0.074	Retained
	Female	217	34.36	0.877				

$$\alpha = 0.05$$

4 DISCUSSION OF FINDINGS

This finding agrees with Iyassu et al. (2024) study of the food environment of school-going adolescents in three cities of Ethiopia. The researchers found that food items that were high in fat, sugar and salt were often affordable, available and accessible in and around school, and were often consumed by adolescents. They also noted that the teens understood the importance of eating fruits and vegetables but had accessibility and safety concerns. The study suggested that increasing availability, accessibility and affordability of nutrient dense foods. The present finding on the importance of availability of healthy foods is also supported by Ryan et al. (2022). In their research, they found that not only was the food environment at school important for food choice, but also the home environment. The researchers noted that factors such as food availability, school practices, social influences, and food knowledge and beliefs impacted adolescents' food choices. Fresh fruits and vegetables were not as common. This aligns with the current findings, especially regarding that consuming readily available snacks can impact students' eating habits. The affordability finding is complemented by the finding of Okafor et al. (2024) that studied the food choices of adolescents in three states in Nigeria and found that while various foods were available, affordability limited adolescents' access to nutritious foods. Overall, the study found that improving food environments and social support may provide opportunities to help adolescents eat a healthier diet. The finding is also in accord with the study by Adebayo et al. (2023) which was carried out among school going children in Nigeria and found that proper nutrition during childhood is essential for proper growth and development, intellectual health and nutrition related diseases prevention.

Table 2 showed that nutrition education improves students' knowledge in recognizing nutritious food versus less healthy food options. Recent studies on nutrition education in the schools support the finding that nutrition education has a high extent of promoting healthy eating. A systematic review was carried out by Flores-Vázquez et al. (2024) to investigate the educational nutrition interventions for school adolescents. They reviewed 12 studies, with 11 reporting positive results in the consumption of at least two food groups after nutrition education interventions. The researchers found school-based nutrition education can be a factor in positive change in adolescent eating behaviors. This is consistent with the current result of the ability of nutrition education to enhance the students' healthy dietary habit. The discovery is in-line with Chatterjee and Nirgude (2024) who conducted a review on school based interventions for nutrition of school children and adolescents. Their assessment revealed nutrition education to be one of the significant intervention strategies, and they concluded that nutrition education programs delivered in school settings can impact dietary patterns, food preferences and lifestyle-related behaviors.

Pushpa et al (2024) did a systematic review of the relationship between nutrition education and food consumption in Asian young people and adolescents which supports the findings regarding nutrition knowledge and confidence in making healthy food choices. The review identified most nutritional education interventions as successful in enhancing nutrition knowledge, self-efficacy, healthy eating and physical activity and fruit and vegetable consumption. The findings in the present work are corroborated by evidence from Nigeria. Adeoya et al. (2023) examined the impact of providing nutrition education upon pupils' school meal choices and the attitudes that they may have towards those choices. Adeoya et al. (2023) evaluated the effectiveness of nutrition education on pupils' knowledge and attitudes regarding their school meal choices, in Ibadan, Nigeria. After six weeks of nutrition education, the researchers reported an increase in nutrition knowledge and positive nutrition attitudes in the nutrition choices. They found that nutrition education was effective in increasing food knowledge and promoting better eating behaviors but that the food environment of the school must also reinforce the nutrition messages being taught. This is important for the current study since it has shown that nutrition education can be a determinant in food preferences of Nigerian school children.

In addition, Abubakar, Shahril and Mat (2024) carried out a systematic review of nutritional status and dietary intake of Nigerian adolescents. They had reviewed 51 studies and found low intake of some critical nutrients in Nigerian adolescents. The scientists suggested adding nutrition education programs to school and community settings to enable adolescents to make informed choices regarding their diets. This is consistent with the current study finding that nutrition education can equip students with knowledge needed to make healthful food choices. The Nigerian evidence

is further strengthened by Adolescent Nutrition in Nigeria: A Systematic Review that included evidence on over 67,000 adolescents. The review painted a picture of a complex situation in Nigeria regarding adolescent nutrition, with high prevalence of nutritional challenges, and called for more robust interventions and evidence to inform nutrition programmes. This gives further justification for providing nutrition education to secondary school students.

