

**Journal of Home Economics Research
(JHER)**

Volume 28, No. 1, September 2021

ISSN 1118-0021

In this Issue

- ❖ Influence of Dietary Practices on Class Participation and Learning Outcomes of Boarding Students: A Case of Winneba Senior High School.- *Cobbah, L.* 5- 17
- ❖ Socio-Demographic Factors in Marital Instability among Couples in Igbo-Etiti Local Government Area, Enugu North Senatorial District, Enugu South East Nigeria - *Iwuagwu T.E.; Ugwu B.O.; Ugwu D.I.; Ozurumba I.G.; & Wamanyi .Y.* 18 - 29
- ❖ Nutritional Assessment of Instant Pounded Yam from Yellow Yam (*Dioscorea Cayenensis*) Supplemented with Yellow Cassava (*Manihot Esculenta*) Flour - *Oni, O.K.; Jaiyeoba, C.N; Adepeju, A.B.; Oyinloye, A.M.; Ojo, M. O.; Idowu-Adebayo, F.; Orungbemi, O* 30 - 41
- ❖ Senior Secondary School Teachers' Technical Competence in Teaching Entrepreneurship Subjects in Nsukka Local Government Area of Enugu State, Nigeria. - *Ogwu, E. N.; Ukwuezeh, P.C., & Patrick, C.P.* 42 - 55
- ❖ Home Economics Undergraduates' Perception on Paper Collage as Income Generation Venture: A Case Study of University of Ilorin. - *Adebisi, T. T; Yusuf, A. O; Johnson, W. O.; Abdulkadir, S.O. & Arubayi, D.O..* 56 - 66
- ❖ Strategies for Promoting Skill Acquisition by Adults through Adult Education in Enugu State. - *Ekwealor, N.E.* 67 - 76
- ❖ Financial Management Skills Needed by of Rural Women Entrepreneurs for Enterprise Sustainability in Kwara State. - *Babalulu, M.S.; Umunnakwe, O.J.; ChinezeEzechukwu, L.; Yusuf, G.A.* 77 - 90
- ❖ Motivational Factors Influencing Female Undergraduate Students' Pattern of Dressing: A Case Study of the University of Nigeria, Nsukka. - *Ogbonnaya, E.K.* 91 - 102
- ❖ Gender Perspectives on the Influence of Football Fandom on Academic Life of Undergraduates in the Public Universities in Enugu State Nigeria.- *Nnubia, U.I.; Ezeonyeche, C.L.; Nnodim E.J.; Okechukwu, F.O.; Abugu, G.O* 103 - 116
- ❖ Food Preference within Rural and Urban Household in Ondo State, Southwestern Nigeria. - *Meludu, N.T., ²Adeloye, F.F.& ³Abolade, T. J.* 117 - 129
- ❖ Issues in Students Industrial Work Experience Scheme (SIWES) and Entrepreneurial Skills Acquisition among Home Economics Student in Tertiary Institutions in Anambra State. - *Bob-Eze N.N.* 130 -143

- ❖ Socio-Demographic Determinants of Malnutrition among Pregnant Women Accessing Antenatal Care Services in Enugu State, Nigeria. - *Ononuju, A.H.; Dibia, S.I.C.; Ofuebe, J.I.* 144 - 157
- ❖ Causes and Perceived Effects of Street Hawking Among Children in Ibadan, Oyo State, Nigeria. - *Obunadike, J.C.; Onyekwelu, S.U.; Chimezie, J.* 158 - 170
- ❖ Corona Virus (COVID-19) Related Issues and Teenagers in Nsukka Local Government Area: Implication of the Media. - *Anyakoha, B.U.; Anyakoha, C.N.* 171 - 184
- ❖ Teenage Pregnancy among Female Adolescents in Nsukka Local Government Area (LGA) of Enugu State. - *Chukwuone, C.A.; Onuoha K.M.; Ajogwu C. A.* 185 - 198
- ❖ Consumers' Views and Acceptability of Hand-embroidered Textiles Articles in Nsukka Community. - *Iweka, Olive Adaobi* 199 - 209
- ❖ Information and Communication Technology (ICT) Utilization for Skill Acquisition among Adult Distance Learners in Enugu State, Nigeria. - *Koledoye, U.L.* 210 - 222
- ❖ Metabolic Syndrome Issues among Bank Staff in Nsukka Local Government Area, Enugu State, Nigeria - *Okafor, A.M.; Kalu-Uka, A.G; Egumgbe, U.D.; Otu, N.F.-* 223 -236
- ❖ Determinants of Acceptance and Non -Acceptance of Tattoo and Body Piercing among Youths: Universities in Ogun State: A Case of Federal University of Agriculture, Abeokuta - *Mojeed, Adeola Mary & Oose, Matthew Olalekan* 237 - 244

Influence of Dietary Practices on Class Participation and Learning Outcomes of Boarding Students: A Case of Winneba Senior High School

Cobbah, L.

Department of Integrated Home Economics Education,
Faculty of Home Economics Education,
University of Education, Winneba, Ghana

Abstract

This study investigated influence of dietary practices on class participation and learning outcomes of boarding students at Winneba Senior High School (SHS) in the Effutu Municipality of the Central Region of Ghana. Descriptive survey design was adopted for the study. Population composed of all students in the school. Purposive, stratified and simple random sampling techniques were used to select 264 students. Data were collected using questionnaire. Data were analyzed using percentages, means and standard deviation. Findings revealed that majority of the students (\bar{X} =3.03; SD=2.60) indicated they had poor concentration in class due to their dietary practices while only few students (\bar{X} =1.99; SD= 1.64) agreed that their dietary practices influenced their memory negatively and for decreased absorption and accuracy rate. The study thus concluded that the students had poor concentration and low interest in class activities due to their dietary practices and recommended that educating the students on the importance of adopting positive dietary practices such as regular breakfast intake and moderate snacking in order to maintain general wellbeing, remain active in class and achieve higher test scores throughout their course period.

Keywords: Adolescence, Dietary, Practices, Class, Participation, Learning, Outcomes

Introduction

Dietary practice is one of the essential elements to healthy lifestyle and longevity or otherwise. Amoako-Kwakye (2010) described a dietary practice as the typical behaviour of specific groups of persons or an individual in relation to food intake.

Similarly, Nana and Zema (2018) defined dietary practice as a repetitive action or behaviour relating to diet or eating habit which is noticeable and can be positive or negative depending on the impact it has on one's state of health. Pamplona-Roger (2009) opined that positive dietary practice promotes

good health and involves the eating of balanced meals prepared, served and eaten in a hygienic environment with regular drinking of safe or potable water. Positive dietary practice also involves the eating of more complex carbohydrates, fruits and vegetables but less high fatty, salty and sugary foods. Pamplona-Roger further stressed that, negative dietary practice is detrimental to good health because it predisposes a person to diet related diseases such as cardiovascular diseases, anemia, periodontal diseases, metabolic disorders, obesity, etc. Smith and Smith (2016), reports that United States has nearly one-third of children and adolescents being obese or overweight due to poor diet and sedentary lifestyle.

Demory-Luce and Motil (2020) are of the opinion that adolescence is a stage of life with nutritional vulnerability. This may be attributed to dietary choices independent of parental influence. Essentially, poor eating habits formed at this stage may lead to diet related diseases in later years. Man, *et. al.* (2020) reported that adolescents form dietary habits that will persist into adulthood. Healthy dietary behaviour is therefore essential for proper growth and development of every individual as far as adolescence is concerned. Waugh and Grant (2010) reports that most adolescents often obtain about 50% to 70% of all their calories and major nutrients from junk and snacks mostly pastries, cakes, candies, ice cream and carbonated fizzy drinks which used not to be same in their childhood days. Latter part of

adolescence through to early adulthood has been noted to be a phase or stage of life which is characterized by dramatic lifestyle changes which may influence dietary behaviour either negatively or positively. In view of this, there is the need to cultivate an appreciation for the dietary pathways of adolescence in order to generate and implement appropriate interventions which is targeted at curbing the menace (Winpenny *et. al.* 2017). Dietary changes usually occur during students' initial years in college or high school as they gradually transition from adolescence to young adulthood. This may be partly due to changes in the quality of diet, style of cooking and servings in the dining halls and canteens as many students have access to same meals; resulting in students not meeting the recommended dietary guidelines (Wardlaw, 2002). The diet of most students is typically lacking in fruit, vegetable, and dairy consumption but is high in fat, sodium, and sugar. Students also have limited food variety, high snacking frequency, high incidence of meal skipping, and a high consumption of fast foods. Poor consumption of fruit, vegetables, and dairy products, diets lacking in nutrient quality, and sporadic meal patterns increase nutritional risk which has the tendencies of affecting learning outcomes (Wardlaw & Smith, 2009).

Studies suggest that diets, high in trans and saturated fats such as baked foods like cakes, pastries, frozen pizzas and cookies; French fries, fried

chicken, margarine etc., can negatively impact the brain function; influence learning and memory as well as heart health (Chen, 2020; Jenkins & Campbell, 2015; Gómez-Pinilla, 2008). One study (Florence, Asbridge & Veugelers, 2008) found that 5th grade students with less nutritious diets performed worse on a standardized literary assessment. These seem to suggest that nutrition affects students' thinking skills, behaviour, and health, all factors that impact learning outcomes.

A study (Li & O'Connell, 2012), that analyzed a healthy eating campaign, that banned junk food from schools and introduced freshly prepared healthier school meals, found that participants scored higher in English and Science tests; than students who did not take part in the campaign. Poor nutrition can leave students' susceptible to illnesses like anaemia, diarrhoea, constipation, headaches, stomach ulcers and stomachaches, resulting in school absenteeism which may in turn lead to poor academic performance (Brown, Beardslee, & Prothrow-Stith, 2008). Access to nutrition that incorporates protein, carbohydrates, and glucose has shown to improve students' cognition, concentration, and energy levels (Bellisle, 2004; Sorhaindo & Feinstein, 2006). In contrast, nutritional deficiencies (particularly protein, zinc, B vitamins, and Omega-3 fatty acids which abound in fruits, vegetables and fish) early in life can affect the cognitive development of school-aged children (Chen, 2020; Sorhaindo &

Feinstein, 2006). The above discourse suggests that poor dietary practice is an ugly phenomenon among adolescent students and Winneba Senior High School (SHS) students may not be an exception.

There may be a consensus that food is essential to learning, yet there has not been much empirical research in Ghana that examines the exact relationship between learners' overall diet and academic achievement. Though scores of studies attempted to examine the above, neither of the former have proven results quite definite in determining the exact nature and degree of the food-learning relationship (Hollar et al., 2010; Gomez-Pinilla, 2008). For instance, Burrows, Whatnall, Patterson, and Hutchesson, (2017) reviewed three hundred and forty-four (344) published studies on the relationship between diet and academic achievement in college/university students but only five (5) of these studies reported a definite associations between diet and academic achievement. It is therefore imperative to have a second look at this area of research.

Negative dietary lifestyle and consumption patterns are seemingly common among the population of boarding students in Winneba SHS and this may have implications on learning activities and outcomes in the long run if not checked over time. From observation, most boarding students of Winneba SHS adopt dietary habits and practices, most especially consumption of convenience

foods, snacking, and skipping of meals just as other adolescents elsewhere (Larson, Miller, Watts, Story, & Neumark-Sztainer, 2016). Irregular meal patterns and the consumption of high calorie snacks reported by Virtanen, Kivimäki, Ervasti, Oksanen, Pentti, Kouvonen, and Vahtera, (2015) are becoming common among the population of boarding students in Winneba SHS as well. Dining hall meals have low patronage by students while the school canteen and 'petty shop' have high patronage. This dietary lifestyle and consumption patterns of the students may have future implications on learning activities and outcomes. It is against this backdrop that the study inclined itself to identifying how the dietary practice of students influence their learning activities such as school or class attendance (punctuality and regularity), improved cognition and concentration as well as their learning outcomes.

Objectives of the study: The general objective was to investigate influence of dietary practice on class participation and learning outcomes of boarding students at Winneba Senior High School (SHS) in the Effutu Municipality of the Central Region of Ghana. Specifically, the study determined the expressed ways dietary practices influence the students':

1. participation in class.
2. learning outcome.

Research questions

1. In what ways do the students' dietary practices influence their participation in class?
2. How do the students' dietary practices influence their learning outcome of the students?

Methodology

Design of the study: Design of the study was a descriptive survey. It was considered most appropriate for this study because the data collection was broader in scope and involved relatively larger group. It also presented the researcher the opportunity to describe existing conditions more explicitly and investigate as well as explore relationships between the variables: dietary practices, class participation and learning outcomes of boarding students in Winneba Senior High School.

Study area: The area of the study was Effutu Municipality of the Central Region of Ghana

Population for the study: The study was conducted at Winneba S.H.S. in the Effutu Municipality of the Central Region of Ghana. The population was made up of all the boarding students in the school constituting 1600 (2015/16 academic year) boarding students of Winneba SHS. These students came from diverse backgrounds in terms of religion, culture, family and financial status but with their ages ranging from 14 to 19 years. The population represented a homogeneous group of adolescents

who share similar characteristics such as: the experiencing of growth spurt, mood swings, and self-awareness as experienced by all adolescents as part of their physiological development. The school is a mixed-sex school. Hence it has both boys and girls in the boarding houses.

Sample for the study: The sample was made up of 264 students. That was 16.5 percent of the total boarding student population. Stratified sampling was used to select male and female boarding students by gender and by form. Thus, Forms 1, 2 and 3. The Forms 1, 2 and 3 students were included in the sample because of their varying ages and experiences on campus. Eighty-eight students each were selected from each of the forms while 44 students of the form sample were selected for each gender stratum. After the number of males and females for each class were determined, a type of randomization; fish bowl was employed to select the individual students. The lists of first year students were obtained from the class registers with permission from the Assistant Headmaster in charge of academic affairs in the school. This was done in the following manner; pieces of papers were numbered for each to correspond to a name on the list. The papers were put in a basket and mixed well. A paper was removed at a time till the desired sample (264) was reached. The number on the paper was traced to the corresponding name and recorded.

Instrument for data collection: The data for the study was collected using structured questionnaire. It was

constructed on the bases of literature reviewed and objectives of the study. It was validated by two senior lecturers from the Home Economics Department and two others from the Psychology and Education Department in the University of Education, Winneba before administering for subsequent analysis. The instrument was pilot tested for reliability on 30 first, second and third year students from Apam SHS; a public school in the Gomoa West District in the Central Region. Reliability measure of 0.82 using the Cronbach's Alpha reliability coefficient was achieved.

The questionnaire was divided into sections: 'A' to 'D' for all respondents. The section 'A' for finding out the students' socio demographic data, while section 'B' to 'D' sought the views of respondents on their perceived dietary practices and their implications on class participation and learning outcomes. On the Likert-scale used, a scale of 4 to 1 were used where Strongly Agree=4, Agree=3, Disagree=2 and Strongly Disagree=1 were used to rate students' responses for analyses.

Data collection procedure: The researcher obtained permission and on an agreed date; during the lunch break, the respondents were made to wait for briefing on the purpose of the study which was clearly communicated to them before the commencement of the exercise. The questionnaire was hand-delivered by the researcher and was administered

to the respondents immediately after their supper at the assembly hall of the school on the same day. After giving them the questionnaire, they were asked to fill and return them to the researcher. Two hundred and sixty-four (264) questionnaires were administered and same were retrieved at the end of the exercise which was completed within 20 to 25 minutes.

Data analysis techniques: The data for this study were analyzed using frequencies, percentages and means. The average means of total agreed

responses were used to make decisions on the first research question.

Findings of the study

Influence of students' dietary practices on their participation in class.

The first research question examined the influence of students' dietary practices on their participation in class. The students were asked to indicate their experiences in class, and generally with learning after meals. Their responses are presented in Table 1.

Table 1: Mean Responses on expressed ways students' dietary practices influence their Learning Activities or Class Participation

Response	SA =4 F (%)	A =3 F (%)	D =2 F (%)	SD =1 F (%)	Mean \bar{X}	SDV \pm
1. Poor concentration in class	76(29)	124(47)	61(23)	3(1)	3.03	2.60
2. Sleepiness in class	138(52)	59(22)	31(12)	36(14)	3.13	2.80
3. Dull attitude /low interest in class	148(56)	45(17)	43(16)	28(11)	3.19	2.84
4. Poor class attendance due to illness	93(35)	74(28)	46(18)	51(19)	2.79	2.50
5. Lateness to class	99(38)	68(26)	62(23)	35(13)	2.88	2.55
6. Low participation in class activities	133(51)	75(28)	32(12)	24(9)	3.20	2.83
7. Poor memory	34(13)	44(17)	27(10)	159(60)	1.82	1.66
8. Decreased absorption & accuracy rate	20(8)	34(13)	133(50)	77(29)	1.99	1.64

Key: SA – Strongly Agree; A = Agree; D = Disagree; SD = Strongly Disagree; \bar{X} = Mean; SDV(\pm) Standard Deviation

Table 1 shows the mean responses on expressed ways students' dietary practices influence their learning activities or class participation from \bar{X} =1.82; SD=1.64 to \bar{X} =3.20; SD=2.84. The results in Table 1 shows students that most of the students agreed (\bar{X} =3.03; SD=2.60) they had poor concentration in class. A Mean

of 3.13 and a Standard Deviation of 2.80 indicates most respondents strongly agreed that they felt sleepy in class due to their dietary practices. Dull attitude/low interest in class had most respondents strongly agreeing (\bar{X} =3.19; SD=2.84). Similarly, most respondents agreed (\bar{X} = 2.79; SD=2.50) to the poor class attendance

due to illness as a result of their dietary practices. On the contrary, regarding poor memory, the students strongly disagreed ($\bar{X}=1.82$; $SD=1.66$). Similarly, decreased absorption and accuracy rate also had 21% responding in the affirmative while the remaining 79% opposed it. Thus, majority of the students did not attribute poor memory and accuracy rate to their dietary practices and therefore disagreed ($\bar{X}=1.99$; $SD=1.64$).

Influence of dietary practices on students' learning outcomes

Research question was posed as "How do the students' dietary

practices influence their learning outcome?" To answer this, information on the average performance of the students was computed by asking the students to indicate their end of term average marks for the two previous terms in Mathematics, English, Integrated Science and Social Studies (Core subjects) in addition to their four elective subjects. The results are presented in Table 2. Students' learning outcomes was cross-tabulated with their dietary practices (meal skipping, fruits intake and snacking).

Table 2: Average performance of the students based on meal skipping

Average Score	Performance	Skip meals		Did not skip meals	
		Freq.	%	Freq.	%
76-100	Above average	42	33.9	59	42.1
50-75	Average	33	26.6	64	45.7
Below 50	Below average	49	39.5	17	12.1
Total		124	100	140	100

Table 2 shows that students who skipped meals had their learning outcomes affected barring all other factors that influence academic performance. This was seen in the performance of students as a greater number of students who skipped meals performed below average. The Table also shows that 42.1% of the students who did not skip meals performed better than those who skipped meals (33.9%). Similarly,

26.6% of those who skipped meals and 45.7% of those who did not skip meals obtained between 50% and 75% average score which indicates that they were average students. Also, 39.5% of the students who skipped meals and 21.1% of those who did not skip meals scored below 50%. The result shows that a slightly higher percentage of students who did not skip meals (37%) performed better than those who skipped meals (32%).

Table 3: Average performance of the students based on fruit intake

Average score	Performance	Daily		Weekly		Seldom	
		Freq.	%	Freq.	%	Freq.	%
76-100	Above average	78	50	11	19.6	10	19.2
50-75	Average	54	34.6	13	23.2	13	25
Below	Below average	24	15.4	32	57.1	29	55.8
Total		156	100	56	100	52	100

Table 3, indicates that students who eats fruits daily (156) performed well with 84.6% scoring averagely and above. On the contrary, students who seldom take in fruits (52), a whopping 55.8% of them scored below average.

Table 4: Average performance of the students based on snacking

Average score	Performance	Snack		Did not snack	
		Freq.	%	Freq.	%
76-100	Above average	103	40.4	5	55.6
50-75	Average	111	43.5	3	33.3
Below 50	Below average	41	16.1	1	11.1
Total		255	100	9	100

Table 4 shows that 16.1% of the students who snacked performed below average, 43.5% performed averagely and 40.4% performed above average. Concerning the students who did not snack, 11.1% performed below average, 33.3% performed averagely and 55.6% performed above average.

Discussion

The first research question examined the influence of students' dietary practices on their class participation. Hence, the students were asked to indicate their experiences in class with regards to learning after eating the foods which they indicated they ate every day. The results in Table 1 showed data on the impact of dietary practices on the students' participation in learning activities in the class. The results explicitly indicated that most of the students

agreed ($\bar{X}=3.03$; $SD=2.60$) that they had poor concentration in class. A Mean of 3.1 and a Standard Deviation of 2.80 indicates most respondents strongly agreed that they felt sleepy in class due to their dietary practices. Dull attitude /low interest in class had most respondents strongly agreeing ($\bar{X}=3.19$; $SD= 2.84$). These experiences may affect their learning activities negatively. This is supported by learning theorists such as Kim, Frongillo, Han, Oh, Kim, Jang and Kim, (2003); who postulate that concentration in class is the first step in understanding what is taught in class. Consequently, Bartali, Frongillo, Bandinelli, Lauretani, Semba, Fried and Ferrucci (2006) associates poor nutrition (dietary practice) to frailty which obviously cannot support any productive academic work.

The results also relate to Wardlaw (2002) who indicated that the type of meal, portion per serving (quantity) and the time of the day the meal is eaten had influence on human characteristics such as concentration, efficiency and effectiveness. Wardlaw and Smith (2009) explained further that, the feeling of drowsiness or dullness shortly after a meal is as a result of more blood cells needed in the digestion and assimilation process than in the brain. They opined that it is a natural body process called the Specific Dynamic Action (SDA), the thermo-dynamic or Thermic Effect of Food (TEF) or Dietary Induced Thermo genesis (DIT) which is the amount of energy required by the body to digest ingested food, absorb nutrients and excrete waste above the basal metabolic rate. From the foregoing discourse, it can be deduced that, the dull, drowsy and sleepy feeling experienced by the students after meals were founded.

The results also depict the students agreed that they frequently stayed out of class because of ill health; attended classes late and participated poorly in class activities. The findings showed that dietary practice had implications on cognitive abilities, behaviours, attitude and health of the students. Hence, good dietary practice might contribute to improved alertness and concentration; regular school attendance, positive attitudes to school and learning as well as high test scores (Wardlaw & Smith, 2009).

The result from Table 2 shows that only 12.1 percent of students who did

not skip meals performed below average as compared to 39.5 percent of their counterparts who skipped meal and performed below average. Considering above average performance as lightly higher percentage of students who did not skip meals (37%) performed better than those who skipped meals (32%).

This implies that the cognitive process of students is affected as students skipped meals baring all other factors. The results as indicated in this occurrence directly have impact on nutritional statuses of students and confirms Kim, *et.al* (2003) who assert that whether or not a child eats breakfast may have an effect on nutrient intake and nutritional status, which in turn could affect cognition. Nutrition which is directly traced to one's dietary practice is among the essential variable environmental factors that are most likely to have an impact on brain development, and for that matter cognitive abilities and academic performance (Nyaradi, Hickling, Foster, Oddy, 2013) Wardlaw and Smith (2009) also postulate that people who exhibit nutritional deficiencies as a result of their dietary practices are especially vulnerable to changes in metabolism that impact greatly upon cognitive ability and performance of the brain.

Florence *et al.* (2008) established that more specifically, increased fruit and vegetable consumption and reduced dietary fat intake have been significantly linked to improved learning outcomes; this thus clearly showed from Table 3 that a high

number of students who take in fruits on daily basis performed better as compared to their counterparts who seldom eat fruits.

It is evident from Table 5 that the number of students who snacked and performed above average is less as compare to the number of students who did not snack and performed above average. It has similarly been found by Bloom (2009) that snacking has a direct and significant negative impact on learning outcomes. Kristjánsson, Sigfúsdóttir and John, (2010) related lower academic performance in adolescents with poor dietary habits and higher academic performance in adolescents with positive dietary habits. Similarly, negative dietary practice is regarded as a risk factor for poorer academic performance during adolescence (Nyaradi, Li, Hickling, Foster, Jacques, Ambrosini, & Oddy, 2015).

Conclusion

From the findings, it can be concluded students' dietary practices had negative effects on learning activities and outcomes during the instructional process. Majority had poor concentration and low interest in class due to the negative dietary practices they exhibited.

Some of the students were ignorant of some of the effects of their dietary practices on the scores they obtained during class activities. The poor dietary practices exhibited by the students had negative influence on their learning outcomes. Most students

who performed below average had poor dietary practices.

The findings from the study were a confirmation of previous researches in so far as eating habits of adolescents were concerned. The findings supported the empirical studies conducted on adolescent eating habits.

Recommendations

1. It is imperative that the school authorities in collaboration with Home Economics teachers, dieticians and nutritionists regularly review the dining hall menu to ensure that students are taking the right meals and nutrients which has the possibility of influencing their academic work positively.
2. Professionals like the Home Economics teachers, dieticians and nutritionists can be regularly invited to the school to organize seminars and symposia for students in effort to guide students on how to live and enjoy proper eating habits to promote their health and improve on their learning outcomes.
3. The school counsellor in collaboration with Home Economics teachers should counsel students on positive dietary practices and its influence on their learning outcomes. They should as well offer students with alternatives that will improve dietary practices. This will create awareness of the role diet play in academic successes.
4. There is the need for the school to provide students with good nutritional guidelines which may counteract the influence of their

peers. This can be done by displaying attractive posters that carry nutritional and healthy eating guidelines at vantage points in the school such as notice boards, classrooms, dormitories to serve as a constant reminder. As students consistently read this information, they may begin to live their lives in accordance with the knowledge they acquire from such notices.

References

- Amoakoh-Kwakye, F. Y. (2010). *Food and food-related practices of cultural groups in Southern Ghana*. Accra, Ghana: Ghana University Press.
- Bartali, B., Frongillo, E. A., Bandinelli, S., Lauretani, F., Semba, R. D., Fried, L. P., & Ferrucci, L. (2006). Low nutrient intake is an essential component of frailty in older persons. *The Journals of Gerontology Series A: Biological Sciences and Medical Sciences*, 61(6), 589-593.
- Bellisle, F. (2004). Effects of diet on behaviour and cognition in children. *British Journal of Nutrition*, 92(2), S227-S232.
- Bloom, A. (2009). Revealed: *Fast food diet can result in slow-brain children*. Times Educational Supplement, N & O8.
- Brown, J. L., Beardslee, W. H., & Prothrow-Stith, D. (2008). Impact of school breakfast on children's health and learning: An analysis of the scientific research. http://www.sodexofoundation.org/hunger_us/Images/http://www.sodexofoundation.org/hunger_us/Images/
- Brown, S., Schiraldi, G., & Wroblewski, P. (2009). Association of eating behaviours and obesity with psychosocial and familial influences. *American Journal of Health Education*, 40(2), 80-89.
- Burrows, T. L., Whatnall, M. C., Patterson, A. J., & Hutchesson, M. J. (2017, December). Associations between dietary intake and academic achievement in college students: A systematic review. In *Healthcare* (Vol. 5, No. 4, p. 60). Multidisciplinary Digital Publishing Institute.
- Chen, G. (2020). How diet and nutrition impact a child's learning ability. www.publicschoolreview.com.
- Cohen, L., Manion, L., & Morrison, K. (2008). *Research methods in education* (8thEd.). London: RoutledgeFalmer.
- Coleman-Jensen, A., Nord, M., & Singh, A. (2013). Household food security in the United States in 2012. <http://www.ers.gov>.
- Demory-Luce, D. and Motil, K. J. (2020). Adolescents eating habit. www.uptodate.com.
- Florence, M. D., Asbridge, M. & Veugelers, P. J. (2008). Diet quality and academic performance: Research article. *Journal of School Health*, 78(4), 209-215.
- Gómez-Pinilla, F. (2008). Brain foods: The effects of nutrients on brain function. *Nature Reviews Neuroscience*, 9(7), 568-578.
- Hollar, D., Messiah, S. E., Lopez-Mitnik, G., Hollar, L., Almon, M., & Agatston, A. S. (2010). Effect of a two-year obesity prevention intervention on percentile changes in body mass index and academic performance in low-income elementary school children. *American Journal of Public Health*, 100, 646-653.
- Jalongo, M. (2008). Enriching the brain: The link between contemporary neuroscience and early childhood traditions. *Early Childhood Education*, 35(6), 487-488.
- Jenkins, S., & Campbell, P. (2015). An Infracpec VFA-IR spectrometer analysis of Trans-fat content in glazed donuts purchased from supermarkets,

- convenience stores and bakeries. *Current Chemistry Letters*, 4(3), 127-132.
- Kim, H. Y. P., Frongillo, E. A., Han, S. S., Oh, S. Y., Kim, W. K., Jang, Y. A., ... & Kim, S. H. (2003). Academic performance of Korean children is associated with dietary behaviours and physical status. *Asia Pacific journal of clinical nutrition*, 12(2).
- Kristjánsson, L.; Sigfúsdóttir, D.; John, A. (2010) Health behavior and academic achievement among adolescents: The relative contribution of dietary habits, physical activity, body mass index, and self-esteem. *Health Educ. Behav.* 2010, 37, 51-64.
- Larson, N. I., Miller, J. M., Watts, A. W., Story, M. T., & Neumark-Sztainer, D. R. (2016). Adolescent snacking behaviors are associated with dietary intake and weight status. *The Journal of nutrition*, 146(7), 1348-1355.
- Li, J., & O'Connell, A. A. (2012). Obesity, high-calorie food intake, and academic achievement trends among U.S. school children. *The Journal of Educational Research*, 105(6), 391-403.
- Man, C. S., Salleh, R., Ahmad, M. H., Baharudin, A., Koon, P. B., & Aris, T. (2020). Dietary Patterns and Associated Factors Among Adolescents in Malaysia: Findings from Adolescent Nutrition Survey 2017. *International Journal of Environmental Research and Public Health*, 17(10), 3431.
- Mensah, S. (2006). Eating habits of senior high school students: A study of selected senior high schools in Cape Coast Metropolis. University of Cape Coast. An Unpublished master's dissertation.
- Minnesota Department of Health (2012a). *Children and adolescent overweight fact sheet*.
<http://www.health.state.mn.us/cdrr/>
<http://www.health.state.mn.us/cdrr/>
<http://www.health.state.mn.us/cdrr/>
- Minnesota Department of Health (2012b). *Great trays annual report*, 2012. <http://www.health.state.mn.us/divs/hpcd/chp/cdrr/>
<http://www.health.state.mn.us/divs/hpcd/chp/cdrr/>
- Nana, A., Zema, T. (2018). Dietary practices and associated factors during pregnancy in north western Ethiopia. *BMC pregnancy childbirth*, 18, 183 2018. <https://doi.org/10.1186/s12884-018-1822-1>
- Nyaradi, A., Li, J., Hickling, S., Foster, J. K., Jacques, A., Ambrosini, G. L., & Oddy, W. H. (2015). A Western dietary pattern is associated with poor academic performance in Australian adolescents. *Nutrients*, 7(4), 2961-2982.
- Nyaradi, A.; Li, J.; Hickling, S.; Foster, J.; Oddy, W.H. (2013) The role of nutrition in children's neurocognitive development, from pregnancy through childhood. *Front. Hum. Neurosci.* 2013, 7
- Pamplona-Roger, D. G. (2009). *Encyclopaedia of foods and their healing power*. USA: Review and Herald Publishing Association.
- Rodrigues, P. R. M., Luiz, R. R., Monteiro, L. S., Ferreira, M. G., Gonçalves-Silva, R. M. V., & Pereira, R. A. (2017). Adolescents' unhealthy eating habits are associated with meal skipping. *Nutrition*, 42, 114-120.
- Second Harvest Heartland (2013). Hunger facts. http://www.2harvest.org/pdf/hunger_facts_2013.pdf
- Smith, K. B., & Smith, M. S. (2016). Obesity statistics. Primary care: clinics in office practice, 43(1), 121-135.
- Sorhaindo, A., & Feinstein, L. (2006) *What is the relationship between child nutrition and school outcomes?* Centre for Research on the Wider Benefits of

- Learning Institute of Education, 20 Bedford Way, London WC1H 0AL
www.learningbenefits.net
- Virtanen, M., Kivimäki, H., Ervasti, J., Oksanen, T., Pentti, J., Kouvonen, A., & Vahtera, J. (2015). Fast-food outlets and grocery stores near school and adolescents' eating habits and overweight in Finland. *The European Journal of Public Health, 25*(4), 650-655.
- Wardlaw, G. M. (2002). *Contemporary nutrition: Issues and insight* (5th Ed.). New York: McGraw-Hill Company Inc.
- Wardlaw, G. M., & Smith, A. M. (2009). *Contemporary nutrition* (8th Ed.). New York, USA: McGraw-Hill Companies Inc.
- Waugh, A., & Grant, A. (2010). *Anatomy and physiology in health and sickness* (11th Ed.). New York, USA: Elsevier Limited.
- Winpenny, E. M., Penney, T. L., Corder, K., White, M., & van Sluijs, E. M. (2017). Change in diet in the period from adolescence to early adulthood: a systematic scoping review of longitudinal studies. *International Journal of Behavioral Nutrition and Physical Activity, 14*(1), 1-16.

Socio-Demographic Factors in Marital Instability among Couples in Igbo-Etiti Local Government Area, Enugu North Senatorial District, Enugu South East Nigeria

¹Iwuagwu T.E.; ¹Ugwu B.O.; ¹Ugwu D.I.; ²Ozurumba I.G. & ³Wamanyi Y.

¹Department of Human Kinetics and Health Education,

²Department of Adult Education and Extra-Mural Studies,

^{1,2}University of Nigeria, Nsukka

³Adamawa State Primary Health care Development Agency,
Adamawa, Nigeria

Abstract

The study investigated socio-demographic factors in marital instability among couples in Igbo-Etiti Local Government Area, Enugu North Senatorial District, Enugu South East Nigeria. Two research questions and one null hypothesis guided the study. The study adopted a descriptive cross-sectional research design. The population consisted of 88,859 married couples in the area. The sample size was 400 married couples drawn using multi-stage sampling procedure. Questionnaire was used for data collection. Frequency count, percentage, median and linear multiple regressions were used for data analysis. Findings reveal that more than half (52.9%) of married couples had high marital instability while nearly half (47.1%) of married couples had low marital instability in their marriages. Age, education level, occupation, number of children and gender were not significantly associated with marital instability of married couples ($p >.05$). However, professional counselors should intensify counseling in non-school settings through community education, group counseling, seminars and workshops which should be conducted in organizations, religious institutions and other relevant settings so as to create awareness on how to manage marital conflicts considering socio-demographic characteristics of spouses.

Key words: Marital, Instability, Couples, Socio-Demographic, Factors, Counseling.

Introduction

Marital instability has become one of the most prevalent and endemic social challenges in many families and communities globally. The fragility of the marriage bond is a notable feature

of the contemporary world, and is present at every level of society (Musau, Kisovi, & Otor, 2015; Omoniyi-Oyafunke, Falola, & Salau, 2014), including households in Enugu State, Nigeria (Ogunrinde, 2020a).

Every marriage is constantly under the influence of some external and internal pressures; a condition that is somewhat inevitable that every marital union experiences (Amadi & Amadi, 2014). An unstable marriage is continuously on the increase in developing nations and it's often associated with separation, divorce and widowhood (Ogunrinde, 2020b; Omoniyi-Oyafunke et al., 2014). Studies showed that divorce rate in the United States is 3.4 per 1,000 populations (Centers for Disease Control and Prevention, 2012), and more of the population of the United States is currently unmarried than ever before (Lehrer & Son, 2017; United States Census Bureau, 2017). In African context, divorce is estimated to occur in 20,000 marriages in Nigeria, and 19,000 marriages in Zambia annually due to marital disharmony among couples (Nnagbo, 2011; Oimage, 2013).

When marriage is no longer seen and enjoyed as supposed, it could be unstable. Unstable marriage can be referred to as marital instability (MI). Marital instability comes in different forms. The most prevalent forms of MI experienced by couples include: unfaithfulness, disagreement, spouse battering, views not respected, communication gap, lack of sexual satisfaction, lack of respect to parents and parental interference, lack of care for the children, sexual abuse, rape, subtle struggle for control between couples and other abusive behaviours (Ogunrinde, 2020a). Marital instability could be seen as a situation whereby marriages breakdown through

separation, desertion or divorce (Ezeanya, 2006; Priyadharshini & Gopalan, 2020). It may occur in the form of misunderstanding or disagreement between a husband and a wife or lack of harmony in the homes of couples. Thus, unresolved marital conflict often times lead to failed marriage (Abekhale, 2016; Holt-Lunstad, Smith, Baker, Harris, & Stephenson, 2015).

Various factors have been adduced to be associated with MI. Studies have shown that reported that age, education, suspicion regarding the partner, history of divorce, the way to get married (personal or by family), socio-economic concordance with partner, expressing love to partner, partner expressing love, education (Danso, 2008; Vakili, Baseri, Abbasi, & Bazzaz, 2015), occupation, and parity (Chen & Ngoubene-Atioky, 2019; Ozean & Breen, 2012; Takyi, 2012) were identified as predictors of MI. However, the most commonly included variables or risk factors in this study are socio-demographic in nature, such as gender, age, education, occupation and number of children.

The issue of age is very sensitive in marriage. This is to say that age at which people marry may affect their understanding and exposure. Also, educational attainment of spouses can contribute to MI. When there is a wide gap in the level of education among married couples, their level of reasoning and interaction will differ. When there is a wide educational gap between spouses, their approaches to life will be at variance, a problem may

arise as the less educated person may be more superstitious, traditional or conservative, and there may be difficulty in reasoning together (Omage, 2013). Furthermore, when these disparities exist in marriage, it is often difficult to maintain peace and stability, so failure may likely result since the spouses are not at par in intellectual or rational thinking level.

The occupation of couples in any marriage to a large extent determines the level of stability that exists in that marriage. In other words, certain jobs most likely can create unhealthy relationship among couples, for instance, banking job, acting profession, musical profession, and political position among others. In the authors' experience, there are professions that most men may not encourage their wife to be part of, such as the case of being an actress, which often takes her out of home for two weeks or more when she is involved in a movie production. Ozean and Breen (2012) claimed that the expectation of divorce may actually lead to increase in wives' employment, rather than the opposite, and wives' employment and earning may help them exit dysfunctional marriages rather than destabilizing all marriages. In addition, unintended or disagreed-upon births may elevate the risk of dissolution (Stykes & Guzzo, 2020).

Marital instability appears to have hindered the growth and progress of many homes and children in Nigeria, particularly Enugu State. Consequently, MI generally affects the society and particularly exposes

children to single parenthood, which may lead to poor physical, social and mental development of children from such families. The consequences of divorce and separation occasioned by MI are severe, as early experiences of parental conflict have lasting consequences on the quality of relationship between children and their parents (Duke-Natrebo, 2014; Sobolewski & Amato, 2007).

There appears to be high rate of divorce, separation and death among married couples resulting from occupation, age at marriage, educational attainment, childlessness, infidelity, dishonesty, lack of mutual respect, sexual incompatibility and negligence among couples in the area of the study. The increase of the new forms of instability calls for a deep analysis of the new phenomenon in order to understand their associated factors. Studies on the socio-demographic and economic antecedents of marital instability across Nigeria are scarce. The survey on socio-demographic factors among couples in Igbo-Etiti LGA Enugu North Senatorial District, Enugu State South East, Nigeria becomes necessary because of the alarming rates of divorce in the study area as can be attested by cases treated daily by customary courts. This study finding would help health professionals, researchers, religious bodies, married persons among others in providing an insight to the socio-demographic factors associated with MI among couples. The outcome would enable the society and families to be better

informed on the underlying socio-demographic factors of MI and the best ways to resolve them.

Objectives of the Study

The major purpose of the study was to investigate socio-demographic factors in marital instability among couples in Igbo-Etiti Local Government Area (LGA), Enugu North Senatorial District, Enugu South East Nigeria. Specifically, the study determined:

1. status of marital instability among couples in Igbo-Etiti LGA; and
2. relationship between marital instability and socio-demographic characteristics (gender, age, education level, occupation, number of children) of couples in Igbo-Etiti LGA.

Research Questions

Two research questions were posed to guide the study.

1. What is the status of marital instability among couples in Igbo-Etiti LGA?
2. What is the relationship between marital instability and socio-demographic characteristics (gender, age, education level, occupation, number of children) of couples in Igbo-Etiti LGA?

Hypothesis

Socio-demographic characteristics (gender, age, education level, occupation, number of children) of married couples are not significantly associated with their status of marital instability.

Methodology

Design of the Study: The study adopted a descriptive cross-sectional survey design.

Area of the Study: The study was conducted from December, 2019 through January, 2020 at households in Igbo-Etiti LGA, Enugu North Senatorial District, Enugu State, South East Nigeria. Igbo-Etiti LGA is located in the hillside Northern part of Enugu State, and has 14 autonomous communities in the area and many villages. There are records of high rate of divorce, separation and deaths associated with marital conflicts resulting from occupation, age at marriage, literacy level, childlessness, infidelity, dishonesty, lack of mutual respect, sexual incompatibility and negligence of Igbo-Etiti LGA inhabitants (Ezeanya, 2006; Ibeh, 2013). In view of these facts, the area was adjudged suitable for the study.

Population for the Study: The study population comprised married individuals in the study area. The projected population of Igbo-Etiti LGA in Enugu North Senatorial District as at 2016 was 281,200 (National Population Commission [NPC]/National Bureau of Statistics [web]). The population of married couples is 31.6 per cent of the entire population in Enugu North Senatorial District (NPC/Enugu State Planning and Economic Development Commission, 2016), which is 88,859. Only couples who have been married for at least three years were included in the study population. Couples whose years of marriage are below

three years were excluded from the study.

Sample for the Study: The sample size was 400 determined using Cohen, Manion, and Morrison (2011) Standardized Table for Sample Size, Confidence Levels and Confidence Intervals for Random Samples, which states that when a population size is 50,000 or above at 95 percent confidence level (5% intervals), the sample size should be 381 or above. A multi-stage sampling procedure was used to select the respondents for the study. The first stage involved random sample of 10 out of the 14 autonomous communities in the area of the study. The second stage involved random sample of two villages from each of the 10 selected autonomous communities, which gave a total of 20 villages. The third stage involved purposive 10 households from each of the 20 villages to give a total of 200 households. A couple was selected from the 200 households. This gave a total sample size of 400 respondents.

Instrument for Data Collection: The Marital Instability Index (MII) developed by Booth, Johnson, and Edwards (1983) was used for data collection. The MII scale consisted of 19 questions divided into parts A and B. Part A consisted of five socio-demographic variables (gender, age, education level, occupation, number of children). Part B consisted of 14 questions with a four-point Likert-type scale (from 0 (never) through 3 (now); thus coded: never (0), ever (1), within last 3 years (2) and now (3). The MII was validated by experts from Public

Health, Psychology and Social Works Departments and as well was tested for internal consistency. The internal consistency of MII was determined using alpha (Cronbach) with an index of .928.

Data Collection Technique: A total number of 400 copies of the questionnaire were distributed. Out of 400 questionnaires administered, 384 were returned, which gave a return rate of 96.0%. Out of the returned questionnaires, 16 copies were not duly filled out, thus discarded. Only 376 copies of MII duly filled out were used for analyses.

Data Analysis Technique: The standard descriptive statistics were applied to describe data pattern. Frequency count, percentage and median were used for analyses of the research questions. The nature of the participants' MI was measured using the MII. The score of 56 indicated the highest level of instable marriage and the score of 14 suggested the lowest level of MI. The median score of the summated scores of MII of the participants (21) served as the cut-off point between low and high levels of MI among the participants. Thus, the median score of ≥ 21 indicated high MI and the median score of < 21 indicated low MI. The normality of the data was checked with Kolmogorov-Smirnov (K-S) test. Linear multiple regressions were used to assess the socio-demographic variables of gender, age, education level, occupation and number of children associated with marital instability. All the tests were 2-tailed, and the probability values less

than 0.05 ($p < 0.05$) were considered significant.

Results

Table 1: Distribution of Respondents based on their Status of Marital Instability

Marital Status	Instability Index (MII) Score	n(%)
Low	< 21	177 (47.1)
High	≥ 21	199 (52.9)
Total		376 (100.0)

Table 1 shows that more than half of the respondents (52.9%) had high marital instability while 47.1 per cent low high marital instability.

Table 2: Linear Regression Analysis of Socio-demographic Factors and Marital Instability

Model		Unstandardized Coefficients (B)	Standard Error (S. E)	Standardized Coefficients (Beta)	t	p-value
1	Constant	20.55	2.551		8.058	.000
	Age	.472	.596	.043	.793	.428
	Education Level	-.213	.671	-.018	-.317	.751
	Occupation	.427	.656	.038	.650	.516
	Number of Children	.301	.535	.030	.563	.574
	Gender	-.721	1.302	-.029	-.553	.580

$R = .072$; $R^2 = .005$; $Adjusted R^2 = -.008$; $F = .388$; $Sig = .857$

$a =$ Dependent Variance: Marital instability;

$b =$ Independent Variance (constant): Gender, Age, Education Level, Occupation, Number of Children

Table 2 shows that the R^2 of .005 indicates that in the regression model, the independent variables (gender, age, education level, occupation, number of children) account for only .5% of the variance in the dependent variable (marital instability). Findings revealed that age ($B = .472$, $p = .428$); education level ($B = -.213$, $p = .751$); occupation ($B = .427$, $p = .516$), number of children ($B = .301$, $p = .574$); and

gender ($B = -.721$, $p = .580$) had both positive and negative effect, but they had no statistically significant association with marital instability ($p > 0.05$).

Discussion

Research in recent years has shown that several factors may underline the fragility of family bonds and the subsequent dissolution of the

marriage. However, this study was undertaken to investigate socio-demographic factors in a sample of married couples. Findings in Table 1 reveal that more than half of the respondents had high marital instability while nearly half (47.1%) had low marital instability. This suggests a high level of marital instability among couples in the study area which could be attributed to recent low social value placed on the marriage institution in the various communities of the LGA under study. The finding was expected, but was not consistent with the finding of Asa and Nkan (2017) in a study conducted in Akwa Ibom Nigeria that majority of the respondents had low MI while 37.5 per cent had high MI. This is affirmed by the recent reports of unstable marriages associated with dissolution and or separation at various religious tribunal and legal offices. The result could also be attributed to the fact that every marriage is under the influence of some external and internal pressures, which is somewhat inevitable for marital unions. The forces could come in form of unresolved conflicts, misunderstanding, suspicion regarding the partner, sexual incompatibility, infidelity, subtle struggle for control between couples and abusive behaviours. Besides, people do not merely want to get married; they want to marry someone they love and to remain in love together for the rest of their lives (Geiger & Livingston, 2019).

Findings in Table 2 reveal that age, education level; occupation, number of children; and gender had both positive and negative effect, but they have no statistically significant association with marital instability as depicted in Table 4. Studies have shown that age, education, suspicion regarding the partner, history of divorce, the way to get married (personal or by family), socio-economic concordance with partner, expressing love to partner and partner expressing love, were identified as predictors of marital instability (Lehrer & Son, 2017; Priyadharshini & Gopalan, 2020; Vakili et al., 2015). The findings on age was consistent with the findings of Kornblum (2001) in Orlando who found that women who marry while still in their teens are twice as likely to experience instability and likely to be healthy in their marriages as women in their thirties, and those who marry in their thirties are half again as likely to experience instability in their marriages as those who marry in their twenties. However, the finding on age was also consistent with a study conducted in the United States by Spanier and Glick (1981) who revealed that women who marry between the ages of 14 and 17 are twice as likely to divorce as those who marry between the ages of 18 and 19 years, and the rates were similar to males of corresponding ages. It has been observed that, higher ages at marriage are typically thought of as an indicator of autonomy in relationship. It appears that it is best not to marry too old or too young, because age at marriage is

complicated by the same measurement issues at marriage period.

However, research findings on MI are inconsistent. While some researchers have found no significant impact of education and occupation on divorce (Liao & Heaton, 1992; Ogunrinde, 2020b; Zeng, Schultz, Wang, & Gu, 2002), others have found some evidence to support the idea that women with higher education, especially those residing in urban areas, experience higher divorce rates. The result of this test was consistent with a finding in Lagos Nigeria by Animasahun and Fatile (2011) who found that the level of marital instability was not significantly associated with education level. However, the finding was not consistent with studies by Adegoke (2010) and Lehrer and Son (2017) who found a significant relationship between educational background of women of reproductive age and divorce rates. The result was also not in line with a study in Ethiopia by Tilson and Larsen (2000) who found that women with no education as well as those who had attained a literacy programme showed lower risk of marital instability than women with primary education; and women with secondary and higher education have more risk of divorce compared with women with primary education. The findings are expected and not surprising because people with less education most times experience low levels of marital stability as well as men and women with higher education. This depicts an alarming

signal that education level does not insulate the present husbands and wives in the modern African society from marriage instability. Again, sometimes the association between education level and MI is positive. This is because the influence of education appears to be non-linear, with the lowest divorce rates observed among uneducated couples and the highest educated groups.

The findings of this study also contradict the research of Danso (2008) who found that there is a high rate of MI among the young highly educated women with few children than among the old, illiterate women with many children. Nevertheless, a study in Ghana by Takyi (2012) implicated parity as a strong predictor of divorce in marriage. Also, in a study conducted among Chinese female migrant workers, intimate partner violence predicted significantly marital instability for child free or one child, but not for workers with two or more children (Chen & Ngoubene-Atioky, 2019). Moreover, the findings of this study was not in line with the findings of: Adegoke (2010) and Lehrer and Son (2017) who found that occupation is one of the factors associated with marital instability. The resource theory developed by Blood and Wolfe (1960) posits that marital relationships are reflective of the resources that each partner contributes to the marriage. It has been argued that as the amount of resources attained by wives reach the same levels as that of their husbands, inequity in housework and decision-making power will vanish, otherwise,

a sense of injustice will be provoked in both parties (Zuo & Bian, 2001). As a result, whoever has greater resources than their spouse may use their economic advantages to secure decision-making authority, avoid household labour and discourage his or her spouse's independence. Based on this theory, if women have their own incomes, jobs or careers, they are in a better position to leave an unsatisfying marriage rather than work on marital problems. On the other hand, a husband may feel more inclined to leave an unhappy marriage if he knows his wife can support herself. As such, couples with greater resource discrepancies would tend to have greater marital instability and increased likelihood of divorce. Finally, the finding on gender was inconsistent with the scholarly research conducted in both China and Taiwan which revealed that gendered decision-making power increases marital disharmony in urban China (Pimentel, 2006). Also, as depicted in Table 3, there was a statistically significant difference between men and women's nature of MI.

The results obtained in this study have demonstrated the realities of marriage instability among couples in South East Nigeria and also has implication for all the beneficiaries to step towards fulfilling the country's obligation to eliminate all forms of abuse and discord in marriages. This can be done by formulating health policies that can educate married couples on areas of family planning, sex education, communicating

effectively, showing respect and love and disposition of good attitudes towards partner as well as sensitization on the need for premarital marriage counseling and evaluations that can promote their health and a healthy relationship.

The limitations of this study include that, this study only provides information on significant associations between socio-demographic factors and MI in couples, and it cannot be used to infer causality of these events, which would require clinical trials and longitudinal studies. Also, in this study, data were collected retrospectively, this might introduce recall bias. Our study sample consisted of only the legally married couples, and does not include divorced/separated, single parent and widowed individuals, thus limiting the generalize ability of the findings. Future studies should consider using a larger, randomized and more representative sample size, considering other associated factors of MI and ever married individuals.

Conclusion

The overall score obtained from the marital instability questionnaire in this study was fair and showed higher level of marital instability. A significant percentage (47.1%) still has low marital instability. Age, education level; occupation, number of children; and gender had both positive and negative effect, but they have no statistically significant association with marital instability.

Recommendations

1. Professional counselors should intensify counseling in non-school settings through community education, group counseling, seminars and workshops which should be conducted in organizations, religious institutions and other relevant settings so as to create awareness on how to manage marital conflicts considering socio-demographic characteristics of spouses.
2. Marital counseling clinics should be established in major towns and cities to enable couples who are experiencing unresolved conflicts to seek for professional assistance of a counselor.
3. Findings could be promising for the policy makers to design specific interventions suited to target population.
4. Couples should embrace effective communication and understanding and learn to stay away from external interference in their marital relationship.

