Factors Influencing Food Choices and Self-Efficacy on Healthy Consumption Practices among Secondary School Students in Ekiti State, Nigeria

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ABSTRACT

Background*: This study examined the factors that influence food choices and self-efficacy on healthy consumption practices among secondary school students in Ekiti State, Nigeria. The study determined the relationship among personal factors, environmental factors, traditional factors and economic factors, and self-efficacy among secondary school students. *Methods:* The descriptive survey research design was used for this study. The population for this study consisted of all students in public secondary schools. A sample of 600 students was selected from the public secondary schools, using a multistage sampling procedure involving simple, stratified, purposive, proportionate, and systematic random sampling techniques. A self-developed structured questionnaire was used as an instrument for the collection of data. The instrument was subjected to face and content validity which was done by experts in Human Kinetics and Health Education, and Tests and Measurement. It gave a reliability coefficient of 0.89 using Cronbach Alpha to test for internal consistency and this was considered high enough. The data obtained for the study were subjected to descriptive statistics of frequency counts, percentages, mean and standard deviation while inferential statistics of t-test, multiple regression, ANOVA and ScheffePosthoc analysis were used to test the hypotheses. *Results:* The findings revealed that the level of self-efficacy on healthy consumption practice was moderate among secondary school students; there existed positive and significant relationship between personal factors, environmental factors, traditional factors and economic factors and self-efficacy on healthy consumption practices among secondary school students. Age of students has significant influence on environmental factor, traditional factor and economic factors as factors influencing food choices but has no significant influence on personal factor influencing food choices as well as self-efficacy on healthy consumption practices among secondary school students. *Conclusions and recommendations:* Based on the findings, it was recommended that proper sensitization should be given to students on the types of food that is good for their health to enable them to make rightful choice in food consumption. Government should be encouraged to support the parents of secondary students in providing food subsidy in order to reduce economic barriers to self-efficacy on healthy consumption practices among secondary school students.

Key Words: Self-Efficacy. Junk Food, Food Palatability, Food choices, Economic factors, Environmental Factors

BACKGROUND TO THE STUDY

Food is any substance consumed to provide nutritional support to the body. Food essentially consists of "proteins, carbohydrates, fats, and other nutrients used in the body of an organism to sustain growth and vital processes and to furnish energy" (Britannica-Encyclopaedia, 2020). At the various stages of human growth, the absorption and utilization of food are fundamental to healthy living.

Several factors may influence food choices and consumption among secondary school students. They are grouped into personal factors, traditional factors, environmental factors, and economic factors. Food choices and consumption are influenced by personal factors such as appearance, aroma, texture, taste, convenience, palatability, and the level of nutritional knowledge. The appearance of the food may be the major reason why an individual chooses the food while the aroma produced out of the food may be another major reason for choosing a particular food. The taste of food is another major reason under personal factor in which

adolescents may make a food choice. Whereby food may taste sweet but doesn't have any nutritional value in the body (Liem and Russell, 2019).

The texture of food also plays a major role in food choice whereby some food textures may discourage an adolescent from eating such food. In another way, an adolescent may choose a particular food only because of the convenience he/she has in accessing such food, even though the food may not have any nutritional value for the body system. Food palatability also plays an important role under personal factors whereby it determined whether adolescents may choose the food or not. The researchers understand that knowledge about the nutrients in food brings about a better understanding of how the body functions with the food consumed and may also influence the choices people make (Banwat et.,al 2012).

A major reason for eating is hunger but what one chooses to eat at most times is not determined solely by physiological or nutritional requirements. There is a need to consume a balanced diet and also follow nutritionists' and medical advice on appropriate food intake (Akindutire&Konwea,2013). Therefore, there are certain stages in life that one would need to be conscious of the quantity and quality of food consumed to enhance convalescence and not to worsen the health conditions. But it seems most students determine their food choice and consumption based on the personal meaning given to certain foods such as peppery soups when someone is ill or chocolate and ice-cream when feeling self-indulgent. A person might also be motivated by how food affects their look, such as if it is fatty or, on the contrary, beneficial to their complexion. Early in childhood, people make food choices that vary as a result of interactions with their parents, friends, and classmates. Individual choice and consumption may be expanded or changed as a result of more interactions with diverse people, locations, and situations (Blum et al., 2019).

One other personal factor that may influence how students eat and then the choice of food is the ease and convenience in obtaining the food in the school environment. It appears that convenience has a large influence in influencing people's food choices, as convenience stores contribute significantly to the availability of food options that are acceptable and inexpensive in the food system (McGuire,2013).