Finally, Samad et al. (2024) have performed an umbrella review on school-based healthy eating interventions in children aged 10–19 years. They evaluated interventions within schools that included health education, changes in the school food environment, and family/community engagement. The results can be used to support the use of school as an influential environment for improving adolescence's food habits. This reinforces the focus of the current study on nutrition education in the secondary-school setting.

Table 3 results revealed that the peer influence found in this study align with those of Vidal et al. (2024), where the peer influence is the top-rated factor that affects unhealthy eating habits. Their systematic review of 50 qualitative and mixed method studies found that peer group influence was an important social factor affecting adolescents' eating behaviours. The authors noted that peer pressure, socialization and the need to conform may lead teens to make less healthy food selections. Likewise, Louey et al. (2024) discovered peers and social influences were barriers to healthy eating with adolescents. Adolescents sometimes selected unhealthy foods because of their social conformity and wanting to fit in with peers, their review said. This current discovery, therefore, implies that the interventions in secondary schools should be incorporated with peer influence perhaps in the form of peer-led nutrition education and healthy eating campaigns.

The study result of the association of lower parental supervision with unhealthy eating behaviors aligns with the study conducted by Jin et al. (2023) which explored parental facilitators and barriers of healthy eating among Chinese adolescents. They found that barriers to eating healthy included lack of parental knowledge, little family discussion and time and cost, whereas facilitators included parental supervision and provision of healthy food and positive parental attitudes. This means that parents influence adolescents' eating behaviors in several ways, including in their supervision, availability of food, and modeling and talking about nutrition.

Louey et al. (2024) found barriers to healthy eating amongst adolescents, namely digital influences and television exposure and unhealthy food advertising. The study found that the food advertising and media posts could trigger energy-dense snack and sugary drink cravings. Previous reviews found similar associations between poverty and poor food choice that were also cited by Vidal et al. (2024) as barriers to healthy eating among adolescents, which included socioeconomic position and food insecurity. It was also identified that the availability and affordability of UFP may impact adolescents' dietary behaviour. A study found by Louey et al. (2024) revealed that unhealthy foods were available and relatively inexpensive, while the cost and availability of healthy foods may also be a barrier to healthier food choices. When nutritious foods are more costly or less available, then the chances are lessened for students from economically disadvantaged households to eat them. Recent Nigerian study confirms the findings that eating fast food is associated with an unhealthy diet and obesity risk. The study by Bankole et al. (2024) explored the marketing of fast food to Nigerian adolescents through Instagram. They reviewed 576 posts on Instagram from five fast food brands in Nigeria and found that they used a lot of strategies geared towards the teenagers, such as product appeals, teen language and emotional appeals. These were correlated with higher engagement with promotional content from fast-food brands.

Bankole et al. (2024) support this finding that advertisements affect students' consumption of junk foods. In their study, they discovered that fast food companies were actively engaging in using Instagram marketing methods targeted toward teens, and that product appeals and competitions correlated with more engagement with the posts. The second highest mean showed sedentary lifestyle, which suggested that the physical inactivity was one of the important factors that were associated with unhealthy lifestyle. This finding aligns with the overall findings from Louey et al. (2024) who concluded that the larger social and behavioural context influencing adolescents' health behaviours included digital influences and sedentary-related lifestyle factors. But, it's essential to differentiate between unhealthy eating habits and obesity. Sedentary behaviour can be a factor associated with energy imbalance and weight related outcomes, but not an eating behaviour. Thus, if unhealthy eating habits continue to be the dependent variable, the item may be reworded to "A sedentary lifestyle makes food choices unhealthy for students." for methodological consistency. The results by Bankole et al., (2024) are significant in the Nigerian context as it shows that Nigerian adolescents are actively exposed to fast-food marketing via social media. Therefore, measures for the improvement of the nutritional status of adolescents in Ika South LGA should not only involve giving them nutrition education in the classroom but should also emphasize nutrition strategies for the food environment, digital marketing, peer influence as well as family practice and affordability of foods.

