

# Undergraduate Students' Knowledge of Nutritional Practices: Implications for Active Ageing

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**Abstract:** This study investigated undergraduate students' knowledge, practices and implications for active ageing the study was conducted in Edo and Delta States, Nigeria. The design of the study was ex-post facto research design. two research questions and two null hypotheses were raised and formulated to guide the study. The population of the study was all students in public universities in Edo and Delta States, Nigeria. The sample for the study comprised 400 students, 200 males and 200 females respectively from 100 to 400 levels in public universities in Edo and Delta States, Nigeria. Due to the heterogeneity of the sample, purposive sampling technique was used. The instrument for data collection was a structured questionnaire titled; Students' Nutritional and Health Practices Questionnaire (SNHPQ). It was a 4 – point rating scale and responses weighted as strongly Agree = 4 points, Agree = 3 points, Disagree = 2 points and strongly disagree = 1 point. The questionnaire was subjected to face and content validity. The reliability of the instrument was established using Cronbach Alpha and a coefficient of 0.86 was derived. 400 copies of the instrument were administered and 100% return was attained. Data collected were analyzed using mean ( $\bar{x}$ ) scores and standard deviations. The score of 2.50 was the criterion mean ( $\bar{x}$ ) to determine the level of acceptance of each mean ( $\bar{x}$ ). t-test was used to test the null hypotheses at 0.05 level of significance. Findings in the study showed, among other things, that most students in public universities in Edo and Delta States have adequate knowledge of nutritional practices for promoting active ageing, possessed similar knowledge in the areas of nutritional practices required for ageing actively irrespective of gender and have good knowledge of nutritional value of adequate food (water, eating vegetables and fruits, lean meat, poultry, seafood, eggs, nuts, seeds and legumes) intake and possible avoidance of alcohol intake; however, certain nutritional practices like eating between meals, skipping of meals should be avoided to promote healthy living that enhance ageing actively. Based on the findings, it was recommended among other things that, students should be exposed to dietary recommendations by experts in their homes and schools to attain good health and age actively and that, university authorities and students' union bodies should help to display the food pyramid chart in all eating centers in university campuses, to enable students work out their meal plans to maintain good nutrition that aids active ageing.

## I. INTRODUCTION

The dominance of assorted foods that are seemingly alien and their relative acceptance by the populace appear to have resulted in poor nutritional and health practices, particularly amongst undergraduates in their early and middle ages, in Nigeria. This is not without significant challenges to the students. Concerns about students' lifestyles, nutritional and health practices are being raised due to observed

unhealthy eating, bodily, and social practices among students. Research and work in community health (Kattelman, et al., 2014; Akinroye et al., 2014) have focused on persuading individual students to change from these practices as part of efforts to lessen their tendency to develop 'lifestyle' related diseases. However, routines, habits and accepted ways of living are not so easily changed. This becomes compounded when appropriate knowledge of what is eating, done or what constitute the ways of living is detached from those involved. Students are seemingly circumstantial victims due to the relative free lifestyle they keep in campuses

Most students seem to run a routine habit of consuming commercially prepared foods, pre-prepared meals, takeaways (that is, fast foods), alcohol and living sedentary lifestyles. Some young students particularly females who are conscious of their figures tend to set unrealistic ideals about bodyweight with regards to slim bodies, because of societal construction (Yahia, Brown, Rapley, & Chung, 2016). They incline to eat foods with consciousness of desirable figure and good appearance, and unconsciously developing some unhealthy nutritional and health practices such as skipping meals, taking high energy but low nutrient dense foods and alcohol (Fadupin, 2009; Babatunde & Qaim, 2012). These nutritional and health practices may negatively impact on their health. Taken together, these reflections propose that students nutritional and health practices may have insinuations for societal verdicts.

Nutritional and health practices could be imperative factors to contemplate among students because some eat daily and through the day. Therefore, observing their dietary and health practices may give an idea of students' nutritional status. Also, certain nutritional and health practices may predict future health complications, such as not ageing actively (Mak & Caldeira, 2014).