Another key factor that may influence the food choices of an individual is traditional factors. Traditional beliefs and norms related to religion, culture, tribe, misconceptions, and taboos are powerful tools in shaping the beliefs and the conceptions individuals have toward the choice and consumption of certain foods. The amount of money spent on nutrition tasks in the house is influenced by a variety of factors, including whether both parents work outside the home, and the number of children in the home, which makes it more difficult to plan and make healthy diet choices. Many parents, particularly women, lament that they are too busy to cook nutritious food or even cook at all these days. This is especially frequent among low-income families who must often work long hours to make ends meet. For some homes, time constraints may limit personal investment in a healthy diet which in turn affects the food choices and healthy consumption of children in later life (Robinson-O'Brien, Larson, Neumark-Sztainer, Hannan and Story, 2009).

Discussions about food in the classroom may make students feel inferior and later include foods that relate to their friends which may be detrimental to their own healthy food choice and healthy consumption practices (Chan and Woo, 2010). It has been noted that in certain cultures, food is readily available, making it simple to consume without thinking about it. According to some experts, the rising prevalence of obesity and overweight is due to the increased availability of food, particularly carbohydrate meals and fast food (Chan and Woo, 2010).

When it comes to the taste of sweet and fatty foods, students are eager, but vegetables and salads are connected with unpleasant and bad taste experiences, particularly in the school setting. Individuals' dietary choices, particularly those of secondary school students, are influenced by their surroundings. Students prefer fast food because they can quickly run out of the classroom to get it, or they can buy it during and after school (Akindutire&Konwea, 2013). Consuming a lot of fast food, on the other hand, may increase calorie consumption and the risk of getting fat.

The economic factor is another major factor capable of influencing food choices and healthy consumption practices among secondary school students. The reason for this observation is that income level and food

choice are closely related thus, the socio-economic status of parents can have profound effects on the healthy food choice of the children due to differences in the ability to provide healthy food materials and other lifestyle choices for the children (Borraccino *et al.*, 2016).

In addition, the researcher observed that what is available in the school environment may also affect the food choices and healthy consumption practices of students. In the context of this study, availability and accessibility of food refers to the physical presence of food stocks in desired quantities. Accessibility relates to a food's readiness and convenience, such as whether it takes little or no preparation, is packed handily so that it can be eaten anywhere, or can be stored for a long time without spoiling. The limited accessibility to healthy foods in many settings may narrow good choices and make it difficult to eat healthily (Silva, Ayankogbe, & Odugbemi, 2017).

Self-efficacy is the confidence that one has in his or her ability to perform certain activities. Self-efficacy in healthy food consumption is all about students' confidence in their ability to take certain actions when making food choices (Akindutire & Konwea, 2013). Individuals with high self-efficacy on healthy food consumption are more likely to initiate challenging behavior while consuming their food from choices made (Liou, 2004). But those with low self-efficacy may not likely be able to take conscious efforts to consume foods available in a way that they do not create problems for their health in the future.

There is no doubt that understanding students' healthy eating behavior is incomplete unless one gives a careful insight into factors influencing their food choice and self-efficacy on healthy food consumption practices. It is, therefore, crucial to track adolescents' food choices and self-efficacy through an empirical study. Hence, this study determined the factors influencing food choices and self-efficacy on healthy consumption practice among secondary school students in Ekiti State, Nigeria.

METHODS

Study setting and study period

The study was conducted in public secondary schools in Ekiti state, Nigeria. The study was conducted between March 2023 and September 2023.

Research Design

The descriptive survey research design was used for this study. This was considered appropriate for the study because it involves the collection of data that enabled the researchers to describe with a clear observation of the situation regarding factors influencing food choices and self-efficacy on healthy consumption practices among secondary school students. This was chosen because surveys are often used for descriptive purposes and are possibly the best approach for collecting data for a population that is too vast to observe directly. This research design enabled the researcher to handle a large sample and describe the situation as they exist without manipulation.

Population

The population for this study consisted of all students in public secondary schools in Ekiti State. As of the time of this study, there are hundred and forty-one (141) public secondary schools in Ekiti State with a total number of 242,804 students in all public secondary schools in Ekiti State according to data available with the Ministry of Education of Ekiti State in 2022.

Sample and Sampling Techniques

The sample for the study comprised 600 students selected from public secondary schools in Ekiti State. The study used a multistage sampling procedure. The first stage involves the use of stratified sampling technique to divide 16 Local Government Areas in Ekiti State into three major Senatorial Districts: Ekiti South Senatorial

District (7 local government areas), Ekiti North Senatorial District (5 local government areas), and Ekiti Central Senatorial District (5 local government areas).