References

- Abekhale, S. O. (2016). Marital disharmony and family stability in Gboko Metropolis: Counseling intervention strategies. *Journal of Research in National Development*, 14(1), 1-17.
- Adegoke, T. G. (2010). Socio-cultural factors as determinants of divorce rates among women of reproductive age in Ibadan Metropolis, Nigeria. *Studies of Tribes and Tribals*, 8(2), 107-114.
- Amadi, U. P. N., & Amadi, F. N. C. (2014). Marital crisis in the Nigerian society: causes, consequences, and management strategies. *Mediterranean Journal of Social Science*, 5, 26.
- Animasahun, R. A., & Fatile, E. A. F. (2011). Patterns of marital instability among married couples in Lagos, Nigeria. *Journal of African Studies and Development*, 3(10), 192-199.
- Asa, U. A., & Nkan, V. V. (2017). Factors associated with marital instability among rural farming households in Akwa Ibom State Nigeria. *European Scientific Journal*, 13(15), 1-10. <http://dx.doi.org/10/19044/esj.2017.v13n15p290>
- Blood, R. O., & Wolfe, D. M. (1960). *Husbands and wives*. Glencoe IL: Free Press.
- Booth, A., Johnson, D., & Edwards, J. N. (1983). Measuring marital instability. *Journal of Marriage and Family*, 45(2), 387-394. <https://www.jstor.org/state/352526>
- Centers for Disease Control and Prevention (CDC). (2012). *What is the divorce rate in the United States*. Retrieved from <http://www.cdc.gov/nsche/nvss-nationalvitalstatisticsystem>
- Chen, L., & Ngoubene-Atioky, A. (2019). Does number of children moderate the link between intimate partner violence and marital instability among Chinese female migrant workers. *Sex Roles*, 80, 745-757. doi:10.1007/s11199-019-1017-x
- Cohen, L., Manion, L., & Morrison, K. (Eds.). (2011). *Research methods in education* (7th ed.). New York: Routledge Taylor & Francis Group.
- Danso, T. (2008). Effect of marital instability on children in Abeokuta Metropolis. *European Journal of Business and Innovation Research*, 2(3), 68-77.
- Duke-Natrebo, N. C. (2014). The impact of marital instability in early childhood

- development in Nigeria. *African Education Indices*, 7(1), 1-8.
- Enugu State Planning and Economic Development Commission. (2016). *Population of Enugu State*. Enugu State Government, Nigeria.
- Ezeanya, D. I. (2006). *Marital instability and its social consequences in Lejja, Nsukka Local Government Area, Enugu State* (Unpublished project). University of Nigeria, Nsukka.
- Geiger, A., & Livingston, G. (2019). *8 facts about love and marriage in America*. Retrieved from <https://www.pewresearch.org/fact-tank/2019/02/13/8-facts-about-love-and-marriage/>
- Holt-Lunstad, J., Smith, T. B., Baker, M., Harris, T., & Stephenson, D. (2015). Loneliness and social isolation as risk factors for mortality: A meta-analytic review. *Perspectives on Psychological Science*, 10(2), 227-237. <https://doi.org/10.1177/1745691614568352>
- Ibeh, U. O. (2013). *Marital adjustment and resolution strategies among couples in Enugu State, Nigeria* (Master's thesis). University of Nigeria, Nsukka.
- Kornblum, W. (2001). *Marriage and divorce: sociology in a changing world*. Orlando: Harcourt Brace and Company.
- Lehrer, E. L., & Son, Y. J. (2017). Women's age at first marriage and marital instability in the United States: Differences by race and ethnicity. *Demographic Research*, 37, 229-250.
- Liao, C., & Heaton, T. B. (1992). Divorce trends and differentials in China. *Journal of Comparative Family Studies*, 23, 413-429.
- Musau, J. M., Kisovi, L. M., & Otor, S. C. J. (2015). Marital instability and its impact on female-headed household livelihoods in Machakos county, Kenya. *International Journal of Humanities and Social Sciences*, 5(8), 145-153.
- National Bureau of Statistics. (2016). *Projected population of Enugu State Nigeria*. The Web.
- National Population Commission (NPC). (2016). *Projected population of Enugu State Nigeria*. The Web.
- Nnagbo, J. N. (2011). *Stress as a factor in marital disharmony* (Unpublished project). University of Nigeria, Nsukka.
- Ogunrinde, M. E. (2020a). Cultural factors and marital instability among married women in SouthWest, Nigeria. *Euro Afro Studies International Journal*, 1(2), 63-75. doi:10.5281/Zenodo.3866546
- Ogunrinde, M. E. (2020b). Social factors and marital instability among married women in SouthWest, Nigeria. *International Journal of Academic Research in Business, Arts and Science*, 2(4), 96-107. <https://www.ijarbas.com/wp-content/uploads/2020/04/14-2020-10-Social-Factor->
- Omage, M. I. (2013). *Critical issues in marriage failure in Benin city Nigeria: signaling the way forward* (Unpublished thesis). Benson Idahosa University, Benin City, Nigeria.
- Omoniyi-Oyafunke, C., Falola, H. O., & Salau, O. P. (2014). Effect of marital instability on children in Abeokuta Metropolis. *European Journal of Business and Innovation Research*, 2(3), 68-77.
- Ozean, B., & Breen, R. (2012). Marital instability and female labour supply. *Annual Review on Sociology*, 38, 463-481.
- Pimentel, E. E. (2006). Gender ideology, household behaviour and backlash in Urban China. *Journal of Family Issues*, 27, 341-365.
- Priyadarshini, S., & Gopalan, R. T. (2020). Marital adjustment, love, personal intimacy, personality, dyadic coping and spirituality on marital stability. *Asian Journal of Advanced Research and*

- Reports*, 7(4), 1-16.
<https://doi.org/10.9734/ajarr/2019/v7i430186>
- Sobolewski, J. M., & Amato, P. R. (2007). Parental discord and divorce, parent-child relationships and subjective well-being in early adulthood: Is feeling close to two parents always better than feeling close to one? *Social Forces*, 85(3), 1105.
- Spanier, G. B., & Glick, P. C. (1981). Marital instability in the U.S. *Family Relations*, 30, 329-38.
- Stykes, J. B., & Guzzo, K. B. (2020). Unintended childbearing and marital instability: An emphasis on couple's intentions. *Journal of Divorce & Remarriage*, 61(7), 504-524.
<https://doi.org/10.1080/10502556.2020.1768494> [PubMed].
- Takyi, B. K. (2012). *Marital instability in an African society. Explaining the factors that influence divorce processes in Ghana*.
<https://doi.org/10.1080/00380237.2001.10571184>
- Tilson, D., & Larsen, U. (2000). Divorce in Ethiopia: The impact on early marriage and childlessness. *Journal of Biosocial Science*, 32(1), 355-372.
- United States Census Bureau. (2017). Unmarried and single Americans. *Week: Sept.*, 17-23. Retrieved from <https://www.census.gov/content/dam/Census/newsroom/facts-for-features/2017/cb17-ff1>
- Valiki, V., Baseri, H., Abbasi, Z., & Bazzaz, M. M. (2015). Marital instability and its predictors in a representative sample of Mashhadi citizens, Iran, 2014. *Journal of Medicine and Life*, 8(Special Iss.2), 8-13.
- Zeng, Y., Schultz, T. P., Wang, D., & Gu, D. (2002). Association of divorce with socio-demographics covariates in China, 1995-1985; Event history analysis based on data collected in Shanghai. Hebei, and Shannxi. *Demographic Research*, 7, 407-432.
- Zuo, J., & Bian, Y. (2001). Gendered resources, division of housework and perceived fairness- A case in Urban China. *Journal of Marriage and Family*, 63, 1122-1133.

Nutritional Assessment of Instant Pounded Yam from Yellow Yam (*Dioscorea Cayenensis*) Supplemented with Yellow Cassava (*Manihot Esculenta*) Flour

¹Oni, O.K.; ¹Jaiyeoba, C.N.; ¹Adepeju, A.B.; ¹Oyinloye, A.M.; ²Ojo, M. O. ;
³Idowu-Adebayo, F. & ⁴Orungbemi, O

¹Department of Food Science and Technology, Federal University, Oye Ekiti, Nigeria

²Department of Food Science and Technology, Federal University of Technology, Minna, Nigeria

³Food Quality and Design Group, Wageningen, University, the Netherlands

⁴Department of Food Science and Technology, Rufus Giwa Polytechnics, Owo, Nigeria

Abstract

The major objective of this study was to investigate the nutritional properties of yellow yam flour supplemented with yellow cassava flour. Specifically, the study determined functional properties of the yellow yam and yellow cassava flour blends, pasting properties of the yellow yam and yellow cassava flour blends, effect of supplementation on the sensory properties of the instant pounded yam paste produced from yellow yam flour supplemented with yellow cassava flour. Good quality yellow yam (*Dioscorea cayenensis*), tubers and yellow cassava (*Manihot esculenta*) and UMUCASS38 roots were obtained from International Institute for Tropical Agriculture (IITA), Ibadan, Oyo State, Nigeria. Samples were prepared by appropriate methods. The flour blends were formulated and instant pounded yam flour prepared. Functional analysis and sensory evaluation were carried out. Results of the analysis show the following ranges; oil absorption capacity 70.25 - 85.63%; water absorption capacity 73.89- 78.69%; bulk density 0.76- 1.59g/m³; peak viscosity 158.36- 210.43 RVU; final viscosity 178.53- 277.15RVU; setback viscosity of cooked paste 51.53- 72.54 RVU; pasting time 5.95- 8.65 min; breakdown viscosity of the cooked paste 8.75- 9.53RVU; pasting temperature 62.55- 67.13°C; trough 152.46- 180.16 RVU. The general acceptability of all the supplemented samples were highly rated (8.00 each) as compared to control sample which had the lowest (6.05) value. Commercial production of instant pounded yam from yellow yam and yellow cassava flours will serve as a strategy of alleviating the challenge of food insecurity in Nigeria.

Key words: Instant, Pounded, Yam, Yellow, Cassava, Flour, Supplement.

Introduction

Yam, which is the most important staple food in West Africa, after cereals belongs to the Dioscoreaceae family. Yam is perennial herbaceous vines cultivated for the consumption of their starchy tubers in many temperate and sub-tropical world regions. There are many varieties of yam species throughout the tropics. Yam, with appreciable contents of essential dietary nutrients, has been reported to have nutritional superiority when compared with other tropical root crops (Aninathan, Mohar & Maruthupandian, 2009).

Yam belongs to the semi perishable class of food due to its relatively high moisture content and vulnerability to gradual physiological deterioration after harvesting. However, yam can be processed into less perishable products as yam flour through a drying process. In West Africa, a major proportion of yam is eaten as boiled yam, roasted yam, fried yam, pounded yam and amala which is stiff glutinous dough. The most processed traditional yam product is flour (Abioye, Ogunlakin, Babarinde & Adeoti, 2008).

Yellow yam (*Dioscorea cayenensis*) has a yellow flesh, caused by the presence of carotenoids. It looks similar to the white yam (*Dioscorea rotundata*) in outer appearance. Its tuber skin is usually a firmer and less extensive groove. The yellow yam has a longer period of vegetation and a shorter dormancy period than the white yam (Dumont & Vernier, 2000).

Cassava (*Manihot esculenta*) is a tuberous starchy root crop of the

family Euphorbiaceae (Kochlar, 1981). It is a popular crop worldwide and it is known for its drought tolerance and for thriving well on marginal soils. A very wide range cassava variety is grown worldwide depending on the locality.

The yellow cassava is a new, yellow-fleshed breed of one of the most popular root crops in the tropics (Nascimento, Fernandes, Mauro, & Kimura, 2007). Yellow cassava is grown for its high concentration of β -carotene, which is a precursor to vitamin A. Vitamin A deficiency (VAD) lowers immunity and makes children in particular susceptible to many childhood infections such as diarrhea, measles and various forms of eye infections.

Freshly harvested cassava roots start deteriorating almost immediately after harvest and can only last for three days. The form of preservation and reduction of post-harvest loss is immediate processing into shelf stable products such as flour, chips, gari, and pellets etc. processing cassava into finished or semi-finished products often involves all or some of the following operation on the desired end products, peeling, washing, grating/chipping, dewatering/fermentation, pulverizing, sieving, and drying/frying (Quaye, Gayin, Yawson, & Plahar, 2009).

Yam and cassava are generally bulky and contain a lot of moisture which makes them to be highly perishable. Post-harvest losses may also occur due to mechanical damages, infections caused by decay-organisms

and pest infections. To avoid these post-harvest losses the yam and cassava are processed into finished or semi-finished products.

Instant pounded yam flour is the product obtained when parboiled yam is dried and milled. The flour is reconstituted in hot water to a mash similar to when boiled yam is pounded manually. Instant Pounded Yam Flour (IPYF) is a more hygienic product with longer shelf-life, processed and devoid of drudgery which is associated with the traditional process (Federal Institute of Industrial Research, Oshodi (FIRO, 2005).

Pounded yam is a special delicacy in most parts of Nigeria. It is a glutinous dough made by peeling the yam, cutting to pieces, boiling, pounding and kneading. For consumption, the dough is usually cut with the fingers, moulded in the palm, dipped into stew and swallowed without mastication.

Texture is one of the three main acceptability factors used by consumers to evaluate food, the other two being appearance and flavour (Bourne, 1990). Texture is an important index of quality of pounded yam and the textural qualities relevant to the product are springiness, cohesiveness (mould ability), hardness, smoothness and adhesiveness (stickiness).

Pasting characteristics of starches have been associated with cooking quality and texture of various food products (Moorthy, 2002, 1994). Pasting is the result of a combination of processes that follows gelatinization from granule rupture to subsequent

polymer alignment, due to mechanical shear during the heating and cooling of starches.

Consumers do appreciate the variety of supplements such as plantain, cocoyam, sweet potato etc. that is usually added during the traditional production in order to improve its viscosity and texture (Malomo, Ogunmoyela, Adekoyeni, Jimoh, Oluwajoba & Sobanwa, 2012; Abulude & Ojediran, 2006).

The functional properties determine the application and use of food material for various food products. Eating quality of yam products is related to both physicochemical and pasting characteristics of the tubers. Different authors (Peroni, Rocha & Franco, 2006; Sahorè, Amani & Nemlin, 2005; Afoakwa & Sefa-Dedeh, 2002) have reported on physicochemical and pasting characteristics of yam. However, flour from yellow yam and yellow cassava blends has not been studied extensively. Studies on physicochemical and pasting properties of flour from yellow yam and yellow cassava blends would be useful enhancing utilization, demand and market value of the product.

However, fortification may affect the functional and pasting characteristics of flour oriented foods. The traditional method of making pounded yam which requires physical pounding with mortar and pestle is very laborious and in some cases unhygienic compare with instant pounded yam flour which is more

hygienic product with a longer shelf-life devoid of drudgery associated with the traditional process and result in multiplicity of nutrients which can be exported.

In lieu of this and for the sake of convenience and to reduce drudgery associated with the preparation of pounded yam, it has become imperative to prepare the instant pounded yam from yellow yam flour supplemented with yellow cassava flour. The study was also undertaken to determine the potential usefulness of pasting characteristics of flour from yellow yam and yellow cassava blends as indicators of food textural quality in pounded yam. This would be useful in the commercial processing.

Objective of the Study

The major objective of this study was to investigate the nutritional properties of yellow yam flour supplemented with yellow cassava flour. Specifically, the study determined:

1. functional properties of the yellow yam and yellow cassava flour blends.
2. pasting properties of the yellow yam and yellow cassava flour blends.
3. effect of supplementation on the sensory properties of the instant pound yam paste produced from yellow yam flour supplemented with yellow cassava flour.

Materials and Methods

Plan of the Study: The study was carried out through the following procedures:

Sample Preparation: This was involved the following:

- i. Good quality yellow yam (*Dioscorea cayenensis*) tubers and yellow cassava (*Manihot esculenta*) UMUCASS38 roots were obtained from International Institute for Tropical Agriculture (IITA), Ibadan Oyo.
- ii. Yellow yam flour sample was produced using the method described by FIIRO (2005). The yam tubers were washed, peeled, sliced to 2-3 mm thickness and soaked in water contain 1% sodium met bisulphate for 5 minutes so as to arrest the browning reaction and placed in a sieve to remove the excess water after which the sliced yam was cooked for 30minites at 100°C. The cooked slices of yam were removed and dried at 50°C to a constant weight. The dried samples were milled into fine flour using an attrition milling machine. The flour was sieved (500µm mesh), and packaged in moisture proof polyethylene bags and labeled for analysis
- iii. Yellow cassava flour sample was prepared by the method described by Babajide, Oyewole& Obadina,(2006). The roots were peeled manually with stainless steel knife. The peeled roots were washed, sourced in lime (5%) for 30 minutes, washed again using clean water, grated, granulated, and oven dried at 5°C. The oven dried cassava was milled (hammer milling machine), cooled and

sieved (500µm mesh), and packaged in moisture proof polyethylene bags and labeled for analysis

Blend formulation: This was done at different ratios of 90:10; 80:20; 70:30 and 60:40% of yellow yam flour and yellow cassava flour respectively. The flour blends were labeled as follows: YY (100% yellow yam flour); YYC₁ (90% yellow yam flour and 10% yellow cassava flour); YYC₂ (80% yellow yam flour and 20% yellow cassava flour); YYC₃ (70% yellow yam flour and 30% yellow cassava flour) and YYC₄ (60% yellow yam flour and 40% yellow cassava flour).

Preparation of instant pounded yam flour: A quantity of each blend was poured in boiling water and stirred continuously till it gelatinizes into thick dough. A little quantity of water was added to allow the blend to cook properly (10 minutes). The paste was stirred till properly cooked (Babajide, Oyewole & Obadina, 2006; FIIRO, 2005).

Functional Analysis: The following functional analysis were carried out:

- i. Water/Oil Absorption Capacity: This is the quantity of water required to mix dough to a standard consistency. It was determined as described by Onwuka (2004).
- ii. Bulk Density: This is the density of the bulk material as a result of tapping solids materials poured into a container. It was carried out as reported by Onwuka (2004).
- iii. Pasting properties are functional properties relating to the ability of

an item to act in paste-like manner. It was determined with a Rapid Visco Analyzer (RVA). (Newport scientific, 1998).

Sensory Evaluation:

Instrument for Data Collection: The samples were coded and validated questionnaire made up of quality evaluation for flavor, texture, colour and general acceptability was used. Quality ratings were based on a 9-point descriptive hedonic scale with 9 (like extremely) being the highest score and 1 (dislike very much) the least score (Ihekoronye & Ngoddy, 1985).

Panel of Judges: The population was made up of ten (10) students of Food Science and Technology, Federal University Oye Ekiti, Ekiti State. The purposive sampling technique was adopted in the selection of the panel of judges because the students have better knowledge of food than other students and would therefore give better interpretation on what would be required on them.

Statistical Analysis: Means were compared using test of significant difference (Steel & Torrie, 1980). Test of significant ($P < 0.05$) difference among the treatments were determined by Analysis of Variance (ANOVA) as described by Steel, Torrie & Diekey, (1997).

Results

The following findings were made: (1) Effect of supplementation on functional properties of yellow yam and yellow cassava flour blends. See Table 1. (2) Effect of supplementation

on pasting properties of yellow yam and yellow cassava flour blends. See Table 2.

(3) Mean sensory scores of instant pound yam paste. See Table 3.

Table 1: Functional Properties of Instant Pounded Yam Produced from Yellow Yam and Yellow Cassava Flour Blends

Samples	OAC (%)	WAC (%)	BD (g/m ³)
YY	85.63 ^a ±0.01	78.69 ^a ±0.0	0.76 ^e ±0.01
YYYC1	82.96 ^a ±0.01	77.84 ^b ±0.0	0.85 ^d ±0.01
YYYC2	80.13 ^a ±0.03	76.44 ^c ±0.0	0.98 ^c ±0.01
YYYC3	72.35 ^d ±0.01	75.71 ^d ±0.0	1.14 ^b ±0.01
YYYC4	70.25 ^e ±0.01	73.89 ^e ±0.0	1.59 ^a ±0.01

Values are means ± Standard Deviation from triplicate determinations. Means with different superscripts within the same column are significantly different at (P<0.05).
 KEY: OAC = Oil Absorption Capacity, WAC = Water Absorption Capacity, BD = Bulk Density.
 YY = 100% Yellow Yam Flour, YYYC1 = 90% Yellow Yam Flour: 10% Yellow Cassava Flour
 YYYC2, = 80% Yellow Yam Flour: 20% Yellow Cassava Flour, YYYC3 = 70% Yellow Yam Flour: 30% Yellow Cassava Flour, YYYC4 = 60% Yellow Yam Flour: 40% Yellow Cassava Flour

Table 1 shows some functional properties of instant pounded yam produced from yellow yam and yellow cassava flours blends. The OAC and WAC of the blends reduced with increase in the proportion of the yellow cassava. At each level of supplementation the BD of the blends become denser than the control.

Table 2: Pasting Properties of Instant Pounded Yam Produced from Yellow Yam and Yellow Cassava Flour Blends

Samp les	Peak Viscosit y (RVU)	Final Viscosity (RVU)	Set-Back Viscosit y (RVU)	Pasting Time (Min)	Breakdo wn Viscosity (RVU)	Pasting Tempera ture (C)	Trough Viscosity (RVU)
YY	158.36 ^a ±0.0	178.53 ^e ±0.01	51.53 ^e ±0.01	5.95 ^e ±0.00	8.75 ^e ±0.00	62.55 ^e ±0.0	152.46 ^e ±0.0
YYYC1	169.53 ^d ±0.0	197.25 ^d ±0.01	61.47 ^d ±0.01	6.23 ^d ±0.00	8.92 ^d ±0.00	63.45 ^d ±0.0	159.84 ^d ±0.0
YYYC2	179.46 ^c ±0.0	235.62 ^c ±0.01	68.61 ^c ±0.01	7.12 ^c ±0.00	9.45 ^c ±0.00	65.50 ^c ±0.0	167.25 ^c ±0.0
YYYC3	195.29 ^b ±0.0	257.82 ^e ±0.01	69.32 ^e ±0.01	7.82 ^b ±0.00	9.82 ^b ±0.00	66.83 ^b ±0.0	171.26 ^b ±0.0
YYYC4	210.43 ^a ±0.0	277.15 ^a ±0.01	72.54 ^e ±0.01	8.65 ^a ±0.00	9.93 ^a ±0.00	67.13 ^a ±0.0	180.16 ^a ±0.0

Values are means \pm Standard Deviation from triplicate determinations. Means with different superscripts within the same column are significantly different at ($P < 0.05$).

KEY: OAC = Oil Absorption Capacity, WAC = Water Absorption Capacity, BD = Bulk Density. YY = 100% Yellow Yam Flour, YYYYC1 = 90% Yellow Yam Flour: 10% Yellow Cassava Flour YYYY2, = 80% Yellow Yam Flour: 20% Yellow Cassava Flour, YYYY3 = 70% Yellow Yam Flour: 30% Yellow Cassava Flour, YYYY4 = 60% Yellow Yam Flour: 40% Yellow Cassava Flour

Table 2 shows some pasting properties of instant pounded yam produced from yellow yam and yellow cassava flours blends. The peak viscosity of the instant pounded yam blends ranged from 158.36 RVU for YY to 210.43 RVU for YYYYC₄. The final viscosity of the instant pounded yam blends ranged from 178.53 to 277.15RVU with sample YYYYC₄ having the highest final viscosity. The setback or viscosity of cooked paste of the yellow yam supplemented with yellow cassava flours ranged from 51.53RVU for

sample YY to 72.54 RVU of sample YYYYC₄. The pasting time of the samples ranges from 5.95 minutes to 8.65 minutes. Supplemented sample YYYYC₄ had the highest pasting time, while sample YY had the lowest of 5.95 minutes. Breakdown viscosity ranged from 8.75RVU to 9.53RVU. The pasting temperature ranged from 62.55°C for sample YY to 67.13°C for sample YYYYC₄. The trough values increased from 152.46 RVU for sample YY to 180.16 RVU for sample YYYYC₄.

Table 3: Sensory Scores of Instant Pounded Yam made from Yellow Yam and Yellow Cassava Flours

Samples	Mean sensory scores					
	Appearance	Aroma	Taste	Texture	Mould ability	General Acceptability
YY	8.00 ^a ±0.85	7.00 ^b ±0.91	7.00 ^b ±0.80	6.01 ^c ±0.24	6.05 ^c ±0.43	6.30 ^c ±0.98
YYYYC1	8.05 ^a ±0.76	7.30 ^b ±0.47	7.30 ^b ±0.70	7.40 ^b ±0.15	8.00 ^b ±0.68	8.00 ^a ±0.99
YYYYC2	7.75 ^b ±0.64	7.00 ^b ±0.96	7.40 ^b ±0.90	7.42 ^b ±0.14	8.04 ^b ±0.82	8.02 ^a ±0.67
YYYYC3	7.30 ^b ±0.80	7.50 ^a ±0.68	8.00 ^a ±0.62	7.48 ^b ±0.15	8.00 ^b ±0.69	8.00 ^a ±0.50
YYYYC4	7.75 ^b ±0.85	8.00 ^a ±0.72	8.01 ^a ±0.85	8.00 ^a ±0.25	8.85 ^a ±0.94	8.01 ^a ±0.65

Values are means \pm Standard Deviation from triplicate determinations. Means with different superscripts within the same column are significantly different at ($P < 0.05$).

KEY: OAC = Oil Absorption Capacity, WAC = Water Absorption Capacity, BD = Bulk Density. YY = 100% Yellow Yam Flour, YYYYC1 = 90% Yellow Yam Flour: 10% Yellow Cassava Flour YYYY2, = 80% Yellow Yam Flour: 20% Yellow Cassava Flour, YYYY3 = 70% Yellow Yam Flour: 30% Yellow Cassava Flour, YYYY4 = 60% Yellow Yam Flour: 40% Yellow Cassava Flour

Table 3 shows the mean sensory evaluation scores for instant pounded yam paste sample. A significant difference ($P < 0.05$) was noted in the

appearance, aroma, taste, texture, mould ability and general acceptability of the sample.

Discussion

Functional properties of instant pounded yam produced from yellow yam and yellow cassava flours blends samples (Tables 1) showed that oil absorption capacity (OAC) and water absorption capacity (WAC) of the blends decrease with each level of supplementation in all the samples. The decrease in OAC could be attributed to the increase in the quantity of yellow cassava flour which may inhibit the disassociation of the protein that could occur on heating and also due to denaturation which unmask the non-polar residues from the interior of the protein network (Onimawo & Akubor, 2012). This implies that supplementation determines variation which affects the oil absorption of the instant pounded yam blends.

The significant decreased in WAC at ($p < 0.005$) could also be attributed to the fact that WAC is dependent on the amount of water the food material is already holding and how much it can absorb in addition to attain saturation. More so a decrease in starch also contributes to less absorption of water. This is also in agreement with the results published by Oni, Alakali & Akpapunam, (2009).

At each level of supplementation the bulk density of the blends become denser than the control. Bulk density is influenced by particle size and the density of the flour. It is also germane in determining the packaging requirement, material handling and application in wet processing in the

food industry (Karuna, Noel & Dilip, 1996).

Pasting properties of instant pounded yam produced from yellow yam and yellow cassava flours blends are presented in Tables 2. There was a significant ($p < 0.05$) difference generally in the pasting profile values of the supplemented instant pounded yam blends. The significant difference indicated increase in peak viscosity with each level of supplementation from 10-40% of yellow cassava flour. Peak viscosity is the ability of starch to swell freely before their physical breakdown (Sanni, Kosoko, Adebawale, & Adeoye, 2004). High peak viscosity is an indication of high starch content (Osungbaro, 1990). It is also related to the water binding capacity of starch (Adebawale, Sanni & Awonorin, 2005). The relatively high peak viscosity (210.43 RVU) exhibited by YYC4 is indicative that the instant pounded yam produced had high gel strength and elasticity.

Breakdown viscosity which is the measure of the susceptibility or vulnerability of the cooked paste to disintegration or an index of the stability of starch ranged from 8.75RVU to 9.53RVU. There was significant ($P < 0.05$) difference between the samples. The trough values increased from 152.46 RVU for sample YY to 180.16 RVU for sample YYC₄. The lower the value of the trough, the more stable is the starch gel. The trough is the minimum viscosity value in the constant temperature phase of the RVA profile

and measures the ability of paste to withstand breakdown during cooling.

The final viscosity of the instant pounded yam blends ranged from 178.53 to 277.15RVU with sample YYC₄ having the highest final viscosity. Final viscosity is the most commonly used parameter to define the quality of a particular starch-based sample, as it indicates the ability of the material to form a viscous paste or gel after cooking and cooling as well the resistance of the paste to shear force during stirring (Adeyemi & Idowu, 1990). The setback or viscosity of cooked paste ranged from 51.53RVU for sample YY to 72.54 RVU of sample YYC₄. High setback results in lower retro gradation during cooling of products (Kong, Zhu, Sui & Bao, 2015). It also lowers the staling rate of the products made from the flour (Adeyemi & Idowu, 1990). Starch retro gradation is usually accompanied by a series of physical changes such as increase viscosity and turbidity of pastes, gel formation, and exudation of water (Hoover, Hughes, Chung & Liu, 2010).

The pasting time of the samples ranges from 5.95 minutes to 8.65 minutes. Supplemented sample YYC₄ had the highest pasting time, while sample YY had the lowest of 5.95 minutes. According to Adebawale, Sanni & Awonorin, (2005) pasting time is the measure of the cooking time

The pasting temperature ranged from 62.55°C (YY) to 67.13°C (YYC₄). Pasting temperature gives an indication of the gelatinization time during processing. It is the

temperature at which the first detectable increase in viscosity is measured and is an index characterized by the initial change due to the swelling of starch (Emiola & Delarosa, 1981). Pasting temperature has been reported to relate to water binding capacity. A higher pasting temperature implies higher water binding capacity, higher gelatinization, and lower swelling property of starch due to a high degree of association between starch granules (Emiola & Delarosa, 1981; Numfor, Walter & Schwartz, 1996).

The appearance of supplemented instant pounded yam samples were closely the same but differed significantly ($P < 0.05$) from control sample. This could be as a result of supplementation of Yellow Cassava flours. Samples YY, YYC₁ and YYC₂ had no significant difference ($p > 0.05$) on one hand whereas sample YYC₃ and YYC₄ were closely the same and also had the same aroma ($p < 0.05$). On the average there was significant difference ($P < 0.05$) in aroma of the blend samples. All the instant pounded yam samples were liked moderately except sample YYC₄ which was liked very much. The aroma mean scores were observed to have reversed trend of the mean positions with those of appearance.

Though at confidence limit of 5%, the taste of instant pounded yam samples takes the same trend as appears with aroma, with samples YYC₃ and YYC₄ where both had the same highest mean score of 8.0 and liked very much. There was significant

($P < 0.05$) difference however, at average in the instant pounded yam mean taste values.

Samples YYC_1 , YYC_2 and YYC_3 had same mean values and were Like moderately. Only YYC_4 was liked very much away from YY (control) which was liked slightly. This difference in viscosity - textural feel, could be explained as a result of the particles size of different categories of milling during processing into flours blends (Ahmed, Anjum & Butt., 2001).

The mean scores for mould ability of instant pounded yam supplemented with yellow cassava flours ranged from 8.00 of sample YYC_1 , YYC_3 and YYC_4 which had the highest mean mould ability values 'Liked very much' to 6.05 of sample YY (control) which was 'liked slightly'. Considering 5% confidence limit, there was significant ($P < 0.05$) difference in the mould ability means score values of all the supplemented instant pounded yam samples (that showed no effect in supplementation) but away from the mean value of the control sample YY. This could be attributed to differential volume of water added during cooking of the paste of the samples and their textural particle sizes.

For general acceptability, it was found that all the supplemented instant pounded yam samples were far better preferred as compared to control. The mean scores for general acceptability of the supplemented instant pounded yam samples were very high. The high general acceptability could be due to enhanced processing methods employed in the

studies. However, organoleptic properties which gave rise to unpleasant reduction in appearance acceptability of instant pounded yam could be attributed to poor colour interaction of the yellow yam and yellow cassava flour. All the supplemented samples were generally accepted at confidence limit of 5%.

Conclusion

The result showed that blending of yellow yam flour and yellow cassava flour generally improved the functional and pasting properties of the formulated samples. The OAC and WAC of the blends reduced with increase in the proportion of the yellow cassava. At each level of supplementation the BD of the blends become denser than the control. The formulated samples were found to have high viscosity, better texture, and generally acceptable for human consumption. However, sample from 80%: 20% (YYC_2) formulation is a potential blend owing to its high sensory appeal. Intensifying the production of this product will offer a strategy of alleviating the problem of food insecurity in Nigeria.

Recommendations

1. Further studies can be carried out on the anti-nutritional factors on the cassava flour to determine its limits if any for human consumption.
2. Studies can also be carried out to screen the physicochemical properties of the *D. cayenensis* that

can bring out the full potential of yellow yam for diverse uses.

3. Work should be carried out to ascertain the shelf-life of yellow yam flour in order to increase its storage stability and credibility for export.

References

- Abioye, V. F., Ogunlakin G. O., Babarinde, G. O. and Adeoti, B. (2008), Effect of drying temperatures and yam slices thickness on the quality attributes of yam flour. *Nigerian Food Journal*. 26 (2): 270-271.
- Abulude F.O. and Ojediran V.A, (2006). Development and quality evaluation of fortified 'amala'. *Acta Sci. Pol., Technol Aliment* 5 (2): 127 - 134.
- Adebowale, K. O., Sanni, L. O and Awonorin S. O (2005): Effect of Texture Modifiers on the Physicochemical and Sensory Properties of Dried *Fufu*. *Food Science Technology International*. 5:373-382.
- Adeyemi, I.A. and Idowu M.A. (1990). Theevaluation of pregelatinizedmaize flour in the development ofMaissa, a baked product,*Nigerian Food Journal* 8: 63-73
- Afoakwa, E. O. and Sefa-Dedeh, S. (2002). Changes in rheological and amylase activity of trifoliate yam, *Dioscorea dumetorum*, starch after harvest. *Food Chemistry* 77:285-291.
- Ahmed, I., F. M. Anjum and M. S. Butt (2001). Quality Characteristics of wheat varieties grown from 1933-1996. *Pak. J. Food Sci.*, 11:1-7
- Aninathan, V., Mohar, VR and Maruthupandian, A. (2009). Nutritional and antinutritional attributes of some underutilized tubers. *Tropical and subtropical Agroecosystems* 10: 273 - 278.
- Babajide, J. M., Oyewole, O.B and Obadina, O. A (2006). An assessment of the microbial safety of dry yam (Gbodo) Processed in Southwest Nigeria, *African Journal of Biotechnology*, 5 (2):157-161.
- Bourne, M. C. (1990). Basic principles of food texture measurement. In H. Faridi and J. M. Faubion (Eds.), *Dough rheology and baked product texture* (pp. 331-341). New York: AVI Van Nostrand Reinhold.
- Dumont, R and Vernier, P (2000). Domestication of yams (*Dioscorea rotundata*) within the Bariba ethnic group in Benin; *Outlook on Agriculture*. 29(8): 137 - 142.
- Emiola, L. and L.C. Delarosa. (1981). Physicochemical characteristics of yamstarches. *Journal ofFood Biochemistry* 5: 115-130.
- FIIRO (2005). Federal Institute of Industrial Research, Oshodi, Nigeria. Instant pounded yam flour Production.
- Hoover, R; Hughes T; Chung, H. and Liu, Q. (2010). Composition, Molecular Structure, Properties and Modification of Pulses. *Food Research International*. 43:399-413.
- Ihekoronye, A.I. and Ngoddy, P.O. (1985). *Integrated Food Science and Technology for the Tropics*. 1st ed. Macmillian Publishers, London. Pp 115-130, 178-182, 372-375.
- Karuna D., Noel, G. and Dilip, K. (1996). *Food and Nutrition Bulletin*,United Nation University. 17 (2): 5-9,
- Kochlar, S. L. (1981). *Tropical Crops: A textbook of Economic botany*. Macmillan Publishers Ltd. Pp 467.
- Kong, X; Zhu, P; Sui, Z. and Bao, J. (2015). Physicochemical Properties of starches from Diverse Rice Cultivars in Apparent Amylase Content and Gelatinization Temperature. *Food Chemistry*. 172:433-440.

- Malomo O, Ogunmoyela O. A. B., Adekoyeni O. O., Jimoh O., Oluwajoba S.O , Sobanwa M. O. (2012). Rheological and Functional Properties of Soy-Poundo Yam Flour. *International Journal of Food Science and Nutrition Engineering* 2(6): 101-107
- Moorthy, S. N. (2002). Physicochemical and functional properties of tropical tuber starches: review. *Starch/Stärke*, 54, 559-592.
- Moorthy, S. N. (1994). Tuber crop starches. CTCRI Technical Bulletin Series, 18, 5-39.
- Nascimento, P., Fernandes, N, Mauro, M and Kimura, M (2007). Beta-Carotene stability during drying and storage of cassava and sweet potato. II international symposium on Human Health: Effect of Fruit and Vegetables. FAVHEALTH 2007 841, 363-366.
- Newport Scientific (1998). Application manual for the rapid viscotmanalyzer using Thermocline for windows. *Newport Scientific Pty Ltd Australia* Pp 2-26.
- Numfor, F.A.; Walter, W.M. and Schwartz, S.J.(1996) Effect of Emulsifiers on the physical properties of native and fermented cassava starches. *Journal of Agriculture and Food Chemistry* 44: 2595 - 2599.
- Oni, O.K., Alakali, J.S. & Akpapunam, M.M. (2009). Design, Fabrication and Performance Evaluation of a Powered Soy-Gari Mixer. *Journal of Engineering and Applied Sciences*. 4(3):164 - 169.
- Onimawa, I.A & Akubor, P. I 2012. Functional properties of food. In *Food Chemistry. Integrated Approach with Biochemical Background*. Ambik Press Limited, Benin City, Nigeria. Pp 208-221.
- Onwuka, G.I. (2004). *Food Analysis and Instrumentation*. Theory and Practices, Naphtha Prints, Nig Ltd, Surulere, Lagos. Pp 63- 203.
- Osungbaro T.O (1990). Effect of differences in variety and dry milling of maize on textural characteristics of Ogi. *Journal of Food and Agriculture* 54:1-11
- Quaye, W., Gayin, J., Yawson, I and Plahar, W. A (2009). Characteristics of various cassava processing methods and the adoption of requirements in Ghana. *Journal of Root Crops* Vol. 35 No. 1 Pp 59 - 68.
- Peroni, F. H. G., Rocha, T. S. and Franco, C. M. L. (2006). Some structural and physicochemical characteristics of tuber and root starches. *Food Science and Technology International* 12(6):505-513.
- Sahorè, D. A., Amani, N. G. and Nemlin, G. J. (2005). The properties of starches from some Ivory Coast wild yam (*Dioscorea*) species. *Tropical Science* 45(3):122-125.
- Sanni, L. O; Kosoko, S. B., Adebowale, A. A. and Adeoye, R. J. (2004) The Influence of Palm Oil and Chemical Modification on the Pasting and Sensory Properties of Fufu Flour. *International Journal of Food Properties*. 7 (2): 229-237.
- Steel, R.G.D. & Torrie, J.H. (1980): *Principles and Procedures of Statistics. A Biometric Approach*. 2nd ed. Auckland, New Zealand, McGraw -Hill Publishers.
- Steel, R.G.D., Torrie, J.H. & Diekey, D.A. (1997): *Principles and Procedures of Statistics. A Biometric Approach*. 3rd ed. New York, McGraw -Hill Book Co. Publishers.

Senior Secondary School Teachers' Technical Competence in Teaching Entrepreneurship Subjects in Nsukka Local Government Area of Enugu State, Nigeria

Ogwu, E. N., Ukwuezeh, P.C., & Patrick, C.P.

Department of Arts Education,
Faculty of Education,
University of Nigeria, Nsukka.

Abstract

Poverty and unemployment seems ravaging youths in Nigeria despite the integration of entrepreneurship subjects in various areas in the curriculum at the senior secondary school (SSS) level. Hence, this study investigated teachers' perceived teaching of entrepreneurship subjects in areas of specialization and strategies for improving their technical competences. The population consisted of 82 entrepreneurship teachers and 30 principals from 30 senior secondary schools (SSS) in Nsukka local Government area of Enugu state. Questionnaire and interview were used for data collection. Instrument was face validated and trial tested for reliability giving an index of 0.86; indicating dependability of the instrument. Data were analysed using means and standard deviation. Findings reveal that teachers teaching entrepreneurship subjects have minimum qualification in a few specific areas of specialization. This is reflected on the limited areas of teaching of the entrepreneurship subjects in the curriculum at the SSS level. The teachers agree that they teach only six ($X = 3.63 - 2.93$) out of 34 entrepreneurship subjects. Other findings include six possible strategies for improvement of the teaching of entrepreneurship subjects. These include supervision; in-service training; recruitment of qualified teachers; sponsorship to conferences, workshops and seminars; organizing business linkage with the industry among others. The study has implications for teacher preparation, policy enactment and practitioners in industries.

Key words: Competence, Entrepreneurship, Subjects, Teaching, Secondary, School.

Introduction

Nigeria is presently bedeviled with mass unemployment. Available report shows that over nine million youths in Nigeria are unemployed and the situation keeps worsening by the day

(Olawale, 2018). This is an expression of the level of poverty in the country which has implications for the high rate of crime and insecurity (Salami, 2011). In response to this situation, entrepreneurship subjects are being

emphasized in schools in Nigeria presently. The National Policy on Education stipulates that effective implementation of the entrepreneurship subjects in the school curriculum by competent teachers should be promoted as a way to reducing the problem of unemployment (Federal Republic of Nigeria (FRN) 2014). By the policy all senior secondary school (SSS) students are expected to select and study at least two entrepreneurship subjects before graduation. However, the teaching of these new subjects/trades seems neglected in many schools. Findings from a pilot survey conducted before this present study revealed that many SSS in Enugu state do not teach up to ten percent of the entrepreneurship subjects (trades) as stipulated to be taught by the National Policy on Education (FRN, 2014). It is expected that acquisition of these subjects, according to Salami (2011) and Oseni (2017) would enable students possess employable and economic skills that could make them employable and even employers of labour in order to reduce poverty, high rate of crime and insecurity in the society. There is a consensus that entrepreneurship drives innovation and speeds up structural changes in the economy (Capote & Vedula-Dinagsao, 2015).

Entrepreneurship curriculum consists of skill acquisition potentials incorporated at the post basic educational level comprising thirty-four (34) in number for implementation. Some of these

subjects as stipulated in the National Policy of Education include: auto body-repair and spray painting, auto electrical and mechanical work, auto parts merchandising, air conditioning and refrigeration, welding, installation and maintenance work, electronic servicing, brick laying and concrete work, painting and decoration, plumbing and piping, machine woodwork, furniture making, upholstery, catering craft practice, clothing and textile, printing craft practice, cosmetology, data processing, store and book keeping, animal husbandry, fishery amongst others. In order to achieve this plan however, teachers' technical competence is required in teaching the entrepreneurship subjects (Obizue, Duru, & Obizue, 2017).

Competence is an ability to apply knowledge and skills in performing certain task satisfactorily for effective learning process. Technical competence is the ability and willingness to encourage and create learning in the most effective way (Rahman, 2014). In the context of this study, technical competencies of the teachers in teaching various areas in the curriculum were established. There are many attributes to incompetence as far as teaching entrepreneurial subjects/trades are concerned ranges from teachers' qualifications to area of specialization in implementing the entrepreneurship subjects. The teaching of these entrepreneurship subjects in Enugu state has been selective and in most cases abandoned for reasons not established. However,

research has shown that incompetence in teaching entrepreneurship subjects has influenced the high rate of unemployment among youths in every way (Muogbo, & John-Akamelu, 2018; Osakwe, 2015; Usman & Tasmin, 2015), economic development (Ogwu, Ude & Ekwewuo, 2020; Oluyemi, Ajayi, Abiola, & Ajibade, 2018) and technological advancement (Egbefo, & Abe, 2017; Ngerem, & Ezikpe, 2016; Okehi, 2019). Research has also shown that entrepreneurship Competence is the ability to use and coordinate a combination of tangible resources (instructional materials and technology) and intangible resources (knowledge, skills and experience) for effective learning output in order to become an organizer and manager of a commercial enterprise (Mtte & Amparo, 2016; Obilo, Akuakanwa & Umeh, 2017). Every individual student needs to acquire experience from any subject taught in order to perform effectively based on knowledge, skills, and experience acquired.

According to experiential learning theory as propounded by Conhan, Grawbowski, and Smith (2003), an individual learn best by experience. The theory is the best form of learning by doing which involves practical skill acquisition in entrepreneurship subjects. In other words, learners learn best when they are directly involved in carrying out the learning activities rather than being passive receivers in the teaching and learning process. Hence, experiential learning involves the learner directly with the material being studied instead of thinking and

talking about the material (Conhan, Grawbowski & Smith, 2003). The theorists believe that experiential learning works as a cyclic process starting from setting goals, to thinking, then planning, experimenting and decision making and finally, action follows by observing, reflecting and reviewing in order to create in business enterprise. In the context of this study, teachers' qualifications, area of specialization and extent teachers acquired technical competence in teaching the subjects listed was determine.

Teacher's professional qualification is an indispensable factor as far as curriculum implementation is concerned at every educational level. Researchers like Sanusi, and Aina (2017) contends that poor teacher preparation and orientation was a contributory factor to poor standard of education at various academic levels in Nigeria. Hence, a teacher needs to undergo professional training and be professionally qualified in order to discharge their duties of curriculum implementation (Okpe, 2019; Rahman, 2014). The teacher according to Patrick and Ogwu (2019) should be knowledgeable and experienced enough to impart knowledge, facts, skills, attitudes, and values to anyone who is less knowledgeable and inexperienced. Teachers' incompetence in most cases could be attributed to their qualification in achieving quality in education (Ogwu & Chukwu, 2017).

Teaching is a process that involves three components which include the teachers, the learner and the materials

(Barman, 2016). Apart from qualification, teachers need to be technically competent in a particular area of specialty at the secondary school level. This should align in a particular subject/trade of the curriculum. Research has shown that teachers' lack of knowledge of a subject matter in a specialized area influences their competence in teaching at the secondary school level (Ningtiyas & Jailani, 2018). However, teachers' technical competences could be improved using various strategies to transform their teaching at various educational levels (Oseni, 2017; Umunadi, 2013).

Presently, not much has been done to prepare secondary school teachers towards the realization of the National Policy on Education. Strategies that could be used for enhancing the teaching of entrepreneurship subjects as pointed out by Ezeonwurie (2017) include amongst others: recruitment of qualified teachers, provision of functional resource materials, laboratories, interacting periodically with business executives, students participation in industrial work scheme, organizing sensitization programmes, improving school/industry relationship to foster skills acquisition. In addition, Stabback (2016) also believe that a way forward could be through teacher preparation, funding, technological and material utilization, provision of incentives, policy review, curriculum reform and restructuring, supervision and monitoring, amongst others. Similarly, Rahim (2014) contends that improving

entrepreneurship education should include among others: linking curriculum to real world challenges, creating opportunities for students to participate and partnering with business. In a narrower perspective, Esmi, Marzoughi and Torkzadeh (2015) identified three main factors that influence technical competence of secondary school teachers such as: direct teaching method (inviting guest entrepreneurs, tutoring entrepreneurship, presenting official speech, holding seminars, watching and recording videos, counseling, and training through extracurricular activities), interactive teaching method (active learning, discussion, networking, group project, group discussion, bilateral learning, learning from mistakes, and process-oriented teaching) and practical-operational methods (practical experience, study of nature, starting businesses, business plans, research projects, class practice, workshops, and role play) which could be used to improve entrepreneurship education. All these strategies seem not feasible in the area of study. Hence, the study investigated the various strategies that could be applied in enhancing the teaching of entrepreneurship subjects by teachers at the secondary school level in the area under study.

Purpose of the Study

This study investigated teacher's technical competence in teaching of entrepreneurship subjects in order to determine effective strategies for improving the teaching of the subject at

the SSS level in Nsukka local government area (LGA) of Enugu State, Nigeria. Specifically, this study determined:

1. teachers' perceptions on teaching entrepreneurship subjects in areas of specialization.
2. strategies considered effective for improving the teaching of entrepreneurship subjects in the curriculum.

Methodology

Design of the Study: The study used descriptive survey research design. The design was considered suitable for this study because it would enable information to be gathered from a group of teachers and principals with an intention of determining their opinions based on their technical competence in implementing the entrepreneurship subjects in the curriculum.

Area of the Study: This area of study was Nsukka local government area (LGA) of Enugu State, Nigeria. The Nsukka local government has area of 1,810km. It is bounded by Uzo-Uwani in North, Isi-Uzo in the East Udeniu in the west and Kogi state in south. The area has about sixteen governments owned (public) senior secondary schools known as post-basic education level in Nigeria. This area was chosen because of the high unemployment rate among community youths after their secondary school certificate graduation irrespective of their disposition. Moreover, incidence of crime among youths was also at an alarming rate in this particular area of

choice which could be attributed to lack of job and the need for career development.

Population of the Study: Although, the population size of entrepreneurship teachers was not available. The population size was therefore, determined through a pilot study of the senior secondary schools in the area of study. This comprised of 82 entrepreneurship teachers, teaching any of the 34 entrepreneurship subjects as stipulated in the curriculum. Also included were the 30 principals from 30 senior secondary schools in Nsukka local Government area of Enugu state.

Sample of the Study: Since the population of the study was so small and manageable, the researchers decided to select all into the study. So everyone in the population was purposively selected from all senior secondary schools in the area of study. This became necessary because there are very few teachers teaching entrepreneurship subjects at the SSS level. As a result of this, all the available teachers in the thirty schools were chosen for the study.

Instrument for data Collection: Two types of instrument were used such as teachers' questionnaire on technical competence (QTC) and principals' interview schedule. The questionnaire consists of two sections (A & B). Section A contains the demographic information of the respondents, such as: qualification and area of specialization. Section B has two clusters made up of 40 items. Cluster one is on teacher perceived competence in thirty-four

entrepreneurship subjects and clusters two is on six items on perceived strategies for improving the implementation of entrepreneurship curriculum. Teachers technical competence as well as teachers perceived effective strategies for improving teaching of entrepreneurship curriculum were rated using a four point rating scale such as: Strongly Agree(SA)=4; Agree(A) =3; Disagree (D) =2; Strongly Disagree(SD)=1.

Principals' interview guide was also used to collect information from the school principals only. Three related questions based on the research objectives were used to elicit information. Data collected was tape recorded, transcribed and summarized in theme based on their responses for ease in discussion. The instruments were face validated for credibility by three experts in measurement, business studies, and curriculum department. Their input was used to restructure the instrument and trial tested for reliability using ten teachers and two principals with similar characteristics. The reliability of the instrument was carried out using Cronbach's alpha analysis which gave a reliability index of 0.86.

Data Collection Method: Eighty two questionnaires were distributed to all entrepreneurial teachers in the thirty SSS identified for the study personally by hand. This was done to ensure 100% of returns since the sample were small. Thirty principals were also interviewed based on scheduled date of appointment with permission and

special arrangements. Interview guide was used based on the objective of study and their responses were captured using a tape recorder in order to systematically collect all their responses. collection was arranged at the beginning of the term to avoid disruption of the school activities. Data was collected based on appointment from the school principals which was accorded with permission from various schools visited.

Data Analysis Techniques: Data gathered from the questionnaire was analyzed using Mean analysis.

A real limit number in scores were used for decision making based on rating scales as follows: Strongly Agree = 3.50-4.00; Agree = 2.50-3.49; Disagree = 1.50-2.49; Strongly Disagree = 0.50-1.49. Data from principals' interview were also analyzed qualitatively by transcribing principals recorded responses to issues raised during interview. Responses were transcribed from the tape recorder and summarized based on the research objectives. However, the interview was qualitatively analyzed as transcribed from the tape recorder.

Results

Findings were made based on personal characteristics of respondents and research objectives one and two.

Personal characteristics of respondents

Data on qualification and area of specialization of the teachers show that 70% of teachers that teach entrepreneurial subjects in the curriculum at SSS level possess

Bachelor in Education (B.Ed), 16.7% of them has National Certificate in Education (NCE), while 13.3% of the other teachers possess Masters in Education (M.Ed). Data also show that majority of the teachers teaching entrepreneurship subjects' curriculum (30%) have specialty in Home Economics Education, Fine and

Applied/Cultural and Creative Arts Education. While 20% of the teachers that teach entrepreneurship subjects in the curriculum have specialty in Agricultural Education. A small number of the teachers (10%) specialize in Computer Education and Physics Education.

1: Mean Analysis on Teachers' Perceptions of Teaching Entrepreneurship Subjects in Areas of Specialization (n=82)

S/N	Entrepreneurship Subject	\bar{X}	S.D.	Rmks
1	Catering craft practice	3.63	.66	SA
2	Animal husbandry	3.56	.56	SA
3	Dying and bleaching	3.33	.84	A
4	Data processing	3.26	.90	A
5	Garment making	3.10	.84	A
6	Clothing and textile	2.93	.73	A
7	Printing craft practices	2.23	1.07	D
8	Welding and fabrication engineering craft practice	2.16	.74	D
9	Air conditioning and refrigeration	2.13	.86	D
10	Fishery	2.10	1.06	D
11	Photography	2.06	.90	D
12	Book keeping	1.96	.99	D
13	Auto electrical work	1.96	1.06	D
14	Radio, TV and electronic servicing	1.96	.88	D
15	GSM maintenance and repair	1.90	.84	D
16	Tourism	1.86	.77	D
17	Carpentry and joinery	1.80	.92	D
18	Block laying, brick laying and concrete work	1.80	.88	D
19	Auto part merchandising	1.76	.97	D
20	Painting and decoration	1.73	.52	D
21	Marketing	1.73	.86	D
22	Salesmanship	1.73	.86	D
23	Store keeping	1.70	.87	D
24	Leather goods manufacturing and repair	1.63	.49	D
25	Auto mechanical work	1.66	.75	D
26	Cosmetology	1.66	.71	D
27	Upholstery	1.60	.56	D
28	Auto Body repair and spray-painting	1.56	.67	D
29	Machine woodworking	1.56	.50	D
30	Electrical insulation and maintenance work	1.50	.57	D
31	Plumbing and pipe laying	1.40	.85	SD

32	Stenography	1.36	.55	SD
33	Furniture making	1.33	.75	SD
34	Mining	1.03	.18	SD
	Grand Mean	2.02	.68	D

*Key: \bar{X} = Mean; S.D. = Standard Deviation; SA = Strongly Agree; A= Agree; D = Disagree; SD= Strongly Disagree

Table 1 reveals that teachers strongly agreed to teaching entrepreneurship subject such as catering craft practice ($M = 3.63$, $SD = .66$), and animal husbandry ($M = 3.56$, $SD = .56$). They are also agreed to teaching only four entrepreneurial subjects such as: dying and bleaching subject ($M = 3.33$, $SD = .84$), data processing subjects ($M = 3.26$, $SD = .90$), garment making subject ($M = 3.10$, $SD = .84$), and clothing and textile subject ($M = 2.93$, $SD = .73$). However, the teachers

disagreed to teaching twenty-four out of thirty four entrepreneurial subjects in their various areas of specialization as reflected in items 7-30 (See Table 1). Nevertheless, teachers strongly disagreed to teaching entrepreneurial subject as reflected in items 31-34 (See Table 1).