Nutrition is seen as one of the basic processes of life. It is the study of foods (that is, chemical substances, which when consumed, digested and absorbed, stimulate growth, supply energy, and regulate different body processes) and how it is utilized or in relation to the needs of the body (Maruf, Akosile & Umunnah, 2012), (WHO, 2013b). Knowledge of healthy nutritional or dietary practices (for example, eating unrefined carbohydrates, refraining from trans fats and saturated fats, consuming fruits and vegetables and caloric restrictions in energy intake) during the middle-aged years, could help

promote one's health through wellness, and optimal functioning of the body systems throughout ageing. The foods with high nutrient density could be what early and middle-aged adults require at this stage for their wellbeing, and active participation in school activities. Imonikebe (2010) noted that (early and middle-aged adult) is a stage of vigorous pursuance of academic goals, as such will require nutritious meals to cope with the academic pressure and maintain good health. Thus, adequate knowledge of the variety of food students eat is a significant factor that could impact as much as it defines their health and how they age.

Referring to the old saying that people are what they eat WHO (2013), William (2018) observed that people with poor nutrition are already experiencing compromised health. Healthy lifestyle is essential to and relates to students' wellbeing.

According to the World Health Organization (2017a), the human populations around the world are rapidly ageing. The Nigerian populace (including students in their early and middle adulthood stages) is not an exception (Eboiyehi, 2015). Ageing is the process of becoming older as a result of the interplay of several factors (for example, genes, socio-environmental conditions, nutrition and health practices), and a long adoption process associated with illness and functional loss (Fernández-Ballesteros, Robine, Walker & Kalache, 2013). Ageing comes with some complexities with social, political and economic concerns. These complexities make it difficult to clearly ascertain why some students in their early and Middle Ages grow older in healthy manner while others look and act older than their age. Those who look and act older than their chronological age might not be ageing actively.

Active ageing is well-defined as the process of optimizing opportunities for health, participation, and security in order to enhance quality of life as people age' (World Health Organization [WHO], 2018). Bowling (2009) sees active ageing as having health fitness, and exercise; psychological factors; social roles and activities; independence, neighborhood and enablers. It is frequently assumed in terms of traditional, 'youthful' activities (for example, labour, sports, and care) with a strong emphasis on health and independence (Bowling, 2009). It involves a general lifestyle strategy geared towards preservation of both physical and mental health during the ageing process (Mendoza-Ruvalcaba & Arias-Merino, 2015). It emphasizes linkages between activity, health, independence, and ageing well (Paúl et al., 2012). It is not just a concept, but a process that enables to extend healthy life expectancy and quality of life for people through lowering likelihood of illness and disability, high physical fitness, high cognitive functioning, positive mood and coping with stress, and being engaged with life (Feld & Diekelmann, 2015).

The European Commission (2011) and WHO (2018), corroborated the determinants of active ageing are health and social services (that is, promoting health; preventing diseases;

health services; continuous care; mental healthcare), behavioural determinants (that is, smoking; physical activity; food intake; oral health; alcohol; medication), personal determinants (that is, biology and genetics and psychological factors), physical environment (that is, friendly environment; safety houses; falls; absence of pollution), social determinants (that is, social support; violence and abuse; education), and economic determinants (that is, wage; social security; work) mediated by culture and gender. People, especially the youth (university students) need to be active as they age as they should be productive in the societal system.

Students constitute a strong force in national development such as economic, social or technological contributions; but this depends on their health status as an unhealthy person could be a liability to the society. Students understanding their nutritional and health practices therefore, become very imperative. When they age with complications, the possibility of contributing meaningfully to national development becomes slim but the story may be different if the students have the right knowledge on nutritional and health practices for promoting active ageing. The capacity for ageing well (slowly or quickly is partly one's choice) comes in a definite extent from decisions taken by people based on their knowledge of what they take as food (Imonikebe, 2010). Naturally, the behavioural repertoires (lifestyle changes like; improved nutrition, good standard of living and health care services) learnt throughout life time helps to model the ageing pattern in people and a product of practice build overtime

Studies carried out different timelines by Sung (2014) and El Ansari, Suominen, and Samara (2015) revealed that, university undergraduates do not have the precise nutritional education and knowledge to make healthy food selections. They like consuming high quantities of foods such as unripe plantain, Irish potatoes, (cassava products like garri, fufu) polished rice, with beef, fish, chicken, pork meat which could result in inactive ageing (Obbagy, MacNeil & Essery, 2011; Gadupin, 2009). According to Moses, Oguntayo and Adedugbe (2015), the nutritional contents of what average Nigerian undergraduate students consume if ethically practiced, run short of favourable wellness lifestyle. In addition to this, they are deficient in meal preparation skills alongside their irregular and challenging class schedule, which have critical effects in the reorientation of their eating habits (El Ansari, Stock & Mikolajczyk, 2012; Porto-Arias et al., 2017). Contrarily, Fredman (2012), Nmor, Nwaka and Nmor (2013) unequivocally stated that students' nutritional practices are fairly good and that universities and colleges (including public universities in Edo and Delta States) have a range of facilities, resources and qualified staff commonly including health professionals, ideal for implementing initiatives to target lifestyle – related nutritional and health issues that could enhance active ageing.