The second stage involves the selection of 7 local government areasfrom all the three senatorial districts using a proportionate sampling technique. Thus, 3 local government areas were selected from Ekiti South Senatorial District out of 7 while 2 local government areas each were selected from Ekiti North Senatorial District and Ekiti Central Senatorial District respectively out of 5. All together making 7 local government areas. In the third stage, two public secondary schools were selected from 7 local governments selected in stage two using a simple random sampling technique, making 14 public senior secondary schools.

In the fourth stage, the purposive sampling technique was used to select only SS1 and SS2 students. The fifth stage involves the selection of intact classes from each of the schools and classes selected in stages three and four using the systematic sampling technique. This resulted in a total of 600 respondents in the survey.

Research Instrument

A self-developed and structured Questionnaire titled "Food Choice and Self-efficacy on Healthy Consumption Practices Questionnaire" (FCSHCPQ) was used to collect information for this study. The questionnaire consisted of three sections. Section A sought information on demographic information of students while section B collected information on the factors influencing food choices among secondary school students using a four-point modified Likert scale of (1=Strongly agree; 2=Agree; 3= Disagree; 4= Strongly disagree). Section C collected information on self-efficacy on healthy consumption practices among secondary school students using a four-point modified Likert scale of 1= Not at all confident; 2=Very low confident; 3= Moderately confident; 4= Highly confident).

Validity of the Instrument

The instrument was subjected to both face and content validity. A draft copy of the instrument was made available to the researcher's supervisor to determine its face value in measuring what it is to measure. Thereafter, the content validity was ascertained by the team of experts in Human Kinetics and Health Education, Guidance and Counselling and Test, Measurement and Evaluation to ascertain whether the items are relevant, adequate and indicate the suitability of the instrument. Experts reviewed the items in terms of simplicity and clarity to ensure that all words that were too ambiguous were discarded from the items. Based on their observations and corrections, the final copy of the instrument was drafted. This ensured the face and content validity of the instrument.

Reliability of the Instrument

To ensure the reliability of the instrument, the Cronbach Alpha reliability method was used. The instrument was first carried out on 20 selected students that are outside the sampled secondary schools to calculate the reliability of the instrument before the final administration of the instrument. The scores obtained were correlated using Cronbach Alpha to compare the amount of shared variance among the items making up the instrument to the amount of overall variance, which yielded the coefficient value of 0.89. The obtained value of the instrument was considered reliable.

Administration of the Instrument

The researcher obtained a letter of introduction from the Head of Department of Human Kinetics and Health Education, Ekiti State University, Ado Ekiti to each of the selected secondary schools for identification purposes and to attract the cooperation of the school authority. The schools sampled were visited and permission was obtained from the school management.

The instrument was administered with the help of six (6) trained research assistants. Copies of the questionnaire were distributed to the students in JSS2 and SSSII classes only in the selected schools. The completed copies of the questionnaire were retrieved back from students on the same day.

Data Analysis

The information collected from the questionnaire was sorted, coded, and analyzed using descriptive and inferential statistics. The descriptive statistics of mean, frequency count, and percentages were used to answer the research questions. Tables were used to present the findings. Inferential statistics were used to test the hypotheses. Pearson's Product Moment Correlation was used to test hypotheses 1 through 5. Hypothesis 6 was tested using Multiple Regression Analysis, whereas hypotheses 7 and 8 were tested using Analysis of Variance (ANOVA) while hypotheses 9 and 10 were analyzed with t-test. All hypotheses were tested at a 0.05 level of significance.

RESULTS AND DISCUSSION

Results

Table 1. Demographic Information of the Respondents

Demographic	Grouping	Frequency	%
Gender	Male	275	45.8
	Female	325	54.2
Age	10 – 12	290	48.3
	13 – 15	190	31.7
	16 – 18	120	20.0

Table 1 showed the demographic information of the respondents. As indicated in the table, out of 600 participants, 275 representing 45.8% were male while 325 representing 54.2% were female. In the age group, 290 representing 48.3% are between age 10 and 12, as 190 (31.7%) and 120 (20.0%) respectively fall between 13 -15 and 16-18.