Results based on the grand Mean score ($M = 2.02$, $SD = .68$) indicate generally that teachers do not teach various entrepreneurship subjects in their various areas of specialization.

Table 2: Mean Response on Effective Strategies for Improving the Teaching of Entrepreneurship Subjects in the Curriculum (n=82)

S/N	Strategies	\bar{X}	S.D.	Remarks
1	School administrators should organize regular workshops for entrepreneurship teachers.	4.00	.00	SA
2	Teachers should be sent for in-service training to be knowledgeable on entrepreneurial skills.	4.00	.00	SA
3	Entrepreneurship teachers should be supervised regularly.	3.80	.48	SA
4	Regular conferences and seminars should be organized for teachers on entrepreneurship by Ministry of Education.	3.66	.71	SA
5	Only qualified teachers should be employed to teach entrepreneurship curriculum.	3.66	.47	SA
6	Teacher-industry linkage for entrepreneurship education should be encouraged by the school administrators.	3.56	.72	SA
	Grand Mean	3.78	.36	SA

\bar{X} = Mean. S.D.; = Standard Deviation; SA= Strongly Agreed; A=Agree; D = Disagree; SD= Strongly Disagree.

Table 2 indicates that teachers strongly agreed to items 1-6 on effective strategies that could be used for improving teachers' technological competence in teaching entrepreneurship subjects in the curriculum at SSS level in Nsukka education zone of Enugu State Nigeria.

Discussion of Findings

Findings based on research question one indicates that teachers are moderately qualified to teach the curriculum with their highest degree in B.Ed. However, their area of specialization is very few as reflected in their characteristics data which include: Home Economics, Fine and Applied Arts/Cultural and Creative Arts education, Agricultural education, Computer Education and Physics Education. This indicates that a larger percentage of the teachers that teach Entrepreneurship subjects in the schools are specialists in only a few related entrepreneurship subjects in the curriculum and they are qualified to teach Entrepreneurship subjects as required by FRN (2014). These areas of specialties are not sufficient enough to cover the thirty-four entrepreneurship subjects expected to create job for youths. In addition, findings from an interview with thirty principals on whether their teachers are qualified to teach entrepreneurship subjects in the curriculum or not in their schools, their converging responses was that the teachers were qualified since they possess at least a Bachelor in Education (B.Ed)with their Teachers Registration Council Certificates.

Twenty four of the principals expressed that although teachers are qualified, they do not possess the technical competence in the entrepreneurship subjects stated in various areas of specialization. This finding converges with Ezeonwurie's (2017) perceptions that teaching practical subjects needs the recruitment of qualified teachers or instructors in various areas of specialty. Hence, teachers might be qualified in just a few areas while the other areas remain vacant (Barman, 2016). Finding also agrees with Okolie, Ochinanwata, Ochinanwata, Igwe, and Okorie (2021) that teachers' lack of knowledge in an area of specialty influences the effective teaching of entrepreneurial curriculum and learners career curiosity which also deters students from making their entrepreneurial career choice at the long run (Lanero, Vázquez, &Aza, 2016).

Findings based on general Mean analysis of teachers perception onteaching various entrepreneurship subjects in area of speciality in the curriculumof SSS students, teachers disagreed to teaching many (24) of the entrepreneurship subjects. In addition, findings from interview with the thirty school principals on whether teachers need more capacity building in a related area of entrepreneurship subjects, the response was that teachers need more capacity building because though most of them have the certificates, they do not have the technical know-how to teach the relative entrepreneurship subjects.

This finding is in line with Muogbo, and John-Akamelu, (2018); Usman and Tasmin (2015) as well as Undiyaundeye, (2015) that lack of teachers' technical competence and non-availability of specialist teachers were deterrent to youth's acquisition of technical and vocational skills in Nigeria as well as students intentions for self-employment (Otache, Oluwade, & Idoko, 2020). This is an indication that teachers are actually not prepared enough to handle the entrepreneurship subjects as stipulated by FRN (2014). It is believed that teachers technical competence were only limited to catering craft practice and animal husbandry subjects which is related to most teachers area of specialization (Home Economics & Agricultural education) as reflected in their characteristics data. Teachers also strongly disagreed teaching some entrepreneurship subjects such as plumbing and pipe laying, stenography, furniture making, and mining trades. However, these subjects are essential for sustainable development according to Egbefo and Abe (2017). These subjects could be acquired from indigenous technicians if invited to interact with the learners according to Capote, and Vedula-Din (2015). Poor teaching of entrepreneurship subjects according to Okolie, Ochinanwata, Ochinanwata, Igwe, and Okorie (2021), could be attributed to non-supervision and support system that influences learners career curiosity.

Findings based on perceived effective strategies for enhancing

teachers' technical competence indicate that teachers are quite aware of the various ways to uplift entrepreneurship curriculum. This include: organizing regular workshops for entrepreneurship teachers by school administration; sending teachers for in-service training to be knowledgeable on entrepreneurial skills; regular supervision of entrepreneurship teachers; as well as organizing regular conferences and seminars for the teachers by Ministry of education; and recruiting only qualified teachers to teach entrepreneurship subjects in the curriculum; and encouraging teacher-industry linkage for entrepreneurial education by the school administrators. Drawing from personal interview with the school principals on what they think should be done to improve teacher technical competences for effective teaching of entrepreneurship subjects in the curriculum; all the principals stated that teachers teaching entrepreneurship subjects in schools need teacher preparation at various levels. Five of the principals suggested in-service training; fourteen of them suggested organizing seminars and workshops to enables students acquire practical skills for sustainable living, while eleven of them suggested integration and collaboration with indigenous technologists to enable them teach the subjects effectively, especially the practical aspect of the entrepreneurship trades. These findings converges with Esmi, Marzoughi and Torzkadeh (2015) and

Usman and Tasmin (2015) that entrepreneurship teachers should be exposed to direct, interactive and practical-operational methods of teaching in order to acquire wide practical experience from different modes of teaching and from industrial work place learning (Long & Fynn, 2018). This among others could be achieved through tutoring (Rahman, 2014) inviting guest entrepreneurs, seminars, workshops, discussion, role playing, research projects and a host of others.

Conclusion

The findings indicated that SSS entrepreneurial teachers are qualified but lack the expertise and technical competence in many other areas of entrepreneurship specialty to enable them implement the comprehensive curriculum for job creation. Many teachers and principals agreed to the suggested strategies that could be employed in improving technological capacity of teachers; which include: supervision, organization of seminars, workshops, and linkages with out-of school instructors and industrialists.

This finding has implications for policy enactment, teacher preparation, and practitioners in industry that would help students develop relevant skills and knowledge for job creation and poverty reduction in Nigeria.

Recommendations

Recommendations are made based on findings of the study.

1. Recruitment of teachers by the government is necessary to bridge

the gap in teaching entrepreneurship subjects not taught due to less competent teachers in specific areas.

2. There is need for collaborating with indigenous instructors and technicians into the school system for more practical exposure to teachers and learners.
3. The school administrators need to expose teachers to capacity building workshops, seminars and conferences every year.
4. The government needs to encourage in-service training for teacher's up-grade every three years.
5. Thorough supervision of the implementation of entrepreneurship subjects by policy makers and the school administrators is necessary.

References

- Barman, P. (2016) Teaching effectiveness of secondary school teachers in the district of PurbaMedinipur, West Bengal. *Journal of Humanities and Social Science (IOSR-JHSS)*, 21(7), 30-35.
- Capote, V., & Vedula-Dinagsao, A. (2015). Teachers' entrepreneurial competence and knowledge of Business Management. *International Journal of Science and Research (IJSR)*, 5(12), 314-317. DOI: 10.21275/16111601
- Conhan, J., Grabowski, S., & Smith, K. (2003). *Current trends in adult education*. Retrieved from <http://www.coe.uge.epitt/AdultEducation.htm>
- Egbefo, D. O., & Abe, M. O. (2017). Entrepreneurship education: A vital instrument for youth empowerment, industrial

- development and consolidation of national integration in Nigeria. *An International Multi-Disciplinary Journal, Ethiopia*, 11(1), 28-48.
- Esmi, K., Marzoughi, R., & Torkzadeh, J. (2015). Teaching learning methods of an entrepreneurship curriculum. *Journal on Advances in Medical Education and Profession*, 3(4), 172-177.
- Ezeonwurie, O.A. (2017). Strategies for improving entrepreneurship education in Nigeria: Evidence from entrepreneurship teachers in Katsina State. *Nigerian Journal of Business Education (NIGJBED)*, 4(1), 135-145. Retrieved 11, June 2918 from <http://www.nigjbed.comX.ng/index.php/nigjbed/article/view/110/110>
- Federal Republic of Nigeria (FRN) (2014). *National policy on education (6thed.)*. Abuja, Nigeria: NERDC Press.
- Lanero, A., Vázquez, J.L., & Aza, C. L. (2016). Social cognitive determinants of entrepreneurial career choice in university students. *International Small Business Journal*, 34(8), 1053-1075. <https://doi.org/10.1177/0266242615612882>
- Long, E., & Fynn, A. (2018). Postgraduate student experiences of workplace learning for a professional psychology qualification in the South African context. *Industry and Higher Education*, 32(5), 341-350. <https://doi.org/10.1177/0950422218774701>
- Mtte, V. C., & Amparo, V. D. (2016). Teacher entrepreneurship competences and knowledge of business management. *International Journal of Science and Research (IJSR)*, 5(12), 314 -317.
- Muogbo, U. S., & John-Akamelu, C. R. (2018). Impact of entrepreneurial skills in reducing youth unemployment in Nigeria. *European Journal of Business, Economics and Accountancy*, 6 (3), 1-12.
- Ngerem, E. I., & Ezikpe, N. (2016). Role of entrepreneurship education in secondary school students' economic development. *International Journal of Education and Evaluation*, 2 (3), 36-42.
- Ningtiyas, F.A., & Jailani, J. (2018). Does teachers training affect the pedagogical competence of mathematics teachers? *Journal of Physics Conference Series*, doi:10.1088/1742-6596/1097/1/012106.
- Obilo, I. P., Akuakanwa, G. O., & Umeh, J.O. (2017). Entrepreneurship skills acquisition at the basic education level: A panacea for sustainable development. *Journal of Curriculum and Instruction*, 11(1), 70 - 75.
- Obizue, E.C., Duru, E.E., & Obizue, M.N. (2017). Entrepreneurship skills acquisition for youth empowerment and sustainable development. In C. U. Njoku (Ed), *Contemporary issues in vocational and entrepreneurship education* (pp.235-244). Owerri: Copyright @ G SAN.
- Ogwu, E. N., Ude, M. S., & Ekwekwuo, L.E. (2020). Merits and challenges of implementing entrepreneurship curriculum for sustainable development in Nigeria. *Institute of Education Journal*, 32(1), 391-397.
- Ogwu, E.N., & Chukwu, P. O. (2017). Enhancing teacher education quality for sustainable development in Nigeria. *International Journal of Studies in Education*, 15(3), 370-383.
- Okehi, F. (2019). Adopting new strategies in social entrepreneurial education: A panacea to the daunting challenges of the 21st century entrepreneurs (sociological approach). In M. A. Mkpá (Ed), *Compendium of curriculum theorizing, development, designing &*

- innovation in Nigeria* (pp. 703-707). Owerri : C @ J Publishers.
- Okolie, U.C., Ochinanwata, C., Ochinanwata, N., Igwe, P.A. & Okorie, G.O. (2021). Perceived supervisor support and learner's career curiosity: the mediating effect of sense of belonging, engagement and self-efficacy. *Higher Education, Skills and WorkBased Learning*. <https://doi.org/10.1108/HES-WBL-09-2020-0207>.
- Okon, F.I., & Friday, U.A. (2015). Entrepreneurial education: A panacea for youth unemployment in Nigeria. *International Journal of Small Business and Entrepreneurship Research*, 3(5), 11-22.
- Okpe, P.U. (2019). Implementation of revised curriculum in private secondary schools for sustainable national development. *Nigerian Journal of Curriculum Studies*, 26(1), 121-132.
- Olawale, J. (2018). *Unemployment in Nigeria: Causes, effect and solutions*. Retrieved from <https://www.legit.ng/1102758-unemployment.nigeria.effect.solution.html>
- Oluyemi, O.T., Ajayi A.K., Abiola, A.O., & Ajibade, Q.T. (2018). Entrepreneurship education and national development in Nigeria. *International Journal of Innovative Education Research*, 6(3), 34-39.
- Osakwe, R. N. (2015). Entrepreneurship education in Delta State tertiary institution as a means of achieving national growth and development. *International Journal of Higher Education*, 4(1), 182-186.
- Oseni, E. F. (2017). The relevance of entrepreneurship education to the development of micro, small and medium enterprises (MSMES) in Nigeria. *International Journal of Small Business and Entrepreneurship Research*, 5(5), 1-8.
- Otache, I., Oluwade, D.O., & Idoko, E. O. J. (2020). Entrepreneurship education and undergraduate students' self-employment intentions: do paid employment intentions matter? *Education + Training*, 62(7/8), 741-757. <https://doi.org/10.1108/ET-02-2020-0032>
- Patrick, C. P., & Ogwu, E.N. (2019). Assessing curriculum implementation for quality education in Nigeria. *Nigeria Journal of Curriculum Studies*, 26(1), 50-62.
- Rahim, E. (2014). 10 ways universities can improve entrepreneurship education. Retrieved on 23rd August, 2020 from <https://www.forbes.com/sites/ashoka/2014/09/10/10-ways-universities-can-improve-education-for-social-entrepreneurship/#2a4ea455625e>.
- Rahman, M.H. (2014). Professional competence, pedagogical competence and the performance of junior high school science teachers. *Journal of Education and Practice*, 5(9), 75-80.
- Salami, C.G.E. (2011). Entrepreneurship and youth unemployment in Nigeria: The missing link. *Global Journal of Management and Business Research*, 11(5), 20-26.
- Sanusi, W.P., & Aina, O. O. (2017). Implementing the senior secondary school education curriculum in Nigeria: Issues and prospects. *Journal of Curriculum and Instruction*, 11(1), 175-181.
- Stabback, P. (2016). What makes a quality curriculum? *UNESCO International Bureau of Education*, 2, 1-41.
- Umunadi, E.K. (2013). Functional vocational and technical education curriculum for sustainable youth

- empowerment in Nigeria. *British Journal of Education*, 1(1), 7-13.
- Undiyaundeye, F. A. (2015). Entrepreneurship skills acquisition and the benefits amongst the undergraduate students in Nigeria. *European Journal of Social Sciences Education and Research*, 5(1), 357- 369.
- Usman, A.S., & Tasmin, R. (2015). Entrepreneurial skills development strategies through the mandatory students' industrial work experience scheme in Nigeria. *Procedia-Social and Behavioural Sciences*, 204 (24), 254 - 258.

Home Economics Undergraduates' Perception on Paper Collage as Income Generating Venture: A Case Study of University of Ilorin

Adebisi, T. T; Yusuf, A. O; Johnson, W.O.; Abdulkadir, S.O. & Arubayi, D.O.

Department of Home Economics and Food Science, Faculty of Agriculture,
University of Ilorin, Ilorin & Delta State University, Faculty of Education,
Abraka.

Abstract

The paper investigated views of Home Economics undergraduates on paper collage as an income generating venture. Specifically, the study determined demographic information of Home Economics undergraduates of the University of Ilorin, Ilorin, the undergraduates' perception of paper collage, and the undergraduates' perception on paper collage venture as possible income generating opportunity. Three research questions were raised. Survey design was adopted. The total population of the 2018/2019 session of 300 and 400 levels (109) Home Economics students were used. Questionnaire was used for data collection. Data were analyzed using frequency, percentage, mean, standard deviation. Findings reveal 16 perceptions of paper collage by the undergraduates. These include that paper collage can be used by anyone, the producers can use them to prevent boredom, it displays principles of design for people's appreciation. Also six perceptions of paper collage as income generating venture were identified. These include the money realized from sales can sustain the producers, paper collage as a venture can yield money for the producers and sellers and money can be used for solving problems and family needs. Based on the findings four recommendations were made, these include that materials used in the production should be of good quality to ensure more patronage, and paper collage should exhibit appreciable quality that will attract people for enhancement of awareness and utilization.

Keywords: Craft, Paper, Collage, Income, Venture, Undergraduates, Home Economics.

Introduction

Undergraduates' resources need to be managed effectively to achieve outstanding goals. With unemployment challenges in society they should try to acquire many skills

so that after completion of their programs, they can embark on income generating skills they acquired when they were in school and thus become entrepreneurs. Anyakoha (2015), observed that employment of

graduates both in government and private areas are becoming very difficult. Youth employment in public sector is increasingly becoming very difficult. Most graduates are now liabilities to their parents and relatives which is contrary to the goal of attending university. Income-generating ventures, whether through basic education or apprenticeship that promote skill acquisition need to be explored. Acquisition of necessary skills needed to be self-reliant will enable youths be productive members of society thereby contributing to nation-building. Handicrafts are becoming more popular in their utilization. Skills in handicrafts can be utilized for income generation.

Handicrafts are the artworks of culture in a community. With increased globalization, the products are becoming more popular and artisans find them more competing in various societies. Mahgoub & Alsound (2015) asserted that globally, there is competition in handicrafts since consumers want to feel more connected with indigenous products. Can (2012) opined that craftsmanship is the skill, ability, or technique acquired and burnished overtime. Pollanen (2009) sees craftsmanship as pleasant and satisfactory activities that also produce concrete and economical products. They occupy time and prevent boredom. She explained further that crafts making serves as entertainment. According to Schofield-Tomschin & Littrel (2001), crafts are embedded with meanings through their creation; they carry the

symbolism of the makers and relationship with other people. Johnson, Josephson & Kielhofner (2005) viewed crafts as media of displaying traditions. They may provide links between and within generations serving as gatekeepers to friendships. Pollanen (2012) opined that crafts have stayed throughout the years making it well known. In modern world, people make crafts as a hobby for varieties of reasons and purposes.

Creative individuals have impressive psychological adaptability, communicate effectively, mentally inquisitive, and will, in general, let their motivations stream unreservedly (MacKinnon 2005). Also, creativity entails following one's passion and being self-directed (Birgili, 2015). Creativity is an attribute of entrepreneurship. Entrepreneurs exhibit traits of social and economic change. They help to equip the people with skills for constant improvements and innovation. The venture of crafts exhibited interestingly might yield income to earn a living. Paper collage, one of the indigenous handicrafts can be learnt and produced by Home Economics students to earn income that will make them useful in the society.

Collage is one of the crafts products available in society that the raw materials could be from waste paper or cardboard. Griffiths & Corr (2007) see paper collage to influence better moods, health, and well-being. Collage is an art creation technique, essentially utilized in the visual arts,

where the artwork is produced using an array of various structures, consequently making another entirety. According to Malchiodi (2006), clarifies collage as visual works of art that are made by choosing magazine pictures, finished papers or altering elements, organizing and joining them to support, for example, paper or cardboard. The term 'collage' originated from the French word collage- meaning glue. Collage impended traditional thoughts that a canvas speaking to a uniform reality. Conversely, a collage pieces space and repurposes articles to contextualize numerous reality. Collage has become increasing popular in arts-based (Butler- Kisber&Poldma (2010), Vaughan (2005) and Butler-Kisber 2008).

Walsh (2006) & Seiden (2001) asserted that collage provides safe and structured resources in the difficult self-expressive process. Deliveli (2012) sees it as an activity of cutting and tearing paper, attaching, folding using scissors, sketching and colouring take place. Knowels & Code (2008) posit that the visual arts can open up dialogues among diverse people, offer new insights and reflection. It also provides new ways to critique a subject. Vaughan (2005), asserted collage can be used as a way to create meanings from selected images and as a method of gathering, analyzing, and presenting ideas. Some unwanted or waste materials can be used in the production of collage for wealth creation and sustainability

According to Ezejiofor, Enebakun, & Ogueke (2014), waste could be by-products of households or factory activities. Jennifer & James (2010), also viewed waste as any material used and rejected as worthless or unwanted, although, waste may have different connotation. This means that some wastes may be reused. Such relevant wastes could produce paper collage to generate income if elements of design: colour, shape, texture, and line are used effectively and adequately. Waste is also viewed as an unavoidable material resulting from domestic activity or industrial operations for which there is no economic demand and which must be disposed of (Sridhar & Hammed 2014). This means that some wastes may not be useless, some may be reuse and relevant. Such relevant wastes could be used to produce paper collage to generate income if elements of design: colour, shape, space, texture, and line are used effectively. This can be used to create wealth.

Waste to wealth aims at environmental sustainability by substituting raw materials inputs and redirecting waste outputs into the economic system (Geissodoerfer 2017 and Lambert 2011). These materials include used plastic, glass, tires, textiles, paper, cardboard, metals, batteries, and electronics. Materials are either delivered to a household recycling centre or picked up from the factory, curbside bins, then sorted, cleaned, and reprocessed into new materials destined for manufacturing new products. Creativity is important

to produce articles that can be attractive and acceptable. Waste papers or unused papers and cardboard can be pieces and glued together to produce a paper collage. If it can be handled with creative ideas and combine adequately, attractively, and meaningfully they can be used for decoration and any other household ornaments

The materials used in the production of paper collage samples are: board, paint, colouring pencils, glue, paintbrush, cardboard/paper, ruler, scissors, cello tape, small nail, and frame. Procedures are as follow: Obtain the desired design; Sketch the design on a required size on the cardboard/cartoon as a base; Cut pieces of cardboard/cartoon into different shapes and sizes as required; Layout the motif with pieces of cut-out cardboard/cartoon; Embellishment with painting and coloring pencils with a paintbrush; Allow to dry; Insert the designed motif into a frame; Cello tape and nail to hold them firmly; Ready for use and hang in a desirable place.

The importance of paper collage are numerous. It increases students understanding on the various manufacturing processes and the use of different materials in crafts. Furthermore, the products aim to encourage them to make their own decision in designing and allowing them to assess their ideas on products. The practical work is the product oriented and based on experimentation in accordance with the development of individual personality.

General objective

The general objective investigated home economics undergraduates' perception on paper collage as income generation venture: a case study of university of Ilorin, Ilorin. Specifically, the study determined:

- (1) demographic information of Home Economics undergraduates of the University of Ilorin, Ilorin.
- (2) Home Economics undergraduates' perception on paper collage.
- (3) Home Economics undergraduates' perception on paper collage venture as income generation in the study area.

Research Questions

Three research questions sought answers to the questions raised.

- (1) What are the demographic information of selected undergraduates of the University of Ilorin, Ilorin?
- (2) What are the undergraduates' perceptions on paper collage?
- (3) What are the home economics undergraduates' perceptions on paper collage venture as income generation?

Methodology

Design of the study: This study adopted the opinion survey method. It entails careful attention to the methodology and administration to gain valid, reliable, and precise information. Clear reporting will help readers understand and appreciate the study. A scientific approach to survey design and conduct will ensure that

both knowledge and opinion are shaped accurately (Bryson, Turgeon, & Choi 2012).

Area of the study: The study was conducted in the department of Home Economics and Food Science, University of Ilorin, Ilorin, Kwara State.

Population of the study: The total population of the 2018/2019 session of 300 and 400 levels of Home Economics students (109) were used (Hand book: Department of Home Economics and Food Science 2016-2018).

Sample for the study: All the 109 students were used for the sample size due to limited number of enrollment for 2018/2019 session.

Instrument for data collection: The was used for data collection. It was developed based on the research questions. It had a 5-Likert Scale of SA= Strongly Agree= 5, A=Agree=4, UD= Undecided=3, D= Disagree=2 and SD=Strongly Disagree=1 were used. It was validated by three experts I collage production.

Data collection method: Two research assistants were engaged in the

administration of the questionnaire. Three days were used in the administration of the questionnaire. Three days were used to administered the questionnaire with self-produced collage exhibited in the clothing laboratory room for the student's perception. A total of 109 copies of the questionnaires were administered. All the 109 copies were retrieved.

Data analysis techniques: Their opinions were analyzed using SPSS version 21.0. Frequency count, percentage, mean, and standard deviation were used to analyzed research questions while t-test and Pearson Product Moment Correlation Coefficient were used for null hypotheses.

Results

Demographic information of respondents: Data analysis reveal that majorities are male:57(52.3%), 61(55.9%) are single, 56(51.4%) respondents are of 21-30 years of age. Also, 27(24.8%) respondents are self-employed and 84(77.1%) respondents are in 400 level of their chosen careers.

Table 1: Mean Responses and Standard Deviations on General Perception of Paper Collage by the Respondents. N=109

S/N	Perceptions on paper collage	\bar{X}	SD	Remark
1	Paper collage is a form of decoration place on the wall of a room	4.25	0.84	Agreed
2	It displays principles of design for people's appreciation.	4.07	0.87	Agreed
3	It shows that pieces of paper can be utilized creatively to display impression.	3.90	0.98	Agreed
4	Paper collage can be used by anyone.	3.83	1.00	Agreed
5	It worth's any amount anyone can buy for its utilization.	3.73	1.00	Agreed

6	The producers can use them to prevent boredom.	3.50	1.07	Agreed
7.	Materials for making a paper collage are readily available and cheap.	4.41	0.69	Agreed
8	Talented individuals use it to display their gifts.	3.42	0.98	Agreed
9	The skill can be learnt, inborn or acquired.	4.47	0.68	Agreed
10	Irrespective of the educational status, an individual can produce, use, and sell.	3.86	0.91	Agreed
11	The apprentices of the skill pay for the acquisition because of its relevance.	4.10	0.86	Agreed
Grand Mean Score		3.96		Agreed

Source: Field Survey, 2019

Table 1 shows perceptions of paper collage by the respondents. They agreed on the eleven perceptions of paper collage with the grand mean score of 3.96 that is higher than the benchmark of 3.00. The respondents perceived that the skill of this handcraft can be learnt, inborn or acquired with a mean score of 4.47 and these products are forms of decorations with a mean score of 4.25. Also, the apprentices of the skill pay

for the acquisition because of its relevance with a mean score of 4.10 while, the products also display principles of design that vary in qualities with a mean score of 4.07. The grand mean of 3.96 shows the perceptions of respondents on paper collage. This implies that the respondents perceived that paper collage can be produced as one of the handicraft articles.

Table 2: Mean Responses and Standard Deviations on Perceptions of Paper Collage as Income Generating Venture by the Respondents N=109

S/N	Paper collage as income generation venture	\bar{X}	SD	Remark
1.	Paper collage as a venture can yield money for the producers and sellers.	3.83	0.96	Agreed
2.	The money realized from sales can sustain the producers.	3.55	1.00	Agreed
3.	Production of paper collage helps to understand and visualize other areas that can generate money for sustainable living.	3.61	2.80	Agreed
4.	Money realized can be used for solving problems and family needs.	3.64	1.08	Agreed
5.	Talented individuals through their imaginations and creativity go viral and realize more money from the sales.	3.87	0.96	Agreed
6.	The producers can realize much money since the products have no fixed amounts; it depends on individual perception of appreciation of handicrafts.	3.78	0.84	Agreed
Grand Mean Score		3.71		Agreed

Source: Field Survey (2019)

Table 2 shows the paper collage as income generation venture by the respondents. They agreed on the stated statements with the grand mean score of 3.71 that is higher than the benchmark of 3.00. The respondents agreed that the paper collage can be sold to generate income with a mean score of 3.83, talented individuals through their imaginations and creativities can go viral and realize more money from the sales of their products with a mean score of 3.87 while 3.7 was the mean score on the producers can realize much money since their products have no fix amounts, they depend on individual perception of appreciation of the work of handicrafts.

Discussion

According to Elebute & Odokuma (2016) asserted, craft is a physical skill that involves the manipulation of hands, machines, and tools to create something new and interesting. Nwanko & Odubo (2019) opined craft to involve a sense of aesthetic and artistic values to create new and unique things. This will enable undergraduates to develop manipulative skills that will enable them to function effectively in society. Crafts works enable the undergraduates to make use of their psychomotor domain and produce something meaningful for people to appreciate. Nwazor (2012) mentioned that there is a need to provide opportunities for undergraduates to move beyond being theoretical

oriented and become builders capable of creating solutions to problems. The undergraduates should also be equipped with all the requisites knowledge and skills to solve problems of the present age. Oga & Ejinkeonye (2017), asserted that the training of this skill leads to the development of survival competencies. Acquisition of such skill as income generation venture will assist Home Economics graduates to exhibit available resources to earn a living. Income generation ventures are very vital and the business stage of life for building human capital that allows people to avoid poverty and leave a better life. People's involvement in capacity building, skill empowerment, and income-generating ventures may help individuals to be empowered and escape financial lack (Ibitoye, Atoyebi, & Sufian 2015). Creativity is needed as one of the attributes of paper collage as an income generation venture.

Kembe (2014) and Saheed & Alofun (2011) asserted that creativity is the knowledge, skills, and imaginative activity that is applied in new ways to achieve value outcomes and products that are both original and of value since paper collage is valuable. Respondents agreed that paper collage can be for decoration of surface areas. Also, its production helps in understanding and visualizing paper collage as income generating venture.

Undergraduate's data on paper collage as a means of income generation venture shows the grand mean score of 3.96 which is higher

than the benchmark of 3.00. This implied that the respondents agreed with the eleven statements, this is in line with Butler-Kisbe et al (2010), who asserted, collage can be utilized as an approach to make implications from chose pictures and as a strategy of gathering, analyzing, and presenting ideas. When the collage is produced creatively, it might's yield various importance. Among them are beautification and income generation. According to Jovita (2018), paper collage also develops imagination and aiding individuals to visualize objects, decision, making and in solving problems concerning values, this is the more reason that collage displays principles of design which varies in quality and prices. This agreed with the respondent's opinion that: the article can be bought by an individual as a gift for others to use and thereby generate income from the sales. Digler (2012), indicated that paper collage helps to improve the psychomotor skills learned about the texture and forms of three-dimensional work on a less complicated flat surface. Mackinnon (2005), in his opinion, asserted that creative individual has considerable cognitive flexibility communicate easily, intellectually curious, and tend to let their impulses flow freely. Used cardboard is also good for re-use to produce interesting images that can be used to generate income to take care of financial needs.

Producers and sellers of paper collage also involved themselves in entrepreneurial development. Raynolds (2010), thought business

venture is the limit and eagerness to create, sort out, and deal with an undertaking alongside any of its dangers to make a benefit. Adebisi & Oduneye (2016) declared business is the eagerness to look for venture openings, build up and run it effectively.

To run a business, money must be involved and should be profit oriented. The undergraduates might receive income from the production and when the acceptance increases, the profits realized take care of one's need thereby free from financial lack. Life becomes more meaningful, interesting, and becomes independent. The importance of paper collage is vital in virtual artworks. Leavy (2009) asserted that collage involves materials of gluing magazine together and is generally made accessible to all and they can cut, tear, and adhere to selected images on completion, it can be used by oneself, or sell to others to maximize profit thereby involving in a venture that can generate income.

Conclusion

Paper collage as handicraft exhibits the art of creativity for decoration and generates income that can sustain the producers and the sellers. In addition, it comprehends a part-whole relationship. Besides, it helps to learn about textures and forms of three-dimensional work on a less complicated flat surface. Paper collage can be appreciated by the individual, can be purchase and give it out as a souvenir to friends and colleagues on a special occasion for household

decoration to display the culture, mood and teaching aids.

Recommendations

The study suggests:

1. Laboratories/workshops, related tools and equipment should be provided for effective more teaching and learning of handicraft something using the hands as basic tool and could be taken as a rudimentary attempt at initiating something with the possibility of advancement later in the process particularly when planned and administered under the auspices of a school.
2. Handicraft could be seen as a manual skill in making various articles. The expression on the paper collage should be more meaningful for all to understand, serves as decoration and yield income to the producers and sellers.
3. The materials used in the production should be of good quality to ensure more patronage.
4. Paper collage should exhibit appreciable qualities that will attract stake holders for awareness -and utilization.

References

Adebisi, T. & Oduneye, O., (2016). Influence of Entrepreneurship Education on Textile and Clothing Designers for Economic Empowerment in Abeokuta, Ogun State, *Ife Journal of Entrepreneurship and Business Management*, 2 (1) 100-101.

Anyakoha, E. (2015). *Home Management, for Schools and Colleges*. Onitsha: Africana First Publishers PLC.

Brown, A., & Green, T. (2011). *The Essentials of Instructional Design: Connecting Burlington*. Morgan Kaufmann.

Butler-Kisber. (2008). *Collage as Inquiry*. In J.G Knowles & A.L. Cole (Eds). *Handbook of the Arts in Qualitative Research: Perspective methodologies, examples and issues*. Thousand Oaks, CA: Sage.

Butler-Kisber, L. S., & Poldma, T. (2010). The Power of Visual Approaches in Qualitative Inquiry The use of Collage making and concept mapping in Experiential Research. *Journal of Research Practice* .

Cannatella, H. (2004). Embedding Creativity in Teaching and Learning. *Journal of Aesthetic Education* , 38 (4), 59-70.

Clarkson, A. (2005). Educating the Creative Imagination: A course design and its consequences. *e-Journal of the Jungian Society for Scholarly Studies* .

Deliveli, K. A. (2012). Special method on instruction reading and writing: Audio-centered language teaching method. *E-Journal of New World Sciences Academy* , 7 (1), 62-78.

Diaz, G. (2002). *Artistic Inquiry: On Lighthouse Hill Inc, Bagley & M.B Cancienne (Eds.) Dancing the Data*. New York, NY: Peter Lang.

- Donna, T. (2004). *The Elements and Principles of Design*.
- Ericksen, S. C. (2004). Motivation for Learning: A Guide for the Teaching of the Young.
- Erins, A. (2013). *The Elements and Principles of Design: A Baseline Study*. NSEAD/John Wiley & Sons Ltd.
- Evans, P., & Thomas, M. (2004). *Exploring the Elements of Design*. Delmar, NY: Cengage Learning.
- Ezejiolor, T., Enebaku, U., & Ogueke, C. (2014). Waste to wealth. *Value Recovery From Agro-food Processing Wates using Agro-Food Processing Wastes using Biotechnology Journal* , 8 (1), 418-420.
- Faimon, & Weig. (2004). *Fundamental Principles with Process and Practice*. Boston, M.A: Prentice Hall.
- Gatto, J., Porter, A., & Selleck, K. (2011). *Exploring Visual Design: The Elements and Principles*. Worcester: M. Davis Publications.
- Gerstenblatt, P. (2015). Collage portraits as a method of analysis in Qualitative Research. *International Journal of Qualitative Methods* , 12 (1), 294-296.
- Greissodoerfer, M., & Savaget, P. (2017). "The circular economy". A New Sustainability Paradigm. *Journal of Cleaner Production* , 14 (3), 757-768.
- Jennifer, L., & James, R. (2010). Waste Reduction Strategies for Improved Management of Household Solid Waste in Jamaica. *International Journal of Environmental and Waste Management* , 6 (1), 4-6.
- Knowles, J., & Code, A. (2008). *Handbook of Arts in Qualitative Research: Perspectives, Methodologies, Examples and Issues*. Thousand Oaks, CA, Sage.
- Koller, R., Ballaee, S., Laike, T., Mikellides, B., & Tonello, G. (2006). The Impact of light and colour on psychological mood: A Cross-cultural study of Indoor work Environment, *Ergonomics*,. 49 (1), 1496-149.
- Laitinen, J. (2010). Sustainable development and the earth charter.
- Lambert, D. (2011). The rural growth trifecta outdoor amenities, creative class and entrepreneur context. *Journal of Economic Geography* , 11 (3), 529-557.
- Leavy, P. (2009). *Method meet Art: Arts-based Research Practice*. New York, NY: Guilford press.
- Lienig, J., & Bruemmer, H. (2017). Recycling Requirement and Design for Environmental compliance. In *Fundamentals of Electronic Systems Design* (pp. 198-218).
- Lohr, I. (2008). *Creating Graphics for Learning and Performance: Lesson in Visual Literacy Upper Saddle River*. NJ: Pearson.
- MacKinnon, D. W. (2005). IPAR's Contributions to the Conceptualization and Study of Creativity. *Perspectives on Creativity*. Taylor, I. A. & Getzels, J. W. (Eds.) .

- Malchiodi, S. (2006). *The Art Therapy Sourcebook*. New York, NY: Mc Graw-Hill.
- Nielson, K., & Taylor, D. (2007). *Interiors: An Introduction*. New York: McGraw- Hill.
- Reid, A., & Petocz, P. (2004). Learning domains and the process of creativity. *The Australian Educational Researcher* , 31 (2).
- Seiden, D. (2001). *Mind over Matter. The Uses of materials in Art, Education and Therapy*. Chicago.
- Sridhar, M., & Hammed, T. (2014). Turning Waste to Wealth in Nigeria: An Overview. *Journal of Human Ecology* , 46 (2), 195-196.
- Stewart, M. (2002). *Launching the Imagination*. New York: McGraw-Hills.
- Tomila, K. (2015). *Principles and Elements of visual Design: A Review of the Literature on Visual Design of Instructional Materials*. Indiana University, Bloomington, USA: Educational Studies: International Christain University.
- Vaughan, K. (2005). Pieced together; Collage as an Artist's method for Interdisciplinary Research. *International Journal of Qualitative Studies in Education* , 4 (1), 1-4.
- Walsh, S. (2006). *An Irigarayan Framework and Resymobilization in an arts-informed Research Process*.
- Ware, C. (2008). *Visual Thinking for Design*. Burlington: MA: Morgan .

Strategies for Promoting Skill Acquisition by Adults through Adult Education in Enugu State

Ekwealor, N.E.

Department of Adult Education & Extra Mural Studies
University of Nigeria, Nsukka.

Abstract

This study examined strategies for promoting skill acquisition by adults through adult education in Enugu State. Specifically, the study determined skills and ways through which adult education could provide training for adults in Enugu. Two research questions guided the study. The study adopted a descriptive survey research design. The population of the study was made up of 3,750 basic literacy adult learners from 21 government owned adult basic literacy centres. A random sample of 375 of learners was drawn from seven centres. Instrument for data collection was questionnaire. Data were analyzed using the mean and standard deviation. Findings reveal 15 skill areas where adult education could provide training for adults. These include literacy skills for, hair dressing, soap making and training, hat making, literacy skills for fabrication, literacy skills for catering service, literacy skills for masonry, etc. Other findings include 15 ways adult education can provide training for adults. These include the use of media for virtual conferencing, workshops, seminars as well as observation, using media to train learners on acquisition of literacy, exposing adults to skills on decoration through face to face contact. The study recommended among others that sensitization should be intensified by the State agency for mass literacy education to enlighten the public on skill areas that are provided in adult education.

Keywords: Strategies, Skills, Acquisition, Adults, Education, Promoting

Introduction

Illiteracy is conceived as one of the impediments to the growth and development of individuals, community and nation. It is the inability of an individual to read or write and change behaviour needed to conform to the modern norms of the society (Akpan, 2015). Illiteracy is manifested in various forms such as high rate of unemployment amongst

the adults, increasing poverty and insecurity among others. There is no doubt that its effect is evident in the underdevelopment of a country. In attempting to overcome this challenge, adult education is seen to occupy a strategic place in the transformation of the society. This is because adult education is defined as any education given to adults based on their social, political, cultural and economic needs

to enable them to adjust fully to changes and challenges in their lives and society (Nzeneri, 2010). It is an organized and purposeful education activities designed for adults for their personal and societal fulfillments within or out of school, thus making them to adapt to the constant changing global requirements and needs in order to get them integrated into the society and avoid exclusion and marginalization (Obidiegwu as cited in Anurugwo, 2019). Thus, adult education is the process whereby adults engage in systematic and sustained learning activities in order to gain new forms of attitude, knowledge, skills and values (Zuofa & Victor, 2020). The exposition of adults to various learning opportunities infers that adult education is multidimensional and multifaceted, meeting varying needs of adults in a constantly changing society.

While playing an important role in socio- economic development, adult education embraces all types of educative experiences needed by men and women according to their interests and necessities at different levels of comprehension to improve the quality of life of the people. This education therefore aims at empowering the adult to realize his/her potential for self-realization; raise the standard of living of the families, communities, societies and nations; promote peace and communal harmony in the multi-cultural global village; as well as enhancing the pace of development and welfare of the individual nations and the international community as a

whole (Kapur, 2019). It is not surprising that the recommendation of adult education as conceived by UNESCO and cited by Mbalisi and Ugwu (2019) was viewed as forming part of lifelong education and learning, with no theoretical boundaries and meet the particular situations created by the specific needs of development; of participation in community life and of individual self-fulfillment; they cover all aspects of life and all fields of knowledge and are addressed to all people whatever their level of achievement. Looking at these attributes closely, it could be deduced that various skill areas are addressed in adult education. Skills connote learning capacity to carryout predetermined results often with minimum outlay of time, energy or both (Amazon, 2009). The essence of skills is to prepare the adults to effectively contribute and participate in matters to improve the immediate surroundings as well as the larger society. In achieving this objective, adult education utilizes various programmes, one of such programmes is the skill acquisition.

Skill acquisition involves the acquisition of skills, knowledge, and attitude necessary for effective employment in a specific occupation. Glym and Tracey (2012) submitted that these skills are essential for the achievement of the purpose of creating jobs for the jobless, creating wealth for the poor, reducing youth restiveness, empowering people and achieving sustainable living and development within the society. Ukpabi (2019) in a

study revealed that participants with high skill trainings had the ability to secure better jobs than those with low skill training. This finding clearly shows that the acquisition of skills exposes learners to various levels of empowerment. In addition, there are various skill areas that are exposed to learners for empowerment. Some of these areas are the basic skills for bead making, cap making, sewing, fashion designing, snail farming, fish farming, computer training, catering services, carpentry, and shoe making. Furthermore, Asokhia and Agboluae (2013) identified agro-based vocational skills acquisition programme, carpentry and joinery, dress making, hair dressing, laundry and dry cleaning services and soap and pomade making as available vocational skills acquisition programmes in Enugu State. With these areas, it is believed that adult enrolls into any of the programme that most addresses the need at a given time. In addition, providing knowledge through skill acquisition will enhance learners' status, boost their confidence and compensate for their lack of literacy skills.

Skill acquisition therefore becomes paramount in the development of human capital. This capital reflects the individual skills which include individual experiences, ideas, values, attitudes, abilities, knowledge, aptitude, professionalism and competencies (Olmedo-Cifuentes & Martínez-León, 2015). The acquisition of such competencies and skills rely upon many factors, inclusive of a

quality lifelong learning system and a supportive studying environment which adult education is part of (Swedish International Development Agency (SIDA), 2018). This is to say that the development of skills encompasses the productive abilities acquired through all tiers of learning and training, occurring in formal, non-formal, informal and on-the-job settings (SIDA, 2018). By formal, skills are acquired through a defined curriculum with strict monitoring by the government to ensure quality. In non-formal, acquisition of skills is made flexible as the learner goes into a programme based on the immediate need. While this training is defined, there is less supervision by the government or some other constituted authority. In informal, skills are acquired accidentally, sometimes through listening to media and other devices.

Consequently, adult education acknowledges the diversity in the process of acquisition of skills to equip the learners for active functioning in the society. It offers a more cost effective and flexible means of skills transfer, and at the same time, capable of absorbing a larger number of adults in Nigeria than their formal counterparts (Fajobi, Olatujoye, Amusa & Adedoyin, 2017). The learning is made possible through distance education. A planned teaching and learning that use a wide spectrum of technologies to reach learners at a distance (Okop & Nwizu, 2015). Thus, distance education is an educational process in which there is

no constant physical contact between the learners and the teacher through the use of technological devices in the delivery of instruction. It also suggests that learning can occur through various ways. One of such ways is the use of media for virtual conferencing. Cher and Bryer (2012) noted that this social connectivity influences and changes the way learners think about knowledge and learning. More still, stating the benefits in the use of ICT, Bakare (2020) indicated that it is fast, secure and reduces human error and enhances communication.

Looking at the merits of adult education in enhancing knowledge through the use of technologies among other traditional methods like the conventional face to face method, the researcher is worried that adults in Enugu State seem not to utilize the opportunity of acquiring various skills through adult education needed to enrich themselves for enhanced living. Langer (2013) observed that foundation skills such as literacy and numeracy, transferable skills such as problem solving skills, learning techniques, communication skills which help people to adapt to different situations and technical and vocational skills that specialize people for specific professional tasks are some of the adult literacy programmes through which skills are developed and acquired in people. Unfortunately, in a pilot study conducted by the researcher in some adult learning centres in the state, it was revealed that most adults complained of not acquiring the skills. The poor

acquisition by these adults also led to low participation in the development of their locality. In view of this poor knowledge of adults in acquiring these skills, the present study sought to determine the strategies for promoting skills acquisition for adults through adult education in Enugu State.

Purpose of the Study

The purpose of this study was to evolve the strategies for promoting skill acquisition by adults through Adult education in Enugu State. Specifically, the study:

1. identified areas where Adult education can provide training for adults in Enugu State
2. determined ways through which adult education can provide skill acquisition training for adults in Enugu State.

Research Questions

The following research questions guided the study

1. What are the skill areas where Adult education can provide training for adults in Enugu State?
2. What are the ways through which Adult education can provide skill acquisition training for adults in Enugu State?

Methodology

Design of the Study: The study adopted the descriptive survey research design. This design focuses on collecting data on, and describing in systematic manner the characteristics, features or facts about a given population. This design was adequate

since it sought the opinions of selected learners from adult learning centres in Enugu State.

Area of the Study: The study was carried out in adult learning centres in Enugu State. The learning centres are found in all the 21 local government areas of the state.

Population: The population of the study was 3,750 basic literacy adult learners from 116 government owned adult basic literacy centres in Enugu State. These learners comprised male and female enrolled into basic literacy to acquire the skills of reading, writing and numeracy needed to improve the economic activities and participate in the development of their locality. They are aged between 18- 35, and above, engaged in various income generating activities (in other words, they are self employed) with no educational qualifications.

Sample for the Study: The proportionate sampling technique was used to select 10 per cent of the population resulting to 375 learners and 12 centres. Out of these centres, 31 learners were chosen from each using the simple random sampling technique by balloting.

Instrument for Data Collection: Questionnaire was used for data collection. It was developed through literature based on the specific purposes of the study. The questionnaire consisted of two sections; A and B. Section A provided personal information of the respondents, while section B was made up of two clusters with 15 items each

addressing a given cluster. The questionnaire items were based on a four-point likert scale of strongly agree (SA) (4 points), agree (A) (3 points), disagree (D) (2 points), and strongly disagree (SD) (1 points). The questionnaire was given to three experts for a face validation. Two experts were from the Department of Adult Education and Extra Mural Studies, while one was from the Measurement and Evaluation unit of Science Education Department, all from the university of Nigeria Nsukka. The reliability of the instrument was established through a trial testing on administering the questionnaire to 20 adult learners in two centres from Ebonyi State which was not used for the study. The Cronbach Alpha Statistical Tool was used to establish the internal consistency reliability estimate of the instrument which gave 0.81 and 0.86 while the overall was 0.84.

Data Collection Method: Three hundred and seventy five (375) copies of the questionnaire were distributed by the researcher with the help of three research assistants at the various learning centres. The entire copies of questionnaire were retrieved, representing 100 per cent retrieval from the respondents. Out of the 375 copies administered, 364 representing 97.07% were dully completed and used for the study, while 11 (2.93%) were wrongly filled, hence not used for the study.

Data Analysis Techniques: Data were analyzed using mean and standard deviation. A criterion mean of 2.50 was

used as the benchmark for decision making for each item. Thus, item with a mean of 2.50 and above was regarded as agree, while below 2.50 was disagree.

Results

Table 1: Mean Responses and Standard Derivations on Skill Areas where Adult Education can Provide Trainings for Adults (n= 364)

S/N	Skill Areas	\bar{x}	SD	Remark
1.	Literacy skills for hair dressing	3.42	.61	Agree
2.	Literacy skills on crop production	3.27	.55	Agree
3.	Soap making training	3.40	.70	Agree
4.	Literacy skills for pomade making	3.36	.70	Agree
5.	Knowledge on hat making	3.26	.64	Agree
6.	Training on carpentry	3.21	.65	Agree
7.	Literacy skills for decoration	3.21	.58	Agree
8.	Knowledge on bakery	3.30	.72	Agree
9.	Knowledge on basic literacy skills	3.34	.74	Agree
10.	Literacy skills for catering services	3.14	.67	Agree
11.	Training on tailoring	3.37	.66	Agree
12.	Literacy skills for fabrication	3.28	.64	Agree
13.	Training on shoe making	3.31	.66	Agree
14.	Literacy skills for printing	3.29	.73	Agree
15.	Literacy skills for masonry	3.10	.64	Agree
	Cluster mean	3.28	.66	Agree

Table 1 indicates that items 1-15 had mean scores of agree as 3.42, 3.27, 3.40, 3.36, 3.26, 3.21, 3.21, 3.30, 3.34, 3.14, 3.37, 3.28, 3.31, 3.29 and 3.10 with corresponding standard deviations ranging from .55 to .77. The Table further had the cluster mean (3.28) as

agree with the standard deviation of .66. This implied that several skill areas were provided in adult education for training of adults. Among which were literacy skills for hair dressing, soap making and basic literacy.

Table 2: Mean Responses and Standard Derivations on Ways Adult Education can Provide Trainings for Adults (n= 364)

S/N	Ways Adult Education can Provide Trainings for Adults	\bar{x}	SD	Remark
1.	Exposing learners to workshop on soap making	3.40	.68	Agree
2.	Conducting seminars on livestock production to learners	3.27	.64	Agree
3.	Providing catering services to learners through visual aids	3.30	.68	Agree
4.	Training adult on hat making through the use of social	3.22	.73	Agree

5.	media Conducting seminars on tailoring to adults using virtual conferencing	3.39	.75	Agree
6.	Exposing adults to basic writing skills through symposia	3.24	.66	Agree
7.	Training adults on crop production using video clips	3.29	.80	Agree
8.	Exposing learners to basic skills of calculation through audio aids	3.24	.66	Agree
9.	Exposing learners to hair dressing skills through apprenticeship	3.32	.66	Agree
10.	Inculcating on learners the basic skills of reading through conferencing	3.39	.67	Agree
11.	Exposing learners to skills on cosmetic making using workshop	3.37	.73	Agree
12.	Using media to train learners on acquisition of literacy skills	3.51	.61	Agree
13.	Exposing adults to skills on decoration through face to face contact	3.24	.59	Agree
14.	Conveying to learners the skills of bakery through face to face contact	3.37	.60	Agree
15.	Exposing learners to soap making skills through media	3.20	.68	Agree
Cluster mean		3.32	.68	Agree

Table 2 reveals that all the 15 items had mean scores above the criterion mean of 2.50, as such were regarded as agree with standard deviation ranged from .59 to .80. With the cluster mean (3.32) of agree and standard deviation of .68, the Table showed that various ways are provided in adult education for the training of adults in Enugu State among which are acquisition of literacy skills through the use of media and exposition of learners to workshop on soap making.

Discussions

The findings showed that there were various skill areas for trainings adults in adult education. Respondents indicated that prominent among these skill areas were literacy skills for hair dressing and soap making. The

acquisition of these skills is believed to offer business opportunities to adults who may not necessarily have previous educational qualifications. It also underscores the importance of adult education as UNESCO in Mbalisi and Ugwu (2020) saw it as forming part of lifelong education and learning, with no theoretical boundaries and are addressed to all people whatever their level of achievement. Thus, by making these skills available to adults, the likelihood of their active participation in scheme of things in their locality will also be enhanced. This also collaborates with the view of Kapur (2019) that adult education was aimed at improving the quality of life of the adults. The study further revealed a wide range of skill areas that are covered in Enugu State. This was

supported by Asokhia and Agboluae (2013) stipulation that various programmes available in vocational skills acquisition in Enugu included agro-based, carpentry and joinery, and dress making among others. These skill areas stem from the fact that adult education is multifaceted, cutting across various aspects of adult's endeavours for proper functioning in the society. The preparation of the adults to proper functioning in the society may have led to the definition of adult education as the process whereby adults engage in systematic and sustained learning activities in order to gain new forms of attitude, knowledge, skills and values (Zuofa & Victor, 2020). This definition is in tandem with the availability of the various skills areas trainings are provided for adults through adult education in Enugu State.

Furthermore, findings affirmed that there were various ways through which trainings for adults can be provided through adult education. The recognition of the variety of ways stems from the fact that adult education is an organized and purposeful education activities designed for adults for their personal and societal fulfillments within or out of school to adapt to the constant changing global requirements (Obidiegwu as cited in Anurugwo, 2019). This explains the flexibility of adult education where learners are encouraged to undertake learning activity based on their needs and time. Thus, the study showed that prominent among these ways were the

use of media to expose learners to acquisition of literacy skills and soap making while employing workshop. While the use of media was conceived as one of the ways of acquiring skills, Cher and Bryer (2012) noted that it influences and changes perception of learners about knowledge and learning. This implies that learning was not restricted to a particular form as the convectional face to face contact which is mostly found in a formal setting. This goes to show that there more to learning outside the formal setting to adequately equip the learners for active functioning in the society. This finding acknowledges the fact that the acquisition of skills can take various forms such as formal, non formal and informal (SIDA, 2018). In building the skills and knowledge of these learners, human capital is said to have achieved. It is this capital that reflects the individual skills which include individual experiences, ideas, values, attitudes, abilities, knowledge, aptitude, professionalism and competencies (Olmedo-Cifuentes & Martínez-León, 2015). capability of the learner. Thus, providing the needed knowledge and skills for active participation of the learners in the society.