University students undergo a transitional stage in life as they leave their homes and parents to live alone with more peer influence than before. Perhaps, it is in the light of this that

Cavallo et al. (2012) remarked that, due to student's life stages, they may not consider the risk of developing chronic diseases with long-term health impacts *when* making food choices. Youth and early adulthood are significant transition periods, needing understanding of basic attitudinal factors and knowledge of health benefits, of good bodily activity levels and positive dietary practices because, these stages, to a large extent, determine their health condition and how they will age (Nelson & Zeratsky, 2012). By implication, when male and female students lack understanding and knowledge of the significance of nutritional and health practices therein, the outcome might be detrimental, as ageing might set in with various complications.

For several factors, some students choose to cook and eat privately in schools. but, do they understand nutritional content of what they cook? Do they have adequate knowledge of what should be eating at particular times of the day such as breakfast, lunch and dinner? Attempting to answer this question, Shlisky et al (2017).remarked that students do not cook food themselves because they have knowledge of what they eat they do not trust on nutritionists to make decisions about their diets. They do not engage in this activity because they have a major increase in nutrition knowledge as they eat what comes their way. Although Reicks et al. (2014) reported that substantial associations exist between knowledge of fruits and vegetables consumption, probably due to overall high levels of public awareness, but how many students go for vegetables and fruits; rather, they settle for fast food which could be detrimental to their healthy. What gets people talking is that both male and female students seem not make any difference in their approach to dietary intake on campuses as both sexes seem addicted to fast food and show relatively the same level of knowledge of nutritional values.

However, Arganini, Saba, Comitato, Virgili and Turrini (2012), noted that men take low fruits and vegetable than women; and that men's lower intake of fruits and vegetables could be as a result of lower knowledge about nutrition. This is supported by the results of Wardle, Haase, Steptoe, Nillapun, Jonwutiwes and Bellisle (2004) who reported that more men than women consume less high fiber foods, less low-fat foods, and more soft drinks than women. Dumbrell and Martin (2008) added that Australian food marketing posts often link male genders with the consumption of more of animal products than the female genders, as such more men than women reported lack of knowledge as a barrier towards healthy eating. Robinson and Lachman (2017) reported socially prescribed male role as a major influence in men's health beliefs, nutrition and lack of knowledge towards healthy eating.

Nutritional knowledge might be one potential instrument for gender-specific patterns of healthy food choices (or practices). Women by virtue of their traditional role of food purchase, preparation and provisions tend to possess more knowledge than men, about the health benefits of specific food items (Sizer & Whitney, 2017). Many studies have reported gender

differences in the knowledge of nutritional information (Sadegholvad et al, 2016), supporting the view that differences in awareness could contribute to gender differences in healthy food intake (Arganini et al., 2012). Nonetheless, male and female students share common dietary experiences and orientation as long as they stay on campuses and seem to be sharing same ageing experiences which could be attributed to poor knowledge of nutritional effect on active ageing. It is against this background that the researcher, embarks on this study of undergraduate students' knowledge of nutritional practices; implications for active ageing.

#### *Statement of the Problem*

Naturally, God created varieties of food elements with different nutritional values and health benefits. However, unguided intake of such foods could lead to abuse as it could be detrimental to the body system. While some food elements could enhance healthy living and thus, ageing healthy, some could be seemingly very taste-friendly but foster unhealthy ageing. This could be more dangerous if consistent intake of such food is sustained for a long time especially during youthful age for which university students fall into.