Table 2. Factors influencing food choices among secondary school students (N=600)

Factors Influencing Food Choices	Mean	S.D	Mean Rank
Economic Factors	18.54	5.17	1st
Environmental Factors	17.90	5.34	2nd
Traditional Factors	17.78	5.54	3rd
Personal Factors	17.36	5.55	4th
Average	**17.89**	**5.40**	

Table 2 showed that the aggregate mean scores which range from 17.36 – 18.54 revealed that the respondents agreed with all factors influencing food choices among secondary school students in Ekiti State. Using the average mean of 17.89, the result showed that economic factor tops the list of factors influencing food choices among secondary school students with mean value of 18.54. This was closely followed by environmental factors (with a mean value of 17.90), traditional factors (with a mean value of 17.78), and personal factors (with a mean value of 17.36) respectively. The standard deviation which ranges from 05.17 – 5.55 shows that the respondents were very closed in their response opinion. Therefore, in hierarchical order, economic,

environmental, traditional, and personal factors are vital to food choices among secondary school students in Ekiti State.

Table 3. Descriptive Analysis of the Level of Self-efficacy on Healthy Consumption Practice among Secondary School Students

Level self-efficacy on healthy consumption practice	Frequency	Percentage (%)
Low (18 – 33.52)	75	12.5
Moderate (33.53 – 63.50)	454	75.7
High (63.51 – 72)	71	11.8
Total	**600**	**100**

Table 3 showed the level of self-efficacy on healthy consumption practice among secondary school students. The result revealed that out of 600 respondents sampled, 75 representing 12.5% had low self-efficacy on healthy consumption practice. Those who had moderate level of self-efficacy on healthy consumption practices were 454 representing 75.7% while 71 representing 11.8% had a high level of self-efficacy on healthy consumption practices. This implied that the level of self-efficacy on healthy consumption practice was moderate.

Table 4. Pearson's Product Moment Correlation Analysis on Food Choices and Self-efficacy on Healthy Consumption Practices among Secondary School Students

Variable	No	Mean	SD	r	P-value
Factors influencing food choices	600	71.58	21.6		
Self-efficacy on healthy consumption practices	600	48.52	14.99	0.723	0.021

Table 4 showed that the r-calculated value and the corresponding p-value for factors influencing food choices and self-efficacy on healthy consumption practices were 0.723 and 0.000 respectively. Because p-value of 0.000 was less than 0.05 level of significance, the null hypothesis was rejected. This implied that there was a positive and moderate relationship between factors influencing food choices and self-efficacy on healthy consumption practices among secondary school students. Therefore, there wasa significant relationship between factors influencing food choices and self-efficacy on healthy consumption practices among secondary school students ($r = 0.723$, $p<0.05$).

Table 5. Pearson's Product Moment Correlation Analysis on Personal Factors Influencing Food Choices and Self-efficacy on Healthy Consumption Practices among Secondary School Students

Variable	No	Mean	SD	r	P-value
Personal factors in food choices	600	17.78	5.54		
Self-efficacy on healthy consumption practices	600	48.52	14.99	0.437	0.000

Table 5 showed that the respective r-calculated value and the corresponding p-value for personal factors in food choices and self-efficacy on healthy consumption practices were 0.437 and 0.000 respectively. Because the p-value of 0.000 was less than 0.05 level of significance, the null hypothesis was rejected. This implied that there was a positive and moderate relationship between personal factors in food choices and self-efficacy on healthy consumption practices among secondary school students. Therefore, there is a significant relationship between personal factors in food choices and self-efficacy on healthy consumption practices among secondary school students ($r = 0.437$, $p<0.05$).

Table 6. Pearson Product Moment Correlation Analysis on Environmental Factors Influencing Food Choices and Self-efficacy on Healthy Consumption Practices among Secondary School Students

Variable	No	Mean	SD	r	P-value
Environmental factors in food choices	600	17.90	5.35		
Self-efficacy on healthy consumption practices	600	48.52	14.99	0.354	0.000

Table 6 revealed that the r-calculated value for the relationship between environmental factors in food choices and self-efficacy on healthy consumption practices among secondary school students was 0.354 while the corresponding p-value was 0.000. Since the p-value of 0.000 was less than 0.05 level of significance, indicating a positive relationship between environmental factors in food choices and self-efficacy on healthy consumption practices ($r = 0.354$, $p<0.05$). Thus, the null hypothesis was rejected. This implied that there was a significant relationship between environmental factors in food choices and self-efficacy on healthy consumption practices among secondary school students.

Table 7. Pearson Product Moment Correlation of Analysis on Traditional Factors Influencing Food Choices and Self-efficacy on Healthy Consumption Practices among Secondary School Students

Variable	No	Mean	SD	r	P-value
Traditional factors in food choices	600	17.79	5.55	0.331	0.000
Self-efficacy on healthy consumption practices	600	48.52	14.99		

Table 7 revealed that the r-calculated value for the relationship between traditional factors in food choices and self-efficacy on healthy consumption practices among secondary school students was 0.331 while the corresponding p-value was 0.000. Since the p-value of 0.000 was less than 0.05 level of significance, there exists a positive relationship between traditional factors in food choices and self-efficacy on healthy consumption practices. Thus, the null hypothesis was rejected. This implied that there is a significant relationship between traditional factors in food choices and self-efficacy on healthy consumption practices among secondary school students ($r = 0.331$, $p<0.05$).