Conclusion

The study concluded that the multifaceted nature of adult education has further provided a wide skill area for the training of adults in Enugu State. Some of these skill areas were literacy skills for hair dressing, soap making and tailoring. These skills

could be acquired in a variety of ways such as the use of media in reaching out to a large number of people in different location irrespective of distance, through virtual conferencing, workshop and seminars as well as observation. Thus, affirming the flexibility of adult education in provision of skills to learners.

Recommendations

The following recommendations were made based on the findings of the study

1. Sensitization on skill areas that are provided in adult education should be intensified by the State Agency for Mass Literacy Education (SAME) through the organizers of the programme to the public.
2. Facilitators of adult education programmes should be encouraged to undergo further training on the use of variety of approaches in disseminating lessons to the adults.

References

- Akpan, D.A. (2015). Youth's unemployment and illiteracy: Impact on national security. The Nigerian experience. *International Journal of Arts and Humanities (IJAH)*, 4(2), 62-71.
- Amazon, M. (2009). Designing a model of vocational training programmes for people. *The Online Journal of New Horizons in Education*, 5(1),
- Anurugwo, A.O. (2019). Adult education and value re-orientation. In A. N. Ugwu & O.F. Mbalisi(Eds), *Contemporary issues in adult education: An African perspectives* (pp. 43- 56). Port Harcourt: Pearls Publishers Int. Ltd.
- Asokhia, M.O. & Agbonluae, O.O.(2013). Assessment of rehabilitation services in Nigeria provision in Edo State, Nigeria. *Journal of Contemporary Research*, 3(1), 140-152.
- Bakare, T.V. (2020). The use of ICT in the promotion of security and democratic ideal in Nigerian politics, the case of Lagos State. In K.K.Kazeem, A.A. Haladu & S.C. Nwizu (eds), *Reinventing education and lifelong learning practice for sustainable development*(pp. 287-306). Ibadan: St Paul's Publishing House.
- Chen, B. & Bryer, T. (2012). Investigating instructional strategies for using social media in formal and informal learning. *International Review of Research in Open & Distance Learning*, 13 (1), 87-104.
- Fajobi, T.A., Olatujoye, O.O., Amusa, O.I & Adedoyin, A (2017). Challenges of apprenticeship development and youths unemployment in Nigeria. *Social Crimonol* 5, 172. doi: 10.4172/2375-4435.1000172
- Glym, S. & Tracey, C. (2012). Adult education in Canada's penal system. *International Journal of Social Science and Humanities*, 2(2), 185-189.
- Kapur, R. (2019). Role of adult education in national development. Retrieved from www.researchgate.net/publication/335738715.
- Langer, K (2013). *The informal sector, concept, definitions and implications. Contributions to the 4th Bonn Conference on Adult Education and Development (BoCAED):* dvv international, Anton Markmiller
- Mbalisi, O.F. & Ugwu, A.N. (2019). Adult education: scope and programmes. In A. N. Ugwu & O.F. Mbalisi(Eds), *Contemporary issues in adult education:*

- An African perspectives* (pp. 1-25). Port Harcourt: Pearls Publishers Int. Ltd.
- Nzeneri, I.S. (2010). Adults in battle: Any hope of victory? *Inaugural Lecture series 71*, University of Port Harcourt.
- Okop, E.O. & Nwizu, S.C. (2015). Political strategies for improving the integration of ICT into distance education programmes of national teachers institute in Akwa Ibom and Cross River States. *International Journal of Educational Research*, 14(2), 47-55.
- Olmedo-Cifuentes, I., & Martínez-León, I. (2015). Human capital and creation of reputation and financial performance. *Electronic Journal of Knowledge Management*, 13(3), 209-218.
- Swedish International Development Cooperation Agency [SIDA], (2018). *Skills development*. Retrieved from https://www.sida.se/contentassets/71147e904b194e3a9345b3b2d84391f5/informatio_brief_skills_development_webb.pdf.
- Ukpabi, I. D. (2019). Impact of skills training on employment among young entrepreneurs in selected local governments in Ibadan, Nigeria. *International Journal of Literacy Education*, 9(2), 119-131.
- Zuofa, C.C. & Victor, P.J. (2020). Repositioning the conceptual understanding of adult education in Nigeria for galvanizing governments commitment for societal benefit. *National Council for Adult Education Journal*, 25(1), 139-145

Financial Management Skills Needed by of Rural Women Entrepreneurs for Enterprise Sustainability in Kwara State

Babalulu, M.S.¹; Umunnakwe, O.J.¹; ChinezeEzechukwu, L.¹; Yusuf, G.A.²;

¹Department of Business Education, University of Nigeria, Nsukka.

²College of Education (T), Lafiagi, Kwara State.

Abstract

This study investigated financial management skills needed by rural women entrepreneurs in Kwara state. Specially the study determined skills needed by the rural women for: sourcing fund for their businesses enterprises; managing sourced fund for business expansion; and management of profit from their businesses. The study adopted survey design. The population for the study was 74 comprising 30 bank officials, 28 Business Educators from tertiary institutions and 16 medium-scale entrepreneurs all from area of the study. Questionnaire was used to collect data. Mean, standard deviation and Analysis of Variance (ANOVA) were used to analyze data. Findings include 12 skills in sourcing for funds. These include ability to: make personal savings; joint partnership etc. Other finds are 14 skills in managing sourced funds. These include, among others, keep records of daily transaction, allocate funds to articles of the business, ensure that customers will receive the goods on arrival and pay for it, and 10 skills for effective management of profit. These include among others, meet personal and family needs, establish effective forecasting of profits, keep effective records of revenue and expenses. ANOVA reveals there was no significant difference ($p > 0.05$) in the mean ratings of the three groups of respondents on the financial management skills. It was recommended that the identified financial management skills be packaged and used to train the women entrepreneurs in rural areas of Kwara State.

Keywords: Finance, Skills, Rural, Women, Entrepreneurs, Enterprise, profile.

Introduction

Business enterprises, such as micro and small scale among others, operate in the rural and urban areas. Micro enterprise is defined by Evbuomwan, Ikpi, Okoruwa and Akinyosoye (2013) as a venture that employs fewer than 10 persons and with annual sales or

total assets that do not exceed \$3 million. Phinya (2011), Maduagwu (2006) & Osuala (2004) viewed micro enterprise as the informally organized business activity undertaken by entrepreneurs employing less than ten people and having assets less than 1 million Naira excluding land and

building. In this study, micro enterprise is a company that produces goods/ services with 1 to 5 employees and capital base from N40,000-N300,000. The small enterprise is an establishment whose employees range from 5-50 and capital base between N200, 000 - N5, 000, 000. Small enterprise is viewed by Bushe (2019) as those enterprises that employ less than 50 persons and with annual sales or total assets that do not exceed \$13 million. Maduagwu (2006) defined small enterprise as one that employs between ten (10) to forty-nine (49) people and has assets (excluding land and building) worth between N5 million and N50 million. Bushe (2019) citing European Commission revealed that globally, micro and small-scale businesses among others are regarded as the backbone of the economy as they constitute 98% of all enterprises, provide employment and add value to economies. In the context of this study, business enterprises in micro and small scale involved employees from 5-50 with capital base of N50,000 - N3,000,000 in rural areas of Kwara State. These businesses are managed by individuals (males and females) referred to as entrepreneurs. International Labour Organization (ILO) (2015) defined an entrepreneur as an individual who perceives new business opportunities, creates businesses where none existed before, directs these businesses by using his or her own and borrowed capital, takes the associated risks and enjoys profit as rewards for the efforts. In the area of this study, women are increasing

significantly more than men in micro and small enterprises.

Women entrepreneurs as viewed by Vander (2014) are those who think of establishing business enterprises, by planning, organizing and combining factors of production by taking risk in offering goods and services to the public. In the area of study, rural women entrepreneurs are observed to be active and possess many features to promote business; they own business by engaging in buying and selling of goods to satisfy customers in rural areas. Isa, Jaganathan, Ahmadu and Ibrahim (2019), Istanbuli (2015), and Arasti, Rezayee, Zarei and Panahi (2012) stated that this type of women entrepreneurs (micro and small scale) are increasing more than men by contributing to national economic development through the creation of employment, provision of goods and services to individuals in the society as well as payment of tax to government. Though women entrepreneurs in rural areas of Kwara State are increasing in micro and small enterprises, providing various types of consumer goods for domestic uses thereby creating wealth for the state, women entrepreneurs have been found to lack financial management skills to source for business fund, management of sourced fund, management of profits (returns), financial forecasting, evaluation of business performance, implementing accounting strategies from business endeavor for increasing the volume and sustainability of wealth creation (Bharthvajan, 2014). Okanazu, Ubadigha and Okanazu (2020) opined

that women entrepreneurs in Nigeria, Kwara State not exempted, are faced with the inability to get access to financial support and are afflicted by cultural barriers, thereby making the women become poorer. Bushe (2019) narrated that research into the causes and failure of women entrepreneurs is still negligible across the globe. Findings by Richard and Auken (2006), Jindrichovska (2013), Karadag (2015), and Gawaliand Gadekar (2017) stated that rural women entrepreneurs in most developing economies are faced with a number of challenges, such as insufficient managerial skills, poor planning and access to financial resources and management of acquired fund, lack record of transactions and capability of using new technologies. Thus, these women entrepreneurs in the rural areas remain poor and individual youths in the Kwara State significantly unemployed.

Based on the foregoing, therefore, financial management skills are required for unlocking and maximizing the potentials of rural women entrepreneurs in terms of increasing their financial management efficiency for wealth creation and sustainability of their business enterprises. "Potential", according to Nwankwo, Egbo and Ifeanyieze (2020), is undeveloped capability of a person that could be helpful if unlocked. In this study, Potential is the ability of women entrepreneurs to run business enterprises sustainably, which can be unlocked with financial management skills. Skill is ability to carry out a task effectively. Financial management skill

is viewed by Badenhorst-Weiss et al. (2010),Phenya (2011),and Wolmorans in Anangwe and Malenya (2020) as the standard of operating procedures for sourcing, effective utilization and management of returns for the expansion of the business enterprise. With reference to this study, financial management skill is the process by which women entrepreneurs can source for business fund, effective management of sourced fund and management of profit from the business to increase the sustainability of their businesses. Findings and submissions by Vohra and Dhillon (2014), Karadag (2015),Gawaliand Gadekar (2017),Panamasivan and Subramanian (2019), and Anangwe and Malenya (2020) revealed that the possession of effective financial management skills enabled the business entrepreneurs operating small enterprises in: maintaining budget, financial forecasting, sourcing for funds, proper use of funds, promoting savings, improving profitability, evaluation of business performance, stock taking capability and maintenance of customers among others. Hence, these skills would equip rural women entrepreneurs in Kwara State and beyond.

This study is anchored on the human capital theory as guidance for women entrepreneurs. Olabisi and Olagbemi (2012) regarded human capital theory as an education or training to improve the productivity of individuals in business including women entrepreneurs by imparting useful knowledge and skills which in

turn increase their sustainable future income. This theory becomes relevant to women entrepreneurs because the more they receive training in financial management skills, the more they improve to raise the volume and sustainability of their businesses. Fatoki (2010), Ahmad (2016), and Javani, Abolhallaje, Jafari and Hashemi (2017) found that knowledge and skills in planning, organizing, directing, controlling and to some extent budgeting, managing, accounting among the rest, enhanced entrepreneurs to maintain business sustainability. Mamabolo, Kerrin and Kele (2017) revealed that financial management skills promote entrepreneurs' business endeavor. The focus of this study is limited to skills for sourcing funds, management of sourced funds and effective management of profit from the business. On skills for sourcing for business finance, Osuala (2004), Evbuomwan, Ikpi, Okoruwa, and Akinyosoye (2013), Singh and Wasdani (2016), and Waniak-Michalak and Gheribi (2018) revealed in their studies that small enterprises among others, sourced for funds from both formal and informal institutions. Findings and submissions by Perks and Struwig (2005), Bosire and Nzaranma (2010), Abdul (2018), Wadesango, Tinarwo and Machingambi (2019), U. S. Small Business Administration (2020), and Small Business Development Corporation, Government of Western Australia (2020) stated that business enterprises should acquire skills to

manage their sourced fund for business expansion by forecasting, cash flow and sales, maintain marketing strategies and motivation of employees. Furthermore, the studies of Tajaddini, Mujtaba and Bandenezhad (2010), Aggarwal, Valentina, and Jonathan (2020), and Batista and Pedro (2021) found that skills on mobile money tools enhanced management of fund for business expansion. Similarly, on skills for management of profit from the business, Osuala (2004), Mazzarol, Reboud and Clark (2015), Wolmarans and Meintjies (2015), U. S. Security and Exchange Commission (2020), and U. S. Small Business Administration (2020) reported that entrepreneurs should make cash plan/ budgeting, obtain sources of cash other than sales, recordkeeping, savings, handling credit, debt and repayments as measures for the management of profits from the business.

Purpose of the Study

The main purpose of this study was to investigate the financial management skills by rural women entrepreneurs for sustainability of their business enterprises in Kwara State. Specifically, the study determined the financial management skills and the extent to which they are needed by women entrepreneurs in rural areas of Kwara State for:

1. sourcing fund for business enterprises,
2. managing sourced fund for business expansion, and

3. management of profit from the business.

Hypotheses (HOs)

There is no significant difference in the mean ratings of Business Educators, bankers, and medium business entrepreneurs on financial management skills needed by women entrepreneurs in Kwara State to:

HO₁: source for fund.

HO₂: manage sourced for fund

HO₃: manage profile from business enterprises.

Methodology

Design for the Study: The study adopted survey/design research.

Area of the Study: The study was carried out in Kwara State, North Central, Nigeria. The State has about 16 Local Government Areas with many women entrepreneurs in the rural areas of every Local Government practicing various commercial activities without financial management skills for the sustainability of their businesses.

Population for the Study: The population for the study was 74 made up of 30 Bank Officials from Marketing Units of Commercial Banks, 28 Business Educators from Tertiary Institutions and 16 out of 62 Medium business Entrepreneurs (Small and Medium Enterprises Development Agency of Nigeria [SMEDAN], 2013) all from Kwara State, Nigeria.

Sample for the Study: Purposive sampling techniques were employed to select the bankers and registered Medium-scale Entrepreneurs with

certain criteria as follows: marketing efficiency, 6-10 years' experience and with NCE/Diploma as minimum qualification.

Instrument for Data Collection: Instrument used for data collection was questionnaire. It was developed base on literature review and specific purposes of the study. The questionnaire had four sections, addressing demographic details and the three research questions. Items in the questionnaire were assigned four-response options of Highly Required (HR), Required (R), Averagely Required (AR), Not Required (NR), with values of 4,3,2 and 1 respectively. The questionnaire was validated by three experts from the Department of Business Education.

Method of the Data Collection: A total of 74 copies of questionnaire administered by hand. Only 69 copies were retrieved and analyzed.

Data Analysis Techniques: Weighted mean was used to answer the research questions based on real limit of: highly required: 4.00-3.50, averagely required: 3.00 -2.50, required 2.00 -1.50 and not required: 1.49-1.00. Standard deviation was used to determine the spread of the respondents around the mean and from the opinion of one another. Analysis of Variance (ANOVA) statistics was used to test the null hypotheses at the p-value of 0.05. To take decisions on the agreed items, 2.50 was used as cut off point. Therefore, any item with mean value of 2.50 or above was agreed while any item with a mean value below 2.50 was disagreed. The null hypothesis of no

significant difference was accepted, if the calculated p-value was greater than 0.05 level of significant but was rejected if otherwise.

Results

The data for answering the research questions and testing of hypotheses are presented in Tables 1-3.

Table 1: Mean Responses and (ANOVA) of Three Groups of Respondents on financial management Skills to Source for Funds by Rural Women Entrepreneurs for the Business (N =69)

S/N	Skills for Sourcing Fund	X	SD	TSS	MSS	Pval	e ²	Rmks	Ho
Ability to:									
1	Make personal savings	3.17	0.48	15.91	0.24	0.62	0.98	AR	NS
2	Join Partnership	3.12	0.50	17.07	0.26	0.88	0.99	AR	NS
3	Get loans from wealthy friends, relatives, age grade association and angels	3.80	0.70	34.20	0.52	0.91	0.98	AR	NS
4	Buy Public stocks	3.72	0.61	25.16	0.37	0.34	0.99	AR	NS
5	Obtain Venture capital companies e.g. banks etc.	3.23	0.67	30.29	0.43	0.13	0.99	AR	NS
6	Join Thrift societies	3.23	0.64	30.29	0.46	0.77	0.98	AR	NS
7	Sale assets e.g. land/ house property	3.31	0.67	35.30	0.52	0.34	0.99	AR	NS
8	Join Cooperative societies	3.23	0.67	30.29	0.46	0.93	0.98	AR	NS
9	Obtain loans from Credit union e.g. Church/Mosque etc.	3.29	0.64	28.20	0.39	0.93	0.98	AR	NS
10	Join Placebo initiative	3.33	0.56	21.33	3.22	0.87	0.98	AR	NS
11	Obtain Trade credit	3.29	0.61	24.20	0.36	0.43	0.99	AR	NS
12	Obtain Franchise	3.39	0.62	26.44	0.38	0.14	0.99	AR	NS

Key: X=Mean; SD= Standard Deviation; TSS=Total Sum of Square; MSS=Mean Sum of Square; P-value= Significance; e²=Correlation Ratio; HR= Highly Required; AR=Averagely Required

Table 1 shows that the mean values of items 1-12 ranged from 3.12 - 3.80 and each are greater than the real limit of 2.50. This indicates that the respondents rated the items as managerial skills for unlocking the potentials of women entrepreneurs in sourcing for funds for the sustainability of their business. The standard deviation of the twelve items ranged from 0.48 - 0.70 and each is less

than 1.96 (95% confidence limit). This indicates that the respondents were not far from the mean or from one another in their responses. The p-values of the twelve items ranged from 0.13 - 0.93 and each is greater than 0.05. This indicates that there is no significant difference in the mean ratings of the respondents on the items as managerial skills required for unlocking the potentials of women

entrepreneurs in sourcing for funds. The e^2 (correlation Ratio) from 0.98-0.99 indicates that the relationships among the respondents is high; that is, the respondents are very close in their judgments on each item.

Table 2: Mean Responses and (ANOVA) of Three Groups of Respondents on Financial Management Skills to Source for Funds by Women Entrepreneurs for Business in Order to Make Profit (N= 69)

S/N	Financial Management Skills	X	SD	TSS	MSS	Pval	e^2	Rmks	Ho
Ability to:									
1	Set sales forecasting	3.26	0.56	21.30	0.32	0.22	0.98	AR	NS
2	Obtain and sell goods of high quality to maintain a referral buying	3.50	0.61	25.25	0.37	0.33	0.99	HR	NS
3	Allocate funds to articles of the business	3.22	0.51	17.74	0.26	0.31	0.99	AR	NS
4	Ascertain confidence in the goods to be purchased in terms of quality and timing before allocating funding	3.17	0.48	15.48	0.23	0.28	0.99	AR	NS
5	Obtain goods constantly based on the choice of the customers within the locality.	3.12	0.57	22.64	0.23	0.88	0.98	AR	NS
6	Ensure that customers will receive the goods on arrival and paid for it	3.61	0.58	23.25	0.35	0.97	0.98	HR	NS
7	Advertise through local medias in order to establish the enterprise and probably boarding the scope	3.17	0.61	23.48	0.35	0.38	0.99	AR	NS
8	Keep records of daily transactions	3.28	0.53	16.55	0.25	0.45	0.98	AR	NS
9	Market goods with language understood by customers in the environment of the business	3.23	0.53	15.91	0.23	0.27	0.98	AR	NS
10	Encourage customers relationship management	3.42	0.67	19.74	0.30	0.54	0.99	AR	NS
11	Establish policies to get paid of goods on credit from the customers	3.23	0.62	21.94	0.33	0.73	0.98	AR	NS
12	Create familiarity with Vendors in order to obtain more goods on credit	3.36	0.57	25.93	0.36	0.05	0.99	AR	NS
13	Reduce rate of drawings from the business	3.11	0.54	19.48	0.29	0.36	0.99	AR	NS
14	Handle security and safety of the business stocks through warehousing and other security facilities such as dog, light, etc.	3.16	0.58	23.25	0.35	0.56	0.98	AR	NS

Key: X=Mean; SD= Standard Deviation; TSS=Total Sum of Square; MSS=Mean Sum of Square; P-value= Significance; e²=Correlation Ratio; HR= Highly Required; AR=Averagely Required

Table 2 shows that the mean values of items 1-14 ranged from 3.11 – 3.61 and each is greater than the real limit of 2.50. This indicates that the respondents rated the items as managerial skills for unlocking the potentials of women entrepreneurs in managing acquired funds for the sustainability of their business. The standard deviation of the fourteen items ranged from 0.48 – 0.67 and each is less than 1.96 (95% confidence limit). This indicates that the respondents were not far from the means or from

one another in their responses. The p-values of the fourteen items ranged from 0.05 – 0.97 and each is greater than 0.05. This indicates that there is no significant difference in the mean ratings of the respondents on the items as required skills for unlocking the potentials of women entrepreneurs in managing acquired funds. The e² (correlation Ratio) from 0.98-0.99 indicates that the relationships among the respondents is high; that is, the respondents are very close in their judgments on each item.

Table 3: Mean Responses and (ANOVA) of the Three Groups of Respondents on the Financial Management Skills Needed By Women Entrepreneurs for Managing Profits from the Enterprise (N = 69)

S/N	Skills on the Management of Profits	X	SD	TSS	MSS	Pval.	e ²	Rmks	Ho
Ability to:									
1	Set personal goals to be achieved based on priority by the business	3.23	0.59	24.29	0.37	0.91	0.98	AR	NS
2	Establish effective forecasting of profits	3.69	0.58	22.55	0.32	0.09	0.99	HR	NS
3	Settle credit, debt and interest urgently to identify profit	3.25	0.55	20.81	0.31	0.34	0.99	AR	NS
4	Keep effective records of revenue and expenses	3.32	0.49	16.99	0.25	0.53	0.99	AR	NS
5	Expand the scale of the business including warehousing from profit/loan	3.51	0.52	18.64	0.28	0.98	0.98	HR	NS
6	Meet personal and family needs	3.32	0.49	16.99	0.26	0.73	0.98	AR	NS
7	Reduce impulse drawings of goods and cash from the business except on profit	3.75	0.51	17.83	0.27	0.76	0.98	HR	NS

8	Save with daily local money collectors based on the scope daily sale	3.31	0.65	28.99	0.42	0.66	0.99	AR	NS
9	Enjoy placebo initiatives from the Local Government Area Business Enterprises Development Unit to expand cash for business	3.39	0.52	18.44	0.26	0.98	0.99	AR	NS
10	Join entrepreneurial association for advance practices and skills in business finance management	3.22	0.62	25.74	0.36	0.04	0.99	AR	S*

Key: X=Mean; SD= Standard Deviation; TSS=Total Sum of Square; MSS=Mean Sum of Square; P-value= Significance; e²=Correlation Ratio; HR= Highly Required; AR=Averagely Required

Table 3 shows that the mean values of items 1-10 ranged from 3.22 - 3.69 and each is greater than the real limit of 2.50. This indicates that the respondents rated the items as financial management skills required to unlock the potentials of women entrepreneurs in managing profits for the sustainability of their business. The standard deviation of the twelve items ranged from 0.49 - 0.65 and each is less than 1.96 (95% confidence limit). This indicates that the respondents were not far from the means or from one another in their responses. The p-values of the first nine items ranged from 0.09 - 0.98 and each is greater than 0.05. This indicates that there is no significant difference in the mean ratings of the respondents on the items as financial management skills required for unlocking the potentials of women entrepreneurs in managing profits for the sustainability of their business. The p-value of remaining item (10) 0.04 is less than 0.05 indicating that there is a significant

difference in the mean ratings of the three groups of respondents on item 10. The e² (correlation Ratio) from 0.8-0.99 indicates that the relationships among the respondents is high; that is, the respondents are very close in their judgments on each item.

Discussion of Findings

The findings of this study (Tables 1-3) reveal that 36 financial management skills (12 skills in sourcing for funds, 14 skills in managing acquired/sourced funds and 10 skills effective management of profit from the business) are required to unlock the potentials of rural women entrepreneurs in micro and small scale business enterprises for sustainability of their business enterprises in Kwara State, Nigeria. The findings of the study agreed with Mamabolo, Kerrin and Kele (2017), and Panamasivan and Subramanian (2019), who found that financial management skills in sourcing for funds is very essential for operating an enterprise. Similarly,

Waniak-Michalak and Gheribi (2018) on the skills for sourcing for funds by Micro, Small and Medium enterprises in Poland, found that the entrepreneurs financial management skills enabled them to source for funds from family, bank loans, credit unions and angels. This further agreed with Singh and Wasdani (2016) in a study on finance for micro and small sized enterprises in India: Sources and challenges, found that training of entrepreneurs in financial skills enhanced them to source for funds from personal savings, borrowed from friends, public banks, family wealth and moneylenders. The findings also agreed with the study of Evbuomwan, Ikpi, Okoruwa, and Akinyosoye, (2013) on sources of finance for micro and small enterprises in Nigeria, found that respondents skills for sourcing for funds from personal, banks, share capital and suppliers' credit promote their business operation.

The findings of this study is also in line with the opinions of the U. S. Small Business Administration (2020), which reported that management of acquired fund requires skills in effective cash flow including: increase the number of items sold, increase the price of items, reduce expenses, change the timing of expenses and save money to have sufficient opening cash. The findings also agreed with Wadesango, Tinarwo and Machingambi (2019), found that half of the respondents (50%), possessed cash management skills suitable for business sustainability. Javani, Abolhallaje, Jafari and Hashemi (2017)

reported that knowledge and skills in management function and to some extent budgeting, managing business revenue, accounting among the rest, enhanced entrepreneurs to maintain business sustainability. The findings of this study further corroborate with the submission of Osuala (2004) that the success of business enterprises depends on effective cash flow, forecast sales, cash receipts and skills in disbursement and determining the end of the month cash balance. Tajaddini, Mujtaba and Bandenezhad (2010) found that entrepreneurs (male and female) at the operational level should be more equipped with technical skills in order to utilize modern technologies for financial transactions for the management of business funds. Aggarwal, Valentina, and Jonathan (2020) and Batista and Pedro (2021) revealed that ability to cut consumption, and the use mobile money worked as effective tools to manage business funds and profits for savings by business entrepreneurs for business expansion.

The findings of this study agree with Kirsten (2018) who found that Tailor-made financial management training of the entrepreneurs of small businesses include women entrepreneurs improved their financial self-efficacy. Mazzarol, Reboud and Clark (2015) found that entrepreneurs' ability to secure sufficient cash flow and working capital enhanced the management of their profits. In the same direction, Report of the U. S. Security and Exchange Commission (2020), concurred that effective

management of profit requires entrepreneurs to make financial plan, pay off debts and interest, engage in savings, know financial situation of the business and reduce expenses. Wolmarans and Meintjies (2015) found that short-term financial management skills related to profitability management enabled SMEs entrepreneurs with strategic financial management for the going concern of their enterprises. Findings by Ahmad (2016) revealed that cash management skills enabled business sustainability to strengthen entrepreneurs' financial management, financial survival and evaluating business performance. The findings of this study is also in consonance with the submission of Osuala (2004) and Subramanian (2019), that entrepreneurs of small enterprises require financial management plan: for the investment of profit to the business, provision of workable programme for debt repayment, making efficient use of profit and in expansion of the business.

On the findings of hypotheses tested, it was found out that there is no significant difference in the mean rating of the responses of the respondents (Tables 1-3). Thus, the differences in professional career of the three groups of the respondents did not influence their responses but only in item 10 (Table 3) with item response of 0.04 which is below the probability of $P < 0.05$ as a result of disagreement between the respondents. Therefore, the hypothesis is rejected for item 10 in Table 3. The e^2 (correlation ratio) of all the items for the study ranged from

0.97-0.99 indicating a very high reliability on the findings of the study.

Conclusion

Sourcing and effective utilization of financial resources are very essential for the success of any enterprise. Therefore, this study has provided information on the essential financial management skills required by rural women entrepreneurs in Kwara State. If rural women entrepreneurs are able to or trained to acquire these financial management skills, failure in their business enterprises will drastically be reduced, while profit in the business will highly increase to the extent that rural women entrepreneurs will be bailed out of poverty. It is therefore recommended that:

1. Rural women entrepreneurs in micro and small enterprise be trained on the identified skill areas.
2. Agencies monitoring micro and small enterprises among others should map out strategies to mobilize rural women entrepreneurs in order to empower them with relevant financial management skills for the expansion and sustainability of their business enterprises.
3. Rural women entrepreneurs should be encouraged to form associations that will promote entrepreneurial activities in rural communities which will encourage laggards to participate.

References

Abdul, E. O. (2018). Entrepreneurial skills and growth of Small and Medium

- Enterprise (SMEs): A comparative analysis of Nigerian entrepreneurs and minority entrepreneurs in the UK. From <https://mpra.ub.uni-muenchen.de/86751/>MPRA Paper No. 86751, posted 18 May 2018 18:29 UTC.
- Aggarwal, S., Valentina, B., & Jonathan, R. (2020). Cashing in (and out): Experimental evidence on the effects of mobile money in Malawi. *AEA Papers and Proceedings*, 110, 599-604.
- Ahmad, N. N. (2016). Cash management practices in micro and small businesses in Malaysia. *Journal of Education and Social Sciences*, 4, 331-335. https://jesoc.com/wp-content/uploads/2016/06/KC4_203.pdf
- Anangwe, Z. L., & Malenya, A. (2020). Effect of financial management practices on performance of Micro and Small Enterprises in Bungoma Town. *The Strategic Journal of Business & Change Management*, 7(2), 648-671.
- Arasti, Z., Rezayee, S. O., Zarei, B., & Panahi, S. M. (2012). A qualitative study on environmental factors affecting Iranian women entrepreneurs' growth orientation. *Journal of Management & Strategy*, 3, 2.
- Badenhorst-Weiss, J., Brevis-Landsberg, T., Cant, M., Du Toit, G., Erasmus, B.J., Grobler, P., Kruger, P., Machado, R., Marx, J., Mpofu, R., Rudansky-Kloppers, S., Steenkamp, R., Strydom, J., & Vrba, M. (2010). *Introduction to Business Management*. Cape Town: Oxford Publisher Ltd.
- Batista, C., & Pedro, C. V. (2021). *Is Mobile Money Changing Rural Africa? Evidence from a Field Experiment*. From http://www.catiabatista.org/batista_vicente_mm_experiment.pdf.
- Bharthvajan, R. (2014). Women Entrepreneurs and Problems of Women Entrepreneurs. *International Journal of Innovative Research in Science, Engineering and Technology*, 3(9), 16104-16110.
- Bushe, B. (2019). The causes and impact of business failure among small to micro and medium enterprises in South Africa. *Africa's Public Service Delivery and Performance Review* 7, 1. From <https://doi.org/10.4102/apsdpr.v7i1.210>.
- Evbuomwan, G. O., Ikpi, A. E., Okoruwa, V. O., & Akinyosoye, V. O. (2013). *Sources of finance for micro, small and medium enterprises in Nigeria*. 19th International Farm Management Congress, SGGW, Warsaw, Poland, :1-17. From www.ifmaonline.org.
- Fatoki, O. (2010). An investigation into the financial management practices of new micro-enterprises in South Africa. *Journal of Social Science*, vol. 33, Pp. 179-188.
- Gawali, R. B., & Gadekar, A. (2017). Financial management practices in micro, small and medium enterprises-an exploratory analysis with the help of literature review. *International Journal of Research in Finance and Marketing*, 7(6), 45-59.
- Hinton, P. R., Brownlow, C., McMurray, I., & Cozens, B. (2004). *SPSS Explained*. East Sussex, England: Routledge Inc.
- International Labour Organization (2015). *Jobs, Gender and Small Enterprises in Bangladesh*. Retrieved from http://www.cartierwomensinitiative.com/docs/ILO_Bangladesh.pdf.
- Isa, F. M., Jaganathan, M., Ahmado, M. A., & Ibrahim, H. M. (2019). Malaysian women entrepreneurs: Some emerging issues and challenges of entering global market. *International Journal of Academic Research in Business and Social Sciences*, 8(12).
- Istanbuli, A. D. (2015). *The Role of Palestinian Women Entrepreneurs in Business Development*. Doctoral Thesis submitted

- to the Faculty of Economic Sciences & Business Studies, University of Granada.
- Javani, A., Abolhallaje, M., Jafari, J., & Hashemi, S. M. E. F. (2017). Essential managerial skills for financial and budgetary management in medical universities: The top managers' perspective. *Medical Journal of Islam Republic of Iran*, 31, 90. <https://doi.org/10.14196/mjiri.31.90>
- Jindrichovska, I. (2013). Financial management in SMEs. *European Research Studies*, Vol. XVI, Special Issue on SMEs.
- Karadag, H. (2015). Financial management challenges in small and medium-sized enterprises: A strategic management approach. *Emerging Markets Journal*, 67, 26-40.
- Kirsten, C. L. (2018). The role of financial management training in developing skills and financial self-efficacy. *Southern African Journal of Entrepreneurship and Small Business Management*, 10(1), a211. <https://doi.org/10.4102/sajesbm.v10i1.211>
- Maduagwu, A., (2006). *Alleviating Poverty in Nigeria: Using Micro and Small Enterprises*. From <http://eprints.covenantuniversity.edu.ng/693/2/phdthesisfinal-abiola.doc>.
- Mamabolo, M. A., Kerrin, M., &Kele, T. (2017). Entrepreneurship management skills requirements in an emerging economy: A South African outlook. *Southern African Journal of Entrepreneurship and Small Business Management*, 9(1), 111. <https://doi.org/10.4102/sajesbm.v9i1.111>
- Nwankwo, C. U., Egbo, B. N., &Ifeanyieze, G. O. (2020). Value change technologies for unlocking the potentials of unemployed agricultural education graduates for employment in vegetable production industry for sustainable national development in Enugu State. *Review of Education Journal*, 32, Issue II special edition.
- Okanazu, O. O., Ubadigha, C. O., &Okanazu, P. U. (2020). Strategies for improving women participation in entrepreneurship for family survival and sustainable national development in South East, Nigeria. *Review of Education*, 32, Issue II, Special edition.
- Olabisi, S. Y., &Olagbemi, A. A. (2012). Human capital and women entrepreneurs in tie and dye Micro-Business in Ogun State, Nigeria. *Global Journal of Human Social Science*, 12(5), 33-42.
- Osuala, E. C. (2004). *Principles and Practices of Small Business Management in Nigeria*. Enugu: Cheston Agency Ltd.
- Panamasivan, C., &Subramanian, T. (2019). *Financial Management*. New Delhi: New Age International (P) Ltd.
- Perks, S., &Struwig, M. (2005). Skills necessary to grow micro entrepreneurs into small business entrepreneurs. *South African Journal of Economic and Management Sciences*, 8(2):171-186.
- Phenya, A. (2011). *An Assessment of the Financial Management Skills of Small Retail Business Owners/Managers in Dr. JS Moroka Municipality*. A project submitted for the Master of Commerce in the subject Business Management at the University of South Africa.
- Richard, C., &Auken, H. V. (2006). Small firm bankruptcy. *Journal of Small Business Management*, 44(4), 493-512.
- Singh, C., &Wasdani, K. P. (2016). Finance for micro, small, and medium-sized enterprises in India: Sources and challenges. ADBI Working Paper 581. Tokyo: Asian Development Bank Institute. From <http://www.adb.org/publications/fin>

- ance-micro-smalland-medium-sized-enterprises-india-sources-and-challenges/.
- Small and Medium Enterprises Development Agency of Nigeria (2013). *Latest Survey Report*. Obtained from SME Centre and also available online @ www.smedan.gov.ng.
- Small Business Development Corporation, Government of Western Australia. (2020). Essential business skills. From <https://www.smallbusiness.wa.gov.au/business-advice/starting-your-business/business-skills>
- Taherdoost, H. (2016). Validity and reliability of the research instrument: How to test the validation of a questionnaire/survey in a research. *International Journal of Academic Research in Management*, 5(3), 28-36.
- Tajaddini, R., Mujtaba, B. G., &Bandenezhad, M. (2010). Management skills of Iranians: A comparison of technical, human and conceptual differences based on gender, age and longevity in management ranks. *Labour and Management in Development*, 10(1),1-18.
- U. S. Security and Exchange Commission (2020). Financial management saves and invests: A roadmap to financial security through saving and investing. Retrieved from: <https://www.sec.gov/investor/pubs/sec-guide-to-savings-and-investing.pdf>.
- U. S. Small Business Administration (2020). Financial management for a small business. Retrieved from: https://www.sba.gov/sites/default/files/files/PARTICIPANT_GUIDE_FINANCIAL_MANAGEMENT.pdf
- Vander, P. K. (2014). *Issues in entrepreneurship*. Massachute: Madear Publisher.
- Vohra, P. S., & Dhillon, J. S. (2014). Best financial practices lead financial performance of SMEs. *International Journal of Accounting and Financial Management Research*, 4(3), 5-16.
- Wadesango, N., Tinarwo, N. L., &Machingambi, S., (2019). The impact of cash flow management on the profitability and sustainability of small to medium sized enterprises. *International Journal of Entrepreneurship*, 23(2), 1-19. From <https://www.abacademies.org/articles/The-impact-of-cash-flow-management-on-the-profitability-and-sustainability-of-small-to-medium-sized-enterprises-1939-4675-23-3-288.pdf>.
- Waniak-Michalak, H., &Gheribi, J. M. E. (2018). The sources of financing for SMEs in Poland. *Management and Education*, 14(1), 15-21.
- Wolmarans, H. &Meintjies, Q. (2015). Financial management practices in successful small and medium enterprises (SMEs). *Southern African Journal of Entrepreneurship and Small Business Management*, 7(1), 88-116. <https://doi.org/10.4102/sajesbm.v7i1.8>.

Motivational Factors Influencing Female Undergraduate Students' Pattern of Dressing: A Case Study of the University of Nigeria, Nsukka

Ogbonnaya, E.K.

Department of Home Economics and Hospitality Management Education
Faculty of Vocational and Technical Education
University of Nigeria Nsukka, Enugu State.

Abstract

The study investigated the motivational factors influencing female undergraduate students' pattern of dressing in the University of Nigerian Nsukka. Specifically, it identified the sociological; psychological and physical motives underlying the dressing patterns of the students. Descriptive survey research design was adopted. The population for the study was 22895 female undergraduate students. Stratified random sampling techniques were adopted to select six Departments and 50 female students from the six departments. This gave a total sample size of 300 female undergraduate students. Questionnaire was used for data collection. The reliability was determined using Cronbach Alpha (α) coefficient score of 0.83 was obtained. The data were analyzed using mean and standard deviation. Findings reveal 14 sociological motives that underly the dressing pattern of the students. These include, to: draw attention of rich males in parties/clubs, appear younger in age, exhibit greatness, meet the pressure of fashion trend and among others. There also seven psychological motives. These include, to: please self, influence others, camouflage personal flaws, satisfy peer members and, others. Other findings are seven physical motives which include to: be admired by males, show body shapes, look good and attractive, appear more beautiful, and others. Based on the findings five recommendations were made, including that Nigerian universities should have dress code for female undergraduate students, among others.

Keywords: Motivation, Factors Influencing, Female, Undergraduate, Dressing Pattern

Introduction

Dressing involves the putting on of clothes. Various factors motivate the clothes people choose and wear. Such motivational factors could be social,

emotional and physical, among others (Kyung, 2013). Clothing is anything worn or placed on the body in order to cover, protect or adorn it and is one of the basic needs of man (Anyakoha,

2015). It is an important component of physical appearance which expresses cultural identity, class distinction, profession class, costumes and gender differences (Diyaola 2010 in Fabusuyi and Igbo, 2019). Clothing constitutes visual communicators which give varied impressions about the wearer and the dress of an individual is a kind of sign which projects the personality of the wearer, it can also affect the person's comfort and self-confidence (Ozor, Olubiyi and Okeke, 2019). Clothing's are articles such as dresses, hand bags, wrist watches, hair covers, belts, jewelries hairdo, make up among others. Clothing are the totality of what an individual puts on from head down to the sole of the feet (Uzozie, Ezike and Eze, 2014). Clothing influences the impression people have about one, dressing can impair or enhance health. For example, dirty clothes can harbor germs, which can cause skin infection and tight clothing can affect free movement and blood circulation (Anyakoha, 2015).

Clothing is worn for numerous reasons, it plays many functional and aesthetic function which include protection from the environmental hazard, enhancement of personality as well as role identification. Again it has been noted that the type of clothing worn by an individual is dependent on the physical, social and geographical considerations which include figure types, status and position held in the society and weather condition among others (Ozor, Olubiyi and Okeke, 2019). Clothing serves many purposes; it can serve as protection from sun and

rainfall, it also enhances safety during hazardous activities. It protects humans from rough surfaces by providing a barrier between the skin and the environment (Aji, 2015). Nwadi and Anyakoha (2011) stressed that when clothes are selected to meet the wearer's psychological, sociologically, cultural and physical needs; they are subjected to a variety of stressors such as dirt and pollen, moisture such as perspiration and rain, environmental pollutants, wrinkling, stains from contact with food or perfumes, sunlight, stretching from movement and abrasion. Again Ohaka, Lemchi and Ozor (2018) noted that clothing power should not be underestimated and that it is something people use to realize and validate themselves as they communicate their thoughts, values, attitude or feelings to others and receive responses from others both verbally and non verbally. The clothing choices of the family members tell others whether the wearer is conservative or not, out-going or reserved, casual or organized, conflict or unsure. The most important consideration of dressing mode should be what makes one comfortable and gives the wearer confidence. No matter how well clothes are, no person is ever well dressed unless those clothes are given appropriate maintenance. This implies that at every clothing selection, it must be serving a purpose on the wearer. Clothing plays important roles for female undergraduate students in Universities of Nigerian Nsukka since they have to protect and cover their

bodies for several reasons. Clothing is constantly consumed and valued by women, female undergraduate students inclusive and increasing clothing consumption may lead to impulse buying and unhealthy competition (Fabusuyi and Igbo, 2019). Ibrahim (2013) stated that change in clothing/dressing is inspired by fashion designers who decide to showcase their products in magazines, catalogues, newspapers and travels, cultural events such as stage play or life performance and art exhibition or a costume exhibit is also an inspiration. Similarly, clothing choice and practices are an important human activity that constitutes the selection, acquisition and utilization of clothes. These activities are affected by social reasons, values, goals and self-concept. Careful planning is the first step to being well dressed. It is difficult to build entirely new wardrobe, the individual has to start with what she has, determine what she needs and how to get the clothing articles (Forster, 2014). An individual should take stock of what is in the wardrobe, remove what is not needed and find out what can be altered to suit a new clothing need. For instance, a blouse with an out mounded puff sleeve can be changed and the money spent on other important needs or even saved.

According to Anyakoha (2015), there are different activities or occasion that determine what people wear which includes: school uniforms, sportswear and party wear among others. Students attend parties, social gatherings and in these kinds of

occasions, female undergraduate students seem to look their best and all these motivate the dressing pattern of female undergraduate students. Human beings have some inner drive which cause them to act. The impetus or force that drives human beings into setting and attaining significant goals in life is motivation. Chauhan (1983), defined motivation as the process of arousing movement in the organism, it impels an organism to action or adjustment. Motivation is the internal urge or drive or tension that spurs an organism into action, it pushes one towards achieving a goal. This implies that before one ever does anything, there must be a force or inner urge or drive that is stimulating the person. This also applies to pattern of dressing and these needs motivate female undergraduate students in their pattern of dressing in order to protect their bodies from such dangers. Social needs will lead to social interaction, social acceptance, love and acceptance. Female undergraduates are not left out in the society. They want to belong and be loved by others. This can motivate them to dress in such a way to attract this social acceptance without considering their figure types (Obunadike 2016). Esteem need - These include self-respect, recognition of status. This can also motivate female undergraduates in their pattern of dressing, who will want to be respected by their friends and people around them. Akubua (2002), revealed in his findings, that some of the motivational factors influencing the dressing patterns of female

undergraduate students are fashion trend, societal influence, one's philosophy of dressing, educational qualification, money available, cultural background, weather condition, age and psychological aspect of it. According to Amonoo (1979), the totality of any culture has influence on the popularity of their dressing pattern. When a particular style of dress comes in vogue or used by film stars and models, it is blindly followed/copied by university students (Pathak, 2013). Fashion trend today does not give precedence to comforts and practicality. Sometimes the dress, that goes beyond modesty and simplicity, which does not allow someone to sit or walk properly, is attracted by youth.

Most of Nigerian females have dropped their traditional pattern of dressing to foreign styles (Obete and Uwah, 2015). According to Akubua (2002), the female undergraduates are not exempted from these dressing practices. He observed in his findings that some female undergraduate students of universities have completely shifted to these crazy clothing practices which make them appear half naked most of the time. These students' put-on see-through blouses show your belly, topless dresses. Obunadike (2016), equally listed some of the scandalous dresses in the church as miniskirts, leggings, hipstars, hug-me/half cut, kiss me, Onitsha-show-your-back, show your chest parade blouses/gowns, off shoulder, spaghetti blouse/gowns, see-through-air-condition dresses,

sleeveless gowns/blouses, one-hand blouse, fish blouse, fly over, body hug, short gowns, boys and half trousers. They noted, that the females embarrass people with their mode of dressing, female undergraduates inclusive. These patterns of dressing have taken the place of a blouse and two wrapper for Igbo women and ladies, a blouse and a wrapper for Hausa women, and iro and buba for Yoruba women and ladies. According to Ohaka, Lemchi and Ozor (2018) dressing smartly is not a matter of having a lot of clothes or wearing expensive clothes nor is it necessarily wearing the latest fashion. The secret to be well dressed lies in choosing clothes that are right for one's body shape and activities. Anyakoha (2015) noted that there are different figure types and that what one wears depends on her unique body shape. No two persons are exactly the same in terms of figure type. One should not choose a dress because a friend or the other person is putting it on rather the figure type and occasion should be considered.

The female undergraduate students have been known to dress immodestly and this affects the way they are approached, addressed and regarded in the society. For instance, from personal observation, Reverend father Onoyima in St. Peter's catholic chaplaincy in the University of Nigeria Nsukka in the year 2001 to 2002 sent so many female undergraduate students out of the chapel, because of indecent dressing. The pressure of current trend of dressing mode, every female undergraduate student wanting to be

like others. Female undergraduate students are dressing carelessly without considering their figure types (Egwim, 2010). People with different figure types have styles and designs that they should wear and the ones to avoid in order to avoid embarrassment. As a result of current dressing, some females like to be like others and this brings about conflict between what they already know about modest dressing. While trying to meet up with this social factors, they tend to forget their physiology all in the bid to meet up with the trend in fashion and to be like others.

The dressing pattern of some female undergraduate students in Universities of Nigeria Nsukka is quiet embarrassing and disgusting, these students have completely shifted to immodest clothing practice that make them appear half naked most of the time. This has resulted to rape, sexual harassment, seduction of the males, kidnapping, killing and the vices (Obunadike, 2016). In Nigeria, tertiary institutions have been battling with the challenge of how students appear on campus and attend school functions especially the female undergraduate students. Many institutions tried adopting measures such as dressing code in order to curtail such dresses which institution feel is absolutely inappropriate to wear in public but these measures have not solved the problem because student still look strange in some of their outfits and even accessories which they use to compliment the outfits (Obunadike, 2016 and Omede, 2011). These dress

sense gives the authority a source of concern. These female undergraduate students attend lectures with dresses that expose sensitive body parts likes low necklines showing their burst, skinny jeans trousers below waistline which is tight-fitting down to the ankle and skimpy tops revealing pubic hair and pants. Use of time is also an issue of concern to the study because students so much engaged with beauty and fashion hardly have good time management, most times female undergraduate students are so much engrossed in what is trending and social activities in institutions at the expense of their studies.

Purpose of the study

The main purpose of the study was to investigate the motivational factors influencing female undergraduate students' pattern of dressing in University of Nigerian Nsukka. Specially, the study:

1. Identified the sociological motives underlying the dressing pattern of female undergraduate students.
2. Determined the psychological motives underlying the dressing pattern of female undergraduate students.
3. Identified the physical motives underlying the dressing pattern of female undergraduate students.

Methodology

Design of the study: The study adopted a descriptive survey design.

Area of the study: The study was carried out in University of Nigeria Nsukka. University of Nigeria is

owned by the Federal Government of Nigeria, it is situated in Nsukka town in Enugu state, Nigeria. The university has 17 faculties and 102 departments.

Population for the study: The population for the study was 22895 female undergraduate students 2018/2019 (obtained from ICT Department University of Nigeria Nsukka). This population comprised of all female undergraduate students from the 17 faculties in the university.

Sample for the study: Multi-stage sampling technique was adopted to select 50 female undergraduate students from six departments. In the first stage of the Multi-stage sampling, Balloting technique was used to select the six departments, the names of the 102 departments were written on a slip of paper separately, after writing their names on the slip of paper, the researcher had 102 slips of paper. All the 102 slips of paper were then placed in a closed box. A random male undergraduate student was called to select six slips of paper randomly from the box containing all the 102 slips of paper. The six slips of paper chosen randomly by the student contained six departments and they are: Psychology, Sociology, Home Science and Management, Home Economics and Hospitality Management Education, Fine and Applied Art and Mass Communication. Simple random sampling technique was used in the

second stage to randomly select 50 female undergraduates from each of the six departments, this gave a total sample size of 300 female undergraduate students.

Instrument for data collection: A questionnaire was used for data collection. It contained 36 items on the motivational factors influencing the dressing pattern of female undergraduate. It was developed based on the specific purposes of the study and review of related literature. The instrument was divided into three sections. It was validated by three Economists lectures. The reliability of the instrument was determined using Cronbach Alpha (α) coefficient and a score of 0.83 was obtained.

Data collection: Three hundred copies of questionnaire were administered. Only 295 copies were completely filled and returned. This represents about 98% return rate.

Method of data analysis: The data were analyzed using means and standard deviation. The mean scores were used to determine motivational level on 5 - point rating scale for each of the item. Any item with mean score of 3.00 was considered a motivational factor influencing the dressing patterns of female undergraduates in the University of Nigeria, Nsukka.

Results

Table I: Mean Responses on Sociological Motives Underlying the Dressing Pattern of Female Undergraduate Students of UNN.

S/N	Sociological motives underlying dressing	Mean (\bar{x})	SD	Remarks
Dressing to:				
1	Draw attention of rich males in parties/ clubs.	4.02	2.02	Agreed
2	Appear younger in age.	3.68	1.85	Agreed
3	Follow fashion trend of the time.	4.26	1.98	Agreed
4	Appear half naked makes one to be attractive	2.28	0.96	Disagreed
5	Meet the pressure of fashion trend	3.28	1.78	Agreed
6	Society now accepts poor pattern of dressing	2.27	0.88	Disagreed
7	Get a suitor before age mates	2.08	0.92	Disagreed
8	Show family affluence/ wealth	3.52	1.64	Agreed
9	Be as actresses seen on television	4.33	1.90	Disagreed
10	Have many friends	4.01	1.87	Agreed
11	Be seen as the best dressed among friends	4.55	2.02	Agreed
12	Exhibit greatness	3.55	0.98	Agreed
13	Show civilization/ modernization	3.00	0.77	Agreed
14	Please friends in the same class	3.23	0.94	Agreed
15	Appear like some famous footballers	2.67	0.69	Disagreed
16	Be outstanding in any gathering	4.32	0.11	Agreed
17	Show the dressing styles seen on television advertisement	3.42	0.96	Agreed
18	Show the dressing styles on magazines/catalogue	3.99	0.90	Agreed
19	Model dress styles on billboard advertisement	3.22	0.92	Agreed
20	Attract opposite sex for immoral act	2.01	0.66	Disagreed

\bar{X} = Mean; SD = Standard Deviation; A = Agreed; D =Disagreed..

Table 1, shows the mean ratings of the respondents on fourteen out of the twenty sociological motives as factors that influence female undergraduate students pattern of dressing which had mean of 3.00 to 4.55 which are \geq the cut off value which is 3.00. This showed that the respondents agreed that fourteen motives influence female undergraduate students' pattern of dressing in University of Nigeria Nsukka. The mean ratings on items 4,

6, 7, 15 and 20 respectively which are less than the cutoff point 3.00, showed that the respondents disagreed with the six items as sociological motives that influence female undergraduate pattern of dressing in University of Nigeria Nsukka. The standard deviation (SD) values of the entire twenty items ranges from 0.66 to 2.02. This indicate that the responses of the respondents are close to one another.

Table 2: Mean Responses on Psychological Motives Underlying the Dressing Pattern of Female Undergraduate Students of UNN

S/N	Psychological motives underlying dressing pattern	Mean (\bar{x})	SD	Remarks
	Dressing to:			
1	Please self	4.12	1.48	Agreed
2	Camouflage personal flaws	4.12	1.85	Agreed
3	Influence others	4.04	0.99	Agreed
4	Make people happy	4.1	1.86	Agreed
5	Make people angry	2.84	0.65	Disagreed
6	Make people laugh	4.52	1.87	Agreed
7	Entertain others	3.12	0.89	Agreed
8	Satisfy peer members	3.74	1.43	Agreed

\bar{X} = Mean; SD = Standard Deviation; A = Agreed; D =Disagreed..