Most students in Edo and Delta States public universities in Nigeria have been observed to be engaging in unwholesome nutritional and health practices, without knowing their health implications on active ageing. While most of these students' desire to consume healthy diets and live healthy lifestyles, they are frequently unable to fully translate these desires into behavioural practices, perhaps for lack of adequate knowledge. Most of the students are unwilling to trade conveniences for nutritional and health benefits. In place of nourishing foods such as beans, unripe plantain, vegetables and fruits, some students frequently eat a lot of meat pies, burgers, egg rolls, and particularly instant noodles. Others have been observed to enjoy taking assorted soft and energy drinks, instead of water and natural fruit juices such as orange, mango, guava among other fruits.

Despite the well-known benefits of bodily activity, most students living within and outside the campuses lead a relatively sedentary lifestyle and so, are not active enough to achieve these health benefits, particularly of active ageing. Some engage in unwholesome practices such as extreme consumption of alcohol, smoking, drug abuse, skipping of meals, especially breakfast among others.

Most of the students appear not to be conversant with the healthy foods required for improving their ageing process and perhaps do not understand that ageing is a function of interaction of different human activities including nutritional values. They lack the basic information and training concerning body fitness, nutrition needs and diets. Research findings have shown that students are not adequately knowledgeable on their nutrient and diet requirements (O'dea & Abraham, 2001). Those with better nutrition knowledge (from family members, friends, schools, government health campaign and cooking programmes on television/radio) are

known to possess normal nutritional status and positive approach to Nutrition (Walsh & Nelson, 2010) but tend to throw it off when in school. Consequently, most undergraduate students show signs of unhealthy ageing which manifest in, increase in body weight, bad sight, high blood pressure, high level of sugar/glucose in their blood and other related conditions that are associated with old age. This is not supposed to be so if they have good knowledge and practice of nutritional practices.

It was against these pertinent issues that this study was undertaken to investigate undergraduate students' knowledge of nutritional and health practices and the implications active ageing, in Edo and Delta States, Nigeria.

#### *Purpose of the Study*

Generally, the study aimed to determine undergraduate students' knowledge of nutritional practices and the implications of the findings to active ageing. Specifically, the study aimed to find out;

1. Undergraduate students' knowledge about nutritional practices required for active ageing.
2. The type of nutritional practices adopted by the students for promoting active ageing?

#### *Research Questions*

The following research questions were raised to guide the study;

1. What knowledge do undergraduate students possess about nutritional practices required for active ageing?
2. What are the nutritional practices adopted by the students for promoting active ageing?

#### *Research Hypotheses*

The following research hypotheses were formulated and tested at 0.05 alpha level of significance

**HO<sub>1</sub>:** There is no significant difference in the knowledge possessed about nutritional practices needed for active ageing between the male and female public university students in Edo and Delta States of Nigeria

**HO<sub>2</sub>:** There is no significant difference in the nutritional practices for promoting active ageing between the male and female public university students in Edo and Delta States of Nigeria.

## II. METHOD

The study was conducted in public universities in Edo and Delta States, Nigeria. It aimed to establish undergraduate students' knowledge of nutritional practices that promote active ageing. The study adopted the ex-post-facto design. The population for the study was made up of all the 47,256 undergraduate students in public universities in Edo and Delta States, Nigeria offering different courses from 100level to 400level, in the 2020/2021 academic session (National Universities Commission, 2020). The researcher purposively

selected one state university and one federal university from each state. From each university, 100 students were selected through the accidental sampling technique. Thus, 400 undergraduate students made up of 200 male and 200 female students in their early adulthood from different age groups, educational levels constituted the sample. A structured questionnaire developed by the researcher was used for data collection. The questionnaire was titled "Students' Nutritional Practices Questionnaire "(SNPQ). It was a 4-point rating scale type with 30-items. The options were tagged and weighted; Strongly Agree (SA) 4, Agree (A) 3, Disagree (D) 2 and Strongly Disagree (SD) 1. The instrument was validated by three experts. The reliability of the instrument was established through a trial test which involved 20 students and a coefficient of 0.77 Cronbach Alpha was obtained. Through direct and hand delivery process, on a face-to-face personal contact with the respondents and with the support of four guided research assistants, the 400 copies of the instrument were administered and collected on the spot. The responses on the demographic characteristics of the respondents were arranged in frequency distribution tables. Research questions were answered using descriptive statistical tools of mean ( $\bar{x}$ ) and standard deviation. Pearson Product Moment Correlation Statistics was used to test the hypotheses at a critical alpha level of 0.05. Based on the 4- point scale, the criterion mean ( $\bar{x}$ ) was 2.50. Any item that had mean ( $\bar{x}$ ) of 2.50 – 4.00 was an indication of agreement to the variable. Any item with a mean ( $\bar{x}$ ) below 2.50 was regarded as disagreement to the variable. The t-test was used to test the two hypotheses at a critical alpha level of 0.05. The p-value was used to show the level of the significant difference. For each of the hypotheses, if the p-value is less than 0.05, the null hypothesis is rejected but if reverse is the case (p-value is greater than 0.05), the null hypothesis is retained.