Table 8: Pearson's Product Moment Correlation Analysis on Economic Factors Influencing Food Choices and Self-efficacy on Healthy Consumption Practices among Secondary School Students

Variable	No	Mean	SD	r	P-value
Economic factors in food choices	600	18.55	5.17		

Self-efficacy on healthy consumption practices	600	48.52	14.99	0.328	0.000

$p < 0.05$

Table 8 showed that the r-calculated value of 0.328 for relationship between economic factors influencing food choices and self-efficacy on healthy consumption practices among secondary school Students, while the corresponding p-value was 0.002. Since the p-value of 0.002 was less than 0.05 level of significance, the null hypothesis is not accepted. Therefore, there is a significant relationship between economic factors in food choices and self-efficacy on healthy consumption practices among secondary school students ($r=0.328$, $p<0.05$).

Table 9. Multiple Regression Analysis on Food Choices and Self-efficacy on healthy Consumption practices among Secondary School Students

Model	Unstandardized Coefficients		Standardized Coefficients	t	p-value
	B	Std. Error	Beta		
(Constant)	33.148	2.489		13.320	.000
Personal Factors	1.206	1.138	.447	1.060	.290
Environmental Factors	4.056	1.077	1.447	3.767	.000
Traditional Factors	-2.636	.842	-.976	-3.129	.002
Economic Factors	-1.687	.625	-.582	-2.697	.007
R=0.392; R²=0.154; Adj.R² = 0.148; F₍₄, ₅₉₅₎=29.981, p=.000					

Table 9 showed that ($F_{(4, 595)} = 29.981$; $p<0.05$) at 0.05 level of significance. Since the p-value of 0.000 is less than 0.05 level of significance, the null hypothesis is not accepted. Therefore, there is a significant contribution of factors influencing food choices to self-efficacy on healthy consumption practices among secondary school students in Ekiti State. The result further showed positive and significant correlations between the factors influencing food choices combined and self-efficacy on healthy consumption practices ($R=0.810$; $p<0.05$). Also, the result showed that while factors not considered in this study account for about 84.6% of the variance in secondary school students' self-efficacy on healthy consumption practice 15.4% ($R^2 = 0.154 \times 100$) of the variance was associated with the observed factors influencing food choices combined. At an individual level, the result indicated environmental factor is the only single best predictor of self-efficacy on healthy consumption practices among secondary school students in Ekiti State ($\beta=1.447$, $p<0.05$). This closely followed by traditional factors ($\beta= -0.976$, $p<0.05$) and economic factors ($\beta= -0.582$, $p<0.05$).

Table 10. Analysis of Variance (ANOVA) of Age on Factors Influencing Food Choices among Secondary School Students

Variables	Source	SS	df	MS	F	p-value.
Personal Factors	Between Groups	38.395	2	19.197	.605	.546
	Within Groups	18939.679	597	31.725		

	Total	18978.073	599			
Environmental Factors	Between Groups	748.986	2	374.493	7.403	.001
	Within Groups	30198.374	597	50.584		
	Total	30947.360	599			
Traditional Factors	Between Groups	493.491	2	246.74	5.274	.005
	Within Groups	27928.574	597	46.782		
	Total	28422.065	599			
Economic Factors	Between Groups	1204.512	2	602.25	9.138	.000
	Within Groups	39345.113	597	65.905		
	Total	40549.625	599			

Table 10 showed the analysis of variance of age group influence on factors influencing food choices and self-efficacy on healthy consumption practices. The result indicated that at 0.05 level of significance, there was a statistically significant influence of age group on environmental factors ($F = 3.162$, $p = .001$); traditional factors (F=5.274, p=.005) and economic factors (F=9.138, p=.000). However, age has no significant influence on personal factors influencing food choices (F = .605, p=.546). Therefore, the age of students has a significant influence on environmental factors, traditional factors, and economic factors as factors influencing food choices but has no significant influence on personal factors as well as self-efficacy on healthy consumption practices among secondary school students. The Scheffe Post-hoc test of age differences in factors influencing food choices is presented in table 9.