Table 2, shows the mean ratings of respondents on seven out of the eight psychological motives as the motives that influence female undergraduate students pattern of dressing in University of Nigeria Nsukka which mean scores are ≥ 3.00 which is the cutoff value. They are therefore accepted as psychological factors influencing the female undergraduate

students dressing pattern in Universities Nigerian Nsukka. The respondents disagreed with item 5 as a psychological motive that influence female undergraduate pattern of dressing in University of Nigeria Nsukka. The standard deviation ranges from 0.89 to 1.87. This indicates that the responses of the respondents are close to one another.

Table 3: Table 2: Mean Responses on Physical Motives Underlying the Dressing Pattern of Female Undergraduate Students of UNN.

S/N	Physical motives underlying dressing pattern	Mean (\bar{x})	SD	Remarks
	Dressing to:			
1	Camouflage defects	3.18	0.95	Agreed
2	Be admired by males	2.98	0.77	Disagreed
3	Appear more beautiful	4.26	1.68	Agreed
4	Follow fashion trend just to cover up	3.42	0.88	Agreed
5	Look good and attractive	4.20	1.90	Agreed
6	Show body shapes	4.56	2.20	Agreed
7	Be accepted by others	3.42	0.76	Agreed
8	Fit an event	3.64	0.88	Agreed

\bar{X} = Mean; SD = Standard Deviation; A = Agreed; D =Disagreed..

Table 3, reveals the mean ratings of respondents on seven out of the eight physical motives as the motives that influence female undergraduate students pattern of dressing in University of Nigeria Nsukka which mean scores are ≥ 3.00 which is the cutoff value. They are therefore accepted as physical factors influencing the female undergraduate students dressing pattern in Universities Nigerian Nsukka. The respondents disagreed with item 2 as a physical motive that influence female undergraduate students pattern of dressing in University of Nigeria Nsukka. The standard deviation ranges from 0.76 to 1.90. This indicates that the responses of the respondents are close to one another.

Discussion of Findings

Findings in Table 1 revealed that dressing to draw attention of rich males in parties/ clubs, dressing in skimp wear to appear younger in age, dressing to follow fashion trend of the time, Current pressure of fashion trend, showing family affluence/wealth, showing family affluence/wealth, to have many friends, to be seen as the best dressed among friends, to exhibit greatness, to show civilization/modernization, to please friends in the same class, to be outstanding in any gathering, to show the dressing styles seen on television advertisement, to show the dressing styles on magazines/catalogue and to model dress styles on billboard advertisement are the motivational factors influencing female

undergraduate pattern of dressing. This is consistent with Pathak (2013) that noted that when a particular style of dress comes in vogue or used by film stars and models, it is blindly followed by college students. It is also in line with Aji (2015) who observed that fashion trend today does not give precedence to comforts and practicality. Sometimes the dress, that goes beyond modesty and simplicity, which does not allow someone to sit or walk properly, is attracted by youth more especially female undergraduate students just because they want to impress and appear like others. It is in line with Orekwe in Ejila (2014) and Akubua (2002) who observed that Nigerian Universities, do not provide any uniform or dress codes, the students are permitted a relative amount of freedom in their clothing choices and selections. The female undergraduates dress to sexually attract the male counterparts, to be admired and to seduce people (Egwim, 2010). It was also stressed that the females are more desirous of attracting the males with their clothing at the adolescent age. Again, the findings agreed with Ijaz (2011) that location, advertisement and peer among others influence clothing budget and expenditure of consumers including female undergraduates in Nigerian Universities which sometimes expose them to dangers in the hands of ritualist while trying to meet up with the demand.

Table 2 showed that dressing to please self, dressing to camouflage personal flaws, dressing to influence

others, dressing to make people happy and dressing to make people happy among others are the motivational factors that influence female undergraduates pattern of dressing. This is in consonant with Akpan, Nkan and Usoroh (2012) that the influence of others is a determinant factor in the attitudes, behavior and the purchase decision of individuals. It is also in line with Obeta, &Uwah, (2015) who observed that most times many of the adolescent undergraduate students' dress to make their peers happy without considering their figure types, occasion and weather condition.

Table 3 revealed that dressing/wearing sexy out-fit to camouflage defects, dressing in order to appear more beautiful, dressing to look good and attractive and dressing to show body shapes are the motivational factors influencing female undergraduate pattern of dressing among others. This is in agreement with Anyakoha (2015) that noted that people with different figure type and complexion vary. People should choose clothing article depending on the body shape not choosing what another person puts on. This disagreed with Obunadike(2016) who noted that female undergraduates dress in such a way to attract social acceptance without considering their figure types just to appear like others which has exposed some these indecently dressed female undergraduate students to rape and kidnapped among others.

Conclusion

Based on the findings of the study, it can be concluded that sociological, psychological and physical motives influence female undergraduate pattern of dressing. The female undergraduate students have some wrong motives for their pattern of dressing as they decide to appear half naked and seductive on campus just wanting to model actresses and impress peers. This has exposed many of the female undergraduate students to sexual harassment, rape and kidnapping among others. This can be put to check and control with proper guidance starting with parents at homes (especially mothers) and the school authorities. There is therefore need to educate female undergraduate students on the correct pattern of dressing.

Recommendation

1. Based on the findings of these surveys the researcher recommends that societal norm and culture should be a great determinant factor of dressing pattern of female undergraduate students in Nigerian universities.
2. Parents should teach their daughters the appropriate dressing pattern mode while they are young and check what they wear both in the school and at home.
3. Religious leaders in Nigerian should help to direct theses youths in their pattern of dressing during worship.
4. The senate, the University Council, the student affairs, the head of departments and lecturers should

see the correction of ugly dressing styles of the female undergraduates as a serious abnormality that needs urgent attention and action.

5. Curriculum planners should integrate decent dressing code in the curriculum

References

- Aji, O. M. (2015). Improving the clothing maintenance skills of male youths in tertiary institutions in Benue State. Unpublished M.Ed. Thesis Department of Home Economics and Hospitality Management Education University Nigeria, Nsukka.
- Akpan, I. D., Nkan, V.V. & Usoroh, C. (2012). Peer Influence on selected clothing items purchased decision of female students in University of Uyo. *Journal of Home Economics Research*, 16, 195 -202.
- Akubua J. N. (2002). Preference for clothing styles among female undergraduate students in University of Nigeria Nsukka. *Research Issues in Home Economics*. 184-189.
- Amonoo, B. (1979) Social studies for Nigeria secondary schools Heinemann Education Book Nigeria Ltd.
- Anyakoha, E. U. (2015). *Home management for schools and colleges*. Revised Edition. Onitsha: African First Publishers Plc.
- Chauhan S.S. (1983) Advance educational psychology. vikas publishing House PVT Ltd, New Delhi.
- Egwim, C. (2010). Indecent dressing among youths. Retrieved August 10, 2010. <http://www.es/world.com/webpages/features>
- Ejila, E. E. (2014). Clothing motivations and behaviour of female undergraduates in universities in Benue State. *Unpublished MEd. Thesis* Department of Vocational and Technical Education University of Nigeria, Nsukka.
- Fabusuyi, G. S. & Igbo, C. A. (2019). Clothing expenditure issues among female lecturers in Colleges of Education in North Central Zone of Nigeria *Journal of Home Economics Research* JHER(26) 1,112-120.
- Forster, P. (2014). *Clothing and Textile*. Winmat Publisher Ltd. Accra - North, Ghana
- Ibrahim, H (2013). Influence of social and economic factors on the clothing practices of Government Employed Women in Kaduna State. Unpublished M.ed. Thesis, Ahmadu Bello University, Zaria
- Ijaz, M. (2011). Some factors in selecting clothes form Wiki answer. Com/a/ what are some factors in selecting clothers retrieved on the 3rdFebruray, 2014
- Kyung, J. K. (2013). A comparative study of general values and clothing behavior of college female students in Korea and America. Unpublished PhD Thesis, Minnesota: University of Minnessota
- Nwadi, C. L. & Anyakoha, E. U. (2011). Clothing maintenance practices of women living in rural areas of Enugu State. *Journal of Home Economics Research*, 14, 19-27.
- Obeta, A. & Uwah, B. (2015). determinants of patterns of female undergraduates students in tertiary institutions in Abia State, Nigeria. *Rural Environment Education Personality Issn 2255 - 808x*
- Obunadike, J. C. (2016). University students' perception of introduction of dressing code in Campus: Case Study of Michael Okpara University of Agriculture Umudike. *Journal of Home*

- Economics Research JHER (23)1, 146 - 154*
- Ohaka, Lemchi&Ozor (2018). Factors influencing fashion and clothing choice of undergraduates in tertiary institution in Imo State, Nigeria. *Journal of Home Economics Research*, 25, 67-77.
- Omede, J. (2011). Indecent dressing in campuses of higher institutions of learning in Nigeria: Implication for Counseling. *Journal of Emerging Trends in Educational Research and Policy Studies*JETERAPS (4) 2, 228 - 233
- Onoyima, T. (2002). "Scandalous /suggestive/ sensational dress in the church. St.Peter's Chaplaincy, University of Nigeria, Nsukka Sunday Bulletin, Text for Holy Mass 16th Sunday in Ordinary Time, Year 2002, 13th July
- Ozor, P. E., Olubiyi, E. O. &Okeke, E.N. (2019). Clothing maintenance practices of AlvanIkoku Federal College of Education Students in Owerri Municipal of Imo State: A Case Study. *Journal of Home Economics Research*, (26) 2,181-190.
- Pathak (2013), Fashion among students, posted in Essays, Paragraphs and Articles, retrieved on January 2015 from [Http://www.importantIndia.com](http://www.importantIndia.com).
- Uozie, C. A., Ezike, P., &Eze, A. *Basic clothing process construction Anambra*. FabAnichi Nig. Ltd.

Gender Perspectives on the Influence of Football Fandom on Academic Life of Undergraduates in the Public Universities in Enugu State Nigeria

Nnubia, U.I.; Ezeonyeche, C.L.; Nnodim E.J.; Okechukwu, F.O.; Abugu, G.O.
Department of Home Science and Management,
University of Nigeria, Nsukka

Abstract

The study investigated gender perspective on the influence of football fandom on the academic life of undergraduates in the public universities in Enugu State. Specifically, the study determined ways respondents react to the performance of their favorite football clubs; as well as perceived positive and negative ways football fandom influence academic lives of the respondents. Population comprised of 66,460 students from the two public universities in Enugu state. Multi-stage sampling technique was used to select 600 undergraduate students as sample for the study. Sports fandom questionnaire and researcher-structured questionnaire were used for data collection. Frequencies, percentages, means, standard deviation, chi-square and Pearson's correlation were used for data analyses. Findings show that 73.5% of the respondents just jubilate in reaction to club victories. In reaction to club losses, 43.7% are just sad while 5.7% fight with fans of other teams. The respondents agreed that football fandom inspires them to work hard at their studies ($\bar{X}=3.51$), improves their general knowledge ($\bar{X}=3.46$) and keeps them mentally and emotionally fit for their studies ($\bar{X}=3.32$). Male respondents agreed that football fandom reduces their time for studies ($\bar{X}=3.10$), makes them skip meals ($\bar{X}=3.58$) and drives them to gambling ($\bar{X}=3.12$). It was recommended that school administration should get involved in the matters relating to football fandom among students in order to curtail its negative impacts on students' academic lives.

Keywords: Gender, Football, Fandom, Academic, Undergraduate, University

Introduction

All over the world, love for football has evolved into an obsessive affair in which individuals especially youths, invest time, emotion and money into supporting a favored team or club.

Lovers of football usually demonstrate emotional, passionate and dedicated identification with a particular football team (Rationis, 2020). Oftentimes, this kind of identification brings together people who have similar disposition

towards a team of interest, thus offering them a sense of belonging to a larger social structure known as football fandom (Givi & Turkmani, 2018).

One of the terms used most frequently and interchangeably to describe the follower of a football team is 'fan'. This word has its roots in the noun 'fanatic', meaning a person with an unusually strong commitment to a belief system or way of life - in this instance, to their football club. In most forms of popular culture, the 'fan' is invariably assumed to be female. Yet in football the opposite is true (Dunn, 2012). Football was invented by men, and from the 19th century right up to today, the large majority of players and consumers are boys and men (Pfister, Lenneis & Mintert, 2018). The football ground is assumed to be a male domain, and the football fan is assumed to be male, with team allegiance frequently passed from father to son. However, female football fans do exist. In reality, women have always watched and played sport, and for as long as there has been organized football, there have been female fans (Dunn, 2012).

There is a popular notion that men and women differ in emotional responsiveness to football (Wolensky, 2018). Existing research shows that there is a strong correlation between gender differences and the way an individual identifies with football; males have a stronger bond or identify ability to football team than females do (Melnick&Wann, 2010; Koch &Wann, 2016).Another study showed that men

spent more time watching football on television than women and had greater knowledge of football than women. Currently, the consumption of media has changed tides, as females seem to have higher levels of television exposure compared to males (Besley& Shanahan, 2004); and may be as equally involved in football fandom as their male counterparts.

Football fandom, according to Davis (2014) is a form of leisure whereby individuals follow up on football related activities for the purpose of pleasure and social belonging. It is a platform on which football fans express their support and loyalty to the performance of their favorite team such that the success or loss of their team boosts or bursts their self-esteem (Agbonna, Nnajieta, & Anyakoha, 2016). According to Goodlad (2018), football fandom enables individuals to collectively celebrate or lament the performance of their favourite teams. Rationis (2019) explained that it is similar to apprenticeship, involving the process of training, practice and demonstration of relevant knowledge of the team among other fans. Affordable accessibility to satellite television media has enabled fans to watch live matches of their distant favorite teams. Many Nigerians youths are ardent followers of football clubs of other countries particularly the English premier League, via satellite television media. These Nigerian youths are mainly found in higher institutions as undergraduates.

An undergraduate is a college or university student who has not

graduated and takes part in undergraduate education (Anand, 2014). Undergraduates are expected to engage in activities that will be meaningful to their academic life. The academic life of a student ranges from learning how to deal with lecturers, to being productive and to being a better student. Success or failure of a student's academic life is evident in his/her academic performance (Ballotpedia, 2020). A student's academic performance may be affected by his/her engagement in football fandom which has become relatively easy via the television in viewing centers.

Commercial viewing centers provide the commonest avenue for young people especially undergraduate students, to follow up on the activities of their favorite foreign clubs (Dogari, Apuke, & Idi, 2018; Onyebueke, 2018). The centers provide the fans with opportunities to get away from domestic, academic or personal problems and bond with their peers as they enjoy the game they love (Onyebueke, 2015). Many studies in Europe, Asia and Africa found that football fandom is generally a positive agent of social identity, uniting people irrespective of races and religion (Rationis, 2019). Lippe (2015) reported that football fandom prevents depression, keeps mind active, strengthens relationship, builds self-esteem and prolongs life. According to Rationis (2020), it is an important means for people to form and maintain strong friendships that might otherwise not exist.

On the negative side, Onyebueke (2018), observed that football fandom among youths has been found to lead to unnecessary arguments, fight, gambling/betting, inter-club rivalry and aggression, teasing, nicknaming, distraction in studies and other life activities, eating disorder, alcoholism, transfer of aggression, suicide and rioting. Most of the viewing centers also operate bar services and go as far as making football viewing free on the condition that the customers must purchase drinks while they watch matches. Cummings (2013) opined that fandom affect peoples' personal pride, their happiness, their self-confidence, and often their inhibitions in ways that would be unthinkable in other activities with similar personal involvement. Dogari et al. (2018) reporting various studies, observed that football fandom can have adverse effects on ardent fans; in addition to consumption of much time and money which could have been invested in more productive activities, the rivalry that exist among club members could degenerate into 'cultism' and result in 'tribal' clashes and hooliganism if not controlled. Eribake (2009) cited the incidence in Port Harcourt Nigeria, in which a fan of one football club, rammed his car into a group of jubilating fans of another team, killing four people and injuring many others.

The proliferation of football bars or viewing centers has further increased the risk of fan rivalry as well as alcoholism and unplanned spending among youths (Dogari *et al.*, 2018). Personal observation of the researchers

shows that public viewing centres abound around the university campuses. These centres usually become beehive of drinking and other social activities, during the seasons of football competitions, especially the European league matches. The football match seasons are often characterized by the emanation of very loud spontaneous emotional outbursts from the viewing centres, indicating that football fandom is an intricate part of the undergraduate students' lives. Alaka (2015) estimated a nine-month financial cost of keeping up with football events among Nigerian youths at about ₦143,820 (US\$719) for home viewing and ₦18,800 (US\$94) for viewing centers; which is spent on cable subscription, fuel for generator, paid viewing and consumption of drinks at viewing centers. This is exclusive of other expenses such as purchasing branded jerseys, scarves, flags, hats, and hand bangles.

These observations raise research concern among youths in the universities. Three studies carried out among Nigerian fans of English clubs, as reported by Dogari *et al.* (2018), found out that football fandom could lead to extreme fanaticism which increases the risk of crime, breakdown of law and order as well engagement in some weird rituals aimed at bringing good luck for favorite clubs. The studies were all carried out in viewing centers located in various towns in Nigeria which are patronized by both youths and adults from different walks of life. There is scarcity of research targeted at undergraduates

of Nigerian universities who are being prepared to take over the mantle of leadership of the country in various sectors; and thus, cannot afford to be unduly distracted. Furthermore, there is an abundance of literature on football and fandom; however, gender is mostly not an issue in these publications. The overwhelming majority of studies and publications on football fandom focus on men. Research about female football supporters and fans is very limited (Pfister, Lenneis & Mintert, 2018). This study therefore investigated the gender perspective on the influence of football fandom on the academic life of undergraduates in public universities in Enugu State, Nigeria.

Objectives of the study

The general objective of this study was to investigate the gender perspective on the influence of football fandom on the academic life of undergraduates in public universities in Enugu State, Nigeria. Specifically, the study determined;

1. ways undergraduates react to the performance of their favourite football clubs by gender; and
2. perceived positive and negative ways football fandom affect the academic lives of the respondents according to gender.

Methodology

Design of the study: The study adopted descriptive cross-sectional survey research design. Cross sectional study is a research design whereby data are collected on the whole study

population at a single point in time in order to determine presence or otherwise of variables of interest (Alexander, Lopes, Ricchetti-Masterson, & Yeatts, 2014).

Area of study: The study was conducted in Enugu State. Enugu State is a state in southeastern Nigeria, created in 1991 from part of the old Anambra State. Its capital and largest city is Enugu, from which the state derives its name. Enugu State has a good number of public and private primary, secondary and tertiary institutions. Enugu State has three main public tertiary institutions: The Enugu State University of Science and Technology (ESUT); The University of Nigeria, Nsukka campus (UNN) and Enugu campus (UNEC); and The Institute of Management and Technology (IMT) (Williams, 2008).

Population for the study: The study population comprised of all the students enrolled as at 2018 in the two public universities in Enugu state. This gave a total population of 45,576 (28,257 female and 17,319 male) students from 9 faculties in University of Nigeria and 20,884 (10,896 female and 9,988 male) students from five faculties in Enugu State University of Science and Technology (ESUT). Demographics showed that 51.7% of the students were aged between 19-21 years, 29% of them were males while 71% were females.

Sample for the study: Sampling was done in multiple-stages. First, by randomly selecting 30% of the faculties in each University. This gave three out of nine faculties in the University of

Nigeria and two out of five faculties in ESUT. The faculties selected were Agriculture, Arts and Engineering from University of Nigeria; and faculties of Education and Engineering from ESUT. The next stage involved random selection of 10% of students in each faculty. According to Ifidon and Ifidon (2007), for a descriptive survey with a population of up to 10,000, a sample of 10% is minimum. This gave a sample size of 600 undergraduate students comprising 326 (231 female and 95 male) students from the University of Nigeria and 275 (195 female and 79 male) students from ESUT who were randomly selected from the seven faculties.

Instruments for data collection: Sports Fandom Questionnaire (SFQ) by Wann (2002) and a structured questionnaire were used for data collection in this study. The SFQ was adapted to assess the level of sports fandom. It has 8-point scale, from 1 (strongly disagree) to 8 (strongly agree). The structured questionnaire was made up of sections A, B and C. Section A was used to collect information on the demographic characteristics of the respondents. Section B contained questions on the perceived positive and negative influence of football fandom on students' academic life while section C assessed ways of celebrating victories and losses of favored team. The items of the structured questionnaire were developed based on the findings of a 10 man focus group discussion conducted by the research team. The group participants were asked to

itemize how being a football fan has positively and negatively impacted their academic lives, and how they react when their favorite club wins or loses. Their responses were synthesized and used to develop the questionnaire.

The structured questionnaire was validated by three lecturers in the Department of Home Science and Management, University of Nigeria, Nsukka. Their corrections were used to make the final copies of the questionnaire. Cronbach's alpha coefficient for SFQ, sections B and C of the structured questionnaire, in this study were 0.926, 0.896 and 0.945 showing high levels of internal consistency.

Data collection techniques: Six hundred copies of each of the questionnaires were administered to the respondents. The participants were selected from the students who were available in the faculty buildings and gave their consents on the days of data collection. A hundred percent return was achieved since all the distributed questionnaires were collected.

Data analysis techniques: Means was used to categorize the respondents into fans and non-fans. Data were analyzed

using frequencies, percentages, means and standard deviation. Chi-square was used to determine the relationship between gender and the academic life of the respondents and their reaction to their club performances. Significant level was established at $p < 0.05$.

Results

Demographic characteristics of the respondents

Data analysis showed that 71% were females while 29% were males. About 51.7% were between ages 19-21 years old while 21% were within 16-18 years old. About 30% of them were in final year; 19% were in first year while half (51.7%) of them were in other years. Majority (91.7%) were single while 8.3% were married. About 67.3% of them lived in school hostel, about 15.2% come from home while 17.5% of them stayed off-campus. Many ($n = 366$; 61%) identified as ardent football fans with a greater proportion (71.6%) of female fans than 28.4% male fans.

Ways respondents react to the performance of their favorite football clubs by gender

Table 1: Percentage Responses on Respondents' Reactions to Favorite Clubs' Victories

	Just jubilate F (%)	Drink F (%)	Party with friends F (%)	Total	χ^2 values
Males	71 (68.3)	5 (4.8)	28 (26.9)	104 (100)	
Females	198 (75.6)	22 (8.4)	42 (16.0)	262 (100)	6.46*
Total	269 (73.5)	27 (7.4)	70 (19.1)	366(100.0)	

$\chi^2 = \text{Chi-square}; *p < 0.05$

Table 1 shows that majority (73.5%) of the respondents just jubilated over their club wins; a few (7.4%) drank/smoked to show their happiness and the rest (19.1%) partied with friends. Chi-square analysis showed that gender was significantly

associated with ways of reacting to club victories. Female fans were more likely than male fans to just jubilate (75.6%) and drink (4.8%) and male fans were more likely to organize party (26.9%) with friends.

Table 2: Percentage Responses of Respondents' Reaction to Clubs' Losses

	Just sad	Cry	Lose appetite	Lose sleep	Fight/quarrel with fans of opponents	Total	χ^2 value
Males	39 (37.5)	4 (3.8)	26 (25.0)	25 (24.0)	10 (9.6)	104 (100)	
Females	121 (46.2)	35 (13.4)	58 (22.1)	27 (14.1)	11 (4.2)	262 (100)	16.0*
Total	160 (43.7)	39 (10.7)	84 (23.0)	62 (16.9)	21 (5.7)	366 (100.0)	

$\chi^2 =$ Chi-square; * $p < 0.05$

Table 2 shows that in reaction to club losses, many fans (43.7%) just felt sad; almost a quarter (23%) lost their appetite and a few (5.7%) fought/quarreled with fans of the opponents. Gender was also significantly ($p < 0.05$) associated with

reaction to losses. Male fans were more likely than female fans to lose appetite (25%), lose sleep (24%) and fight with opponents (9.6%); while females were more likely than males to feel just sad (46.2%) and cry (13.4%).

Table 3: Mean Responses on Positive Influence of Football Fandom on Academic Life as Perceived by Male and Female Respondents

S/N	Positive Influences	\bar{X}_n (SD)	Rmk	\bar{X}_f (SD)	Rmk	t-values	Total \bar{X}_t (SD)	Rmk
1	Inspires me to work hard at my studies	3.81(1.32)	A	3.19(1.52)	A	3.85*	3.51(1.48)	A
2	Motivates me to make a personal time table/to do list and stick to it.	3.70(1.28)	A	2.98(1.54)	D	4.61*	2.73(1.46)	D
3	Improves my knowledge generally	4.00(0.87)	A	3.78(0.90)	A	2.11*	3.46(1.19)	A
4	Keeps me mentally and emotionally fit for my studies	4.23(0.87)	A	4.00 (0.91)	A	2.25*	3.32(1.38)	A

\bar{X}_n = mean by males; \bar{X} = mean by females; \bar{X} = grand mean; SD = standard deviation; Rmk = Remarks; A = Agree; D = Disagree; * = values are significant at $p < 0.05$

Table 3 shows that the male respondents agreed to all the items as positive influence (mean ≥ 3.0) of fandom on their lives as undergraduate students. The female respondents agreed to all items with the exception of item 2 - "motivates me to make a personal time table/to do list and stick to it" which had response mean 2.98. Gender significantly accounted for observed variance in the mean scores on positive influences. Total mean showed that the respondents disagreed only on item 2 (mean = 2.73) as a positive way football fandom influence their academic life.

Table 4: Mean Responses on Negative Influence of Football Fandom on Academic Life as Perceived by the Respondents by Gender

S/N	Negative Influences	\bar{X}_n (SD)	Rmk	\bar{X} (SD)	Rmk	t-values	Total \bar{X}_i (SD)	Rmk
1	Makes me skips lectures	2.91(1.35)	D	2.25 (1.39)D		4.17*	2.07 (1.29)	D
2	Reduces my time for studies	3.10 (1.59)	A	2.40 (1.54)D		3.86*	2.19(1.37)	D
3	Reduces concentration in my academic work	2.93 (1.51)	D	2.30 (1.49)D		3.64*	2.09 (1.35)	D
4	Makes me lose night sleep	2.98 (1.52)	D	2.27 (1.51)D		4.03*	2.11 (1.37)	D
5	Makes me skips meals to watch my favorite match	3.58 (1.51)	A	2.75 (1.64)D		4.43*	2.46 (1.51)	D
6	Makes me spend my pocket money to buy my club items e.g. jersey, headband.	3.17 (1.59)	A	2.30 (1.44)D		5.07*	2.21 (1.39)	D
7	Drives me into sport betting/gambling	3.12 (1.70)	A	2.25 (1.51)D		4.78*	2.12 (1.42)	D
8	Makes me miss school test/exams	2.82 (1.59)	D	1.92 (1.33)D		5.46*	1.93 (1.28)	D

\bar{X}_n = mean by males; \bar{X} = mean by females; \bar{X} = grand mean; SD = standard deviation; Rmk = Remarks; A = Agree; D = Disagree; * = values are significant at $p < 0.05$

Table 4 shows the negative influences of football fandom on academic lives of the respondents. It shows that the female fans disagreed with all the items as not a significant influence, while the males agreed that they skipped meals to watch matches (mean = 3.58), -spent pocket money buying club items (mean = 3.17), drove them into sport betting/gambling (mean = 3.12) and it reduced time for study (mean = 3.10). Gender differences were also found in all the items at $p < 0.05$. The overall mean showed that the respondents disagreed with all the items as negative ways football fandom influenced their academic life.

Discussion

Findings showed that majority of the respondents reacted to the victories of their favorite clubs simply by jubilating and some organized party with friends. However, a few engaged in drinking to show their happiness. A greater number of males reported partying with friends to celebrate victory. This finding agrees with the finding of Lederman, (2011) among students of Oregon university that male fans were more likely to organize party with friends when their teams won, but unlike the report by Lederman, the females in this study engaged in drinking more than males when their club wins. Iliades (2012) also observed that women are about twice more likely than men to die by suicide and accidents and suffer other health related issues, as a result of drinking problems. On their reaction to club losses, the findings show that many of them just felt sad, some lost sleep and appetite and a few went as far as fighting or quarreling with fans of the opposing clubs. Male fans were more likely than female fans to lose appetite and sleep, and to fight with opponents while females were more likely than males to feel sad and cry. In a similar study carried out by Agbonna et al. (2016) among students of tertiary institutions in Southwestern Nigeria, 5.6% of the respondents reported they were willing to fight the fans of the opposing team should their favored team lose a match. Goodlad (2018) observed that football fandom enables individuals to collectively lament the performance of their

favorite teams. As observed by Cummings (2013), football fans could lose personal happiness, pride, and self-confidence when their team loses a match, and this could make them lose their self-restraint and engage in negative acts that they would not have been involved with given other circumstances. These acts as observed by Onyebueke (2018) include unnecessary arguments, fight, inter-club rivalry and aggression, teasing, nicknaming, alcoholism, transfer of aggression, suicide and rioting all of which could lead to complete breakdown of law and order and disruption of academic activities if not controlled.

The findings further showed that football fandom have positive influence on academic lives of the students; male students reported that participating in football fandom activities inspired them to work hard at studies, motivated them to make and comply with a personal to-do list or time table, improved their knowledge on general life issues and kept them mentally and emotionally fit to go about their studies. Participating in sporting activities especially ones that involve passion and devotion, is established as a means of relaxation and positive way of spending leisure time (Wolensky, 2018). The importance of productive leisure activities in the lives of undergraduate students cannot be over emphasized. It is crucial for developing self-identity, increases the ability to cope with academic and personal life stresses, provides opportunity for increased physical

activity and exercise, increased means of socializing and interacting with peers and ultimately leads to better health and wellbeing (Yarnal, 2010). The female students also reported similar positive influences with the exception of motivating them to make and stick to personal time table. Gender difference was found in the level at which football fandom positively influenced academic life of the participants, with male students experiencing higher level of influence. Although the number of females who identified as football fans is high, studies had shown that males show higher level of commitment to fandom activities than females (Theodorakis, Al-emadi, & Wann, 2017). Wolensky (2018) opined that female fans display lower levels of emotional attachment with fandom activities compared to males who “use fandom as a socially acceptable outlet for a wide array of emotional displays.

On the other hand, while females did not report any form of negative influence, male students agreed that they skipped meals to watch matches, spent pocket money buying club items, engaged in sport betting/gambling and had reduced time for study. Meal skipping could have adverse health effects on individuals especially students, if not controlled. Wilhelm (2017) observed that it could lead to binge eating, lower metabolism levels and consequently weight gain, impairing of mental focus and an increase in the risk of developing diabetes. The students also reported spending their pocket money buying

club items and engaging in sport betting/gambling. Ogula and Munyua (2019) observed that students who engage in sports gambling lose much more often than they win. These practices amount to wastage of scarce resources, adds to the financial pressure faced by parents, and has the potential of introducing the students to serious financial crimes such as stealing and embezzlement of funds. In addition, Palmer (2013) stated that sports gambling was associated with poor mental health, binge drinking, use of marijuana, cigarette and illicit drug as well as unsafe sex due to alcohol intake.

It is noteworthy however, that though football fandom activities reduced time for personal study, it did not interfere with the students’ attendance to lectures and examinations, neither did it reduce concentration in their studies. This finding is contrary to the report of Lederman (2011) that male students in Oregon university experienced drop in grades by 27 points, more than females, when their clubs won as a result of partying. Sitkowsk (2008) also reported that among high school students in south eastern Pennsylvania, male students who participated in athletic sports experienced drop in grades at the end of sporting season. The findings of current study suggest that there is no conflict between students’ participation in football fandom and their academic activities irrespective of their being football fans or not.

Conclusion

It is a popular culture among undergraduate students especially females, to identify with a football team and participate in various activities that show solidarity with the favorite football club. This includes celebrating the victories and mourning the losses of the favorite teams. Although, the students generally reacted to their club performances by merely jubilating and feeling sad as the case may be, a few of them showed tendency for risky behaviors such as drinking, smoking, fighting and quarrelling in addition to loss of sleep and appetite. Football fandom was found to have some perceived positive influences on the academic lives of both male and female students. Football fandom could therefore be said to provide an array of suitable leisure activities for the students in the midst of stressful academic pursuit. However, it also had several negative influences on the academic life of the male students which included skipping meals and sports gambling or betting, which could have series of negative consequences. Although gender disparity existed in the students' reaction to their club performances and the way football fandom influenced the lives of students, football fandom was generally perceived to have no negative influence on the academic life of the undergraduate students.

Recommendations

Based on the findings of this study, it is recommended that;

1. School administration should get involved in the matters relating to football fandom among students by offering supervised football viewing services to the students in their hostels so that minor acts of indiscipline and club patronage at viewing centres do not degenerate to full blown hooliganism and cultism.
2. Parents and guardians of undergraduate students especially the male students, should also provide periodic supervision of the children/wards' participation in fandom activities especially digital aspect of fandom, so as to harness the positive aspects of fandom and minimize its negative effects.
3. Undergraduate male students should discover practical ways of organizing their fandom behaviours, so that it does not escalate to harmful dimensions and they are able to achieve adequate balance between their academic life and football fandom.
4. Future researches are recommended to extend the investigation of football fandom among teaching and non-teaching staff of universities and its influence on their job performance and family living.

References

- Agbonna, S., Nnajieta, C. C., & Anyakoha, C. I. (2016). Dynamic and Implications of Football Fans ' Club and Fans ' Fanaticism for School Violence Among Tertiary Students in Lagos , Nigeria. *African Research Review*, 10(43), 155-169. <https://doi.org/doi.org/10.4314/afrrre.v.10i4.12>

- Alaka, J. (2015, October 17). Analysis: The real cost of following football in Nigeria. *Premium Times*. Retrieved from <https://www.premiumtimesng.com/sports/sports-features/191656-analysis-the-real-cost-of-following-football-in-nigeria.html>
- Alexander, L. K., Lopes, B., Ricchetti-Masterson, K., & Yeatts, K. B. (2014). Cross-sectional Studies. *Epidemiologic Research and Information Center Notebook*, (8), 1-5.
- Allen, A. M., Oncken, C., & Hatsukami, D. (2014). *Women and Smoking : The Effect of Gender on the Epidemiology , Health Effects , and Cessation of Smoking*. 53-60. <https://doi.org/10.1007/s40429-013-0003-6>
- Anand, J. S. (2014). *Beyond life! Beyond death*. 1st ed. India: Patridge Publishing. pp.9
- Ballotpedia (2020). Academic performance. Retrieved from https://ballotpedia.org/Academic_performance
- Besley, J. & Shanahan, J. (2004). Skepticism about media effects concerning the environment: examining Lomborg's hypothesis. *Society and natural resources*, 17, 861-880
- Cummings, J. (2013). Why Sports Are a Sad and Dangerous Waste of Time - Jim Cummings - Medium. Retrieved April 15, 2020, from <https://medium.com/@jimmythatsme/why-sports-are-a-sad-and-dangerous-waste-of-time-3530f0ee579a>
- Davis, L. (2014). Football fandom and authenticity: A critical discussion of historical and contemporary perspectives. *Soccer & Society*, 16(2-3). <https://doi.org/https://doi.org/10.1080/14660970.2014.961381>
- Dogari, K.A.; Apuke, O.D. & Shadrach, I. (2018). Comfort or Conflict_ Investigating the Attitude and Experiences of European Football Fans in Television Viewing Centers in Nigeria _ Open Access Journals. *Global Media Journal*, 16(30).
- Dogari, K. A., Apuke, O. D., & Idi, S. (2018). Comfort or Conflict : Investigating the Attitude and Experiences of European Football Fans in Television Viewing Centers in Nigeria. *Global Media Journal*, 16(30), 1-10. Retrieved from https://www.researchgate.net/publication/325697911_Comfort_or_Conflict_Investigating_the_Attitude_and_Experiences_of_European_Football_Fans_in_Television_Viewing_Centers_in_Nigeria
- Dunn, C.S. (2012). *The experience of female football fans in England: a qualitative study* (Doctoral Thesis, Sheffield Hallam University, United Kingdom). Retrieved from <http://shura.shu.ac.uk/20192/>
- Eribake, A. (2009, June 23). Football and fatalities: How not to be a fan in Nigeria. *Vanguard*. Retrieved from <https://www.vanguardngr.com/2009/06/football-and-fatalities-how-not-to-be-a-fan-in-nigeria/>
- Givi, B. N., & Turkmani, E. M. (2018). Team Identity and Indirect Sport Consumption of Soccer Fans. *International Journal of Science Culture and Sport*, 6(December), 458-466. <https://doi.org/10.14486/IntJSCS781>
- Goodlad, J. (2018). The science of football fandom: A psychologist's perspective. Retrieved from <https://www.shrinktank.com/psychologists-perspective-football-fandom/>
- Ifidon, S. E., & Ifidon, E.I.(2007). *New Directions in African Library Management*. Ibadan: Spectrum Books.
- Iliades, C. (2012). The Effects of Alcohol on Women - Women's Health Center. Retrieved from EverydayHealth website:

- <https://www.everydayhealth.com/womens-health/effects-of-alcohol-on-women.aspx>
- Koch, K., & Wann, D. L. (2016). Team identification and sport fandom: gender differences in relationship-based and recognition-based perceived antecedents. *Journal of sport behavior*, 39(3), 278-300
- Lederman, D. (2011, December 20). As football teams win, male students' grades lose. *Inside Higher Ed*. Retrieved from <https://www.insidehighered.com/news/2011/12/20/football-teams-win-male-students-grades-lose>
- Lippe, J. (2015). 6 Reasons Being A Sports Fan Is Good For Your Health. Retrieved April 12, 2020, from Yahoo Lifestyle website: <https://www.yahoo.com/lifestyle/6-reasons-being-a-sports-fan-is-good-for-your-109318052612.html>
- Melnick, M. J., & Wann, D. L. (2010). An examination of sport fandom in Australia: Socialization, team identification and fan behavior. *International review for the sociology of sports*, 46(4), 456-470
- Ogula, P. A., & Munyua, J. K. (2019). Extent of students' involvement in sports betting in public secondary schools in Mumias East sub-county, Kenya. *British Journal of Education*, 7(9), 75-88.
- Ogundimu, A. (2018). Nigerian Universities to Revert to 5-Point Scale Grading System * NGScholars. Retrieved April 5, 2020, from NGScholars website: <https://www.ngscholars.net/nigerian-universities-revert-5-point-scale-grading-system/>
- Onyebueke, V. (2015). *Globalisation , Football and emerging urban ' tribes ' : Fans of the European Leagues in a Nigerian city*. Retrieved from <https://openaccess.leidenuniv.nl/bitstream/handle/1887/32926/ASC-075287668-3668-01.pdf?sequence=2>
- Onyebueke, V. U. (2018). *Football Globalization , Fans of European Leagues and the Spatiality of Viewing Centers in a Nigerian*. Singapore: Whoice Publishing Pte.Ltd.
- Palmer, C. (2013). *Sports betting research : literature review* (pp. 1-27). pp. 1-27. Tasmania: UTAS.
- Pfister, G., Lennis, V., & Mintert, S. (2018). Female fans of men's football - a case study in Denmark. *Soccer and society*, 14(6), 850-871
- Rationis, V. (2019). Football Passions. Retrieved June 16, 1BC, from Social Research Centre website: http://www.sirc.org/football/football_passions.shtml
- Rationis, V. (2020). Football Passions. Retrieved April 4, 2020, from Social Issues Research Centre website: http://www.sirc.org/football/football_passions.shtml
- Sitkowsk, L. S. (2008). *The Effects of Participation in Athletics on Academic Performance among High School Sophomores and Juniors* (Liberty University). Retrieved from <https://digitalcommons.liberty.edu/cgi/viewcontent.cgi?article=1115&context=doctoral>
- Theodorakis, N. D., Al-emadi, A., & Wann, D. (2017). An examination of levels of fandom , team identification , socialization processes , and fan behaviors in Qatar. *Journal of Sport Behavior*, 40(January), 1-21. Retrieved from https://www.researchgate.net/publication/312023850_An_examination_of_levels_of_fandom_team_identification_socialization_processes_and_fan_behaviors_in_Qatar
- Wann, D. L. (2002). Preliminary validation

- of a measure for assessing identification as a sports fan: The sport fandom questionnaire. *International Journal of Sport Management*, 3, 103-115.
- Wilhelm, A. (2017). Synthesize This_ Skipping meals lead to increased health risks. Retrieved April 20, 2020, from The Washburn Review website: http://www.washburnreview.org/arts_and_entertainment/synthesize-this-skipping-meals-lead-to-increased-health-risks/article_207f7d5c-253c-11e7-bfac-a39944c4e664.html
- Williams, L. (2008). Nigeria: The Bradt Travel Guide. *Bradt travel guide*, p. 196.
- Wolensky, M. E. (2018). *Gender Differences among Professional Football Fans: Serious Leisure, Emotional Expressivity, and Cognitive Distortions* (Philadelphia College of Osteopathic Medicine). Retrieved from https://digitalcommons.pcom.edu/psychology_dissertations/458/
- Yarnal, C. (2010, March 15). Teach students benefits of positive leisure time use _ Centre Daily Times. *Centre Daily Times*. Retrieved from <https://www.centredaily.com/news/special-reports/article42801654.html>

Food Preference within Rural and Urban Household in Ondo State, Southwestern Nigeria

¹Meludu, N.T., ²Adeloye, F.F. & ³Abolade, T. J.

¹Department of Agricultural Economics and Extension, Nnamdi Azikiwe University, Awka.

²Department of Agricultural Ext. and Rural Development, University of Ibadan

³Faculty of Agricultural Science, National Open University of Nigeria, Abuja.

Abstract

The general objective of this study was to investigate food preferences among rural household (RH) and urban household (UH) in Ondo state of Nigeria. Specifically the study determined socio-economic characteristics of the respondents and food preferences of different groups of people in the household (youths, adults and elderly) within rural and urban households. Multi-stage sampling procedure was used to select 324 respondents for the study. Questionnaire was used for data collection. Data were analyzed using means, frequencies and percentage. ANOVA was used to test hypothesis at 0.05 level of significance. Findings show: preference for meat and dairy was low (59.0%) among RH, but high (53.2%) among UH. Preference for vegetables was high (57.9%) among UH but low among RH (59.0%). Consequently, food preference was higher among UH (54.7%) compared to RH (42.5%). There was a significant difference ($t=2.333$, $p=0.022$) in food preference between adult in rural and urban households. Also, there was significant difference in the level of food preference across the three generations in the urban areas ($F=4.632$, $p=0.011$). On the overall, there was significant difference in the level of food preference of respondents across the three generations ($F=4.304$, $p=0.014$). This implies that the food preference of the three categories differs. In conclusion, generations' food preference differs across the generation (youth, adults and elderly) in urban and rural households'. The study recommends that generations in rural households should be more educated on healthy food choices to achieve food security.

Keywords: Food, Preference, Youths, Adults, Elderly, Rural, Urban, Household.

Introduction

Food preference involves processes that are cultural dependent and different factors such as personal, emotional, economic and social factors

influence individual preference for food. It is noteworthy that at youthful age, individuals are more selective of what they eat compared to when they were children. Eating is viewed as a

social act, hence social networks and family can influence preferences for different food items (Happel, 2013; Holms, 2016). Food is regarded as the basic necessity of life and it is important as a major means of survival. The quality and quantity of food taken by an individual is therefore a major determinant for a healthy and productive life and a balanced food intake is essential to ensured adequate nutrients (Awosan, Ibrahim, Essien, Yusuf and Okolo, 2013). Also, the knowledge to choose food that are healthy might influence eating habits, food preference and nutritional status (Gan, Mohammed, Zalilah, Hazizi, 2011).

Also, it is critical for youth to eat plenty of highly nutrient foods, especially those containing calcium, protein, and iron. Involvement in regular exercise by the youth also helps manage weight and stress and building up of new bone. Most adults and elderly tend to lose muscle mass as they age, which causes metabolism to slow down. Many become less active with age. Adults and elderly need the following nutrition daily; Fruits and vegetables, water, low-fat dairy products, leafy greens, and canned fish with soft bones that you eat provide needed calcium, protein. vitamin B12, (meat, fish, and dairy). Lastly processed foods like canned soups, lunchmeats, and frozen meals should be avoided.

Youths are prone to eating disorder. In boys, the disorder is due to their involvement in competitive sports which require low fat body

weight, in girls, it is due to their body images which are susceptible to anorexia nervosa and bulimia (both of which are eating disorders) (Ehimigbais, Otakpor and Uwadiae, 2017). When activity decreases, it is very easy to gain weight. If interest in food remains high, the intake of high calorie foods may need to be restricted, avoidance of second helping and stoppage of frequent snacking may be a good check. On the other hand, there is the possibility that in the later years, interest in food may diminish and calorie may be inadequate. In this instance, frequent small feedings and inclusions of some high calorie food may be necessary. Nutrition in adult years emphasizes the importance of diet in maintaining wellness, preventing diseases and promoting health (Okeke, Onyelu&Ibeanu, 2011).

As regards protein requirement, the best supply of essential amino acid to supplement the proteins found in vegetables and cereals is from animal protein. Lack of proteins in the elderly can have serious consequence if the person must undergo an operation or suffers from bone injury because healing is prolonged. It may also cause an elderly person to be easily fatigued and more susceptible to infections, while it impairs growth in adolescent and youth. All nutrients must be available in meals for all ages; it is the quantity that varies. Nutritional requirement for youth/adolescent reaches the maximum during this period, only during pregnancy and

lactation do females surpass their male counterparts' requirement. The most crucial nutrient for this age is protein, iron and calcium. Males require more carbohydrate than females for strength. According to Okekeet *al.*,(2011), once the body reaches physiologic maturity, the rate of catabolic or degenerative changes may become greater than the anabolic regeneration. The resultant loss of cells can lead to varying degrees of decreased efficiency and impaired function. These changes can be influenced by life events, illness, genetics, socio-economic and lifestyle factors. Lifestyle factors that seem to positively influence physiologic age are adequacy and regularity of sleep, frequency of consumption of well balance meals and sufficient physical activity. Cigarette smoking, excessive alcohol consumption and overweight can negatively affect physiological age. The diet must be adequate for maintaining body tissues so that its integrity is not threatened, that means quality protein, mineral and vitamin with sufficient amount of carbohydrates and needed to maintain a desirable body weight.

The nutrient water is highly vital for kidney functionality in carrying wastes excreted by the kidneys. Generous drinking of water also alleviate constipation which is an ailment of later life. Some nutrients which are very important to the elderly people's health include vitamin in combination with calcium, vitamin B12, folic acid - folate (Olasunbo and Ayo, 2013). Good

feeding habit for healthy individuals is to incorporate the following food into their diet; milk, two or more cups of milk (488g or 0.48 litres) daily, four or more daily servings of vegetables and fruits, one serving as a source of vitamin C and vitamin A. Meat group; two or more serving a day (16 to 23g without bone) of kidney, poultry and eggs, liver, fish and shell fish or meat alternates. One cup of cooked beans (250 to 260g), dry peas or lentils, bread; cereal group; all bread and whole grain cereals, four servings per day(118g to 127g) cooked cornmeal, rice, etc. Fats and oils of unsaturated fatty acid are recommended.

Food preference is vital to quality of life of an individual and has effects on the physical, mental and psychological development of individuals, particularly along gender categories and generation (youths, adults and elderly). Food preference is of great concern to individuals of different gender as addiction to unhealthy food preference leads to obesity, high blood pressure, diabetes, cardiovascular diseases and cancer later in life (Dimitrijevi, Popovi, Sabljak, and Škodri 2015).It is against this backdrop that this study investigated food preferences within rural and urban households in south western Nigeria.

Objectives of the study

The general objective was to investigate food preferences of different groups of people in rural and urban household (youths, adults and

elderly) in Ondo state. Specifically, the study determined:

1. socio-economic characteristics of the respondents
2. food preferences of different groups of people in the household (youths, adults and elderly)

Research questions

1. What are the socio-economic characteristics of respondents in the study area?
2. What are the food preferences within the household members (youths, adults and elderly) within rural and urban households?

Hypotheses of the study

There is no significant difference between food preferences across the generations (youth, elderly and adult) within the rural and urban household members

Research Methodology

Design of the study: Qualitative research design was adopted for the study

Area of study: Ondo State was created in 1976 and it is usually called the Sunshine State with Akure as its capital. Ondo State is made up of 18 LGAs and the land mass is 14,789sqkm. The State is characterised by the tropical climate and it is bounded by Kogi and Ekiti States in the North, Edo state in the East, Ogun and Oyo State in the West and the Atlantic Ocean in the South. The primary occupation of most people in the state especially in the rural area is farming which is largely at the subsistence level. Ondo State is notable

for cocoa production. Other crops grown in the State include; cocoyam, maize, orange, oil palm, cassava, plantain, yam and banana. Fishing is also prominent in some parts of the State and some are into trading. It is noteworthy that people in the State are elites.

Population for the study: The population for this study is made up of all the households (rural and urban) in the area of the study - including parents, children - who included the youths, adults and elderly. From each house household, youths which are above 18 years of age, adults and elderly were sampled for the purpose of this study.

Sample for the study: Ondo state was purposively selected for this study. A multi-stage sampling procedure was adopted to select respondents for this study. At the first stage, Ondo State in the south west was purposively selected for this study. At the second stage, the LGAs in Ondo State were stratified into rural and urban. The number of rural and urban LGAs in Ondo State were 8 and 10 respectively. The third stage was simple random selection of 15% of LGAs in each of the stratum. Therefore, one (1) and two (2) in each of the respective stratum were sampled respectively. The fourth stage involved the selection of three (3) communities in each of the selected stratified local governments. Urban LGAs selected were Ondo West and the communities selected were Lotogbe, Olosan camp and Igbado; and Akure South, the communities selected were Awule, Igoba and

Oyetedo. Rural LGA selected was Ile-oluji/Okeigbo and the communities selected were Bamikemo, Olorunntele and Lipanu. At the fifth stage, from each of the communities sampled, proportionate sampling was used to select 10% of the households in each of these communities. This made a total of 324 respondents for rural and urban households

Instrument for data collection:

Questionnaire was used to collect data. It served as interview schedule for those who were not literate. It was developed based on the specific objectives and review of literature. It was validated by three experts in nutrition. Split-half method was employed to determine the reliability of the instrument and a reliability coefficient of 0.83 was obtained which was adjudged acceptable for the study.

Data collection method: A total of 324 copies of the questionnaire were distributed. The non-literate respondents were interviewed using the questionnaires as an interview schedule.

Data analysis techniques: The data obtained were analysed with the aid of descriptive statistics (mean, frequency counts and percentages). Inferential statistics such as t-test and ANOVA were used for test of hypotheses.

A list of 30 food items categorized based on food groups were presented to the respondents (youths, adults and elderly) to tick the expression that best suits their food preferences on a five-point Likert scale. Respondents indicated whether their dislike for a

particular food is to the extreme rate = 1, moderate =2, neither like nor dislike=3, moderate likeness=4 or extreme likeness=5. Respondent with the lowest food preference score had 52, while respondent with the highest food preference score had 173 and the mean was 133.43. Respondents were categorized using the mean value as the threshold. Respondents with high level of food preferences were those with scores from mean and above while respondents with low level of food preferences were those with scores below the mean score.

Results of the study

Socio-economic characteristics of respondents

The result shows that respondents in both rural and urban areas had an average age of 47.5±14.5 and 45.1±17.7 years respectively, this implies that the respondents were within the working age population, active and productive. It was further shown that on the average, rural dwellers earned income of ₦ 49,776±42,217.42 monthly. This amount of income earned portrayed the rural households as low-income earners and meeting food security might be difficult. For respondent in the urban areas, the average monthly earning was 73,941±55,182.05. Majority (75.4%) of the respondents in the rural areas and about half (53.2%) of urban households were married. About 35% of rural household had secondary education, while in urban areas, majority (63.7%) had tertiary education.

Food preference among youths

Table 1: Distribution of food preference among youths in rural and urban households

Food Classes of food	Youth in rural household					\bar{X}	Youth in urban household					\bar{X}
	DE (F%)	DM (F%)	NLD (F%)	LM (F%)	LE (F%)		DE (F%)	DM (F%)	NLD (F%)	LM (F%)	LE (F%)	
Cowpea	0.0	2.0	10.2	61.2	26.5	4.12	3.4	9.1	11.4	42.0	34.1	3.94
Rice	0.0	0.0	4.1	42.9	53.1	4.49	3.4	2.3	11.4	44.3	38.6	4.13
Yam	0.0	2.0	20.4	40.8	36.7	4.12	3.4	6.8	10.2	53.4	26.1	3.92
Sweet potatoes	0.0	0.0	32.7	61.2	6.1	3.73	5.7	6.8	20.5	45.5	21.6	3.70
Fish	0.0	2.0	10.2	49.0	38.8	4.24	0.0	4.5	5.7	44.3	45.5	4.31
Poultry	0.0	2.0	16.3	67.3	14.3	3.94	4.5	1.1	11.4	48.9	34.1	4.07
Banana	0.0	0.0	14.3	63.3	22.4	4.08	2.3	5.7	6.8	42.0	43.2	4.18
Citrus	0.0	2.0	18.4	38.8	40.8	4.18	3.4	5.7	11.4	47.7	31.8	3.99
Pepper	0.0	0.0	20.4	61.2	18.4	3.98	2.3	3.4	17.0	60.2	17.0	3.86
Tomatoes	0.0	0.0	20.4	40.8	38.8	4.18	2.3	1.1	10.2	52.3	34.1	4.14

DE= Dislike Extremely; DM = Dislike Moderately; NLD = Neither Like Not Dislike; LM = Like Moderately; LE = Like Extremely; F = Frequency; % = Percentage; \bar{x} = Mean

Table 1 shows that youths in the rural and urban areas mostly preferred rice (\bar{x} =4.49; \bar{x} =4.12), cowpea (\bar{x} =4.12; \bar{x} =3.94), yam (\bar{x} =4.12; \bar{x} =3.92), fish (\bar{x} =4.24; \bar{x} =4.31) and poultry (\bar{x} =3.94; \bar{x} =4.07) respectively. Also, youth in rural areas mostly preferred oranges

(\bar{x} =4.18), while youths in urban areas preferred banana (\bar{x} =4.18). In addition, tomatoes (\bar{x} =4.18; \bar{x} =4.14) was mostly preferred in rural and urban areas respectively.