## III. RESULTS

*Research Question:* What knowledge do undergraduate students possess about nutritional practices required for active ageing?

Table 1: Frequency Distribution, Mean Scores and Standard Deviation of Responses of Students on the Knowledge they Possess about Nutritional Practices Required for Active Aging.

S/N	Items Students' knowledge of nutritional practices	Mean ( $\bar{x}$ )	SD	Remark
1.	Drinking plenty of liquid daily especially water	3.69	0.62	Agree
2.	Eating a variety of vegetables and fruits daily	3.57	0.65	Agree
3.	Abstaining from alcohol intake	3.50	0.80	Agree
4.	Eating a variety of nutritious foods such as lean meat, poultry, seafood, eggs, nuts and seeds and legumes on a daily basis	3.44	0.69	Agree
5.	Consumption of low-fat milk and milk products daily	3.05	0.81	Agree
6.	Consuming prepared foods or pre-prepared foods with minimal added saturated fats	3.02	0.81	Agree

7.	Taking of drinks and snacks with minimal added saturated fats	2.86	0.86	Agree
8.	Consuming of wholegrain breads and cereals on daily basis	2.71	0.82	Agree
Grand Mean ( $\bar{x}$ )/Standard Deviation		3.23	0.76	Agree
Criterion Mean ( $\bar{x}$ ) = 2.50				

Table 1, showed the mean ratings of the knowledge students possess about nutritional practices required for active ageing. From the result, the respondents (students) agreed to all the items from 1 to 8 with the mean rating between 2.71- 3.69 and grand mean of 3.23. Each item was greater than the criterion mean ( $\bar{x}$ ) of 2.50. The results from the student’s responses showed that the areas they possess knowledge in nutritional practices required for active ageing include; drinking plenty of liquid daily, eating daily a variety of vegetables and fruits, abstaining from alcohol, consumption of low-fat milk and milk products daily, eating a variety of nutritious foods such as lean meat, poultry, seafood, eggs, nuts and seeds and legumes on a daily bases, consuming prepared foods or pre-prepared foods with minimal added saturated fats, taking of drinks and snacks with minimal added saturated fats and consuming wholegrain bread and cereals on daily bases.

**Research Question 2:** What are the nutritional practices adopted by the students for promoting active ageing?

S/N	Items Nutritional practices by students’	Mean ( $\bar{x}$ )	SD	Remark
9	drinking enough water habitually	3.39	0.78	Agree
10	eating more of homemade foods	3.38	0.75	Agree
11	eating protein foods such as meat, fish, beans, and eggs	3.38	0.79	Agree
12	eating balanced diet	3.33	0.87	Agree
13	preparing meals to conserve nutrients	3.18	0.85	Agree
14	obtaining appropriate Nutrition Education	3.18	0.94	Agree
15	eating high-energy foods such as avocado, pear, little quantity of groundnuts, sugar cane, jam, honey, margarine and fats or oils	3.17	0.92	Agree
16	avoiding overfeeding	3.15	0.92	Agree
17	eating staple foods such as maize meal, potatoes, rice, cassava, or sweet potatoes	3.13	0.91	Agree
18	consuming fresh fruits daily	3.12	0.99	Agree
19	eating three square meals daily	3.05	0.94	Agree
20	eating variety of food items daily	3.03	0.97	Agree
21	taking less of salt in meals	2.98	1.76	Agree
22	eating fermented foods such as sour milt, or yoghurt to improve taste and prevent the growth of diarrhea causing germs	2.97	0.98	Agree
23	avoiding eating of junk foods	2.94	1.03	Agree
24	avoiding intake of processed soft drinks and refined foods	2.81	1.09	Agree
25	melting off fats from meat	2.80	1.04	Agree
26	eating between meals	2.78	1.05	Agree
27	taking vegetables once in three weeks	2.52	1.02	Agree