Table11. Scheffe's Post-hoc Analysis of Age on Factors Influencing Food Choices among Secondary School Students

Dependent Variable	**Age Grouping**	**Mean**	**Age 10 – 12**	**Age 13 – 15**	**Age 16 – 18**
Environmental Factor	Age 10 – 12	18.4000		*	
	Age 13 – 15	20.4526	*		*
	Age 16 – 18	17.5500		*	
Traditional Factors	Age 10 – 12	18.2931			
	Age 13 – 15	19.8579			*
	Age 16 – 18	17.4250		*	
Economic Factor	Age 10 – 12	17.8621		*	
	Age 13 – 15	20.5421	*		*
	Age 16 – 18	16.9333		*	

*p<0.05

Table 11 showed the Scheffe test Post-Hoc analysis of environmental factor, traditional factor, and economic factor as factors influencing food choices among secondary school students. The result indicated that the mean score on environmental factor influencing food choices was significantly higher for age group 13 – 15 years than that of age group 10 – 12 years and age group 16 -18 years respectively while the mean score obtained on environmental factor influencing food choices was not differ significantly between age group 10 – 12 years and age group 16 – 18 years. Similarly, while the mean score on traditional factors influencing food choices was significantly higher in the age group 13 – 15 years than that of the age group 16 -18 years, it was not significantly different from the age group 10 – 12 years. Also, the mean score on economic factors influencing food choices was significantly higher for age group 13 – 15 years than that of age group 10 – 12 years and age group 16 -18 years respectively while the mean score on environmental factors influencing food choices did not differ significantly between age group 10 – 12 years and age group 16 – 18 years.

Table 12. Analysis of Variance (ANOVA) of Age on Self-efficacy on Healthy Consumption Practices among Secondary School Students

Variables	Source	SS	df	MS	F	p-value.
Self-efficacy on healthy consumption practices	Between Groups	73.473	2	36.736	.161	.851
	Within Groups	136130.246	597	228.024		
	Total	136203.718	599			

Table 12 showed the analysis of variance of age group influence on self-efficacy on healthy consumption practices. The result indicated that there was no statistically significant influence of age group on self-efficacy on healthy consumption practices among secondary school students(F = .605, p=.546) because the p-value of 0.851 is greater than the 0.05 significance level. Thus, the null hypothesis was not rejected. Hence, the Age of students has no significant influence on self-efficacy on healthy consumption practices among secondary school students.

DISCUSSION

The findings from the study indicated that economic factors followed by environmental factors top the list of factors influencing food choices among secondary school students. This suggested that food prices, as well as availability, have the potential advantage to determine students' preference for food quality.

The findings further indicated that the level of self-efficacy on healthy consumption practice was moderate among secondary school students. The moderate self-efficacy observed among secondary school students may be due to lower food prices to access quality foods that could promote healthy consumption practices.

Based on the findings of the study, there was a significant relationship between factors influencing food choices and self-efficacy on healthy consumption practices among secondary school students. This implies that the better control that the students have over factors influencing food choices, the more self-efficacy they have in practicing healthy food consumption. The findings are in line with Thiruselvakumar, Sinuvasan, Chakravarthy, and Venkatesh (2014) who discovered that adolescents in Pondicherry and Trichy, South India, prefer to make their own food choices, which is a major factor in formulating various health promotion events regarding healthy eating and livelihood using the theory of planned behavior.

It was discovered that there exists a positive and significant relationship between personal factors influencing food choices and self-efficacy on healthy consumption practices among secondary school students. This implies that the more secondary school students associate quality foods to personal needs, the more self-efficacy they have for healthy consumption practices. This finding aligns with Verstraeten, Leroy, Pieniak,

Ochoa-Avilès, Holdsworth, Verbeke, *et al.,.* (2016) who reported direct effects of individual factors (perceived benefits) on vegetable intake and unhealthy snacking among Southern Ecuador adolescents.

It was also revealed in the findings that there was a positive and significant relationship between environmental factors influencing food choices and self-efficacy on healthy consumption practices among secondary school students. This implies that the amount of environmental orientation of secondary school students on quality foods tends to positively influence their self-efficacy for healthy consumption practices. Muturi, Kidd, Khan, Kattelmann, Zies, Lindshield, and Adhikari (2016) observed that adolescents' views of healthy food availability indicated strong perceptions of a healthy food environment, which is consistent with this finding. This also supports Oti's (2018) assertion that students' meal choices are influenced by the availability of foods in the environments in which they consume (that is home and school environment).