Food preference among adults

Table 2: Distribution of food preference among adults in rural and urban households

Food Classes of food	Adult in rural household					\bar{X}	Adult in urban household					\bar{X}
	DE (F%)	DM (F%)	NLD (F%)	LM (F%)	LE (F%)		DE (F%)	DM (F%)	NLD (F%)	LM (F%)	LE (F%)	
Beans	0.0	0.0	2.4	70.7	26.8	4.24	0.0	2.0	5.9	56.9	35.3	4.25
Rice	0.0	0.0	7.3	56.1	36.6	4.29	0.0	0.0	11.8	49.0	39.2	4.27
Yam	0.0	0.0	7.3	65.9	26.8	4.19	0.0	0.0	7.8	70.6	21.6	4.14
Garri	0.0	0.0	7.3	75.6	17.1	4.10	3.9	2.0	19.6	54.9	19.6	3.84
Fish	0.0	0.0	7.3	68.3	24.4	4.17	2.0	0.0	3.9	47.1	47.1	4.37
Milk	0.0	0.0	9.8	75.6	14.6	4.05	0.0	2.0	11.8	58.8	27.5	4.12
Tomatoes	0.0	0.0	9.8	56.1	34.1	4.24	2.0	0.0	2.0	58.8	37.3	4.29
Pineapple	0.0	0.0	7.3	58.5	34.1	4.27	0.0	0.0	5.9	54.9	39.2	4.33
Okra	0.0	0.0	4.9	82.9	12.2	4.07	2.3	3.4	17.0	60.2	29.4	4.18
Amaranth	2.4	0.0	14.6	58.5	24.4	4.02	2.0	2.0	13.7	49.0	4.10	

DE= Dislike Extremely; DM = Dislike Moderately; NLD = Neither Like Not Dislike; LM = Like Moderately; LE = Like Extremely; F = Frequency; % = Percentage; \bar{x} = Mean

Table 2 reveals that adults in rural and urban areas mostly preferred rice (\bar{x} =4.29; \bar{x} =4.27), cowpea (\bar{x} =4.24; \bar{x} =4.25), yam (\bar{x} =4.20; \bar{x} =4.14), garri (\bar{x} =4.10; \bar{x} =3.84) and fish (\bar{x} =4.17; \bar{x} =4.37) respectively. In rural areas the most preferred fruits was pineapple (\bar{x} =4.27) while adults in urban preferred oranges (\bar{x} = 4.33).

Food preference among elderly

Table 3: Distribution of elderly in rural household based on their food preference

Food Classes of food	Elderly in rural household						Elderly in urban household					
	DE (F%)	DM (F%)	NLD (F%)	LM (F%)	LE (F%)	\bar{X}	DE (F%)	DM (F%)	NLD (F%)	LM (F%)	LE (F%)	\bar{X}
Beans/ Gnut	0.0	0.0	11.4	70.5	18.2	4.07	3.9	5.9	11.8	49.0	29.4	3.94
Rice	0.0	4.5	9.1	56.8	29.5	4.11	3.9	0.0	11.8	45.1	39.2	4.16
Yam	0.0	0.0	9.1	68.2	22.7	4.14	2.0	5.9	13.7	49.0	29.4	3.98
Gari	0.0	0.0	18.2	65.9	15.9	3.97	7.8	11.8	13.7	45.1	21.6	3.61
Fish	0.0	2.3	9.1	75.0	13.6	4.00	3.9	2.0	13.7	45.1	35.3	4.06
Milk	0.0	2.3	18.2	75.0	4.5	3.82	3.9	5.9	15.7	49.0	25.5	3.86
Mango/ Banana	0.0	9.1	20.5	63.6	6.8	3.68	5.9	7.8	19.6	45.1	21.6	3.96
Pineapple	0.0	2.3	6.8	65.9	25.0	4.14	3.9	7.8	11.8	49.0	27.5	3.88
Okro/ Bitterleaf	2.3	0.0	13.6	75.0	12.2	3.89	3.9	5.9	17.6	47.1	25.5	3.84
water leaf	0.0	0.0	18.2	72.7	9.1	3.91	11.8	0.0	13.7	47.1	27.5	3.78

DE= Dislike Extremely; DM = Dislike Moderately; NLD = Neither Like Not Dislike; LM = Like Moderately; LE = Like Extremely; F = Frequency; % = Percentage; \bar{x} = Mean

Table 3 reveals that, elders in the rural and urban areas mostly preferred rice (\bar{x} =4.07; \bar{x} =4.56), yam (\bar{x} =4.14; \bar{x} =3.98), garri (\bar{x} =3.98; \bar{x} =3.61) fish (\bar{x} =4.00; \bar{x} =4.06) and milk (\bar{x} =3.86; \bar{x} =3.86) respectively. Also, elders in the rural areas mostly preferred pineapple (\bar{x} =4.14) while elders in urban preferred banana (\bar{x} =3.96). lastly, elders in both rural and urban mostly preferred bitter leaf (\bar{x} =3.91; \bar{x} =3.84).

Table 4: Categorisation of respondents based on their food preference

Food groups	Rural Freq	%	Urban Freq	%	Min	Max	Mean	SD
Cereals								
Low	62	46.3	85	44.7	5.00	25.00	19.14	2.89
High	72	53.7	105	55.3				
Root and tubers								
Low	60	44.8	100	52.6	5.00	25.00	18.17	3.02
High	74	55.2	90	47.4				
Meat and dairy								
Low	79	59.0	89	46.8	22.10	3.58	10.00	30.00
High	55	41.0	101	53.2				
Fruits								
Low	74	55.2	55	28.9	39.17	8.05	15.00	52.00
High	60	44.8	135	71.1				
Vegetables								
Low	79	59.0	80	42.1	36.86	5.70	10.00	50.00
High								
Overall preference	55	41.0	110	57.9				
Low	77	57.5	86	45.3	54.00	175.00	135.36	18.76
High	57	42.5	104	54.7				

F=Frequency, %=Percentage

Table 4 shows that the preference level of root and tubers was high in rural areas (55.2%), but low in urban (52.6%). There was low preference for meat among rural respondents (59.0%) which could be as a result of low income. However, preference for meat was high among the respondents in urban (53.2%). High preference for

fruits was observed among urban respondents (55.3%), but it was low in rural (50.7%). Generally, food preference was low in rural (42.5%), while it was high in urban (54.7%).

Test of difference in food preferences between rural and urban

Table 5: Independent sample t-test between rural and urban food preferences

Food preferences	Group	N	Mean	Standard deviation	Mean difference	t-value	p-value	Decision
Youth	Rural	49	134.90	14.28	3.90	1.234	0.219	Not Sig.
	Urban	88	131.00	19.36				
Adults	Rural	41	134.05	13.59	6.69	2.333	0.022	Significant
	Urban	51	140.74	13.76				
Elderly	Rural	44	129.75	13.79	1.84	0.462	0.645	Not Sig.
	Urban	51	131.59	23.03				
Overall	Rural	134	132.95	13.99	0.82	0.042	0.675	Not Sig.
	Urban	190	133.77	19.52				

Significant at 0.05%

Table 5 shows that there was a significant difference ($t=2.333$, $p=0.022$) in food preference between adult in rural and urban households. The mean scores shows that adult food preference in urban ($\bar{x}=140.74$) was higher relative to rural ($\bar{x}=134.05$) with a mean difference of 6.69.

Table 6: ANOVA test of difference in food preferences of respondents across the three generations

Rural	Sum of square	df	Mean of square	F	p-value	decision
Between Groups	685.99	2	343.00			
Within Groups	25348.64	131	193.50			
Total	26034.63	133		1.770	0.174	Not. Sig
Urban						
Between Groups	3399.23	2	1699.62			
Within Groups	68610.04	187	366.90			
Total	72009.27	189		4.632	0.011	Significant
Overall						
Between Groups	2561.63	2	1280.815			
Within Groups	95535.88	321	297.620			
Total	98097.51	323		4.304	0.014	Significant

Significant at 0.05%

Table 6 shows that there was significant difference in the level of food preference across the three generations in the urban areas ($F=4.632$, $p=0.011$). and in overall, there was significant difference in the level of food preference of respondents across the three generations ($F=4.304$, $p=0.014$).

Discussion of findings

The results of the study show that respondents in both rural and urban areas had an average age of 47.5 ± 14.5 and 45.1 ± 17.7 years respectively, depicting that the respondents were within the working age population. The result further shows that on the average, rural dwellers earned ₦ $49,776\pm 42,217.42$ monthly. This amount portrayed them as low income earners and meeting food security

might be difficult. For respondent in the urban areas, the average monthly earning was $73,941\pm 55,182.05$. This amount may be fairer when compared to their rural counterparts. Hence, urban respondents might still have challenges with being food secure as it was discovered by Bashir, Naeem & Niazi (2010) that individual income influences their food security status. Majority (75.4%) of the respondents in the rural areas and about half (53.2%) of urban households were married. It is instructive to state that with this status there will be pulling of economic resources by the couple in a bid to attain healthy lifestyle in the households. In rural area, few (35%) had secondary education and 25.4% had tertiary education, while in urban areas only 16.8% had secondary education and majority (63.7%) had

tertiary education. The finding of this study aligns with Adegboye (2016) that the proportion of rural dwellers with no formal education is higher when compared to that of urban dwellers.

More so, the result shows that youths in both rural and urban areas mostly preferred rice ($\bar{x}=4.49$; $\bar{x}=4.12$) and cowpea ($\bar{x}=4.12$; $\bar{x}=3.94$) respectively for cereals and legumes. The ratings of these food crops as most preferred could be because these crops were mostly produced in the study area and they were notable as the crops that were mostly consumed by the respondents. International Food Information Council (2012) noted that food preferences are strongly associated with food eaten. Also, youths in rural and urban areas mostly preferred yam ($\bar{x}=4.12$; $\bar{x}=3.92$). More so, fish ($\bar{x}=4.24$; $\bar{x}=4.31$), poultry ($\bar{x}=3.94$; $\bar{x}=4.07$) and tomatoes ($\bar{x}=4.18$; $\bar{x}=4.15$) were mostly preferred food among youths in the rural and urban areas respectively. The preference of these fruits may be because of their health benefits. This agrees with the study of Otuneye, Ahmed, Abdulkarim, Aluko & Shatima (2017) where it was stated that the difference in the nutritional habits among adolescents can be caused by economic and educational factors.

However, it was revealed that adults in rural and urban areas mostly preferred rice ($\bar{x}=4.29$; $\bar{x}=4.27$), cowpea ($\bar{x}=4.24$; $\bar{x}=4.25$), yam ($\bar{x}=4.20$; $\bar{x}=4.14$) and garri ($\bar{x}=4.10$; $\bar{x}=3.84$) respectively. This preference could be attributed to the fact that they were the major staple

food families rely on for household feeding. It is plausible to state that the preference of these items could be because they are produced in this agro ecological zone. However, adults in both rural and urban areas mostly preferred fish ($\bar{x}=4.17$; $\bar{x}=4.37$). Adults in rural area mostly preferred pineapple ($\bar{x}=4.27$), while adults in urban preferred oranges ($\bar{x}=4.33$). It has been observed that people with limited income flow lack financial capacity to eat balance diet and this usually result in low intake of essential nutrients needed by the body (Msambichaka, Eze, Abdul, Abdulla, Klaster, Tanner & Probst, 2018). Furthermore, adults in rural areas mostly preferred okra ($\bar{x}=4.07$) and amaranths ($\bar{x}=4.02$). However, it was observed that pepper ($\bar{x}=4.18$), amaranths ($\bar{x}=4.10$) and water leaf ($\bar{x}=4.00$) were most preferred in the urban.

In addition, the result of the findings shows that, elders in the rural area mostly preferred rice and beans ($\bar{x}=4.07$) under cereals and legumes component, while elders in urban preferred rice ($\bar{x}=4.56$) and groundnut ($\bar{x}=3.94$). More so, elders in rural and urban areas preferred yam ($\bar{x}=4.14$; $\bar{x}=3.98$) and garri ($\bar{x}=3.98$; $\bar{x}=3.61$) respectively. Also, elders in rural areas mostly preferred fish ($\bar{x}=4.00$) and milk ($\bar{x}=3.86$). More so, for the elders in the urban, fish ($\bar{x}=4.06$) and milk ($\bar{x}=3.86$) were mostly preferred. The preference of these food items could be partially attributed to the provision of sufficient nutrients to the respondents at a relatively cheap price. The views expressed aligns with Majabadi, Solhi,

Montazeri, Shojaizadeh, Nejat, Farahani & Djazayeri, (2016) that factors affecting food choices were convenience taste, weight, cost and nutrition. The preference level of root and tubers was high in rural (55.2%), but low in urban (52.6%). There was low preference for meat among rural respondents (59.0%) which could be as a result of low income. However, preference for meat was high among the respondents in urban (53.2%). High preference for fruits was observed among urban respondents (55.3%), but it was low in rural (50.7%). This is in line with Mayen *et al* (2011) and Boylan *et al* (2011) where it was reported that fruits and vegetables intake is related to income, occupation and education level and that individual with high higher socio economic status tends to consume more fruits and vegetables. It is noteworthy that because most food crops were usually transported to the urban areas, the level of food preference attained by urban households could be attributed to their capability to purchase these food items which is largely dependent on their income. Generally, food preference was low in rural (42.5%), while it was high in urban (54.7%).

There was a significant difference ($t=2.333$, $p=0.022$) in the food preferences between adult in rural and urban households. The mean scores shows that adult food preference in urban ($\bar{x}=140.74$) was higher relative to rural ($\bar{x}=134.05$) with a mean difference of 6.69. This implies that increased knowledge of adults in

urban areas on food nutrition might have aided their food preferences coupled with enhanced financial status compared to adults in rural areas with low socio-economic status. This agrees with the study carried out in 2000 by David, Fiona, Cumming and Judith that the difference between rural and urban cognition of food, dietary patterns and physical activities are due to different lifestyles. There was significant difference in the level of food preference across the three generations in the urban areas ($F=4.632$, $p=0.011$). This implies that the food preference of the three categories of generation differs. This could be as a result of the fact that there are different preference options in the urban centres such as fast food joints and super markets which provides the people with different options. This is in agreement with the finding of Westenhoefer (2005) that pleasantness usually motivates the choice of food across generation, so food preference across generation differs.

Conclusion

There was significant difference in the level of food preference across the three generations in the urban areas. Also, there was significant difference in the level of food preference of respondents across the three generations on the overall. Food preferences of the youth were better compared to adult and the elderly in rural household. Adult's food preference was higher with an obvious margin compared to elderly and the

youth in urban. On the overall, adult's food preference was the highest with an obvious difference compared to youth and the elderly. The study established that food preferences of rural households significantly differed from urban households.

Recommendation

The study recommended the following:

1. Adults in rural households need more enlightenment on the food preferences most especially preference for fruits and vegetables to keep them healthy and to help their immune system to prevent diseases.
2. Governmental and Non-governmental interventions are required in the area of empowerments to increase rural households' level of income and introduction of adult literacy education to improve on their level education for better food preferences.

References

Adegboye, M. (2016). Socio-economic status categories of rural dwellers in Northern Nigeria. *Advances in Research*. 7. 1-10. 10.9734/AIR/2016/21836.

Awosan, K. J., Ibrahim, M. T. O., Essien, E., Yusuf, A. A. & Okolo, A. C. (2013). Dietary pattern, lifestyle, nutrition status and prevalence of hypertension among traders in Sokoto central market, Sokoto, Nigeria. *International Journal of Nutrition and Metabolism*. 6(1), 9-18.

Bashir, M., Naeem, M. & Niazi, S. (2010). Rural and peri-urban food security: a

case of district Faisalabad of Faisalabad of Pakistan. *WASJ*, 9(4), 403-41.

Boylan S., Lalluka T., Lahelma E., Pikhart H., Malyutina S. & Pajak A. (2011). Socio Economic circumstances and food habits in Eastern, Central and Western European populations. *Public Health Nutrition*. 14 (4): 678 - 687

Bashir, M., Naeem, M. & Niazi, S. (2010). Rural and peri-urban food security: a case of district Faisalabad of Faisalabad of Pakistan. *WASJ*, 9(4), 403-41.

David R, Woodward, Fiona J., Cumming, Peter J., Ball, Heather M. Williams, Hellen Hornsby & Judith, A, Boon (2000). Urban - rural differences in dietary habits and influences among Australian adolescent. *Ecology of food and Nutrition*. (39)4: 271 - 292

Dimitrijevi, I., Popovi, N., Sabljak, V., Škodri, V., & Dimitrijevi, N. (2015). Food addiction-diagnosis and treatment. *Psychiatria Danubina*, 27(1), 101-106.

Ehimigbai, M., Otakpor, A. N. & Uwadiae, E. (2017). Prevalence of eating disorders among school attending adolescents in Benin city, Nigeria. *International Journal for Innovation Research Advanced Studies*. 4(3):353-7

Gan W. Y., Mohd N. M., Zalilah M. S. & Hazizi A. S. (2011). Differences in eating behaviours, dietary intake and body weight status between male and female Malaysian university students. *Mal Journal of Nutrition* 17(2):213-228.

Happel, C. A. (2013). You Are What You Eat: Food as Expression of Social Identity and Intergroup Relations in the Colonial Andes. *Cincinmati Romance Review*. 175-193.

- Holms, L. (2016). Eating is a practice: The need of social science within nutrition. *Hochschule Fulda*, 4(2), 1-2.
- International Food Information Council, (2012). Food and health survey: consumer attitudes toward food safety, nutrition, and health. Retrieved from http://www.foodinsight.org/Resources/Detail.aspx?topic=2012_IFIC_Foundation_Food_Health_Survey_Media_Resources. Accessed November 3, 2013
- Majabadi, H. A., Solhi, M., Montazeri, A., Shojaeizadeh, D., Nejat, S., Farahani, F. K. & Djazayeri, A. (2016). Factors influencing fast-food consumption among adolescents in tehran: a qualitative study. *Iranian Red Crescent Medical Journal*, 18(3).
- Mayen, AL, Marques-Vidal P., Paccaud F., Bovet P., & Stringhini (2014). Socio-economic determinants of dietary patterns in low- and middle-income countries: a systematic review. *Am J. clin Nutr.* 100(6): 1520 - 1531
- Msambichaka, B., Eze, I. C., Abdul, R., Abdulla, S., Klatser, P., Tanner, M. & Probst-hensch, N. (2018). Insufficient Fruit and Vegetable Intake in a Low-and. *Nutrients*, 10, 2-16.
- Okeke, E. C., Onyechi, U. A. & Ibeanu, V. N. (2011). Practise of nutrition handbook. University of Nigeria Press Nsukka, Nigeria. pp 72-73.
- Olasunbo, O. & Ayo, D. (2013). Health seeking behaviour, food habit and nutritional assessment of an elderly group in Ile Ife, Nigeria. *Journal of Community Medical Health Education* 3:224.
- Otuneye, A. T., Ahmed, P. A., Abdulkarim, A. A., Aluko, O. O. & Shatima, D. R. (2017). Relationship between dietary habits and nutritional status among adolescents in Abuja municipal area council of Nigeria. *Nigerian Journal of Paediatrics*, 44(3): 128-135.
- Westenhoefer, J. F. (2005). Age and Gender Dependent Profile of Food Choice. *Diet Diversification and Health Promotion*. Forum Nutr. Basel, Karger, 2005, vol 57, pp 44-51.

Issues in Students Industrial Work Experience Scheme and Entrepreneurial Skills Acquisition among Home Economics Students in Tertiary Institutions in Anambra State

Bob-Eze N.N.

Department of Home Economics,
Nwafor Orizu College of Education, Nsugbe,
Onitsha, Anambra State.

Abstract

This paper focused on issues relating to Students Industrial Work Experience Scheme (SIWES) and entrepreneurial skills acquisition among Home Economics students in tertiary institutions in Anambra State. Specifically, it determined: new skills learnt by students during their SIWES experience; ways SIWES impacted on their entrepreneurial skill acquisition; challenges students faced during SIWES; and measures that will enhance SIWES programme. The study adopted survey design. Population was made up of 268 Home Economics students who have gone through SIWES experience from the three tertiary institutions that offer Home Economics in Anambra State. Questionnaire was used for data collection. Data were analyzed using mean and standard deviation. Findings include 17 skills learnt by the students through SIWES among which were skills in soap making, baking, catering, sewing and designing; seven ways SIWES impacted on the students entrepreneurial skill development. These include that, it prepares students for employment; it exposes students to new work method. Fifteen challenges faced by Home Economics students during SIWES training were determined. These include finance, student placements as a result of non-acceptance of students by some establishments, inadequate supervision of trainees among others. Twenty-eight measures that could enhance SIWES among which are adequate payment of SIWES allowances, collaboration between institutions and industries and students should adhere to industries rules and regulations. Five recommendations for enhancing SIWES programme were made.

Keywords: SIWES, Skills, Entrepreneurship, Students, Acquisition, Challenges.

Introduction

Students' Industrial Work Experience Scheme (SIWES) is a skills development programme established

by the federal government through the Industrial Training Fund (ITF) in 1973 with the headquarters in Jos, Nigeria. It is meant to enable students in

tertiary institutions in Nigeria acquire technical skills and experience for professional development in their courses of study as it bridges the gap between theory and practice. It is the accepted skills training programme in institutions of higher learning in Nigeria and forms part of the approved academic requirements in various degree programmes. (ITF and UNIJOS, 2011). The scheme is a planned, supervised training and intervention programme based on stated and specific learning and career objectives, leading to the development of occupational competences of the participants. It is also aimed at exposing and preparing students in institutions of higher learning for the industrial work situations which they are to meet after graduation. It provides on-the-job practical experience for students when they are exposed to work, and the methods and techniques they would use in handling equipment and machinery that may not be available in their institutions (Oyeniya, 2011). The scheme also prepares students for work situations they are likely to meet after graduation (ITF, 2004).

The scheme became operative in 1974 in 11 institutions of higher learning with 748 participants. By 1978, it had widened in scope to about 5,000 participants from 32 different institutions in the country. In 1979 the Industrial Training Fund, withdrew from managing the scheme due to problems of organizational logistics and the increased financial burden as a result of a rapid expansion of SIWES

(ITF, 2003). The scheme is a tripartite programme that incorporates the students, institutions, and industries. In Nigeria, SIWES is financed by the federal government (through the Ministry of Commerce and Industry) and managed by the Industrial Training Fund (ITF) with the objective of making education more relevant and bridge the yearning gap between theory and practice of engineering, vocational, technological, and other related courses in the higher institutions of learning in the country.

The bodies involved in SIWES operation are known as the stakeholders and include: the Federal Government of Nigeria (through the Ministry of Commerce and Industry), Industrial Training Fund, through NUC/NBTC/NCCE, the institutions, the industries (or employers) and the students. SIWES is a form of cooperative industrial internship programme among all its stakeholders. Mafe (2009) states that all stakeholders are involved in the operation of SIWES but that students are the key actors that are directly involved in its implementation. All other stakeholders have a minor role to play in the actual training process, Mafe (2010) states that SIWES is generic because it cuts across over than 60 programmes in the universities, over 40 programmes in the polytechnics and about 10 programmes in the colleges of education. Thus, SIWES is not specific to any one course of study or discipline.

Before the inception of the scheme, there was a growing concern among

Nigerian industrialists that graduates of institutions of higher learning lacked adequate practical background experience necessary for employment. So, employers were of the opinion that the 'theoretical education' provided by higher institutions was not responsive to the needs of the economy (ITF and UNIJOS, 2011). It was against this background that the fund, during its formative years, introduced SIWES to provide students with the opportunity of exposure to handle equipment and machinery in industry to enable them acquire prerequisite practical knowledge and skills (Aderonke, 2011). These skills aimed at exposing students to professional work methods as the scheme (SIWES) act as a catalyst for industrial growth and productivity through entrepreneurial skills development. The objective of SIWES as stated by Industrial Training Fund 2013 in Ogbanya (2018) is to provide an avenue for students in higher institutions to acquire industrial skills and experience in their course of study and prepare students for the industrial work situation they will meet after their graduation.

The idea of students acquiring work experience while still in school has, for long, been recognized in a number of countries. Raubenmer, (2002), highlights work experience in other countries; for example, in Egypt, all tertiary institutions must give students real life work experience in such activities as construction and acquiring experience in electrical and plumbing works. In India, small scale industries are established within the premises of

tertiary institutions to stimulate real life situations. Similarly, in the USA, students of engineering and technology faculties are given the challenge to design and construct faculty items. Also, in the UK, experiences of "Skill Centres" and the "grant system" have promoted work experience while the various training board help in shaping the school curricula.

Furthermore, in the former United Socialist Soviet Republic (USSR), sufficient provision was made for students to acquire relevant practical skills in industry for a period of six months and at least twice during their course of study (Raubenmer, 2002).

Home Economics is a field of study that helps individuals in developing knowledge, skills and attitudes for managing the self and the household. Anyakoha (2013) defined Home Economics as a multi-disciplinary family-oriented profession that is continuously evolving new ways of enabling families to take charge of their lives, maximize their potentials, and function independently and interdependently. Through Home Economics, better family life is enhanced. Home Economics is the profession and field of study that deals with the economics and management of the home and community (International Federation for Home Economics 2012). Home Economics is a field of formal study which includes such areas as consumer education, institutional management, interior design, home furnishing, cleaning, handicrafts, sewing, clothing and

textiles, cooking, nutrition, food preservation, hygiene, child development, money management and family relationships.

The term entrepreneurship has been defined differently by authors and scholars. Hisrich (2002) defined entrepreneurship as the process of creating something different with value of devoting the necessary time and effort, assuming the accompanying financial, psychological and social risks and receiving the resultant rewards of monetary and personal satisfaction. The Entrepreneurship centre of Manimi University of Ohio (2003) defines entrepreneurship as “the process of identifying, developing and bringing a vision to life. The vision may be an innovation idea, an opportunity or simply a better way to do something. The end result of this process is the creation of new venture, formed under conditions of risk and considerable uncertainty”.

According to National Business Education Association (2011), entrepreneurship focuses on recognizing business opportunities, starting business based on the recognized opportunity and operating and maintaining that business. Osuala (2004) stated that entrepreneurship aims at:

- ❖ Providing meaningful training for youths to make them self-reliant, encourage them to drive profit and be self-independent.
- ❖ Providing youths with training skills that will make them meet the manpower need of the society.

- ❖ Providing youths with enough training in risk management.
- ❖ Providing youths with enough training that will make them creative and innovative in identifying new business opportunities.

Egbule (2018) noted that evidences from developed nations have shown that vocational/technical and entrepreneurial skills development is a desideration to drive national economies especially developing ones from potentials to realities. Uzoka (2013) identified some ways entrepreneurial development is important to Home Economics students. These include that entrepreneurial development:

- ❖ equips the beneficiaries with efficient and effective skills in the use and application of human and material resources so as to avoid waste and misuse of resources.
- ❖ makes one self-reliant thereby help in reducing unemployment which is a trait to economic development.
- ❖ makes one creative, resourceful and innovative.
- ❖ brings about crime reduction as individuals are equipped with saleable skills for gainful employment.

Active participation in SIWES enables Home Economics students to appreciate work methods and help

them gain experience. It prepares them to contribute to the productivity of their employers and to national development immediately after graduation as well as creating an enabling environment where they can develop and enhance their personal attributes such as critical thinking, creativity, initiative, resourcefulness, leadership, time management, presentation skills and interpersonal skills, amongst others. SIWES prepares Home Economics students for employment and makes the transition from school to the world of work easier after graduation (Mafe, 2009). Oyedotum (2018) stated that students industrial work experience scheme is a skill development programme designed to prepare students of Nigeria tertiary institutions for transition from the college environment to work.

In spite of the importance of SIWES in professional development of students, then scheme has been hampered in tertiary institutions in Anambra state by challenges such as non-acceptance of students by some relevant industries, inadequate SIWES orientation programme and lack of finance for the smooth running of the scheme. Acquisition of skills by students is facing set back due to inadequate practical experience as it relates to their professional development. It is against this backdrop that this study become imperative.

Purpose of the Study

The main purpose of this study was to examine issues relating to Students Industrial Work Experience Scheme (SIWES) among Home Economics students in Anambra State. Specifically, the study determined the students' perceptions of:

1. new skills they learnt during their SIWES training in Anambra State.
2. ways SIWES training impacted on their entrepreneurial skill acquisition.
3. challenges students face during the industrial training in Anambra State.
4. measures that could enhance the SIWES programme for Home Economics students in Anambra State.

Research Questions

This study answered the following research questions;

1. What are the new skills Home Economics students learnt during their SIWES training in Anambra State?
2. In what ways did SIWES training have impact on Home Economics students entrepreneurial skill acquisition in Anambra State.
3. What are the challenges Home Economics students faced during the Industrial training in Anambra State.
4. what are the measures that could enhance the SIWES programme for Home Economics students in Anambra State.

Methodology

Design of the Study: Survey research design was adopted in this research work.

Area of the study: Area of the study was Anambra State. It is made up of three Senatorial Zones. There are three non- university tertiary institutions that offer Home Economics in Anambra State. These are Federal Polytechnic Oko, Federal College of Education (Tech), Umuze, and Nwafor Orizu College of Education, Nsugbe.

Population for the Study: Population for the study comprised 268 Home Economics students who have gone through students industrial experience scheme in the three institutions that offer Home Economics, these are; Federal Polytechnic, Oko - 196 students; Federal College of Education (Tech), Umuze - 64 students; and Nwafor Orizu College of Education, Nsugbe seven (7). The entire population was used because it could be managed. So there was no sampling.

Instrument for Data Collection: A four-point scale questionnaire was used for data collection. It was

developed through extensive literature review based on the research questions. The response options were *strongly agree, disagree, disagree, and strongly disagree*. The instrument was validated by three experts in the field of Home Economics Cronbach Alpha technique was used to determine the internal consistency of the questionnaire items using Home Economics students who had gone through Students Industrial Experience Scheme from Federal College of Education (Tech), Asaba which was outside the population. A coefficient of 0.66 was obtained so the instrument was reliable.

Data Collection and Analysis Techniques: 268 copies of questionnaire were distributed by hand by the researcher and her assistants to ensure adequate collection of the instrument. 261 copies were retrieved given a percentage return of 97%. The data was analysed using mean, standard deviation and t-test statistics at 0.05 level of significance. Items scoring 2.50 and above were accepted as *agree* while items scoring below 2.50 were rejected as *disagree*.

Findings

Table 1: Mean Responses and Standard Deviation on New Skills Learnt During SIWES Training.

S/N	New Skills Learnt	\bar{X}_1	\bar{X}_2	S.D ₁	S.D ₂	Remark
1	Soap and soapless detergent making.	3.54	3.90	0.50	0.30	Agree
2	Baking (buns, chin-chin, pies, bread etc).	3.58	3.90	0.50	0.30	Agree
3	Catering (cooking for events).	3.15	3.50	0.92	0.50	Agree
4	Interior decoration (sewing of curtains and blinds, decoration of cushions).	3.43	3.70	0.57	0.65	Agree

5	Funeral packaging (decoration of funeral beds and parlour, making of wreaths, decoration of canopies).	3.33	3.30	0.76	0.46	Agree
6	Wedding events packaging (baking and setting of cakes, buffet stands, wedding accessories, arranging of flower bouquets etc)	3.53	3.50	0.50	0.50	Agree
7	Cloth production (weaving of aso-oke, tie and dye, batik etc).	3.25	3.20	0.44	0.40	Agree
8	Sewing and designing (making dresses, under wears, embroidery, beading).	3.58	3.30	0.57	0.46	Agree
9	Making of models and toys (dolls, rabbits etc)	3.04	3.60	0.63	0.92	Agree
10	Laundry and dry cleaning.	3.43	3.70	0.50	0.46	Agree
11	Making of ice-cream and fruit juice.	3.54	3.80	0.50	0.40	Agree
12	Making of flours (bean, maize, yam flour etc)	3.18	3.30	0.61	0.46	Agree
13	Hair plaiting and dressing.	3.65	3.90	0.48	0.35	Agree
14	Shoe and bag making using different materials.	3.47	3.30	0.50	0.46	Agree
15	Pedicure and manicure skills.	3.54	3.45	0.50	0.50	Agree
16	Cosmetic production e.g. body cream, hair cream, rob, deodorant, pomade etc.	3.54	3.10	0.50	0.84	Agree
17	Bead work.	3.90	2.90	0.31	0.95	Agree

Key: for tables 1 and 2 \bar{X}_1 = mean of respondents from Polytechnic; \bar{X}_2 = mean of respondents from Colleges of Education; SD1 = standard deviation of respondents from Polytechnic; SD² = standard deviation of respondents from Colleges of Education.

Table 1 shows that all the items on new skills learnt during SIWES training have their means scores ranging from 2.90 to 3.90 which indicate that all the respondents agreed that they acquired the skills during SIWES training.

Standard deviation of all the items were less than 1.00 implying that the responses made by the respondents were close to one another and not far from the mean.

Table 2: Mean Responses and Standard Deviation on the Ways SIWES Training Impacted on Students' Entrepreneurial Skill Development.

S/N	Perceived Impacts of Training	\bar{X}_1	\bar{X}_2	S.D ₁	S.D ₂	Remark
1	SIWES has positive impact on entrepreneurial skills development.	3.43	3.70	0.57	0.07	Agree
2	SIWES is all about collecting stipend.	1.25	1.20	0.44	0.40	Disagree
3	It provides an avenue for experience and professional development.	3.58	3.30	0.57	0.46	Agree
4	It prepares students for work after graduation.	3.54	3.90	0.50	0.30	Agree
5	SIWES exposes students to new work methods.	3.58	3.90	0.50	0.30	Agree

6	It makes transition from school to work easier and enhances professional development.	3.15	5.50	0.90	0.50	Agree
7	It promotes employers' involvement in education process.	3.43	3.70	0.76	0.46	Agree
8	SIWES prepares students for employment.	3.33	3.30	0.76	0.46	Agree

Key: for Tables 1 and 2 \bar{X}_1 = mean of respondents from Polytechnic; \bar{X}_2 = mean of respondents from Colleges of Education; SD1 = standard deviation of respondents from Polytechnic; SD² = standard deviation of respondents from Colleges of Education.

Table 2 shows that all the items on the perceptions of Home Economics students on SIWES as it impacts on their entrepreneurial skills development were agreed by the respondents except item number 19 with mean scores of 1.25 and 1.20. Standard deviation of all the items were less than 1.00 implying that the responses made by the respondents were close to one another and not far from the mean.

Table 3: Mean Responses, Standard Deviation and t-test Analysis on Challenges Face by Home Economics Students during their Training.

S/N	Challenges of SIWES	\bar{X}_1	\bar{X}_2	S.D ₁	S.D ₂	t	Remark
1	Finance for the smooth running of the programme.	3.54	3.50	0.57	0.50	0.02	Agree
2	Problem of transportation to and from the attachment place.	3.25	3.20	0.44	0.40	0.02	Agree
3	Non- provision of accommodation by the establishment.	3.58	3.30	0.57	0.46	0.12	Agree
4	Inability to secure place for Industrial Training.	3.04	3.60	0.63	0.92	0.16	Agree
5	Early resumption at places for Industrial Training.	3.43	3.70	0.50	0.46	0.13	Agree
6	Unco-operative attitude of employers.	3.54	3.80	0.50	0.40	0.14	Agree
7	Inadequate supervision by the Institution.	3.22	3.40	0.49	0.49	0.07	Agree
8	Inadequate supervision by Industrial Training Fund.	3.75	3.20	0.44	0.60	0.30	Agree
9	Lack of free access to some section of the industries.	3.50	3.60	0.50	0.49	0.05	Agree
10	Inadequate orientation of students before the onset of the attachment.	3.72	3.70	0.46	0.46	0.01	Agree
11	Non-availability of a training manual for students on attachment.	3.54	3.45	0.50	0.04	0.01	Agree
12	Inadequate number of placement openings or opportunities or establishments.	1.61	1.80	0.49	0.40	0.11	Disagree

13	Inadequate equipment for skills acquisition in institutions.	1.47	1.40	0.50	0.67	0.03	Disagree
14	Delays in payment of students allowance by Industrial Training Fund.	3.61	3.90	0.49	0.30	0.19	Agree
15	Inadequate allowance for students on industrial attachment.	3.75	3.40	0.44	0.49	0.21	Agree
16	Varying academic calendars for students and institutions	3.65	3.30	0.48	0.46	0.18	Agree
17	Poor staffing in institutions.	3.45	3.10	0.50	0.84	0.16	Agree

Key for tables 3 and 4: \bar{X}_1 = mean of respondents from Polytechnic; \bar{X}_2 = mean of respondents from Colleges of Education; SD_1 = standard deviation of respondents from Polytechnic; SD_2 = standard deviation of respondents from Colleges of Education.

Table 3 shows that many respondents had challenges during the period of the training. But inadequate number of placement areas and inadequate equipment for skills acquisition were not among the challenges. Standard deviation of all the items were less than 1.00 implying that the responses made by the respondents were close to one another and not far from the mean.

Table 4: Mean Responses, Standard Deviation and t-test on the Measures that could Enhance SIWES Programs among Home Economics Students in Anambra State.

S/N	Measures for enhancing SIWES	\bar{X}_1	\bar{X}_2	S.D ₁	S.D ₂	t	Remark
1.	Students should go to industries that are relevant to their course of study.	3.05	3.11	0.62	0.70	0.18	Agree
2.	Students should write report on their experience at the end of the training.	3.54	3.51	0.51	0.51	0.12	Agree
3.	Basic equipment /tools should be used by teachers in schools during instructions.	3.43	3.62	0.50	0.49	0.15	Agree
4.	Teachers should assess students performance in school and industry	3.54	3.43	0.51	0.50	0.22	Agree
5.	ITF should establish effective monitoring teams for SIWES programme.	3.11	3.51	0.31	0.61	0.13	Agree
6.	There should be collaboration between institutions and industries.	3.27	3.46	0.45	0.51	0.28	Agree
7.	Industries should ensure payment of student's allowances.	3.46	3.59	0.51	0.50	0.19	Agree
8.	Students should develop	2.95	3.14	0.85	0.92	0.10	Agree

	capacity to work with less supervision.							
9.	Institutions should confirm the appropriateness of an establishment before posting students.	3.08	3.05	0.64	0.81	0.12	Agree	
10.	Provision of medical and transportation facilities by the industries.	2.86	3.11	0.79	0.74	0.27	Agree	
11.	Adequate payment of SIWES allowances to the supervisors.	3.06	3.35	0.56	0.83	0.15	Agree	
12.	Institutions should provide adequate facilities and machines for instruction.	3.35	3.82	0.49	0.39	0.29	Agree	
13.	Industries should give students orientation proper.	3.65	3.29	0.61	0.47	0.18	Agree	
14.	Students should adhere to the industry rules and regulations.	3.33	3.11	0.50	0.33	0.17	Agree	
15.	There should be book on industrial guide for students.	2.77	2.71	0.65	0.44	0.13	Agree	
16.	Students should follow instructions of their industry-based supervisors.	3.29	3.09	0.47	0.72	0.24	Agree	
17.	Teachers should access the student's knowledge of safety.	3.33	3.12	0.78	0.69	0.19	Agree	
18.	Institutions should welcome students suggestions on how to improve on the program me based on changes in work place.	2.91	3.09	0.72	0.68	0.16	Agree	
19.	Institutions should ensure adequate supervision of students by institution based supervisors.	3.15	3.24	0.44	0.26	0.25	Agree	
20.	Proper orientation of students by ITF through institutions before embarking on SIWES.	3.58	3.55	0.50	0.51	0.14	Agree	
21.	Industries should provide job opportunities for outstanding students.	3.03	3.09	0.64	0.72	0.27	Agree	
22.	Students should present their reports inform of seminar papers.	2.18	2.36	0.71	0.67	0.15	Disagree	
23.	Students should pay for damages as a result of their non-adherent to instructions.	1.72	1.20	0.94	0.81	0.18	Disagree	

Key for tables 3 and 4: \bar{X}_1 = mean of respondents from Polytechnic; \bar{X}_2 = mean of respondents from Colleges of Education; SD_1 = standard deviation of respondents from Polytechnic; SD_2 = standard deviation of respondents from Colleges of Education.

Table 4 shows the mean responses of the respondents on the measures that could enhance SIWES program among Home Economics students in Anambra State. All the items were accepted by the respondents accept items 29 and 30 as measures for enhancing SIWES. Standard deviation of each measure is less than 1.00, implying that the responses made by the respondents individually were close to one another and are not far from the mean.

Discussion

The findings of the study revealed that skills were learnt in the following areas by Home Economics students during SIWES training: soap and soapless detergent-making, baking, catering, interior decoration, funeral packaging, wedding events packaging, cloth production, sewing and designing, making of toys, laundry and dry cleaning, making ice-cream and flours, among others. This confirms the study of Aderonke (2011), that the submission of the Manpower Service Commission (1981) which describes training, as a planned process to modify attitude, knowledge or skill behavior through learning experience to achieve effective performance in the activity or range of activities. The findings is also in support of Ogbuanya (2018) report that Industrial Training Fund provide an avenue for students in higher institutions to acquire industrial skills

and experience in their course of study and prepare students for the industrial work situation they will meet after graduation. Its purpose, in the work situation and future expectation, is to develop the abilities of the individual and so satisfy the current and future manpower needs of the organizations and the society. The author further stated that students who undertake SIWES programmes are, therefore, better exposed to new technological or technical skills.

On the impacts of SIWES Training on students entrepreneurial skills acquisition, the majority of the students posited that SIWES provided an avenue for skills, experience and professional development. This is in line with the study of Mafe (2009), who stated that when students conscientiously participate in SIWES they acquire skills and competences leading to their professional development. This is because the skills acquired through participation in SIWES are internalized and become relevant when required to perform jobs or functions. Also, according to Oyeniyi (2011), students' Industrial Work Experience Scheme (SIWES) affords students the opportunity of familiarizing and exposing themselves to the needed experience in handling industrial equipment and machinery that are not usually available in their institutions. Egbule (2015) also supported this finding as he stated that

entrepreneurial skills development is a desideration to drive national economies especially developing ones from potentials to realities.

The challenges faced by Home Economics students during their training were finance, accommodation, inadequate supervision by institutions and ITF, among others: In support of accommodation problem, Mafe (2009) reiterated that students are required to arrange for accommodation on their own as provisions are not made for students' accommodation during training. ITF (2004) also supported this assertion by stating that companies/organizations should be sensitized through organization of workshops/seminars in order to acquaint them with their expected roles towards students on industrial training. Mafe (2010) stated that for a scheme as large as SIWES, it is imperative that participants be monitored for effective performance. Lack of supervision of students on training gives room for poor performance and also has a negative impact on the achievement of the objectives of the scheme. Oyedotun (2018) in support of this finding, revealed that lack of adequate supervision, non signing of necessary materials like IFT form 8 and students: logbooks at their places of attachment, difficulties of students in getting placement, unnecessary delay in the payment of students and supervisor's allowance were areas of weaknesses of SIWES programme.

The findings revealed that the following measures should be

employed for enhancing this program among others; increase in the number of stakeholders, separate SIWES sub-head, creating financial autonomy and attracting partners from the private sector. In support of this, ITF and UNIJOS (2011), proffered increasing the number of stakeholders, providing career prospects for the institutions, based SIWES personnel, motivating partners from the private sector, separate SIWES sub-head by the Federal Government and creating financial autonomy for institution-based SIWES units/directorates as ways for improving the operation of the scheme. This is also in line with Oyedotun opinion that "if Vocational Technical Education is to be meaningful and successful in Nigeria, then relationships are needed between public and private sectors to partner effectively with Vocational Technical Education and skill acquisition programmes".

Conclusion

The scheme has exposed Home Economics students to new skills and experience needed for employment. Students of Home Economics with the help of SIWES were able to bridge the gap between knowledge acquired in the school and the relevant practical skills required in work places but with some challenges. In view of the relevance of the SIWES programme, it is important that it is sustained by the government through the Industrial Training Fund (ITF) as it exposes students to work tools, facilitates and equipment that may not be available in

their respective institutions in relation to their course of study. But there is need to develop a better approach that will phase out the challenges as the study suggested.

Recommendations

Consequent upon the findings of the study, the following recommendations were made;

1. Students Industrial Work Experience Scheme (SIWES) need to be strengthened by the Federal government through the Ministry of Commerce and Industry in order for its objectives to be fully realized.
2. Financial autonomy should be made for institution-based SIWES Units/Directorates by ITF to encourage regular payment of allowance of students on attachment and that of supervisors.
3. Teachers should encourage employers to always accept students on Industrial training and subsequently assign them to relevant jobs by exempting them from paying tax.
4. ITF should properly present SIWES to potential sponsors such as banks, multinational and other corporate institutions for support.
5. It will be of great benefit if the institution can create a platform whereby students can obtain pre-SIWES knowledge or excursion programme before going for industrial training programme.

References

- Adeornke, A.O. (2011). Students Industrial Work Experience and the Dynamics of sustainable skills Acquisition and Utilization among Graduates in Nigeria *Research Journal of International studies*.
- Anyakoha, E.U. (2013). *Home Economics for Junior Secondary Schools*. Ibadan: African First publishers Limited.
- Egbule, P.E. (2018). *Entrepreneurship: Fundamentals and Practice*. Owerri: Totan Publisher Ltd.
- Faruk, I (2005). Education for Self-Reliance. Being the 2005 Annual lecture Organized by National Association of Political Science Students (NAPS) University of Jos Chapter, Plateau state, Daily Trust, March 3, 2005.
- Hisrich, R.D. (2002). *Entrepreneurship and Entrepreneurship: Methods of Creating New Companies that have Impact on the Economic Renaissance of an Area in Entrepreneurship*. Lexington: Lexington books.
- International Federation for Home Economics (IFHE) (2012). *IFHE Campaign 2012-2014 Anniversary International Year of the Family 2014: Empowering Families, Individuals and Communities through Home Economics Bonn, Germany, IFHE*.
- ITF, (2003). *Students Industrial Work Experience Scheme in Human Resource Development in Nigeria*. Jos: Industrial Training Fund (ITF).
- ITF, (2004). *Students Industrial Work Experience Scheme: Information and Guidelines for Students Industrial Work Experience Scheme (Reviewed)*. Jos: Ruche Press.
- ITF, and University of Jos (2011). *An Evaluation of the Impact of Scheme (SIWES) on Technical Skills Development*

- in Nigeria*. Jos: Deco Printers & Publications Limited.
- Mafe, O. A. T. (2009). *Guide to Successful Participation in SIWES* Abuja: Panaf Publishing Inc.
- Mafe, O.A.T (2010). *Effectiveness of SIWES with Respect to chemical Engineering: paper presented at the Workshop on "Achieving the Necessary Professional Standards in Chemical Engineering in our Universities"*. Lagos: University of Lagos.
- Miami University of Ohio (2003). *Entrepreneurship Development and Poverty Alleviation in Nigeria*. Enugu: Joyce Publishers.
- National Business Education Association (2011). *National Standard for Business Education Entrepreneurship* Reston Association Drive.
- Ogbuanya, T.C. (2018). *Evaluating the Effectiveness of Students Industrial Work Experience Scheme (SIWES) Programme to Ensure Quality of Technical, Voc.* <http://academicjournals.org>.
- Onyemauwa, M.F (2019). *SIWES Introduction, Aim & Objectives in Nigeria* (2020) **Error! Hyperlink reference not valid..**
- Osuala, E.C (2004). *Foundation of Vocational Education*. Onitsha: Cape Publishers Int. Ltd.
- Oyedotun, V.T (2018). *Student Industrial Work Experience Scheme (SIWES) Technical Report*. **Error! Hyperlink reference not valid....**
- Oyeniyi, A.A. (2011). Students Industrial Work Experience and the Dynamics of Sustainable Skills Acquisition and Utilization among Graduates in Nigeria *Research Journal of International Studies*. 130 – 136.
- Raubenmer, J.H. (2002). *Cooperative Education in Surveying*. Washington: D.C. USA.
- Uzoka, F.A. (2013). *Home Economics Methodology for Colleges and Universities*. Enugu; Chembus Communication.

Socio-Demographic Determinants of Malnutrition among Pregnant Women Accessing Antenatal Care Services in Enugu State, Nigeria

Ononuju, A.H.; Dibia, S.I.C., and Ofuebe, J.I.

Department of Human Kinetics and Health Education,
University of Nigeria, Nsukka

Abstract

This study focused on the socio-demographic determinants of malnutrition among pregnant women accessing antenatal care services in Enugu State. Specially, it determined the characteristics of pregnant women accessing antenatal care services and determinants of malnutrition based on their body mass index. Two research questions and one null hypothesis guided the study. Survey research design was used. The population comprised all registered pregnant women in Enugu State. Multi-stage sampling involving other various sampling techniques was employed to select 400 registered pregnant women attending antenatal services at health facilities in Enugu State. Questionnaire was the instrument for data collection. Five experts validated the instrument. Cronbach alpha formula was used to determine the internal consistency of the instrument. A reliability coefficient of .79 was obtained. Frequencies, percentages and logistic regression were used for data analysis. Findings revealed, among others, that income level, family size, and child spacing were significant socio-demographic determinants of malnutrition among pregnant women in Enugu State. Based on these findings, the study recommended, among others, that: nutrition education programmes of the ante-natal clinics should be revised to accentuate malnutrition and its attendant consequences among the pregnant women, family planning should be encouraged to reduce the significant impact of family size on nutrition of pregnant women and their families, adequate child spacing should be encouraged in order to improve maternal health.

Keywords: Malnutrition, Socio-demographic, Determinants, Pregnant, Women, Antenatal Care.

Introduction

Malnutrition is a significant public health problem, most notably in developing countries where majority of the world's undernourished pregnant women live. More troubling is the co-existence of both under-

nutrition and over-nutrition in pregnant women, which is currently becoming a significant health problem globally (World Health Organization-WHO, 2016). This trend appears more challenging in developing countries that are still tackling endemic under-

nutrition and over-nutrition causes and effects. Malnutrition has been identified as a key underlying cause for maternal deaths in Africa. Malnutrition has led to serious health complications for the pregnant mothers, adversely affected fetal development as well as the entire family health (Osuorah, Ndu, Ifediora, Asinobi, & Eke, 2016). Malnutrition predisposes women, particularly pregnant and lactating women, to various forms of health conditions such as increased risk of infection, anaemia, visual impairment, goiter, among others (Oluwole, Agboola, Adeyogu, Onyibe & Adeyoju, 2016). Desyibelew and Dadi (2019) reported that the global estimate of maternal malnutrition during pregnancy appears to be decreasing in almost all regions of the globe except in Africa where the number of pregnant mothers with malnutrition has been increasing steadily over time. National Nutrition and Health Survey (2018) report estimated that seven per cent of women of childbearing age are suffering acute malnutrition. Thus, the gravest single threat to global public health which affects all age groups but is more common in developing countries such as Nigeria, among pregnant and lactating women is malnutrition.

Malnutrition is a condition where nutrition is defective in quantity or quality. Malnutrition is mentioned as one of the Sustainable Development Goals (SDGs) categorised as SDG2 target. It is possible that Covid-19 could double the number of people

affected by malnutrition, resulting to an increased number of people at risk by the end of 2021. Malnutrition is caused by eating a diet in which nutrients are not adequate such that health problems results (Katsilambros, 2011). World Health Organization (2018) defined malnutrition as deficiencies, excesses, or imbalances in a person's intake of energy and/or nutrients. These definitions highlight the triple threats of malnutrition which presents as deficiencies, excesses or imbalance in some nutrients. Deficiencies are anaemia, protein deficiencies, and under nutrition, which includes wasting (low weight-for-height), stunting (low height-for-age) and underweight (low weight-for-age); excesses are overweight, obesity and diet-related non-communicable diseases (such as heart disease, stroke, diabetes and some cancers); while micronutrient-related malnutrition, which includes micronutrient deficiencies (a lack of important vitamins and minerals). From the foregoing, malnutrition refers to a dietary deficiency related health condition resulting from insufficient, excessive, or one-sided nutrient intake during pregnancy.

Pregnancy is a critical period during which maternal nutrition has a major effect on mother and fetal health. Lack of adequate nutrition of good quality and quantity during pregnancy can cause health problems for both the mother and her fetus. Poor maternal nutrition prior to and during pregnancy is strongly linked with increased risk of maternal anemia,

mortality, and adverse birth outcomes such as low birth weight and preterm birth (WHO, 2016). Malnutrition is known to increase the risk of poor pregnancy outcomes, including obstructed labour, premature or low-birth-weight babies, and postpartum hemorrhage. It can lead to severe anemia during pregnancy which is linked with increased maternal mortality (Zewde, Biadgilign, Taddese, Legesse & Letebo, 2018). The authors further posited that malnutrition among mothers has an intergenerational effect, with repeating cycles of malnutrition and poverty in the long run. This necessitates reporting of socio-demographic characteristics of the mothers during antenatal and inclusion of nutritional counseling as part of routine antenatal care services.

Antenatal care involves routine visit for assessment by different health care professionals on regular basis throughout the period of pregnancy. Antenatal care is a complete health supervision of the pregnant mothers in order to maintain, protect and promote health and well being of mother and the fetus. It is one of the core interventions for improving maternal outcomes (WHO, 2014). Antenatal care services enable early identification of pregnancy related risks and complications; and ensure access of services including nutrition education, health education, vaccines, diagnostic tests and treatments (Muchie, 2017). It also helps to establish good relationship between pregnant women and service providers. Moreover, a

pregnant woman visiting health facilities for antenatal care services would get advice and support, and will be more informed about health needs and self-care, and consequently led to an increased utilization of emergency care services. Lucas and Gills (2009) stated that the functions of antenatal care services include preparing the pregnant woman and her family for delivering, educating the pregnant woman, her family and community, assessment and monitoring of health status of the woman and progress of pregnancy, providing appropriate preventive measures, and nutritional supplements (iron, folic acid). Weighing mothers and monitoring progress is a gold standard for checkmating malnutrition among pregnant women. The follow-up supplementations and nutritional education are viable strategies to combat the problem. However, paucity of data exists about the spread of malnutrition among pregnant women based on their socio-demographic characteristics in Enugu State. There is need to understand also, the socio-demographic characteristics that determine malnutrition in the State.