28	skipping meals occasionally	2.50	0.99	Agree
29	taking sugary drinks regularly	2.30	1.00	Disagree
30	eating more of fast foods	2.08	0.98	Disagree
Grand Mean ( $\bar{x}$ )/Standard Deviation		2.96	0.98	Agree
Criterion Mean ( $\bar{x}$ ) = 2.50				

Table 2 showed the mean ( $\bar{x}$ ) responses of the students on the nutritional practices they adopted for promoting active ageing. From the result, the mean ( $\bar{x}$ ) responses obtained ranged between 2.08 to 3.39. All the items except item (29 and 30) with mean ( $\bar{x}$ ) of 2.30 and 2.08 respectively, are higher than the criterion mean ( $\bar{x}$ ) of 2.50. This implied that the students adopted items 1 to 20 as the nutritional practices for promoting active ageing. However, the respondents (students) disagreed to items (29) on taking sugary drinks regularly and (30) eating more of fast foods as part of nutritional practices they adopted for active ageing.

**Hypotheses 1:** There is no significant difference in the nutritional practices for promoting active ageing between the male and female public university students in Edo and Delta States of Nigeria

Table 3: t-test Analysis of the Difference in the Knowledge Possessed about Nutritional Practices Needed for Active Ageing between Male and Female Students in the Public Universities in Edo and Delta States, Nigeria

Sex	N	Mean	SD	t	P-value	Remark
Male	200	3.19	0.46	1.65	0.10	Not Significant
Female	200	3.26	0.38			
$\alpha = 0.05$						

Table 3 showed the independent samples t-test, which was to examine the difference in the knowledge the students possessed about nutritional practices needed for active ageing, between the male and female students in the public universities in Edo and Delta States of Nigeria. The result showed that  $t = 1.65$ ,  $p > 0.05$  level of significance. Hence, the null hypothesis was retained, which implied that there was no significant difference in the knowledge possessed about nutritional practices needed for active ageing between the male and female students in the public universities in Edo and Delta States of Nigeria.

**Hypothesis 2:** There is no significant difference in the nutritional practices for promoting active ageing between the male and female public university students in Edo and Delta States of Nigeria

Table 4: t-test Analysis of the Difference in the Nutritional Practices for Promoting Active Ageing between Male and Female Students in the Public Universities in Edo and Delta States, Nigeria

Sex	N	Mean	SD	t	p-value	Remark
Male	200	2.97	0.43	0.30	0.77	Not Significant
Female	200	2.96	0.37			
$\alpha = 0.05$						

Table 15 showed the result of an independent samples t-test, which examines the difference in the nutritional practices for promoting active ageing between the male and female students in the public universities in Edo and Delta States of Nigeria. The result showed that null hypothesis was retained as  $t = 0.30$ ,  $p > 0.05$  level of significance.

#### IV. DISCUSSION OF RESULTS

The results on research question (1) showed that the students had adequate knowledge about nutritional practices that could make them age actively. This is evident from the grand mean ( $\bar{x}$ ) of 3.23 that is above the criterion mean ( $\bar{x}$ ) of 2.50. This finding is in line with Nelson and Zeratsky (2012) who posited that family influence, food supply, and food purchase (for example, at home base, workplace, marketplaces, and through fast-food outlets) as being responsible for patterning students' nutritional practices as well as expanding their knowledge in nutrition. Besides, the finding of the study also showed that university students desired to have more knowledge and understanding on nutrition and healthy eating practices that can promote active ageing.

The results on research question (2) on the nutritional practices adopted by students' for promoting active ageing showed that most students in public universities in Edo and Delta States could determine what they eat, and respond to appropriate nutritional practices for promoting active ageing. However, certain nutritional practices from the findings like eating between meals, skipping of meals should be avoided to promote good health and age actively. The result of the findings is at variance with O'dea, & Abraham (2001). which noted that the nutritional substances of what average Nigerian student consumes if ethically practiced run short of satisfactory wellness lifestyle. Kattelmann et al. (2014) observed that students eat whatever they wish to eat without considering the risk of developing chronic diseases that could negatively affect their ageing process. In support of this view, Herman, Roth and Polivy (2003) observed that eating practice make people vulnerable to various social influences, including the desire to respond in a socially-desirable manner.