Table 4 shows that there was no significant difference found between boys and girls secondary school students in promoting healthy eating habits. The null hypothesis is not rejected that there is no significant difference between the male and female students. This means that there is no significant difference between male and female students in promoting healthy eating habits among in secondary schools. This is partly in agreement with the study of Conrad et al

(2024) in three states of northern Nigeria that looked into food choices of adolescent girls and boys. The researchers came to understand that the food environment, food affordability and nutritional knowledge and social factors influenced the food choice of both male and female adolescents. While gender norms had some impact on the extent of freedom that adolescents had in making food choices, the study showed that food accessibility and affordability played significant roles in influencing food choices among both adolescent boys and girls. This is in line with the current finding that male and female learners might react in similar ways to food availability, but be differently impacted by the extent to which they choose to eat it. Yet Conrad et al. (2024) also identified gender norms as limiting the agency to make choices about food, especially for girls. Women adolescents had less autonomy over food decision making than men adolescents particularly pregnant adolescents. However, in the secondary-school context examined, it could be said that the food availability of boys and girls in school has a similar impact even though there may be some gender differences in food preference. The result is also consistent with that of Liu, Wen, and Zhou (2024) who examined gender differences in adolescent food preferences based on the China Health and Nutrition Survey. Their study specifically looked at food preferences of male and female adolescents and the correlation between adolescents' and parents' food preferences. The results of the present study suggest that gender differences in the effect of food availability on healthy eating do not necessarily result in a significant difference, but at the least they indicate that there may be gender-specific differences.

Similarly, Iyassu et al. (2024) investigated the influence of nutrition knowledge and the school food environment on adolescents' dietary behaviours in Ethiopia. Adolescents identified healthy foods as fruits and vegetables, but often ate foods that are high in salt, sugar and fat due to the fact that they were affordable, available and accessible in and around schools. The researchers suggested interventions that would increase the availability, accessibility and affordability of adolescents to nutritious food. The finding is corroborated by the study of Raghoobar et al. (2024) on the determinants of healthy dietary behaviour among adolescents, which highlighted social influences, food environments and adolescents' autonomy as important determinants. The researchers suggested that it was necessary to establish positive social and physical environments for adolescents. This helps to confirm the conclusion that food availability could affect adolescents at a general level, and not particularly with a strong gender dimension.

The discovery also corroborates the systematic review of nutritional status and dietary intake done by Abubakar, Shahril and Mat (2024) on adolescent nutrition in Nigeria. They noted the intricacies of the nutritional problems among Nigerian adolescents and stressed the need for proper intervention to improve their dietary practices. In addition, in a qualitative study of adolescent girls in rural communities in Nigeria, Sosanya et al. (2024) reported that nutrition knowledge, food preferences, autonomy, allocation of food resources and economic access had effects on food preferences and dietary practices. The study was conducted on the female population and was not able to make a direct comparison between males and females, but did indicate the role food availability and economic conditions play in adolescent food selection.

5 CONCLUSION

The study has concluded that adolescents' food access, and nutrition education are significant factors in the promotion of healthy eating habits among adolescents in secondary schools, Ika South Local Government Area, Delta State. The access, cost and convenience of healthy food options can affect the food students eat, and good nutrition education can enhance students' knowledge and awareness of what they should be eating. Nutrition knowledge is not a determinant of healthy eating behaviour, if the foods that support good nutrition are not readily available to students or unhealthy foods are easily accessible to them. This means interventions aiming to change adolescents' eating habits must be directed at nutrition knowledge and the food context in which they make their choices. The schools, parents, health educators and the government have important roles to play in promoting healthy food consumption among teenagers. The enhancement of nutrition education in schools, the provision of affordable and nutritious foods, and the school food environment have the potential to play a significant role in the promotion of healthier eating patterns and wellbeing among secondary school going children in Ika South Local Government Area, Delta state.

Recommendations

The results of this study led to the following recommendations:

- Healthy school food policies should be put in place by school administrators that limit the availability of sugary drinks, highly processed snack foods and junk foods in the schools.
- Food demonstration, healthy meal planning activities, nutrition clubs and school-based health campaigns should be integrated in nutrition education programs to make them more practical.
- Parents providing nutritious meals and monitoring the eating habits of children should be sensitized through Parent-Teacher Association (PTA) meetings.
- To ensure that healthy foods (fruits, vegetables, nutrition snacks) are accessible and inexpensive to students, the food in school canteens should be regulated.

- School should coordinate with nutritionists, dietitians, and health educators to arrange frequent seminars and workshops on obesity prevention and a healthy diet.

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