Determinant refers to something that influences the outcome of another thing, an element that fixes or conditions an outcome. O'Sullivan, Burdet, and Diedrichsen (2009) defined determinant as a factor causing trouble in achieving a positive result or tending to produce a negative result. Determinants in the context of this study are socio-demographic characteristics that affect the

achievement of an optimal nutritional status in pregnancy. Studies have associated malnutrition with maternal illiteracy, lack of education, lack of support in the home, neglect and mothers going back to work early (Alamu, Eyinla, Sanusi & Maziya-Dixon, 2020; Tette et al., 2016). Some other studies have researched on some determinants such as illness, breastfeeding and having several children below 2 years of age, higher maternal age, socio-economic status, household food security, and social factors such as marital status, education, and income also have influence on maternal nutrition during pregnancy (Zewde et al., 2018). However, this study focuses on socio-demographic determinants (family size, parity, child spacing, marital status, income, level of education, age, and location of the mothers because these are basic to other determinants of malnutrition among pregnant women.

Level of education of partners determines how seriously partners take responsibility in ensuring adequate nutrition of their pregnant wives. Desyibelew and Dadi (2019) reported that low educational status of the partners significantly influenced maternal nutrition. Their study found that the odds of malnutrition were 1.7 times higher among pregnant mothers having a low educational attainment, which is consistent with other reports (Ahmed, Hossain & Sanin, 2012; Tekola, Berhe, Gebremariam & Gebremariam, 2018). On the other side, better educational attainment of partners might also be correlated with

earning a better income to ensure their household food security (WHO, 2016).

Another factor that has been found to have influence whether people are malnourished or not is income status of the persons involved. A household with good income has a purchasing power for food and other nutritional supplements (Piate & Nnubia, 2016). However, it could also engender buying excessively and feeding on unhealthy foods which can lead to malnutrition (overweight or obesity). More than one in three low-and middle income countries face both extremes of malnutrition (WHO, 2019). With five years remaining in the UN Decade of Action on Nutrition (2016-2025), the World Health Organization and other concerned agencies have reiterated the need to approach nutrition and malnutrition from multiple perspectives to further understand malnutrition's multiple manifestations, and to achieve the global goal of eradicating hunger and preventing malnutrition in all its forms. Specifically, income is classified into low (less than N16,000), medium (N16,000-N50,000) and high group (more than N50,000) for the purpose of this work.

Parity is another determinant of malnutrition during pregnancy. Parity in this context refers to the number of pregnancies a woman has, whether the baby is alive or dead. Parity is crucial in determining malnutrition because the physiological stress during pregnancy demands extra nutrient that could put pregnancy at higher risk for malnutrition, than other women's life

time if the extra nutritional requirements are not met adequately. Thus, when women enter in to vicious cycle of too many closely non-spaced pregnancies, her tissues becomes depleted and she will be highly vulnerable for malnutrition (Ramakrishnan, Grant, Goldenberg, Zongrone & Martorell, 2012). Desyibelew and Dadi (2019) found that women with two or more pregnancies had a 2.15 times increased chance of being malnourished than a women with a single pregnancy. Investigating the relationship between parity progression, child spacing (birth interval) and maternal nutritional status may be cumbersome because it involves many intervening variables. The effect of short birth interval (child spacing) has been demonstrated many times to be one of the key variables affecting maternal nutrition (Adebowale, Adepoju & Fagbamigbe, 2011).

Enugu State is blessed with many health facilities around the state. Pregnant women accessing antenatal care services in Enugu health facilities are numerous and attendance to antenatal care services is high (Okoronkwo, Odira, Nwaneri, Okpala & Okafor, 2016). This high level of attendance to ANC is a good sign which implies that inclusion of sound nutrition education or other strategies to boost maternal nutrition has higher probability of being successful. Enugu State is positioned in the high vegetative region of Nigeria. The lands are arable and the inhabitants appear very industrious. Although many

researchers concentrate on the northern part of the Nigeria where poverty rate and malnutrition levels appears high, however, the findings of the study conducted by Ejiofor, Ozokono, & Ugwu (2019), shows that 46 per cent of pregnant women attending ANC in Enugu State are anaemic. This study therefore intends to determine socio-demographic determinants of malnutrition among pregnant women in Enugu State.

Purpose of the Study

The major purpose of this study was to find out the socio-demographic determinants of malnutrition among pregnant women accessing antenatal care services in Enugu State. Specifically, the study determined

1. socio-demographic characteristics of pregnant women accessing antenatal care services.
2. determinants of malnutrition among the respondents based on their body mass index.

Research Questions

1. What is the percentage analysis of socio-demographic characteristics of pregnant women accessing antenatal care services in Enugu State?
2. What is the percentage analysis of socio-demographic determinants of malnutrition among the respondents based on their body mass index?

Hypothesis (HO)

One null hypothesis was tested at $p \leq .05$ level of significance.

HO₁ Socio-demographic characteristics are not significant determinants of malnutrition among pregnant women assessing antenatal services in Enugu State based on their body mass index.

Methodology

Research Design: The cross-sectional research design was used in the study.

Area of the Study: The study was carried out in Enugu State. Enugu State is made up of three senatorial districts and 17 Local Government Areas (LGAs). It has interstate boundaries with Kogi and Benue States to the North, Abia State to the South, Anambra State to the West and Ebonyi State to the East. Majority of pregnant women in Enugu State are educated. A good number of them are public servants, others engage in trading, farming and other businesses.

Population for the Study: The population for the study comprised of all registered pregnant women accessing antenatal care services in Enugu State at the time of this study (November, 2019) estimates at 112,273. There are 857 health facilities where antenatal services are rendered in Enugu State (Enugu State Ministry of Health, 2013).

Sample for the Study: The sample size was four hundred (400) pregnant women accessing antenatal care services in Enugu State. This is in line with the suggestion of Cohen, Marion, and Morrison (2011), that when a population size is 112,273 and above at 95% confidence level (5% internal), the sample size should be 383 and above.

Sampling Technique: The multistage sampling procedure was used to draw the sample size. The first stage involved clustering the health facilities in Enugu State into urban and rural groups based on the local government areas where they are situated. The second stage involved systematic sampling of forty health facilities (20 from private and 20 from public) out the eight hundred and fifty-seven health facilities in Enugu State. The third stage involved simple random sampling of thirteen (10) pregnant women from each of the forty selected health facilities, through balloting without replacement. This ensured proper representation of each selected health facility in Enugu. This brought the sample size to four hundred (400) pregnant women selected and used for this study.

Instrument for Data Collection: Questionnaire served as instrument for data collection. Face validity of the instrument was established by five experts (two from the Department of Human Kinetics and Health Education, two from Nutrition and Dietetics Department and one from Science Education Department [measurement and evaluation unit], all in University of Nigeria, Nsukka). The internal consistency of the instrument was determined using Cronbach alpha statistics and a reliability co-efficient of .79 was obtained. The index was high enough and therefore considered reliable for use for the study. This is in line with the guidelines of Crouch, Mack, Wilson and Kwan (2017) that if the reliability coefficient obtained is

0.72 and above, the instrument should be considered reliable for the study.

Method of Data Collection: Data for this study were collected by the researchers with the help of two assistants from each health facility. The assistants were trained on how to administer and gather data from the pregnant women. The rationales for using assistants from each facility were to avoid bias from the researchers as well as increase acceptability of the instruments. Patients readily accept instructions from the health workers. A total of 400 copies of the questionnaire were administered on the respondents by hand and collected at the spot. Only those who gave consent and declared their interest were used. Data collected were cross-checked for completeness. Logical techniques were employed to identify

errors during data cleaning. Out of 400 copies of questionnaire only 391 copies of questionnaire did not have errors and were used for data analysis.

Data Analysis Techniques: Frequencies and percentages were used to assess the characteristics of the pregnant women, while weighing scale and tape measurements were used to gather information that were calculated to determine the body mass index (BMI) of the respondents. Logistic regression was used to test the null hypothesis at .05 level of significance.

Findings

The following findings were made and presented in tables to answer the research questions and null hypotheses.

Table 1: Percentage Responses on Socio-Demographic Characteristics of Pregnant Women (Respondents) (N=391).

S/N	Item Statement	F	%
1	Family size (Household size)		
	1-5 persons	179	45.8
	6-8 persons	172	44.0
	9 persons and above	40	10.2
2	Mothers Monthly Income (in Naira)		
	Less than 16,000	114	29.2
	16,000 to 50,000	168	43.0
	More than 50,000	109	27.9
3	Educational level		
	No formal education	37	9.5
	Primary education	74	18.9
	Secondary education	179	45.8
	Tertiary education	101	25.8
4	Age ranges		
	15-25 years	128	32.7
	26-35 years	172	44.0
	36 years and above	91	23.3
5	Parity		
	Prima (First Pregnancy)	97	24.8
	Primip (Second pregnancy)	74	18.9

	Multip (third to fifth pregnancy)	123	31.5
	Grand multip (More than the fifth pregnancy)	97	24.8
6	Child spacing (After last delivery)		
	Less than 15 months	74	18.9
	15-24 months	229	58.6
	More than 24 months	88	22.5
7	Marital status		
	Once married	19	4.9
	Never married	72	18.4
	Staying married	300	76.7
8	Location		
	Rural	192	49.1
	Urban	199	50.9

Table 1 shows that the respondents whose household were 1-5 persons had highest frequency and closely followed by households with 6-8 persons (1-5 persons =45.8% > 6-8 persons = 44% > 9 persons and above = 10.2%). Majority of the pregnant women (43%) earn between 16,000 to

50,000 naira monthly, followed by those who earn less than N16,000 (29.2%) and more than N50,000 (27.9%). More than three quarter (76.7%) of respondents are staying married while others are either never married or once married but no longer staying married.

Table 2: Percentage Responses on Socio-Demographic Characteristic of Pregnant Women Based on BMI (N=391).

S/ N	Maternal Characteristics	Well Nourished (Normal BMI)		Malnourished (Underweight Overweight+Obese)	
		F	%	F	%
1	Family size (Household size)				
	1-5 persons	106	59.2	73	40.8
	6-8 persons	80	46.5	92	53.5
	9 persons and above	12	30.0	28	70.0
2	Mothers Monthly Income (in Naira)				
	Less than 16,000	62	54.4	52	45.6
	16,000 to 50,000	92	54.8	76	45.2
	More than 50,000	44	40.4	65	59.6
3	Educational level				
	No formal education	14	37.8	23	62.2
	Primary education	41	55.4	33	44.6
	Secondary education	96	53.6	83	46.4
	Tertiary education	47	46.5	54	53.5
4	Age ranges				
	15-25 years	62	48.4	66	51.6
	26-35 years	90	52.3	82	47.7
	36 years and above	46	50.5	45	49.5

5	Parity				
	Prima (First Pregnancy)	57	58.8	40	41.2
	Primip (Second pregnancy)	37	50.0	37	50.0
	Multip (third to fifth pregnancy)	56	45.5	67	54.5
	Grand multip (More than the fifth pregnancy)	48	49.5	49	50.5
6	Child spacing (After last delivery)				
	Less than 15 months	38	51.4	36	48.6
	15-24 months	117	51.1	112	48.9
	More than 24 months	43	48.9	45	51.1
7	Marital status				
	Once married	9	47.4	10	52.6
	Never married	44	61.1	28	38.9
	Staying married	145	48.3	155	51.7

Normal BMI = 18.5-24.9kg;

Malnourished (Underweight = < 18.5kg; Overweight = 25 – 29.9kg; Obese = ≥ 30kg)

Table 2 indicates that smaller households have more pregnant women with normal BMI, while the higher the family size, the higher the malnutrition on the pregnant women. Based on mothers income, the lesser the income, the more the pregnant women with normal BMI, while the highest income reported highest number of malnourished pregnant women. For parity, the distribution seems balanced except for Prima that showed normal BMI with considerable gap.

Table 3: Summary of Logistic Regression Analysis of Socio-Demographic Determinants and Malnutrition (Normal or malnourished) among Pregnant Women in Enugu State (N= 391)

S/N	Variable	Est	SE	Wald	P-value	Exp(B) OR	95% CI for Exp(B)	
							Lower	Upper
1	Family size	1.147	.443	6.695	.010*	3.150	1.321	7.513
2	Mothers Income level	.390	.195	3.995	.046*	2.428	.757	2.694
3	Educational level	.252	.286	.777	.378**	1.287	.735	2.254
4	Age ranges	.136	.330	.170	.680**	1.146	.600	2.189
5	Parity	.301	.352	.732	.392**	1.351	.678	2.693
6	Child spacing	.847	.345	6.030	.014*	.973	.562	1.685
7	Marital status	.722	.335	4.652	.031*	2.058	1.068	3.965
8	Location	.055	.232	.057	.812**	1.057	.671	1.664
	Constant	-1.456	.603	5.829	.016*	.233		

* Significant ** Not Significant; Degree of freedom (df) = 1

Table 3 shows the logistic regression analysis of socio-demographic characteristics and malnutrition among pregnant women. The table

shows that family size ($p = .010$; AOR = 3.150; CI at 95% = 1.321-7.513), mothers' income ($p = .046$; AOR = 2.428; CI at 95% = .757-2.694), child spacing ($p = .014$; AOR = 973; CI at 95% = 562-1.685), and marital status ($p = .031$; AOR = 2.058; CI at 95% = 1.068-3.965) are significant determinants of malnutrition among pregnant women, since their p-values are less than .05 level of significance at one degrees of freedom. On the other hand, educational level, age, parity and location are not significant determinants of malnutrition among the respondents.

Discussion of Findings

Findings in Table 1 shows that the respondents whose household were 1-5 persons had highest frequency and closely followed by households with 6-8 persons (1-5 persons = 45.8% > 6-8 persons = 44% > 9 persons and above = 10.2%). Majority of the pregnant women (43%) earn between 16,000 to 50,000 naira monthly, followed by those who earn less than N16,000 (29.2%) and more than N50,000 (27.9%). More than three quarter (76.7%) of respondents are staying married while others are either never married or once married but no longer staying married.

Table 2 indicates that smaller households have more pregnant women with normal BMI, while the higher the family size, the higher the malnutrition on the pregnant women. This finding is not surprising because the quality of food in smaller household is usually richer than the

quality of food in larger household who will be interested in quantity of food to go round the various mouths to be fed. This finding is in line with the findings of Serbesa, Iffa and Geleto (2019) whose study reported the effect of large family size on nutritional status of pregnant women and that large family size has been implicated as a risk factor for the prevalence of malnutrition among pregnant women. The table further shows that based on mothers' income, the lesser the income, the more the pregnant women with normal BMI, while the highest income reported highest number of malnourished pregnant women. This finding is rather surprising because one would expect that pregnant women with highest income should feed better than those with lesser income. However, the reason for this finding may be due to the nature of work that women with highest income perform which does not give them time to cook and fed well on balanced meal, hence, they resort to eating junks. According to Getanch and Negesse (2019), maternal income is a predictor of malnutrition among pregnant women. The findings of this study on maternal income is in tandem with the findings of Gebre, Biadgilign, Taddese, Legesse and Letebo (2018) who reported that housewives were less likely to be malnourished compared to those who engaged in work. However, the study's findings contradict the findings of Serbesa, Iffa and Geleto (2019) who found that the pregnant women and lactating mothers who had a monthly income

greater than 2000 ETB were less likely to be underweight than those who earned less than 1000 ETB (AOR=2.056, 95% CI: 1.051–4.023). also, the study's finding disagrees with the findings of Desyibelew and Dadi (2019) who found that there was decreased odds of malnutrition among pregnant women with better economic status.

Table 2 shows that for parity, the distribution seems balanced except for Prima that showed normal BMI with considerable gap. This finding is anticipated because primas and their partners give their full resources to the pregnancy because of the excitement that comes with first pregnancy. This finding agrees with the findings of Bestman, Kaminga and Luo (2020) found that multi-parity is statistically significant factor that determine maternal under nutrition.

Table 3 shows the logistic regression analysis of socio-demographic characteristics and malnutrition among pregnant women. The table shows that family size ($p = .010$; AOR = 3.150; CI at 95% = 1.321-7.513), mothers' income ($p = .046$; AOR = 2.428; CI at 95% = .757-2.694), child spacing ($p = .014$; AOR = 973; CI at 95% = 562-1.685), and marital status ($p = .031$; AOR = 2.058; CI at 95% = 1.068-3.965) are significant determinants of malnutrition among pregnant women, since their p-values are less than .05 level of significance at one degrees of freedom while educational level, age, parity and location are not significant determinants of malnutrition among the respondents. These findings are

anticipated because marital status determine the number of people in a given household and the income flow in a family which impact on the quality of food taken in that family unlike age, parity, location and educational level. This finding aligns with the findings of Kedir, Berhane and Worku (2016) who found no association between malnutrition and maternal age but contradicts the findings of Lindsay, Gibney and McAuliffe (2012), Ramlal et al. (2012), Getanch and Negesse (2019) and Bestman, Kaminga and Luo (2020) in which age was a significant determinant of malnutrition among pregnant women. also, the findings of this study agrees with the outcome of Serbesa, Iffa and Geleto (2019)'s study that reported that inadequate spacing is a determinant of malnutrition among pregnant women.

Conclusion

The findings of the study revealed that income level, family size, child spacing and marital status were significant determinants of malnutrition among pregnant women accessing antenatal services in Enugu State health facilities. The study therefore concludes that income level, family size, child spacing and marital status are socio-demographic determinants of malnutrition while education level, age and parity are not socio-demographic determinants of malnutrition among women accessing antenatal services in Enugu State.

Recommendations

Based on the findings of this study, the discussion and conclusion, the study recommends that:

1. Nutrition education programmes of the ante-natal clinics should be revised to include malnutrition and its attendant consequences among pregnant women.
2. Family planning should be encouraged to reduce the significant impact of family size on nutrition of pregnant women and their families.
3. Adequate child spacing should be encouraged in order to improve maternal health.
4. Working class pregnant women should be encouraged to eat well balanced food to improve pregnancy outcomes.

References

- Adebowale, S. A., Adepoju, O. T., & Fagbamigbe, F. A. (2011). Child spacing and parity progression: Implication for maternal nutritional status among women in Ekiti Communities, Southwestern Nigeria. *Pakistan Journal of Nutrition*, 10(5), 485-491. doi: 10.3923/pjn.2011.485.491
- Ahmed, T., Hassain, M., & Sanin, K. L. (2012). Global burden of maternal and child undernutrition and micronutrient deficiencies. *Annals of Nutrition and Metabolism*, 61(Suppl1), 8-17.
- Alamu, E. O., Eyinla, T. E., Sanusi, R. A., & Maziya-Dixon, B. (2020). Double burden of malnutrition: Evidence from a selected Nigerian population. *Journal of Nutrition and Metabolism*, 2020(5674279), 1-6. Doi 10.1155/2020/5674279
- Bestman, P. L., Kaminga, A. C., & Luo, J. (2020). Prevalence and determinants of maternal malnutrition in Africa: A systematic review. *ARC Journal of Gynecology and Obstetrics*, 5(1), 1-12.
- Cohen, L., Mansion, L., & Marrison, K. (2011). *Research method in education*. 7th ed. New York: Routledge Taylor & Francis Group.
- Crouch, M. K., Mack, D. E., Wilson, P. M., & Kwan, M. Y. W. (2017). Variability coefficient alpha: an empirical investigation of the scales of psychological wellbeing. *Review of General Psychology*, 21(3), 255-268.
- Desibelew, H. D., & Dadi, A. F. (2019). Burden and determinants of malnutrition among pregnant women in Africa: A systematic review and meta-analysis. *PLoS One*, 14(19), e0221712. doi 10.371/journal.pone.0221712.
- Ejiofor, C.C, Ozokono, R.U., & Ugwu, J.I. (2019). Prevalence of anaemia among pregnant women attending 82 Division Nigerian Army Hospital, Enugu. *Journal of Gynecology and Obstetrics Research*, 6 (1): 1-5
- Gebre, B., Biadgilign, S., Taddese, Z., Legesse, T., & Letebo., M. (2018). Determinants of malnutrition among pregnant and lactating women under humanitarian setting in Ethiopia. *BMC Nutrition*, 4(11). <https://doi.org/10.1186/s40795-018-0222-2>.
- Getaneh, T., & Negesse, A. (2019). Predictors of malnutrition among pregnant women in Ethiopia: systematic review and meta-analysis. *Maternal and Fetal Medicine, Preprint* 173695, 1-19. <https://doi.org/10.21203/rs.3.rs-34039/v1>

- Katsilambros, N. (2011). *Clinical nutrition in practice*. John Wiley & Sons.
- Kedir, H., Berhane, Y., & Worku, A. (2016). Magnitude and determinants of malnutrition among pregnant women in eastern Ethiopia: evidence from rural, community-based setting. *Maternal and Child Nutrition*, 12(1), 51-63.
<https://doi.org/10.1111/mcn.12136>
- Lindsay, K. L., Gibney, E. R & McAuliffe, F. M. (2012). Maternal nutrition among women from sub-saharan Africa, with a focus on Nigeria, and potential implications for pregnancy outcomes among immigrant populations in developed countries. *Journal of Human Nutrition and Dietetics*, 25(6), 534-546.<https://doi.org/10.1111/j.1365-277X.2012.01253.x>
- Lucas, A. O. & Gilles, H. M. (2009). *Short textbook of public health medicine for the tropics*. London: Book Power Publishers.
- Muchie, K. F. (2017). Quality of antenatal services and completion of four or more antenatal care visits in Ethiopia: a finding based on a demographic and health survey. *BMC Pregnancy Childbirth*, 17(300), 1-10.
<https://doi.org/10.1186/s12884-017-1488-0>
- National Nutrition and Health Survey-NNHS (2018). *Report of the nutrition and health situation of Nigeria*. National Bureau of Statistics, National Population Commission and the Nigeria Ministry of Health.
- Oluwole, O. B., Agboola, A. A., Onyibe, J., & Adeyoju, O. A. (2016). Improving maternal nutrition in Nigeria: Review. *International Research Journal of Agricultural and Food Sciences*, 1(2), 17-22.
- Okoronkwo, I. L., Odira, C. C., Nwaneri, A. C., Okpala, P. U., & Okafor, C. N. (2016). Patterns of antenatal care seeking behaviours in South East Nigeria: Exploring relationship with age, education, and socioeconomic status. *Journal of Basic and Clinical Reproduction Sciences*, 5 (1); 40-45.
- O'Sullivan, I., Burdet, E., & Diedrichsen, J. (2009). Dissociating variability and effort as determinants of coordination. *Plos Computational Biology*, 5(4) 345-371. doi:10.1371/journal.pcbi.1000345
- Osuorah, C. D. I., Ndu, I. K., Ifediora, C., Asinobi, I. N. & Eke, C. B. (2016). Food taboos and myths in South Eastern Nigeria: The belief and practice of mothers in the region. *Journal of Ethnobiology and Ethnomedicine*, 12 (7), 1-9.
- Piate, R. C. & Nnubia, U. E. (2016). Gender and socio-economic influence on eating habits of adult residents in Akwa-Ibom State for healthy lifestyle. *Journal of Home Economics Research*, 23(2), 104-113.
- Ramakrishan, U., Grant, F., Goldenberg, T., Zongrone, A., & Martorell, R. (2012). Effects of women's nutrition before and during early pregnancy on maternal and infant outcomes: A systematic Review. *Paediatric and Perinatal Epidemiology*, 21(1), 2850301.
- Ramlal, R. T., Tembo, M., Soko, A., Chigwenembe, M., Tohill, B. C., Kayira, D. ... & the BAN Study Team. (2012). Patterns of body composition among HIV-infected pregnant Malawians and the effects of famine season. *Maternal and Child Health Journal*, 17, 265-273.
<https://doi.org/10.1007/s10995-012-0970-6>
- Serbesa, M. L., Iffa, M. T, & Geleto, M. (2019). Factors associated with malnutrition among pregnant women and lactating mothers in Miesso health centre, Ethiopia. *European Journal of*

- Midwifery*, 3(13), 1-5.
<https://doi.org/10.18332/gm/110131>
- Tekola, K. B., Berhe, A. K., Gebremariam, G., & Gebremariam, A. (2018). Associated factors for adolescent under nutrition in Ethiopia: A systematic review and meta-analysis. *Journal of Health, Medicine and Nursing*, 50, 21-30.
- Tette, E. M. A., Sifah, E. K., Nartey, E. T., Nuro-Ameyaw, P., Tete-Donkor, P., & Biritwum, R. B. (2016). Maternal profiles and social determinants of malnutrition and the MDGs: What have we learnt? *BMC Public Health*, 16(214), 1-11. DOI 10.1186/s12889-016-2853-z
- World Health Organization (2014). *Maternal mortality*. Geneva: World Health Organization.
- World Health Organization (2016). *The double burden of malnutrition: policy brief*. Geneva: World Health Organization.
- World Health Organization (2018). *Malnutrition*. Retrieved from <http://www.who.int/water-sanitation-health/diseases/malnutrition/en/>.
- World Health Organization (2019). *Twin presence of obesity and undernutrition reflects shift in food systems*. Geneva: World Health Organization.
- Zewde, B., Biadgilign, S., Taddese, Z., Legesse, T., & Letebo, M. (2018). Determinants of malnutrition among pregnant and lactating women under humanitarian setting in Ethiopia. *BMC Nutrition*, 4(1), 11. Doi. 10.1186/s40795-018-0222-2.

Causes and Perceived Effects of Street Hawking among Children in Ibadan, Oyo State, Nigeria

¹Obunadike, Joy C.; ²Onyekwelu, S.U. and ³Chimezie, J.

¹Department of Agricultural and Home Science Education, Michael Okpara University of Agriculture, Umudike, Abia State

²Department of Counseling and Human Development Studies, University of Ibadan, Ibadan, Oyo State

³Rosakin High School, Ibadan, Oyo State

Abstract

This study focused on street hawking among children in Ibadan, Oyo State, Nigeria. Specifically it identified the causes of children's involvement in street hawking and perceived effects of street hawking on the children involved. Two research questions and two hypotheses were formulated to guide the study. The study was a descriptive survey. Area of the study was Ibadan. Population was made up of all children both male and female involved in street hawking in Ibadan. Purposive stratified sampling and multi-stage procedures were used to select 150 respondents from the population. Questionnaire was used to collect data. Data were analyzed using mean and t-test at 0.05 level of significance. Major findings are eight causes of street hawking among children, including poor family living conditions, irregular family income, peer parental co-influence, large family size, family cultural heritage and high inflation and cost of living. Other findings are 22 perceived effects of street hawking on children. These include behavior deviance, sexual exploitation, emotional stress/trauma, child mortality rise, coupled with school dropout, among otherst. There exists a significant relationship between the response of male and female on the causes and perceived effects of street hawking by children in Ibadan. This study recommends massive awareness campaign to discourage street hawking by children and strict enforcement of the child's right laws in Nigeria.

Keywords: Street, Hawking, Children, Causes, Effects, Perceived

Introduction

Child labour encompasses all activities either economic or otherwise that directly impeded on the overall well-being child development and productivity in his or her immediate environment (International Labour

Organization (ILO), 2010; UNICEF, 2012). Children are considered as viable component that sustains the existence circle of the life force of the humanity. Whence, should be treated consciously as a vital element of the globe. Although there has always been

a mix reaction among scholars especially with child welfare agencies, practitioners, care givers/guardians and policy makers with lots of favors and arguments in the position of the Childs' participation in economic venture of their immediate society (Eboh, 2018). The ILO estimates that, about 168 million children globally are involved in various forms of child labour activities. Out of this number, 59 million were reported to be in sub-Saharan Africa. Furthermore, 14 million children between the age of five and 14 relatively involved in economic labour related activities.

The rising state of children involvement in the job market (street hawking) in Nigeria could be seen as serious form of child abuse which could be detrimental to the wellbeing and social adjustment of the child. The question of what is the social norm for child's involvement in their immediate environment has been jointly addressed with little or no cognizant to reducing the abrupt assumptions of the Child as a viable economic entity especially in the context of the African child. Socially, children who are involved in street hawking are stereotypically harassed, stigmatized and bullied by the society's negligence which projects the complexes of the psychosocial crisis of identity vs role confusion according to Erik Erikson psychosocial theory while interacting with their environment placing them in a state of defensive psychological misfits in the scale of social independence and self-identity. This psychosocial contrast has some

negatively inclined outcomes that could affect the personality growth and development of the child.

It is constructive to note the dynamics of the psychosocial contrast of causes and effects of child's hawking as could be anchored by Erik Erikson's theory of psychosocial development which maintained an explanation that a child undergoes eight stages of psychosocial development which begins from infancy to adulthood, during which development and well adjustment of the child is vital. According to Erikson (1958-1963), it was noted that in the process of development, the child experiences some forms of psychosocial crisis whose nature involves the psychological needs of the child conflicting with societal needs of their environment which could project either positive or negative outcome. This theory went further to identify the two resultant causative effects that accompany each developmental typology noting firstly that successful completion of each stage of development results to a health personality and the acquisition of basic virtues, and secondly failure to successfully complete a stage can result to a reduced ability to complete further developmental stages which therefore projects amore unhealthy personality and a deteriorating sense of self (McLeod, 2018). This implies that the first five stages (Trust vs. Mistrust, Autonomy vs. Shame and Doubt, Initiative vs. Guilt, Industry vs. Inferiority, Identity vs. Role, Confusion) according to psychosocial

theory; the development of the child is very sensitive, crucial and fragile which spans within the period of age bracket zero to eighteen years (0-18years). Therefore, the illicit child labour practices of street hawking in Africa lunch the child to an excessive and frustrating growth and developmental issues which in the long run affects the adaptive adjustment nature of the child. Hence, should be traded with caution especially in the African context.

Street hawking can also be described as street vending, street trading or small scale trade (Mustapha & Mustapha, 2014; Amoo, *et al.*, 2016). Street hawking is a form of trade in which the sellers (hawker) moves around with wares (commodities or goods) from one place to another in search of prospective buyers. It can also be seen as a display of wares by the road side, carrying of goods around from one location to another in search of buyers, this can be on highways, markets, streets, and commuters (Dada, 2013; Abisoye, 2013). Street hawking in relation to children can be seen as a process whereby children/teenagers are involved in the selling of goods (wares) from one location to the other; and this could be done on a regular or irregular basis (Akighir, 2013).

Street hawking among children has been associated to as a socio-economic drive for survival basically in the fight against poverty (Osonwa, *et al.*, 2013) and improve livelihood in supporting themselves and their immediate family, making poverty a key variable

(Eboh, 2018). Other factors attributed to the causes of child street hawking includes; urbanization and modernization, population growth, immigration and migration, family complexity, cultural and religious value and belief. Also, attributed to street hawking to loss of parent through separation, divorce, or death and unemployment, family size and illiteracy (Dada, 2013), amongst other factors could cause involvement of children in street hawking.

The menace caused by street hawking is not only felt by the society based on the anti-social behavioursbut more is on the child particularly in terms of their social rights, health, social, physical, mental and psychological impact, that is why it was clearly ascribed as child abuse/labour (Ayodele&Fatiregun, 2014). The effect of street hawking is not only felt by the victims (the child), but by the society at large with a significant negative effect. Its negative effects on overall human capital formation cannot be quantified (Nduka&Duru, 2014). The impact of street hawking empathically creates more harm than good, this includes sexual molestation and assault which increases the vulnerability of the hawkers to diseases such as HIV/AIDS and other sexually transmitted infections, increased risk of unwanted pregnancies, and unsafe abortions (Muhammad, 2013; Amoo, *et al.*, 2016). Street hawking leads to increased exposure to antisocial activities like smoking, drug and alcohol abuse, cultism and crime. Also,

they are exposed to the vagaries of weather (extremes of cold or heat), illnesses and diseases, hunger, deprivation and kidnapping (Eboh, 2018). When children are involved, in addition to these other risks, they are deprived of education and sound health and these constitute child abuse, leading to poor academic performance and achievement (Ubah&Bulus, 2014; Busari, 2016; Akpotor, 2016). Also, Nuhu, and Nuhu, (2010) opined that street hawking may have negative effects on children education such as high dropout rates, absenteeism and poor school performance. Socially, children could experience negative effects on their educational development and performance (Bosah, *et al.*, 2015).

Childs' Street hawking is a negation of the International Convention on the Right of the Child (Umar, 2018). It is indeed inhuman for anyone to engage a child in money-making ventures; because such a child is denied basic education which is a right for every child. In the long run, working juveniles are at disadvantage in several ways due to their involvement in all sorts of hazardous works which affect their health, mental, moral, spiritual and physical developmental wellbeing's due to injuries (Ayodele & Fatiregun, 2014). The facts remains that the issues of Childs' right in Nigeria despite being rectified, yet faced with challenges of ethnic standing, civil strife, educational, religious, political and economic constrains which inhibits the implementation functionality

(Iyabode, 2012). When children are involved in street hawking they are mostly deprived of education and sound health and this constitutes to child abuse. Hence the persistent dropouts and rise in the number of children of school age involved in street hawking prompted this study to investigating the causes and perceive effects of street hawking among children in Ibadan, Oyo State, Nigeria.

Purpose of the Study

The purpose of the study was to investigate the causes and perceived effects of street hawking among children in Ibadan, Oyo State, Nigeria. Specifically, the study determined:

1. causes of children involvement in street hawking.
2. perceived effects of street hawking on the children involved.

Research Questions

The research questions that guided this study are:

1. What are the causes of children's involvement in street hawking in Ibadan, Oyo State?
2. What are the perceived effects of street hawking on the children involved in Ibadan, Oyo State?

Research Hypotheses

The following null hypotheses that guided the study was tested at 0.05 level of significance:

H₀₁: There is no significant difference in the mean ratings of male and female children's views on the causes of street hawking among children in Ibadan.

Ho₂: There is no significant difference in the mean ratings of male and female children's views on the perceived effects of street hawking among children in Ibadan.

Methodology

Research Design: Descriptive research design was adopted for the study.

Area of the study: Ibadan was the area of the study. Ibadan is the capital city of Oyo state, south western Nigeria. There are twelve (12) wards and eleven (11) LGAs in Ibadan metropolitan Area consisting of five urban and six semi-urban towns with an estimated population of approximately six million people. The principal inhabitants of the city are the Yoruba ethnic group. There are also other ethnic groups.

Population of the study: All children of school age of 5-18 years who are engaged in street hawking in Ibadan, formed the population for this study. The children are engaged in petty trades and services such as selling of tomatoes, pepper and vegetables, sachet water and cold carbonated drinks, bananas and plantain, groundnuts amongst various trades. Most of these children were found carrying these items on their heads in tray pans or big bowls, in bags or on their shoulders.

Sample of the study: Multistage sampling technique was used. Ten LGAs were randomly selected from the total of eleven LGAs (first stage sampling units). One ward each was selected from the LGAs through purposive and stratified sampling

technique (second stage sampling unit). From each of the selected 10 wards category, a hawking site was randomly selected (third stage sampling unit). From each of the 10 hawking sites, 15 children (respondents of age 5-18 years) were selected using a convenience sampling technique also known as accidental sampling procedure (fourth stage sampling unit). Hence, a total number of 150 children (68 males and 82 females) were selected following their willingness to participate in the study.

Instrument for Data Collection: Questionnaire was used for data collection. It was developed based on the specific purposes and extensive literature review. It serves as interview guide for the children who could not read and write. The instrument was validated by three experts who are specialists in child development including child rights. Reliability of the instrument was determined using inter-rater and Cronbach Alpha reliability methods. The instrument was pilot-tested outside Ibadan metropolitan (Oyo town) where hawking activities were seen. Thirty copies of the instrument were administered and retrieved then analyzed for its inter-item reliability (Cronbach Alpha), yielding a coefficient of 0.80 which showed that the instrument was strongly reliable.

Data Collection Method: In all, 150 questionnaires were administered to 150 children. The children who could not respond to the questionnaire were interviewed, with the questionnaire as interview guide. All the 150 copies of

the questionnaires were completely filled up and retrieved, giving a return rate of 100 percent.

Data analysis Techniques: The data were analyzed using the mean score.

The null hypothesis was tested using t-test at $\alpha = 0.05$ level of significance.

Results

Causes of Children's Involvement in Street Hawking

Table 1: Mean Responses, Standard Deviation and t-test Analysis on Causes of Street Hawking Children in Ibadan. N=150

S/N	Causes of Street Hawking	\bar{X}_1	SD ₁	\bar{X}_2	SD ₂	\bar{X}_g	t-cal	Sig (2-tailed)	R	D
1	Lack of finance lured me into street hawking to sustain my family	2.72	1.40	2.71	1.45	2.71	0.57	.955	NS	A
2	Hawking is my family cultural (cultural heritage)	2.57	1.20	2.60	1.24	2.59	-.12	.91	NS	A
3	I hawk due to inflation/high cost of living	2.90	1.27	2.99	1.32	2.95	-.43	.67	NS	A
4	Poor living condition of my family lured me into street hawking	3.00	1.33	2.89	1.32	2.94	.51	.61	NS	A
5	My parent forced me into street hawking due to peers parental co-peer influence	2.62	1.12	2.40	1.20	2.50	1.13	.26	NS	A
6	Parent unemployment forced me into hawking	3.10	1.24	2.72	1.21	2.89	1.91	.06	NS	A
7	Because of my family size, all member were encourage to support the family income via street hawking	2.81	1.32	2.62	1.24	2.71	.89	.37	NS	A
8	Irregularity of my parent income forced me into street hawking	2.57	1.20	2.60	1.24	2.59	-.12	.91	NS	A

Note: Total number of respondents (N) = 150, Number of Male (n₁) = 68, number of female (n₂) = 82, \bar{X} = Grand mean, \bar{X}_1 = Males Mean scores, \bar{X}_2 = Females Mean scores, SD = Standard Deviation, NS = Not Significant; P= 0.05; R= Remarks; D= Decision; A= Agree
 Source: Field Survey (2020).

Table 1 shows that the 8 items had their means between 2.50 and 2.95 which falls within the category of agreement to the causes indicated. This

indicates that all the items are agreed to be involved in the causes of child's street hawking. The result also revealed that all the items had their t-test significance above 0.05 with the t-calculated values of between -.43 and 1.91. Hence, the hypothesis of no

significance difference between male and female response on the causes of child's street hawking was accepted.

Perceived effects of street hawking on the children involved

Table 2: Mean Responses, Standard Deviation and t-test Analysis on Perceived Effects of Street Hawking on Children in Ibadan.

S/N	Perceived Effects of Street Hawking	\bar{X}_1	SD ₁	\bar{X}_2	SD ₂	X _g	t-cal	Sig. (2-tailed)	R	D
1	I had been a victim of road accident while hawking	2.94	1.54	2.79	1.39	2.85	.67	.50	NS	A
2	I have been bitten by insects during hawking	3.00	1.34	2.94	1.20	2.97	.29	.77	NS	A
3	I often experience sexual assaults while hawking	3.34	1.32	3.31	1.46	3.32	.15	.89	NS	A
4	I find it difficult to meet up with school activities	3.07	1.21	2.94	1.22	3.00	.67	.50	NS	A
5	I often skip classes in order to hawk	3.72	.91	3.38	1.32	3.53	1.81	.07	NS	A
6	I have anger issues due to tough hawking conditions	2.85	1.33	3.26	1.36	3.07	-1.83	.07	NS	A
7	Sometimes I feel depressed and sad due to hawking.	3.16	1.46	3.44	1.32	3.31	-1.22	.22	NS	A
8	Hawking makes me feel less relevant in the society	3.37	1.22	3.46	1.20	3.42	-.48	.63	NS	A
9	I often experience emotional stress	2.92	1.27	2.95	1.38	2.93	-.18	.86	NS	A
10	I often experience fatigue after hawking	3.21	1.11	3.20	1.13	3.20	.059	.95	NS	A
11	I often have musculoskeletal issues due to hawking	3.41	1.33	3.35	1.23	3.23	.28	.78	NS	A
12	I often fall sick after hawking under hot or cold weather	3.44	1.19	3.32	1.37	3.37	.59	.56	NS	A
13	I stand a high risk of being exposed to diseases	3.27	1.31	2.98	1.26	3.11	.68	.17	NS	A
14	I suffer malnutrition due to eating unbalanced food	3.37	1.33	3.40	1.29	3.25	-.16	.87	NS	A
15	I have been sexually exploited	3.02	1.45	2.91	1.58	2.83	0.40	.69	NS	A
16	I am often stigmatized based on my hawking involvement	3.16	1.27	3.23	1.38	3.10	-.32	.75	NS	A

17	I rarely have time to study after hawking all day	3.49	1.19	3.26	1.23	3.36	1.15	.25	NS	A
18	I often see myself as a failure and a misfit	2.81	1.32	2.62	1.24	2.71	.89	.37	NS	A
19	I am aware of victims of assault due to street hawking	3.22	1.34	3.01	1.30	3.11	.97	.34	NS	A
20	I had learned some bad behaviours in the street while hawking	3.19	1.27	2.88	1.26	3.02	1.50	.13	NS	A
21	At times I feel frustrated and less of life	3.18	1.23	2.99	1.20	3.07	.95	.36	NS	A
22	I display attitudes that are beyond my age grade	3.49	1.24	3.15	1.42	3.30	1.54	.13	NS	A

Note: Total number of respondents (N) = 150, Number of Male (n_1) = 68, number of female (n_2) = 82, \bar{X}_g = Grand mean, \bar{X}_1 = Males Mean scores, \bar{X}_2 = Females Mean scores, SD = Standard Deviation, NS = Not Significant; $P= 0.05$; R = Remarks; D = Decision; A = Agree.

Source: Field Survey (2020).

Table 2 shows that the 22 items had their means between 2.71 and 3.53 which falls within the category of agreement to the perceived effects of street hawking indicated. This indicates that all the items are agreed to be the perceived effects of street hawking amongst street hawking children. The result also revealed that all the items had their t-test significance above 0.05 with the t-calculated values of between -1.83 and 1.81. Hence, the hypothesis of no significance difference between male and female response on the perceived effects of street hawking amongst children involved in street hawking was accepted.

Discussion of findings

The study relatively affirm the latent study on the major factors that causes street hawking to include: Lack of finance, family cultural belief,

inflation/high cost of living, poor living condition (poverty), peers/parental influence, parental unemployment, amongst others. This finding is in agreement with the findings of Osonwa, *et al.*, (2013) and Abisoye (2013) which found that poverty is mainly the central cause of street hawking amongst children of school age. Ebgbo (2003) opined that while poverty is often postulated as the principal cause of forcing children into labour, lack of social services at home, lack of good housing, inadequate food and health care service, have been known to compel parents to send their children into street hawking and child labour. Furthermore, other causes of street hawking to include; high cost of living, lack of sponsorship, poor school performance, poor parenthood, large family size, peer group pressure, poor home conditions, lack of parent care,

poor scholastic achievement, unemployment, loss of parents, and parental perceptual belief (Eboh, 2018; Dada, 2013; Ekpenyong & Nkereuwem 2011; Nuhu, & Nuhu, 2010). Notwithstanding, Ayodele and Fatiregun (2014), submitted that parents allow their children to hawk due to the prevailing harsh economic situation they are faced with in their country.

Concurring to the findings of the study on perceived effect of street hawking, Kwankye, *et al.*, (2007); Lu, (2011); Olutunde, (2013); Busari (2016) and Umar (2018), established that sexual assaults are seen amongst children involved in street hawking especially female children, this invariably increases the vulnerability of the hawkers to diseases such as HIV/AIDS and other sexually transmitted infections, increased risk of unwanted pregnancies, and unsafe abortions. Also, Amoo, *et al.*, (2016) submitted that individuals involved in street hawking are exposed to harsh weather conditions, insect and reptile bites and hunger. Also, the study found out that children involved in street hawking are being exposed to the risk of road accident (Ayodele&Fatiregun, 2014), which invariably affects their attendance to school, emotional intelligence and having tendency of withdrawal from other students or individuals (Eboh, 2018; Ashimolowo, *et al.*, 2010). Furthermore, street hawking was found to expose children to antisocial behavior, during hawking socialization take place and children

while in the street depends on peers and other adults leading to learning of various values, attitude and behaviour that are against the societal norms (smoking, cultism, drinking alcohols amongst other vices). This above finding is in line with the findings of Nduka, and Duru, (2014); Ekpenyong and Nkereuwem (2011) which assert that children street hawkers learn bad behaviour from adult in the public, amongst such anti-social behaviour exposed to include; robbery, smoking, drinking, being sexually active, cultism and vulgar language. Once such behavior is being linked with truancy towards schooling is found and poor academic performance and achievement (Akpotor, 2016; Ubah&Bulus, 2014; Ashimolowo, *et al.*, 2010).

Extensively, from the interview with the adult respondents it was seen that the rate of street hawking among children is on the rise, going by the harsh socioeconomic terrain. The decision of Childs' involvement in street hawking is solely dependent on parent decision based and their educational exposure, family structure, socioeconomic status (Osonwa, *et al.*, 2013) and political strains such as corruptions and poor political implementation will (Alimi& Micah, 2010; Togunde& Carte, 2006; Fetuga *et al.*, 2005; Kempe, 2005). Other causative agent identified by respondents include high unemployment rate, economic instability, high standard of living, low return from education and irregularity of parent income amongst others

(Sagawara, 2010). During the interview session with children involved in street hawking, all child respondents affirmed conforming to the decision of parents as relates to family socioeconomic status and family size. Accordingly, the United Nations International Children's Emergency Fund (2007) identified poverty, large family size, and rapid urbanization among others as the major factor of child's labour. Respondents raised alarm to the hawking conditions as being harsh and unfriendly then hoped for a better alternatives such as going to school and learning vocational skills order than street hawking. Many of the interviewed children were not aware of Child's right, hence wished such right were grossly implemented by the responsive agencies. According to Abisoye (2013) it was found that in Ibadan, as many as 93.3% of juvenile hawkers in his study attributed their involvement in hawking to their parents having no job. Finally, going by the interviews review by 95% of the respondent when asked if they enjoy street hawking, indicated not palatable then wished for better alternatives. This indicates that children are compelled against their will due to family circumstances of socioeconomic constrain amongst other causative factors.

Conclusion

The negative impacts of street hawking cannot be undermine due to certain factors such as poverty and socioeconomic status as major

determinant, as identified by latent studies. Firstly, street hawking by children of school age should be seen as a deprivation of the international conventional child rights and should be considered more seriously from the context of psychosocial perspective. The African culture that stereotypically promulgates the exploitation of children of school age in money making venture has undoubtedly exposed the young generation to variety of social menace and its consequences are very grievous as its psycho-socioeconomic impact cut across all areas of the well-being and natural adjustment of the African child. Moreover, this study underscores that street hawking children are exposed to a long run severe socioeconomic unproductiveness while sustaining lifelong injuries and educational dysfunction by increasing the rate of dropout and out of school age children, increasing child mortality via road accidents, possible rise in antisocial vices due to exposure to deviant behavior (Juvenile delinquency) and the vulnerable gender (Female child) are sexually exploited making her susceptible to STDs, HIV/AIDs and lastly unwanted pregnancy in cases of rape. Therefore, the Nigerian government should enforce child right laws to discourage all forms of child abuse in Nigeria and as a commitment to redeeming her image amongst other nation in promoting a healthy and well-adjusted child in Africa.

Recommendations

The study suggests the following recommendations to address the issues of causes and perceived effects of street hawking among children in Ibadan, Oyo State, Nigeria:

1. The government should diversify her economy to create a more functional socioeconomic system that will reduce poverty, which leads to children involving in street hawking.
2. Massive campaign against children involvement in street hawking that is policy driven should be encouraged and agencies involved should be proactive and effective.
3. There should be a synergy between governmental and non-governmental organization in the fight against all forms of illicit Child labour and abuse practice in Africa.
4. Parents and families should desist from engaging children of school age into street hawking or any form of child labour.
5. The communities should synergies with child's right agencies and organizations in educating their populace on the perceived impacts of street hawking and discourage the practices of children street hawking.

References

- Abisoye, A.O. (2013). The prevalence of child hawkers in motor parks in Ibadan Municipality: An overview. *Open Journal of Social Science Research*; 1(7); 174-179.
- Abubakar, A. (2014). Impact of Street Hawking on Girl Child Academic

- Performance in Government Day Junior Secondary Schools in Yobe State, Nigeria. *Journal of Education and Practice*; 5(24); 47-49. www.iiste.org
- Akighir, S. (2014). Street Hawking and the Nigerian Child. Retrieved on 18th February, 2020 from www.ecdlinitiative.org/download.php?id=4
- Akpotor, J. (2016), Parental Poverty as a Determinant of Children Street Hawking in Warri Metropolis of Delta State, Nigeria. *Research on Humanities and Social Sciences*; 8(10); 90-98. www.iiste.org
- Alimi, T., & Micah, B.M. (2010), 'Determinant of Household Participation in the Child Labour Force: The Case of Iwo Local Government Area, Osun State, Nigeria'. *Agrekon Agricultural Economic Research, Policy and Practice in South Africa*; 49(3); 358-372.
- Amoo, E. O., Ola-David, O. A., Olurinola, I. O. & Fadayomi T.O. (2016). Female Youth in Street Trading: Implications for Sexual Harassment in HIV/AIDS Risky Environment. *Journal of South African Business Research*; 20(16); 1-12
- Ashimolowo O.R, Aromolaran A.K & Inegbedion S.O (2010) Child -Street Trading Activities and its Effect on the Educational Attainment of its Victims in Epe Local Government Area of Lagos State. *Journal of Agriculture*; 2 (4); 211-220.
- Ayodele, R. B. & Fatiregun, M.A. (2014). Accidental Injuries among Juvenile Hawkers: Clog in the Wheel of Sustainable Socio-Economic Development of a Nation. *Asian Journal of Social Sciences*; 2(2), 19-30. Retrieved on 18th February, 2020, from ajhss.org/pdfs/Vol2Issue2/3.pdf www.ajhss.org
- Bosah, I. P., Offem, O. O. & Obumneke-Okeke, M. I. (2015). Influence of Street

- Hawking on Socio-Emotional Development of Children: A Case Study of Primary School Pupils in Cross River State, Nigeria. *Journal of Emerging Trends in Educational Research and Policy Studies (JETERAPS)*; 6(1); 50-55
- Busari, A. O. (2016). Emotional Distress: The Resultant Effects of Street Hawking and Sexual Abuse of Female Children in Oyo State, Nigeria. *Africology: The Journal of Pan African Studies*; 9(9); 53-70.
- Dada, O.M.O (2013). A Sociological Investigation of the Determinant Factors and the Effects of Child Street Hawking in Nigeria: Agege, Lagos State, Under Survey. *International Journal of Asian Social Science*; 3(1); 114-137. <http://www.aessweb.com/journal-detail.php?id=5007>
- Ebgbo, P.O.(2003). Street child: The core of child abuse and neglect in Nigeria. *Children, Youth and Environment*. 1-13.
- Eboh, A. (2018). Perceived Effects of Street Hawking on the Well-Being of Children in Anyigba, Dekina Local Government Area of Kogi State, Nigeria. *Pakistan Journal of Public Health*;8(1); 1-7
- Ekpenyong, S.N. & Sibiri, A. E. (2011). Street trading and child labour in Yenegoa. *International Journal of Scientific Research in Education*.4 (1) 36-46.
- Fetuga, B. M., Njokoma, F.O.&Olowu, A.O. (2005) 'The Prevalence, Types and Demographic Features of Child Labour among School Children in Nigeria', *BMC International Health and Human Right*. 1-7.
- International Labour Office (2010) 'Accelerating Action against Child Labour: Global Report under the Follow Up to the ILO Declaration on Fundamental Principles and Rights at Work. Geneva: International Labour Organization. http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms_126752.pdf. Accessed 14-05-2021
- Kempe, H.R. (2005) 'Child Survival, Poverty and Child Labour in Africa', *Journal of Children and Poverty*; 11(1): 19-42.
- Kwankye, S. O., Nyarko, P. E. & Tagoe, C. A. (2007). Reproductive health implications of street hawking in Accra. 1-15.
- Lu, J.L (2011). Occupational Health and Safety of Women Workers: Viewed in the Light of Labour Regulations. *Journal of International Women's Studies*; Vol. 12 No. 1. Pp 68-78.
- McLeod, S. A. (2018). Erik Erikson's stages of psychosocial development. Simply psychology: <https://www.simplypsychology.org/Erik-Erikson.htmls>
- Muhammad, M. (2013): Almajiri: Beyond Rhetorics, Retrieved from www.google.com, 21st February, 2020
- Mustapha, H. K. & Mustapha. A. A. (2014). Understanding the Complexity of Child Labor Experiences in the Global South: A Survey of Kaduna Metropolis-Nigeria. *Arts and Social Sciences Journal*;5(2):1-10
- Nduka, I. & Duru, C. O. (2014). The Menace of Street Hawking in Aba Metropolis South-East Nigeria. *Journal of Medicine and Medical Sciences*;5(6):133-140. Retrieved on 18th February, 2020, from <http://www.interestjournals.org/JMMS>
- Nuhu, F & Nuhu, S (2010) Opinions and attitudes of some parents in Ilorin north central Nigeria Towards child abuse and neglect. *SAJP*; 16:27-32
- Olutunde, A.A (2013). The Prevalence of Child-Hawkers' in Motor parks in Ibadan Municipality: An Overview. *Open Journal of Social Science Research*; 1(7): 174-179.