Further results for ( $H_{07}$ ) showed that the students possessed similar knowledge in the areas of nutritional practices required for ageing actively irrespective of gender, level of study and marital status. It also showed that students have good knowledge of the nutritional value of adequate water intake, eating of vegetables, fruits and possible abstinence from alcohol intake. Therefore, the null hypothesis of no significant difference for  $H_{07}$  on the knowledge students possess about nutritional practices needed for active ageing between the male and female students was retained.

This result is at variance with that of Papadaki Hondros, Scott and Kapsokafalou (2007), El Ansari, Suominen and Samara (2015) which reported that students do not have appropriate Nutrition Education and experience in order to make healthy food choices. Also at variance is the position of Parto-Aroas, Lorenzo, Lamas, Regal, Cardelle-Cobes and Capeda (2017),

which noted that students are deficient in meal preparation skills alongside their regular and demanding class schedule (not that they do not have good knowledge of nutritional values of food and their implications) which have critical effects in the reorientation of their eating habits and subsequently prevent active ageing.

The result on hypothesis (2) suggested that a minor difference existed between male and female students in the nutritional practices for promoting active ageing. The null hypothesis ( $H_{02}$ ) results of no significant difference with p-value greater than 0.05 was retained. This finding contradicted the findings of Fadupin (2009), Babatunde and Qaim (2012) which showed that based on eating habits, many students skipped breakfast which can be detrimental to their well-being. They added that this may hamper students' well-being because not eating breakfast could lead to excess body weight especially among children and adolescents. The result also negated the position of Obbagy, MacNeil and Essery (2011) and Gadupin (2009) who observed that many Nigerian university students like consuming high quantities of foods such as unripe plantain, Irish potatoes, (cassava products like garri, fufu) polished rice, with beef, fish, chicken, pork meat which could result in inactive ageing. Furthermore, the result disagreed with the findings of Moses, Oguntayo and Adedugbe (2015) that the nutritional contents of what average Nigerian undergraduate students consume if ethically practiced, run short of favourable wellness lifestyle.

However, the findings supported the earlier findings of Fredman (2012), Nmor, Nwaka and Nmor (2013) which unequivocally stated that students' nutritional practices are fairly good and that universities and colleges (including public universities in Edo and Delta States) have a range of facilities, resources and qualified staff commonly including health professionals, ideal for implementing initiatives to target lifestyle – related nutritional and health issues that could enhance active ageing.

#### V. CONCLUSION

Students in public universities in Edo and Delta States, Nigeria, possessed relevant nutritional and health knowledge for promoting active ageing, as students' responses were all in the affirmative, suggestive that they had knowledge about nutrition and health practices for active ageing. What perhaps could be a challenge to intake of foods that promote active aging is poverty in the society as most students in public schools are from indigent background. Again, most students adopted adequate nutritional and health practices for promoting active ageing. It was clear from the students' responses that most of them engaged in all the issues raised on nutritional and health practices for promoting active ageing. However, foods like groundnuts, margarine and jam should be eaten in moderation because of the high oil and sugar (jam) content in them. Conclusively, certain practices such as high consumption of fast foods, sitting for most part of the day, taking more sugar in drinks were practiced by only a few of the students.

## VI. RECOMMENDATIONS

Based on the findings, the following recommendations were made:

1. Students should be exposed to dietary recommendations by experts in their homes and schools to attain good health and age actively.
2. University authorities and student's union bodies should help to display the food pyramid chart in all eating centers in university campuses, to enable students work out their meal plans to maintain good nutrition and health to age actively.
3. Emphasis on knowledge about food safety to prevent foodborne illnesses, understanding of food labels to allow more conversant food choices should be made by lecturers in nutrition/health related fields for students on campuses to promote active ageing.
4. Federal and State Governments should collaborate and make policies on steady nutritional and health practices and also make good leisure activities and programmes core in the overall academic curriculum of the universities in Nigeria, to promote active ageing.

*The Implication of the Study to Education*

The followings are the implications of the study to education and healthy living;

1. Chronological age is not a determinant of active ageing. Some people who are younger in age can be victims of inactive ageing due to what they eat or do not eat.
2. Ageing is a function of interplay of many factors but heavily hinged on what one eats and does not eat. In other words, active ageing is influenced by what people eat and what they do not eat.
3. When people have good knowledge of what to eat to be healthy and put it into practice, ageing becomes active and healthier.
4. People, especially students, should eat and drink not to satisfy their quest for food but should put healthy living and active ageing in focus.

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