It was equally discovered that there exists a positive and significant relationship between traditional factors influencing food choices and self-efficacy on healthy consumption practices among secondary school students. This implies that the traditional orientation of some food varieties could determine their self-efficacy on healthy food consumption practices. In agreement with this finding, Silva, Ayankogbe, and Odugbemi (2017) discovered that parental intake, encouragement, and supervision, as well as the availability and accessibility of fruits and vegetables at home, were all motivators for proper consumption.

The finding indicated a positive and significant relationship between economic factors influencing food choices and self-efficacy on healthy consumption practices among secondary school students. This implies that if students gain economic power to purchase quality foods, they will equally gain self-efficacy capacity for healthy consumption practices. The finding is consistent with An (2013) who found fruits consumption of adolescents to increase with family material wealth and higher parental occupational status.

The findings further affirmed that there was a significant contribution of factors influencing food choices to self-efficacy on healthy consumption practices among secondary school students. Up to 84.6% of the variance in secondary school students' self-efficacy on healthy consumption practice was caused by a personal factor, environmental factor, economic factor, and traditional factors in food choices. This suggests that personal and traditional orientations about quality foods together with financial access to the available quality foods in the environment are vital to self-efficacy development on healthy consumption practices.

Also, findings indicated that the age of students has a significant influence on environmental factors, traditional factors, and economic factors as factors influencing food choices but has no significant influence on personal factors influencing food choices among secondary school students. This implies that the observed age difference among secondary students exerts influence on environmental factors, traditional factors, and economic factors as the factors influencing food choices except for personal factors. In consonance with this finding, (Ogden *et al.*,2012) found that about one-third of all children between age 10-13 and adolescents between ages 14 – 18 were categorized as overweight, meaning that age does not influence their consumption practices.

In addition, the finding showed that the age of students has no significant influence on self-efficacy on healthy consumption practices among secondary school students. This implies that age difference among secondary students was not a condition for healthy consumption practices.

CONCLUSION

Based on the findings of this study, it can be concluded that self-efficacy on healthy consumption practices among secondary school students is associated with the economic and environmental factors that top the list of factors influencing food choices among secondary school students .Also, the level of self-efficacy on healthy consumption practices was moderate among secondary school students. There is a positive and significant relationship between factors influencing food choices and self-efficacy on healthy consumption practices among secondary school students. There exist a positive and significant relationship between personal factors influencing food choices and self-efficacy on healthy consumption practices among secondary school students.

In Addition, even though age difference among students influences factor influencing food choices, they are no conditions for self-efficacy on healthy consumption practices.

RECOMMENDATIONS

Based on the findings and conclusions from this study, the following recommendations were made.

1. Government should be encouraged to extend the school feeding programme to secondary schools. This will provide further support for parents of low economic status to afford healthy food for their children.
2. An adequate orientation programme should be organized by the government and health-related non-governmental organizations (NGOs) in secondary schools. This will keep the students abreast of the importance of healthy consumption practice; thereby improving their self-confidence in this regard.
3. Students should be encouraged to prioritize their health in their choice of food and eating behaviour.
4. School authorities should be encouraged to mandate school food vendors to sell the types of food that promote health consumption practices. This will set an enabling environment for healthy consumption practices within the school system.
5. Parents and students should be given an adequate orientation regarding traditional myths that are unsupportive to healthy consumption practices.
6. There should be proper sensitization for the students on the types of food that are good for their health. This will enable them to make a rightful choice in food consumption.
7. Government should be encouraged to support the parents of secondary students in providing food subsidies to reduce economic barriers to self-efficacy on healthy food consumption among secondary school students.
8. Regular food consumption awareness programmes should be given to secondary school students to promote personal knowledge of the food choices and boost their self-efficacy on healthy consumption practices.

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APPENDIX I

Questionnaire

Dear Respondents,

The researchers are the lecturers in the Ekiti State College of Health Sciences and Technology, Ijero Ekiti, Ekiti State, Nigeria**.** Conducting a research on **"Factors influencing food choices and self-efficacy on healthy consumption practices among Secondary Schools in Ekiti State, Nigeria".** This research is purely for academic purpose. Therefore, any information given will be of immense help to this study. All data provided will be treated in strict confidence; so do not write your name in any part of this form.

Thanks for the anticipated co-operation.

Adetukasi,A. *et al.,* **(Researchers).**

Instruction

Please place a tick (√) in the appropriate column of option that represents your response to the statements below:

Section A: (Demographic Data of The Respondents)

1.   Gender: Male (   )   Female   (   )

2. Age: 10-12 (   )   13-15 (   ) 16-18 (   )

Section B: Factors On Food Choice

Please tick **(√)** as appropriate, Strongly Agree   (SA),   Agree (A), Disagree (D), Strongly Disagree (SD)

	ITEMS	SA	A	D	SD
	Personal Factors				
1	I eat food just to get satisfied				
2	I eat food that taste good to me				
3	My choice of food is based on the aroma of the food				
4	My choice of food is based on the time of preparation				
5	My choice of food is influenced by the appearance of the food				
6	I don't eat certain food because I may fall sick				
	Environmental Factors				
7	My choice of food is based on only food sold in the market				
8	I eat food readily available and accessible to me				
9	I eat food that my peers/friend like				
10	I am forced to eat food sold at my school canteen				

11	My choice of food is based on the advert about the food				
12	I don't like carrying home cooked food to school				
	Traditional Factors				
13	I eat food only known to my tribe				
14	I choose to eat food that my household is identified with				
15	I eat food because of the culture of my people				
16	I don't eat certain food because there are taboos related to them in my place				
17	I don't eat some food because it against my religion believes				
18	I make my food choice based on my parents instructions				
	Economic Factors				
19	I choose to eat only food my parent buy for me				
20	My parent stock the house with variety of food stuffs				
21	I buy food based on the amount of money my parent give me				
22	I do not eat some certain food because they are too expensive for my parent				
23	I consider some food only meant for children from rich family				
24	I make my food choice because fast food are very cheap to buy				

Section C: Self-Efficacy For Healthy Food Consumption Practices

Please indicate your level of confidence in performing the under listed behaviour by ticking (√) the column that corresponds with your response from the option below

*Not at all confident * Low confident *Moderately confident *Highly confident

	How confident do you feel that, if you wanted to, you could:	Not at all confident	Low confidence	Moderately confident	Highly confident
1	Eat carbohydrates food with vegetables				
2	Eat pap and bean cake				
3	Drink soft drinks like cola drinks and fruit drinks.				
4	Substitute food like cake and doughnut with fresh fruits				

5	Select more food that are rich in vegetables everyday				
6	Consume fruits everyday				
7	Reduce the level of consumption of fast food				
8	Reduce the level of your butter consumption				
9	eat 5 portions of fruit and/or vegetables each day?				
10	eat baked potatoes, boiled potatoes, or oven chips instead of fried potatoes, roast potatoes, or fried chips?				
11	not eat or drink foods with added sugar, such as fizzy drinks, cakes, biscuits, pastries, and sugar added to hot drinks or cereal?				
12	eat or drink low-fat or no-fat products instead of high-fat or standard products?				
13	eat rice or pasta often?				
14	eat vegetable dishes or white meat (such as chicken or turkey) instead of red meat (such as beef, pork or lamb)?				
15	eat vegetable dishes or white meat (such as chicken or turkey) instead of processed meat (such as sausages, ham, pies, bacon, or chicken nuggets)?				

APPENDIX II

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.898	.895	42

Item Statistics

	Mean	Std. Deviation	N
Q1	3.4500	.75915	20
Q2	3.1500	.74516	20
Q3	2.9500	1.27630	20
Q4	2.4000	1.09545	20

Q5	3.0500	1.05006	20
Q6	3.3000	.57124	20
Q7	3.3500	.58714	20
Q8	2.4000	1.04630	20
Q9	2.2500	1.29269	20
Q10	2.3000	1.12858	20
Q11	2.7500	1.20852	20
Q12	2.0000	1.21395	20
Q13	2.5000	1.19208	20
Q14	2.5000	1.10024	20
Q15	2.4500	1.05006	20
Q16	2.4000	1.27321	20
Q17	2.6000	1.23117	20
Q18	3.2000	.83351	20
Q19	3.2000	.95145	20
Q20	3.1500	1.03999	20
Q21	3.4000	.99472	20
Q22	2.4000	1.35336	20
Q23	2.6500	1.22582	20
Q24	2.7000	.97872	20
Q25	2.3500	1.13671	20
Q26	3.2500	.78640	20
Q27	3.4000	.82078	20
Q28	2.8000	.95145	20
Q29	2.6000	.68056	20
Q30	3.4000	.50262	20
Q31	2.8000	1.00525	20
Q32	2.9000	1.11921	20
Q33	2.8500	1.08942	20
Q34	2.8500	.98809	20
Q35	2.6500	1.18210	20
Q36	2.6500	1.18210	20
Q37	2.7000	1.30182	20
Q38	2.4500	1.31689	20
Q39	2.9500	1.09904	20
Q40	2.7000	.97872	20

| Q41 | 3.4000 | .75394 | 20 |
| Q42 | 2.7000 | .86450 | 20 |

Item with mean of 2.0 and above were selected