- Osonwa, O. K., Adejobi, A. O., Iyam, M. A. & Osonwa, R. H. (2013). Economic Status of Parents, a Determinant on Academic Performance of Senior Secondary Schools in Ibadan, Nigeria. *Journal of Educational and Social Research*; 3(1); 115-122.
- Sagarawa, K. (2010) 'Intergenerational Transfer and Fertility: Trade-off between Human Capital and Child Labour'. *Journal of Macroeconomics*; 32(2): 584-593.
- Salisu, I.S. (2012). Exploitation of Children in the Informal Sector: Case Study of Street Hawking Children in Ifo Local Government, Ogun State. *International Institute of Social Studies*. The Hague, Netherlands.
- Togunde, D., & Carter, A. (2006) "Socioeconomic causes of child labour in Nigeria". *Journal of Children and Poverty*; 12(1): 73-89.
- Ubah, M. C. & Bulus, A. (2014). Effect of Street Hawking On the Academic Performance of Students in Social Studies in Junior Secondary Schools in Nasarawa State, Nigeria. *IOSR Journal of Research and Method in Education*; 4(4); 18-22.
- Umar S.U (2018) Street Hawking and the Girl Child in Northern Nigeria: A Study of some Selected Areas in Wudil Town, Wudil Local Government Area of Kano State. *African Journal of Social Science and Humanities Research*; 1(1); 26-37, www.abjournals.org
- UNICEF (2007): Nigeria country report of human right practices: released by the bureau of democracy, human right and labour. March 4, 2007: 1-29 section 6.
- United Nation Children's Fund (2012) *Monitoring the Situation of Children and Women*. UNICEF. <http://www.childinfo.org/labour.html> Accessed 14-05-2021.
- Well, J.C. (2008). Longman Pronunciation Dictionary (3rd Ed.). Longman. ISBN 978-1-4058-8118-0. Retrieved 25 march 2021. <http://www.oyostate.gov.ng/>

Corona Virus (COVID-19) Related Issues and Teenagers in Nsukka Local Government Area: Implication of the Media

Anyakoha, B.U.¹; and Anyakoha, C.N.²

¹Department of Mass Communication

²Department of Business Education

University of Nigeria, Nsukka, Enugu State

Abstract

This study focused on awareness and attitude of teenagers towards Coronavirus (COVID-19) pandemic in Nsukka Local Government Area. Specifically, it determined: extent to which teenagers are aware of COVID-19; attitude of teenagers towards COVID-19 safety protocols, and role of media in enhancing the awareness of COVID-19 and safety protocols adoption among the teenagers. Population comprised of senior secondary school (SSS) students. Two types of questionnaire were used for data collection. Data were analyzed using mean and standard deviation. Findings reveal six awareness indicators (>2.50). These include symptoms of coronavirus, causes of coronavirus, and measures to manage the spread of coronavirus. The teenagers could be said to be 75 percent aware of COVID-19. Also the teenagers indicated positive attitude to eight attitude indicators. Further, 11 roles the media could play in enhancing teenagers' awareness and adoption of protocols were identified. These include obtaining and dissemination up to date information, tracking of outbreaks in different communities and promoting peer-to-peer health communication. Based on the findings eight recommendations were made, these include that, information being disseminated across by the media about the coronavirus should be obtained from the right sources and should be properly vetted, and the media should partner with other organizations such as religious organizations such and churches and mosques with the aim of educating people on the adoption of safety protocols.

Keywords: Media, Pandemic, Coronavirus, Teenagers' Perception.

Introduction

Coronavirus disease (COVID-19) is an infectious disease caused by a newly discovered coronavirus. The origin of the coronavirus is said to have been traced to the Wuhan seafood market in Wuhan, China in late 2019 (Centre for

Disease Control and Prevention, 2020). The outbreak *was* declared a Public Health Emergency of International Concern on 30 January 2020 and on 11th of February 2020, the World Health Organization (WHO) announced COVID-19 as the name of

this new disease. The novel coronavirus was declared a pandemic in March 11th 2020 and as at 29th September 2020, there has been more than 33 million cases worldwide and more than 1 million deaths (Centre for Disease Control and Prevention, 2020). Furthermore, despite the level of advancement in the health systems of high-income countries, they are the worst hit in terms of disease burden and total COVID-19 related deaths. With no proven treatments available and posing a significant threat to healthcare systems, most nations including Nigeria, aim to flatten the curve by applying strict prevention and control measurements aimed at curbing the disease.

The common symptoms associated with the coronavirus include; loss of sense of smell, loss of sense of taste, difficulty in breathing, persistent coughing and high fever (Akarika, Udo and Ikon, 2020). The COVID-19 pandemic has been compared to earlier pandemics such as the Spanish flu of 1918 that infected more than 200 million individuals worldwide, killing more than 10.5 million (Humphrey, 2018). Though the infection and mortality rates are not as much as Spanish flu, the global impact has been touted to be even more, as the coronavirus has led to the closure of several business across different sectors of the world economy, led to the shutdown of cities worldwide, grounded global aviation, led to the stoppage of sports activities as well as drastically reduced the gathering of

large groups of people (Shereen, Khan, Kazmi, Bashire and Siddique, 2020).

Nigeria recorded its first case on the 28th of February 2020 which happened to be the first case of the coronavirus in sub-Saharan Africa. The patient was an Italian citizen who works in Nigeria and flew into the commercial city of Lagos from Milan on 25th February but has since made a full recovery. After which many others cases have been recorded in 34 states of the federation and the federal capital territory (Amzat, Aminu, Kolo, Akinyele, Ogundaro and Danjibi, 2020). Unfortunately, a good number of Nigerians believe that the coronavirus is in Nigeria. When reports came that the virus was finally in Nigeria and that it was brought in by an Italian, Nigerians went about their normal activities as they were convinced the virus does not affect the black race. There were speculations that the sub-Saharan weather was too hot for the coronavirus to survive and also, that the use of chloroquine does not only prevent one from being infected with the virus, but actually also effectively kills the coronavirus (Babatunde, 2020). However, these claims have proved not to be substantiated as infection rates increased considerable as well as mortality rates. As at September 30th 2020, there had been 64,312 total cases, 1,174 COVID-19 related deaths and 57,640 recoveries in Nigeria (Suleiman, Aminu, Abdullahi and Sulieman, 2020). In order to quell the spread of the pandemic, it has become imperative to institute preventive and

control measures nationally and at the community level. These preventive measures promulgated by the government, through health authorities and also non-governmental organizations and religious bodies include frequent washing of hands, the use of hand sanitizer, social-distancing between people, ban of inter-state travel as well as a ban on large gatherings. The adoption of these safety measures however have significantly affected normal economic and social activities as it forced many markets to close as well as stopped religious gatherings for long time period. However, over time, tiered relaxation of the lockdown restrictions

Teenagers are individuals within the age bracket of 13 to 19 years old. These individuals are characterized by rapid growth, increased rate of cognitive development, development of feelings of independence and cultural expressions. Teenage years are the last stage of life before adulthood, thus it is at that stage that individuals learn how to make decisions and take responsibilities. United Nations Department of Economics and Social Affairs (2018) mentioned that teenage years prepare individuals for adulthood and it is at this stage that the brain reaches 90% of its development. According to the National Bureau of Statistics (2018), teenagers constitute more than 32 % of the total population of Nsukka, thus giving them a significant voice as well as making them able to exert a significant influence on the total population of the town. Teenagers

sometimes include both secondary school and university undergraduate students. They are a very sensitive segment of the population as they usually champion new trends in the society.

The perception of coronavirus amongst teenagers is significantly influenced by the premise that when people do not know anyone who is infected with or died from the virus, then it does not exist. According to Centre for Disease Control and Prevention (2020), people initially perceived coronavirus as not affecting tropical areas because of the hot weather and also that the virus cannot stand chloroquine, which is a content of various medicines that are taken by people in Nigeria. The author further mentioned that many perceive the virus as affecting only wealthy people and being "God's judgment on the world". Furthermore, World Health Organization (2020) mentioned that many perceive coronavirus as not much different from malaria fever that is prevalent in the society, thus there is no need for any extra health precautions. However, with significant surge in both infection and casualty figures, as well as issues of under-reporting of cases have proved that communities in sub-Saharan Africa can be affected by the virus.

Awareness is defined as the state of being conscious of a situation or an act. According to Savrum and Leon (2015), awareness can be described as knowledge and understanding about a situation as well as measures that can be taken in order to improve the

existing situation. In order to promote awareness about a situation, it is imperative that individuals are properly informed about the existing situation by having adequate background information and are continually up to date on events influencing the situation. Awareness and attitude, though different, usually go hand in hand in studies. Attitude can be described as a disposition or feeling regarding a situation or event. It can be further defined as the opinion, orientation and outlook of individuals towards an event or a situation (Akarika, Udo and Ikon, 2020). The attitude of individuals towards a situation or phenomena influences their level of awareness of the situation. This is due to the fact that attitude influences people's search for knowledge and information about a situation. According to Tsftati and Peri (2006), attitudes such as skepticism prevents individuals from believing in the existence of a situation and also makes them lethargic about seeking information about the subject. The author further mentioned that positive attitudes also influence proper intelligence gathering as well as creating workable solutions to problems that might arise as a result of the challenge.

The media in the context of this work is regarded as the main means of mass communication regarded collectively. The media can also be defined as the communications outlets and tools to store and deliver information. According to Adalakun and Adna (2016), the media refers to

the different components of mass media communication industry such as the print media, the broadcast media, news media, photography and the social media. The author further mentioned that the media always has characteristics such as target audience, audience size, agenda and interactiveness. The media is important because of its position as a veritable source of information for the populace as well as a means of exerting influence for achieving given objectives. According to Obi-Ani, Anikwenze and Isiani (2020), the media can play a role in agenda setting for the population by continually disseminating information that not only educates the populace but also influences their thoughts and mode of action.

Events of public concern such as health issues attract media concern from both the print, electronic and social media. The media has been significantly influential since the breakout of the COVID-19 pandemic by being a veritable source of information on issues relating to symptoms of the virus as well as efforts being made in developing antidotes towards its cure. Furthermore, the media has been a means of disseminating information on safety practices and protocols that are to be adopted for reducing the rate of spread of the illness while research goes on towards developing the antidote. According to Shareen, Khan, Kazmi, Bashir, and Siddique (2020), different organizations such as religious bodies, corporate

organizations, non-governmental organizations as well as government bodies have partnered with the media in efforts aimed at increasing the awareness level of the populace through adverts, news updates, social media posts and sensitization programs. Also, Quattrin, Fitputt and Brusafiero (2015) also mentioned that the media has the potential to influence health related behaviours and perceptions among individuals. The authors further mentioned that the media can be used independently and complementarily in the promotion of healthy living lifestyles as well as promoting development of coping mechanisms during periods of health challenges. However, inspite of thee tremendous media efforts, there is not yet an optimal level of awareness of individuals about the COVID-19 pandemic. It is on the backdrop of these that this study is undertaken, with the aim of evolving ways that the awareness and attitude of teenagers in Nsukka LGA towards coronavirus could be promoted by the media as well as suggesting measures to increase safety protocols that are outlined by health authorities. This study is vital due to the high proportion of teenage population in Nsukka metropolis as well as the significant influence exerted by teenagers within the family. Furthermore, these teenagers are significantly influenced by the media, especially the social media as it is their main source of information as well as a veritable means for them to communicate with their peers. The

study also will also serve as a veritable means of educating individuals about the virus, its reality, the safety protocols involved with managing the virus, as well as emphasizing the need for proper knowledge and information about the virus and the resultant pandemic.

Purpose of the Study

This study focused on awareness and attitudes of teenagers towards the coronavirs (COVID-19) in Nsukka LGA. Specifically, the study determined:

1. extent to which teenagers are aware of COVID-19 in Nsukka LGA.
2. attitude of teenagers towards the safety protocols of COVID-19.
3. role of media in enhancing COVID-19 awareness and safety protocols adoption among teenagers in Nsukka LGA.

Research Questions

The following research questions guided this study.

1. To what extent do teenagers in Nsukka LGA aware of COVID-19?
2. What are the attitudes of teenagers towards the safety protocols for containing the spread of COVID-19?
3. What roles should media play in enhancing COVID-19 awareness and attitude of teenagers towards COVID-19 safety protocols?

Methodology

Design of the Study: The study adopted a descriptive survey research design.

Area of the study: The study area was Nsukka LGA in Enugu State in South-East Nigeria. Nsukka is a University town located in Enugu State, which is within the south-east geo-political zone of Nigeria. Nsukka has an area of 1,810 km² has an estimated population of 329,610 inhabitants (Ozioko, 2005). It is the site of the University of Nigeria, Nsukka, which is the first indigenous university in Nigeria. The area is the most populated amongst the 17 local government areas in Enugu State.

Population for the study: The population for this study consisted of two categories of people; teenagers in secondary schools in public secondary schools in Nsukka local government area and lecturers of Mass Communication in the University of Nigeria. There are a total of 32 public secondary schools in Nsukka LGA, with a population of 9,107. This population consisted of 3,032 senior secondary students, comprising of 1,902 female and 1,130 male teenagers (Eze, Ugwuanyi and Orsu, 2016). The senior secondary students (SSS) were chosen for this study due to the fact that they fell into the teenage age range of 13 to 19 years of age. Also, there was a total of 48 academic staff in the Department of Mass Communication students in the University of Nigeria, Nsukka. They were involved in this study in order to

ascertain the role of the media in improving awareness and attitude of teenagers towards safety protocols outlined for managing with the virus.

Sample for the study: A total of 250 SSS teenagers were purposively selected for the study. These were the teenagers who could be accessed at the time of the study because of the COVID-19 lockdown in the area of the study. Also a sample of 28 academic staff of Mass Communication in the University of Nigeria was selected. This sample for the study was made up of 278 respondents.

Instrument for Data Collection: Two sets of questionnaire were used for data collection. The first was teenagers' questionnaire used to ascertain the extent of their awareness of COVID-19 pandemic and their attitude towards outlined safety protocols. The second questionnaire was for academic staff of Mass Communication Department to ascertain the role of the media in promoting awareness and attitude of teenagers towards outlined safety protocols. Each questionnaire had a four-point response scale. The instruments were face validated by three experts in Health Education.

Method of data collection: A total of 278 copies, (250 and 28 copies to SSS teenagers and lecturers respectively), of the questionnaires were distributed by hand to respondents with the help of two research assistants. A total of 239 copies of the questionnaires were filled and returned.

Data analysis techniques: Data obtained were analyzed using means based on a 4-point scale. Mean scores

of 2.50 and above were taken as the basis of deciding whether an item indicates an acceptable level of awareness, positive attitude, as well as media role in improving adoption of safety protocol. Mean scores of below 2.5 were taken as unacceptable levels

of awareness, not positive attitude and media role in improving the adoption of safety protocols.

Findings of the study

The following findings were made from this study.

Table 1: Mean Responses (X) and Standard Deviation (SD) on the Awareness Level of Teenagers about COVID-19.

S/N	Awareness Indicators	Responses		
		X	SD	Remark
1	Causes of Corona virus	3.1	.91	A
2	Scenarios that bring about spread of coronavirus	3.0	.84	A
3	Symptoms of coronavirus	3.1	.94	A
4	Measures to manage the spread of coronaviurs	2.9	.83	A
5	Steps to take when infected with cornavirus	2.3	.78	NA
6	Differences between coronavirus and malaria fever	3.1	1.1	A
7	Knowledge of safety protocols outlined by WHO	3.0	.98	A
8	Knowledge of medical efforts towards cure	2.2	.72	NA

Key: X = Mean, SD = standard deviation. A = Awaewness NA = No Awareness

Table 1 shows the awareness indicators used to judge the awareness of teenagers of the coronavirus. Six out of the eight indicators have mean (X) scores of >2.50. This shows that the

teenagers are aware of six out of the eight indicators of COVID-19 awareness. This means that the teenagers were aware of 75 percent of COVID-19 awareness indicators.

Table 2: Mean Responses on Attitudes of Teenagers towards COVID-19 Safety Protocols

COVID-19		Awareness Reponse		
S/N	Safety protocols for COVID-19	X	SD	Remark
1	Regular washing of hands	3.2	.92	PA
2	Use of hand sanitizer	3.0	.86	PA
3	Physical distancing during gatherings	2.8	.82	PA
4	Wearing of face-mask outside	3.1	.88	PA
5	Covering the mouth when sneezing and coughing	2.9	.86	PA
6	Consciousness of loss of sense of smell and taste	2.7	.81	PA
7	Avoidance of crowded indoor gatherings	2.8	.82	PA
8	Avoidance of close contact with infected person	3.0	.87	PA
9	No frequent touching of mouth and nose	2.4	.71	NPA
10	Practice of 'no-touch' greeting	2.1	.63	NPA
11	Adherence to other national and state directives	2.3	.61	NPA

Key: X = Mean, SD = Standard Deviation, PA = Postive Attitude, NPA = Not Positive Attitude

Table 2 shows mean responses on attitudes of teenagers towards the different safety protocol measures recommended by health authorities. The Table indicates that the teenagers indicated "Positive attitude" to eight out of the 11 safety protocols for COVID-19 ($X > 2.50$). It could thus be said that they were positively disposed to 73 percent of the protocols.

Table 3: Mean Responses on Roles of the Media towards Influencing Teenagers' Perception of Coronavirus in Nsukka LGA.

S/N	Role of Media	X	SD	Remark
1	Obtaining and disseminating up to date information	3.1	.92	MR
2	Facilitating communication between medical researchers public health experts, funding agencies and the public	3.0	.88	MR
3	Tracking of outbreaks in different communities	3.1	.84	MR
4	Educating people on safety protocols	3.1	.83	MR
5	Building synergy between pharmacists and doctors in the quest to discover medical solutions to the virus	3.0	.82	MR
6	Dissemination of only credible news on the virus	2.9	.86	MR
7	Flagging of fake news about the pandemic	3.0	.87	MR
8	Designing information campaigns	2.9	.88	MR
9	Incorporating health messages into entertainment	3.1	.92	MR
10	Working in tandem with other organizations such as religious bodies and other NGOs	3.2	.94	MR
11	Promoting peer-to-peer health communication	3.0	.91	MR

Key: X = Mean, SD = Standard deviation MR = Media Role.

Table 3 shows 14 possible roles that the media could play in enhancing teenagers' awareness of COVID-19 and their adoption of the COVID-19 safety protocols. The Table shows that all the 11 role indicators have mean scores of

X> 2.50. This means that all the 11 items could be roles of the media in enhancing the teenagers' awareness of COVID-19 and their adoption of the protocols.

Discussion of Findings

The study revolved around the level of awareness of teenagers in Nsukka LGA about the COVID-19 pandemic, their attitude towards safety protocols outlined by health authorities and the role of the media towards enhancing the awareness level of teenagers about the coronavirus and their attitude towards adoption of safety protocols as outlined by health authorities. The findings from the study reveal that the teenagers have fairly high level of awareness about the causes of coronavirus, its symptoms as well as safety protocols outlined by the health authorities to reduce the spread of the COVID-19 virus. Being a novel virus COVID-19 has also resulted in considerable level of media exposure, as there is a need to keep people optimally informed about new discoveries about the characteristics of the virus as well as progress that is being made in discovering a sustainable cure for it. These are in line with the views of Amzat *et. al* (2000) who opined that exposure to media and information significantly improves the awareness and perception of individuals towards global events. Findings further show that teenagers in Nsukka LGA are also highly aware of the different safety protocols such as washing of hands, use of sanitizer, and physical distancing measures that are

outline by health authorities in order to combat the spread of the virus. These findings are in agreement with the views of Ohia, Bakare and Ahmad (2020) who mentioned that exposure to news media helps individuals to have informed and enlightened attitudes towards novel challenges, including health pandemics.

The findings from the study also show the different attitudes of teenagers towards the safety protocols that are outlined by government and health authorities. Results show that the respondents agree to some measures such as regular washing of hands, the use of hand sanitizer, adherence to physical distancing in gatherings and mandatory wearing of facemasks. Furthermore, respondents also agreed to the act of covering the mouth while sneezing or coughing, consciousness of loss of sense of taste and smell, avoidance of crowded indoor gatherings and close contact with persons affected with the virus. Results however showed that respondents disagreed with the adherence of some other safety protocol measures such as non-touching of the nose and mouth, the practice of 'no-touch' greeting and adherence to other national and state directives. These are in line with the position of Nwakpu, Ezema and Opusunju (2020) who mentioned that members of the population find it difficult to adhere to some safety protocol measures because they believe the conspiracy theories about the coronavirus being fake and that it

is a ploy for deceiving people and reduction of world population. These findings are also in agreement with the views of Opusunju, Akyuz and Inim (2020) who mentioned that avoidance of crowded gatherings, wearing of facemask and physical distancing have considerably increased as people look towards such measures as a means for limiting risk of contracting the virus. The authors further mentioned that increased fear due to increasing infection and death rates have driven people towards adopting these safety measures towards limiting risk of contracting the virus.

Findings from the study also show that the media plays a significant role towards influencing the adoption of safety protocols by teenagers in Nsukka LGA. The respondents strongly agreed that the media should always obtain and disseminate up to date information on the virus, track outbreaks in different communities and also educate as well as continually educate the public on safety protocols outlined by health authorities. Results also showed that respondents strongly agreed that the media should incorporate healthy messages into their regular entertainment programs. These are in tandem with the views of Smith and Adedejo (2017) who mentioned that due to the reliance of the public on the media for up to date information and entertainment, it exerts a key role in influencing desired behaviour on the populace. Findings from the study also show that the respondents agreed that the media facilitates communication between

medical researchers, public health experts, funding agencies and the general public on efforts as well as progress being made in getting sustainable cure for the virus and support systems to help economies and individuals cope with the challenges that have resulted from the pandemic. Findings further show that respondents agreed that the media ought to build a synergy between different categories of healthy experts in the pursuit of discovering a cure for the virus and educating the public about symptoms and safety protocols to be adopted. Furthermore, respondents agreed that the media should promptly flag fake news about the virus as well as disseminate only credible news about the pandemic. Respondents also agreed that the media should design information campaigns about the virus as well as promote peer to peer health communication to help the public keep abreast of new discoveries pertaining to the virus. These findings are in tandem with the views of Opusunju, Akyuz and Inim (2020) who mentioned that the media plays a key role in contributing to the development of the health sector of underdeveloped and developing economies by assisting healthcare experts to access valuable information as well as educating the public in tandem with the public on procedures and the benefits of "healthy living" practices.

Conclusion

The novel coronavirus significantly altered lifestyles, businesses, families, healthcare systems and almost every facet of human existence in the year 2020. It has led to significant adjustment to normal mode of human existence such as reduction of large gatherings, increased physical distancing amongst individuals and increased health consciousness amongst members of the population. Due to the novel nature of the virus, it has attracted significant media attention and this has served as a means for informing the public about the coronavirus as well as keeping the public updated on new discoveries about the virus characteristics, recovery rates, mortality rates and progress on the discovery of a sustainable antidote, thus significantly impacting on the awareness of the populace about the COVID-19 pandemic. Furthermore, safety protocols outlined by health experts are aimed at containing the spread of the virus.

The attitude of individuals towards the safety protocols outlined by health authorities is influenced by their level of awareness about the virus. The attitude of teenagers significantly determines their adoption of teenagers towards adopting the safety protocols thus exerting a direct influence on the rate of spread of the virus. Furthermore, attitude and awareness of teenagers in Nsukka LGA towards the coronavirus helps in promoting the efforts made by the media in keeping them duly informed about

developments on the pandemic. Safety protocols are vital for checking the spread of the virus as efforts are still going on to find a cure for the virus. However, teenagers in Nsukka LGA do not agree to all the safety protocols promulgated by the government and health authorities, and this has been attributed to their misgivings about the necessity of such measures as well as their doubts about the veracity of the virus. This has thus made it imperative that the media disseminates only credible news and continually flags fake information in order to keep the public properly informed about the coronavirus pandemic.

Recommendations and Implications for Mass Media

Based on the results obtained in this study, the following recommendations were made:

1. Media practitioners should conduct in-depth research before releasing content so as to disseminate credible information about the coronavirus to members of the populace.
2. Individual members of population, including teenagers, should strictly adhere to the safety protocols outlined by healthcare authorities at all times, as this will significantly help reduce the rate of spread.
3. Teenagers should be told to act based on factual and verifiable information about the pandemic and not based on unfounded opinions, as such actions could have adverse psychological, physical, mental and emotional effects on individuals.

4. Teenagers should use their exposure to the media to keep abreast with new information on medical efforts pertaining to the development of vaccines and antidote towards curing the virus.
5. Media firms should work in synergy with medical and government authorities in order to keep the public abreast with updates about the virus and development of antidotes to the virus.
6. Medical programs, especially those based on information about the coronavirus and the recommended safety protocols should be incorporated into the program timetable of media stations in order to inform a wide range of audience.
7. Information that is disseminated across by the media about the coronavirus should be obtained from the right sources and should be properly vetted in order to
8. The media should partner with other organizations such as religious organizations such as churches and mosques with the aim of educating people on the adoption of safety protocols.

References

- Adegboye, O; Adekunle, A and Gayawan, E (2020). Early transmission dynamics of novel coronavirus in Nigeria. *International Journal of Environmental Research in Public Health*, 17, 30 – 54.
- Adelakun, L and Adna, H (2016). Communicating health media framing of Ebola outbreak in Nigerian newspapers. *Malaysian Journal of Communication* 32(2), 362-380.
- Akarika, D (2019). Awareness and knowledge of prostate cancer information among men in Uyo metropolis, Nigeria. *AKSU Journal of Communication Research* 5, 79-91.
- Akarika, D; Udo, K and Ikon, A (2020). Media dependency and information seeking behaviour of Uyo residents during the covid-19 pandemic in Nigeria. *International Journal of Civil Engineering, Construction and Estate Management* 8(3), 1-10.
- Amzat, J; Aminu, K; Kolo, V; Akinyele, A; Ogundaro, J and Danjibi, M (2020). Coronavirus outbreak in Nigeria: Burden and socio-medical response during the first 100 days. *International Journal of Infectious Diseases*, 98, 218 – 224.
- Asogba, C (2019). Newspaper framing of Lassa fever and the health behaviour of residents of Ebonyi State, Nigeria. *Journal of Media Communication and Languages* 6(1), 154-164.
- Babatunde, A (2020). Nigeria: COVID-19 – Lagos hospitals treat people suffering chloroquine poisoning. Premium Times Newspaper. Available from <https://www.premiumtimesng.com/regional/south-west/338038>.
- Centre for Disease Control and Prevention (2020). *Understanding the Numbers: provisional death counts covid-19*. New York: National Centre for Health Statistics.
- Dalah, C; Singh, V; Abdullahi, I and Suleiman, A (2020). The study of HIV/AIDS trend in Yobe State for the prescribed period (1999 -2019). *International Journal of Statistical Applications*, 10, 10- 16.
- Eze, C; Ugwuanyi, R and Orsu, N. (2016). Problems of teaching computer education in public secondary schools in Nsukka Local Government Area of

- Enugu state. *Review of International Science and Technology* 2(1), 86-91.
- Humphrey, M (2018). The influenza of 1918: evolutionary perspectives in a historical context. *Evolution, Medicine and Public Health* 18(1), 219-229.
- Jackob, N (2010). No alternatives? The relationship between perceived media dependency, use of alternative information sources and general trust in mass media. *International Journal of Communication*, 4, 589-606.
- National Bureau of Statistics (2018). *Demographic Statistics Bulletin Volume 119*. Abuja: National Bureau of Statistics.
- National Centre for Disease Control (2020). Corona virus infection update. Available from <http://covid-19.ncdc.gov.ng> . Retrieved November 19 2020.
- Nwakpa, E; Ezema, V and Ogbodo, J (2020). Nigeria media framing of coronavirus pandemic and audience response. *Health Promotion Perspectives* 10(3), 192 - 199.
- Obi-Ani, N; Anikwenze, C and Isiani, M (2020). Social media and the covid-19 pandemic: observations from Nigeria. *Cogent Arts and Humanities* 7(1), 1-15.
- Oginni, S ad Motui, J (2015). Social media and public policy process in Africa: enhanced policy process in digital age. *Journal of Sustainable Development*, 14(2), 158-172.
- Ohia, C; Bakarey, D and Ahmad, T (2020). COVID-19 and Nigeria: putting the realities in context. *International Journal of Infectious Diseases* 95, 279 - 281.
- Opusunju, M; Akyuz, M and Inim, V (2020). Nigeria-China trade: The coronavirus challenge and benefits. *International Journal in Management and Social Science*, 8(4), 113 - 129.
- Ozioko, M (2005). *Obukpa: Past and Present*. Enugu: De-Adroit Innovation.
- Quattrin, R; Fitputt, E and Brusaferrro, S (2015). Health promotion campaigns and mass media: looking for evidence. *Primary Health Care: Open Access* , 5(1), 1-7.
- Savrum, Y and Leon, M (2015). The role of the media in conflict, peace-building and international relations. *International Journal of World Peace*, 32(4), 13-34.
- Smith, S and Adedejo, A (2017). The influence of the Nigerian newspaper on Lassa fever reportage. *International Journal of Community Health*, 11, 76-86.
- Shereen, M; Khan, S; Kazmi, A; Bashir, N and Siddique, R (2020). COVID-19 infection: origin, transmission and characteristics of human coronavirus. *Journal of Advanced Research* 24, 91-98.
- Stassen, W (2010). Your news in 140 characters: exploring the role of social media in Journalism. *Global Media Journal - African Edition*, 4(1), 116-131.
- Suleiman, A; Amin, S; Abdullahi, U and Suleiman, S (2020). Estimation of the case fatality rate of COVID-19 epidemiological data in Nigeria using statistical regression analysis. *Bio-safety and Health*, 30, 2-7.
- Tsfati, Y and Peri, Y (2006). Mainstream media skepticism and exposure to sectorial and national news media: the case of Israel. *Mass Communication and Society*, 9, 165-187.
- United Nations Department of Economic and Social Affairs (2018). *Youth population trends and sustainable development*. London: United National Department of Economic and Social Affairs. Population Division.
- Wogu, J; Chukwu, C and Nwafor, K (2020). Mass media reportage of Lassa Fever in Nigeria: A viewpoint. *Journal*

- of International Media Research 48(1), 10-17.*
- World Health Organization (2020). *Coronavirus disease situation report - 198.* Geneva: World Health Organization.
- Zhang, W (2020). Emerging changes of severe covid-19 pneumonia in advanced stage. *Intensive Care Medicine 46(5), 841-843*

Teenage Pregnancy Issues among Female Adolescents in Nsukka Local Government Area of Enugu State

Chukwuone, C.A.; Onuoha K.M.; and Ajogwu C. A.

Department of Home Economics and Hospitality Management Education,
University of Nigeria, Nsukka

Abstract

This major purpose of this study was to investigate issues related to teenage pregnancy among female adolescents in Nsukka Local Government Area (LGA) of Enugu State. Specifically, the study determined causes of teenage pregnancy in Nsukka LGA; consequences of teenage pregnancy in the area and measures towards coping with the teenage pregnancy. Population for the study consisted of 156 teenage pregnant girls aged 13 - 19 years who attended the Nsukka Local Government Health Centre. Questionnaire was used for data collection. Data were analysed using mean and standard deviation. Findings reveal 14 causes of teenage pregnancy in Nsukka LGA which include media influence, peer pressure, lack of parental guidance, among others. There are also 16 consequences of teenage pregnancy, including higher risks for complications, lack of social support and dropping out of school, among others. There also 19 coping strategies identified include preparing for the realities of pregnancy and childbirth, never m Issuesissing ante-natal and post-natal sessions, among others. Based on the findings it was recommended among others, that teenager should be encouraged to abstain from sex to avoid unwanted pregnancies; parents should endeavour to give their children early and adequate sex education to prepare them to face their teenage years, sex education should be a compulsory subject in the secondary schools, right from Junior Secondary School.

Keywords: Teenage, Pregnancy, Family, Wellbeing, Females, Issues, Coping

Introduction

Teenage is a stage that begins at the onset of puberty. It is a period of transition from childhood to adulthood which extends from 13-18 years. During this period, the individual attains puberty leading to many changes. Lovespaces (2019) stated that these changes make the

individual to find an identity, which means developing an understanding of self, the goals one wishes to achieve and the work/occupation role. The individual craves for encouragement and support of caretakers and peer groups. If successful, the teenager will develop a sense of self or identity, otherwise will suffer from role and

identity confusion (Aman, 2019). It is also at this stage that individuals start craving a commitment to fulfil an adult social function and starts developing the personal and social identity. It is a stage promises heightened awareness of moral responsibility, demonstration of intelligence by reasoning out the egocentric thought, which diminishes sometimes in childhood, shows up again at this stage.

Physical changes from puberty continue during middle adolescence. Most males will have started their growth spurt, and puberty-related changes continue. They may have some voice cracking, for example, as their voices lower. Some develop acne. Physical changes may be nearly complete for females, and most girls now have regular periods. At this age, many teens become interested in romantic and sexual relationships. Many teenagers may indulge in sexual relations with the opposite sex because of physical and psychological development. Most times these their sexual exploits result in teenage pregnancy, and unplanned parenthood. Teenage pregnancy is one of those life events that few families anticipate, and the effects of adolescent pregnancy reach well beyond the young mother's life, impacting the lives of other family members. Whether the pregnancy is terminated, the baby is placed for adoption or the child is regarded as an unexpected, the emotional, economic and social ramifications of teenage pregnancy can

affect the entire family in significant and life altering.

Teenage Pregnancy, a case of under-aged girl may usually be within ages of thirteen to nineteen years. Becoming prematurely pregnant is a serious cankerworm that has eaten deep in to the fabric of our societies in this contemporary period. The term in every day speech usually refers to women who have not reached legal adulthood to become pregnant. This study therefore focused on the issues and trends of this act among the teenagers in Nsukka, Enugu State of Nigeria. The issue of pregnancies among teenage girls seems to be one of the social problems facing not only Nigeria, but also several other nations of the world (Alabi & Oni, 2017). According to studies conducted by Kinby (2011) and Mezmur, Assefa & Alemayehu(2021)victims of teenage pregnancy lacked information about sex education. The lack of sex education by either by their parents, schools or development agencies that could have enabled them deal with friends who lure them into sex prematurely. Kinby (2011) stressed further that children of single parents are more vulnerable to teenage pregnancy. In the same vein exposure to sexual content on television, sexuality in the media, pornographic and sex chat rooms by teenagers, could most likely tune them to engage in sexual activities (L'Engle, Brown and Kenneavy, 2016; Park, 2018). Acceptance of gift for sex and some adult deliberately taking advantage of poor teenagers, encouraging them into

having sex were also noted as factors responsible for teenage pregnancy (United Nation, 2011). Yampolslaaya, and Greenbaum (2012) posited that approximately 60% of adolescent mothers live in poverty at the time of the birth of their babies and “approximately 73% go on welfare within 5 years of giving birth”, its associated motherhood is characterized with shame, disgrace, and school dropout sometimes end up the individual’s dreams of achieving higher pursuits. This statistic was further confirmed in Mezmur et al (2021), where 74.5% of all pregnant teenagers were between the ages of 18 and 19 with a great percentage being unemployed.

Teenage pregnancy is therefore a major concern to world communities. Teenage pregnancy has attracted a great deal of concern and attention from religious leaders, the general public, policymakers, and social scientists, particularly in the developed and less developed countries especially in Nigeria. The continuing apprehension about teenage pregnancy is based on the profound impact it can have on the lives of the girls and their children (Yampolskaya and Greenbaum, 2012). Most teenagers do not plan their first sexual experience; rather, it is something that just happens to them based on the influence by female counterparts. Nearly 10 percent of adolescent or teenage girls get pregnant each year. Studies have found that between 20-30 percent of pregnancies in teenagers are direct results of rape, while 60% of

teenage mothers have unwanted sexual experiences preceding their pregnancies before 15 years when they were coerced by males who were at least six years older (Alabi & Oni, 2017).

Teenage pregnancy, also known as adolescent pregnancy, is pregnancy in a female under the age of 19. Pregnancy can occur with sexual intercourse after the start of ovulation, which can be before the first menstrual period (menarche) but usually occurs after the onset of menstrual periods. Pregnant teenagers face many of the same pregnancy related issues as other older women. There are additional concerns for those under the age of 15 as they are less likely to be physically developed to sustain a healthy pregnancy or to give birth. For girls aged 15–19, risks are associated more with socioeconomic factors than with the biological effects of age. Risks of low birth weight, premature labor, anemia, and pre-eclampsia are connected to biological age, being observed in teenage births even after controlling for other risk factors (Ozoemena, 2018). Teenage pregnancies are associated with social issues, including lower educational levels and poverty. Teenage pregnancy in developed and developing countries in Africa is usually outside of marriage and carries a social stigma and discrimination by family members, friends and the society. However, there are cases where Teenage pregnancy occurs within marriage where teenagers are married to elderly persons by their parents. This can be as

a result of poverty and lack of decision making. In these cases which is rife in low-income countries, early pregnancy may combine with lower socio-economic opportunities for the teenage mother leading to malnutrition and poor health care which may cause medical problems for the mother and the unborn child (Uwizeye, Muhayiteto, Kantarama, Wiehler & Murangwa, 2020). When used in combination, educational interventions and access to birth control can reduce unintended teenage pregnancies. The teen birth rate has been steadily falling for years, but it still remains the highest teen pregnancy rate in the industrialized countries. About eighty-five percent of these pregnancies are unplanned, which in any population can increase the risk for problems.

A woman must be physically, psychologically and medically matured before giving birth because the body of a teenage girl is not yet matured enough to handle pregnancy and the stress involved. Psychologically the mind of a teen mother is not yet matured to handle the challenges of parenting and motherhood and this is why majority of teen mothers live with relatives who help them to cater for their babies. Many teenagers are not financially ready to handle pregnancy. While teenage pregnancy is seen as aberration in some society it is highly celebrated in some other societies as it is in line with their culture and societal norms. Nigeria Demographic and Health Survey (DHS, 2013) reported that an estimated 23% of women aged

15 – 19 have begun child bearing, of which 17 % have had their first child and 5% are pregnant with their first child while 32% of teenagers in rural areas have begun child bearing, as opposed to 10% in the urban areas of Nigeria (National Population Commission, 2010; ICF, 2014). The report shows disparity within the geopolitical zones as follows: North-West (36%), North-East (32%); North-Central (19%); South-South (12%); South-East (8%) and South-West (8%).

In Nsukka, the area of the study, the rate of teenage pregnancy is quite high. As suggested by Onyishi (2019), teenage pregnancy constitutes a major health and societal problem and continues to receive increasing attention because of early age at which female teenagers (youths) in Nsukka L.G.A engage in sexual activities, exposed themselves to sexual habits which has led many of them into teenage pregnancy. Data obtained on the statistics of early teenage pregnancy from Public health department of Nsukka local Government Area, it is anticipated that teenage pregnancy in Nsukka will be in the increase in the coming years. Between May and August 2019, there has been about 105 reported cases of teenage pregnancy in Nsukka Local Government. However, between August and January 2020, there has been about 179 reported cases of teenage pregnancy. This indicates that teenage pregnancy is becoming an alarming trend in Nsukka Local Government Area. Adding to this, a data was also gotten from an

orphanage home at Opi in Nsukka L.G.A indicated that from 2017 to 2020, about 71 children in their custody are from young teenagers that got impregnated and died in childbirth. It is therefore against this background that the researchers deemed it necessary to investigate teenage pregnancy and related issues among female adolescents in Nsukka LGA.

Purpose of the Study

The major purpose of this study was to investigate issues related to teenage pregnancy among female adolescents in Nsukka LGA of Enugu State. Specifically, the study determined the:

1. causes of teenage pregnancy in Nsukka LGA
2. consequences of teenage pregnancy in Nsukka LGA
3. measures for coping with challenges of teenage pregnancy in Nsukka LGA

Research Questions

The following research questions guided the study.

1. What are the causes of teenage pregnancy in Nsukka LGA?
2. What are the consequences of teenage pregnancy in Nsukka LGA?
3. What are the measures for coping with challenges of teenage pregnancy in Nsukka LGA?

Methodology

Research Design: -sectional survey design was adopted for the study. The cross-sectional surveys are mainly concerned with describing events as

they occur. Federal Ministry of Health (2003) adopted the cross-sectional survey design in their studies related to the present study. The design was therefore considered appropriate for use in the present study.

Area of the Study: The study was carried out in Nsukka, Enugu state, Nigeria. Nsukka is the university town of the University of Nigeria. The choice of Nsukka local government area was made as field survey results show an increasing population of teenage pregnancy cases which is slightly higher than that of other semi urban towns within the state (Field Study, 2019).

Population for the Study: The target population for the study consisted of 156 teenage girls aged 13 - 19 years according to the information gotten from the Nsukka Local Government Health Centre. This population include those who have had teenage pregnancies as well as those who were presently pregnant attending ante-natal and post-natal appointments at the LGA Health Centre in the month of November, 2020. Given the fact that the population for the study is manageable, there was no sampling. A greater proportion of the pregnant female teenagers who part of the population were not married, a good number were educated up to secondary school level and only a few of them had any kind of paid vocation.

Instrument for Data Collection: The instrument for data collection was a 39-item questionnaire titled; 'Teenage Pregnancy and Family Well-being Questionnaire (TPFWQ). The

questionnaire was developed by the researcher and partitioned into three clusters; A, B and C, with each being in-line with the objectives of the study. The questionnaire adopted a four-point rating scale with response categories of Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD). The instrument was validated by three Home Economics lecturers in a University. The Reliability Co-efficient of the instrument was established using the Pearson product moment correlation method. Twenty copies of the instrument were administered on pregnant teenage girls in the area of the study. The responses were analysed using the Pearson product moment correlation method which yielded a reliability co-efficient of .88 which was considered reliable.

Data Collection Method: The consent of the respondents was sought. Thereafter, the procedure for the completion of the questionnaire was explained to the respondents by the

researcher. Three Primary Health Care (PHC) workers who served as research assistants assisted in distributing and collecting 150 copies of the questionnaire. The respondents responded to the questionnaire and returned same immediately giving a 100% return rate.

Data Analysis Technique: Mean and Standard deviation were used for data collection. The mean was used to check the level of agreement or disagreement while the standard deviation was used to determine the closeness or otherwise responses from the mean. The real limit of numbers 1.00 - 1.49; 1.50 - 2.49; 2.50 - 3.49 and 3.50 - 4.00 was used to interpret the results of research questions as Strongly Disagree, Disagree, Agree and Strongly Agree respectively.

Findings of the Study

The following findings were made:

Causes of Teenage Pregnancy

Table 1: Mean Responses and Standard Deviation on the Causes of Teenage Pregnancy

S/No	Causes of Teenage Pregnancy	\bar{X}	SD
1	High age difference in relationships (older person and a younger girl)	3.41	.92
2	Media influence	3.30	.90
3	Peer pressure	3.20	1.17
4	Lack of Parental Guidance:	3.30	.64
5	Glamorization of pregnancy (movie industry)	2.43	1.29
6	Lack of knowledge or inadequate knowledge about safe sex	3.29	.79
7	Sexual abuse or rape	3.50	.67
8	Drinking by teenagers	2.58	1.28
9	Dating and gender violence	3.30	.91
10	Religious belief.	2.30	.79
11	Childhood environmental influence	2.70	1.11

12	Sexual urge among teenagers	3.01	1.11
13	Adolescent sexual behaviour	3.00	.45
14	Lack of education	2.61	1.21
15	Foster care (status of the parents)	2.41	1.03
16	Poverty / socio economic	2.63	1.20
17	Exploitation by older men	2.81	.88

Key: \bar{X} 1= Mean Responses of Teenage Females, SD = Standard Deviation of the responses

Table 1 shows that 14 out of the 17 items, have mean scores above the benchmark of 2.50. This means that these 14 items are the causes of teenage pregnancy in Nsukka local government area. Therefore, the finding indicated that such items as Glamorization of pregnancy (2.43), religious belief (2.30) and foster care (2.41) were all disagreed upon by the

respondents. Regarding the standard deviation, results show that the corresponding standard deviation of (.92), (.905), (1.172), (.644), (.795), (.674), (1.281), (.905), (1.106), (1.105), (.449), (1.214), (1.203) and (.884), shows the spread and closeness of teenager's responses on the items.

Consequences of Teenage Pregnancy

Table 2: Mean Responses and Standard Deviation on the Consequences of Teenage Pregnancy on the Family

S/No	Consequences of Teenage Pregnancy	\bar{X}	SD
The Baby			
1	Low weight at birth	2.99	1.01
2	Complications or difficulties at birth	3.18	.76
3	Insufficient prenatal care and hence children are more likely to suffer from health issues	2.98	1.01
4	Poor nutrition	2.68	1.27
5	Stillbirth	2.95	1.02
Teenage Mother			
6	Death from complications during pregnancy especially in developing countries.	2.81	1.26
7	Risks for complications are higher because their major organs have not yet developed fully	3.50	.53
8	Lack of social support	2.71	1.02
9	Dropping out of school	3.40	.92
10	Increased chances of stillbirth throughout lifetime	2.42	1.30
Family-parents and siblings			
11	Straining of scarce resources as the parents have to cater for a new baby as most teenage mothers are without jobs	3.11	.71
12	Disgrace to the family especially within social circles	3.98	.46
13	Care giving of the baby becomes a part of the household's responsibility	3.54	.84
Community			

14	Increment of population to compete for already scarce resources	2.90	1.00
15	Loss of productive man hours to rural economy especially in cases where mothers are employed and complications arise from pregnancy.	2.77	1.08
16	Reduction of female enrolment in school as more female teenagers dropout due to pregnancy.	3.95	.47
17	Increase in maternal mortality rate due to death from complications	3.57	.85

Key: \bar{X} = Mean responses of Teenage Females, SD = Standard Deviation of the responses

Table 2 shows that all the items 1 - 17 have mean scores greater than the benchmark 2.50 with the exception of item No. 10. Hence, the findings show that the consequences of teenage pregnancy in Nsukka LGA include sixteen (16) out of seventeen (17) listed items. However, item no. 10 on increased chances of still birth throughout lifetime (2.42) was disagreed upon by the respondents. Item no 12 which states "Disgrace to

the family especially within social circles" with a mean score of 3.98, scored the highest mean of all the consequences of teenage pregnancy as suggested by the respondents. Also, item no. 10 on "increased chances of still birth throughout lifetime" with a score of 2.42 scored the lowest mean score in the table.

Measures for Coping with Teenage Pregnancy

Table 3: Mean Responses and Standard Deviation on the Measures for Coping with Teenage Pregnancy by Families

S/N	Measures for Coping with Teenage Pregnancy by Families	Mean	SD
Pregnant Teenagers should:			
1	seek a qualified physician for medical advice and health care early	3.41	.49
2	find a trained counsellor and speak with him/her	3.61	.49
3	prepare for the reality of pregnancy and childbirth	3.00	.78
4	never miss ante natal and post-natal sessions	3.12	.55
5	eat well and take all prescribed medication as at when due	3.19	.57
6.	solicit support from parents, relatives and partner	3.90	.51
The Family should do the following to help teenagers:			
7	Contact the baby's father and his parents to set up a meeting for shared responsibility	2.91	.84
8	Keep the lines of communication between the pregnant teenager and the father of the child open	3.40	.92
9	Do not forget to celebrate the new life that is about to come into the world	3.51	.67
10	Do not withdraw teen mothers from school	2.51	1.21
11	Educate teens by parents from early age about practicing safe sex	3.70	.46
12	Avoid being judgmental and dealing harshly with teen mothers	3.21	.88
13	Move from denial to the point of acceptance of the teens and their Situation	3.21	.61

14	Listen to teens , be objective, and be respectful to their feelings and avoid blame	3.50	.50
Government and NGOs should:			
15	Help teen Mothers to build good support group with family and close friends	3.20	.60
16	Inculcate family life education in school for teenage students	3.52	.33
17	Inculcate sex education in secondary school age	3.72	.26
18	Providing stable funding for comprehensive educational and support services to pregnant and parenting teenagers.	3.63	.28
19	Redouble efforts in educating, counselling and rehabilitation of victims	3.50	.32

Key: \bar{X} = Mean responses of Teenage Females, SD = Standard Deviation of the responses

Table 3 reveals that the mean scores of all nineteen (19) items are above the cut-off mean score of 2.50 which is used in decision making. This implies that all the items 1–19 are measures for coping with teenage pregnancy. Item no 6 on “Support from parents, relatives and partner” has the highest mean score of 3.90 which means that the respondents perceived this item as the most important coping measures of teenage pregnancy. On the other hand, item no 10 on “Do not withdraw teen mothers from school” has the lowest mean score of 2.51. The sharp distinction between the highest mean score and the lowest mean score show that the respondents prefer certain items to others.

Discussion of Findings

Table 1 identified seventeen (17) causes of teenage pregnancy in Nsukka LGA. Some of these causes of teenage pregnancy as identified by the present study are in line with findings of previous studies. These causes of teenage pregnancy as also identified by other studies include; age discrepancy in relationships (Alabi &

Oni, 2017), media influence (Chiazor, Ozoya, Idowu, Udume & Osagide, 2017; Amadi, 2019), peer pressure (Widman, Choukas-Bradley, Helms & Prinstein, 2016; Alabi & Oni, 2017; Onyishi, 2019), lack of parental guidance (Stanley & Swierzewski, 2011; Alabi & Oni, 2017), lack of knowledge or Inadequate knowledge about safe sex (Masemola-Yende & Mataboge, 2015; Mezmur, et al., 2021), sexual abuse or rape (Kaphagawani & Kalipeni, 2017), drinking by teenagers (Alabi & Oni, 2017; Amadi, 2019), dating and gender violence, childhood environmental influence (Ashimolowo, Ojebiyi, Adelakun, Odediran, Soetan & Iskil-Ogunyomi, 2017), sexual urge among teenagers, adolescent sexual behaviour, lack of education (Undiyaundeye, Agba & Mandeun, 2015, Ashimolowo et. al., 2017), foster care and exploitation by older men (Mang’atu & Kisimbii, 2019). These study findings are in line with Onuzulike (2012) who noted that poverty, pornography; mass media and peer influence are some of the major factors responsible for teenage pregnancy. Alabi & Oni (2017) stressed

that the less knowledge teenagers have about safe sex, the more likely they may have unprotected sex and engage in sexual experimentation prematurely.

The result in table 2 indicated that of all seventeen (17) items on consequences of teenage pregnancy, only one (1) item was disagreed upon by the respondents. The findings of this study on the consequences of teenage pregnancy as suggested by previous studies and supported by the present study were organised as regards the consequences on the baby, the teenage mother, the family (parents and siblings) and the community. For the baby, the consequences of teenage pregnancy include; low weight at birth (Adeyanju & Afolayan, 2012); complications or difficulties at birth (Igwenagu 2015; Uwizeye et. al., 2020), insufficient prenatal care and hence children are more likely to suffer from health issues (Undiyaundeye et. al., 2015), poor nutrition and still birth (Undiyaundeye et. al., 2015). For the mother, the consequences of teenage pregnancy include; death from complications during pregnancy especially in developing countries (Liabsuetrakul, 2012; Gunawardena, Fantaye & Yaya, 2019), risks for complications are higher because their major organs have not yet developed fully (Kouanda et. al., 2014; Chiazor et. al., 2017), lack of social support (Katowa-Mukwato et. al., 2017) and dropping out of school (Achema, Emmanuel & Moses, 2015; Onyishi, 2019). In the case of the consequences of teenage pregnancy to

family i.e parents and siblings, the effects include; straining of scarce resources as the parents have to cater for a new baby as most teenage mothers are without jobs (Igwenagu, 2015), disgrace to the family especially within social circles (Adeyanju & Afolayan, 2012), and caregiving of the baby becomes a part of the household's responsibility. As for the community, the consequences of teenage pregnancy include; increment of population to compete for already scarce resources (Igwenagu, 2015), loss of productive man hours to rural economy especially in cases where mothers are employed and complications arise from pregnancy (Ashimolowo et. al., 2017), reduction of female enrolment in school as more female teens dropout due to pregnancy (Adeyanju & Afolayan, 2012; Amadi, 2019) and increase in maternal mortality rate due to death from complications (Liabsuetrakul, 2012; Gunawardena, Fantaye & Yaya, 2019). These findings also corroborate with works of Briggs (2011) who identified several complications associated with teenage pregnancy as high blood pressure, pre-eclampsia, eclampsia, malnutrition, vesico vaginal fistula, recto vaginal fistula and death. Brown (2011) equally revealed that many of the teenagers end up as school dropouts.

The result in table 3 indicated that of all twenty (20) items on measures of coping with teenage pregnancy in Nsukka LGA agreed upon by the respondents. The findings of this study on the measures of coping with

teenage pregnancy as suggested by previous studies and supported by the present study were organised as regards the measures adopted by the teenage mother, the family and the government/NGOs. In all identified measures of coping with teenage pregnancy, the present study shares similar results with several studies. The study findings which are in line with other studies include; support from parents, relatives and partner (Saim, Dufâker & Ghazinour, 2014; Katowa-Mukwato et. al., 2017); keeping the lines of communication between the pregnant teenager and the father of the child open (Yussif et. al., 2017); help teen mothers to build good support group with family and close friends (Shah, Gee & Theall, 2014); inculcation of family life education to teenage students in school (Masemola-Yende & Mataboge, 2015; Krugu, Mevissen, Prinsen, & Ruiters, 2016); inculcation of sex education to students of secondary school age (Undiyaundeye et. al., 2015; Ashimolowo et. al., 2017); providing stable funding for comprehensive educational and support services to pregnant and parenting teenagers (Alabi & Oni, 2017); redouble efforts in educating, counselling and rehabilitation of victims (Alabi & Oni, 2017). The findings of this study are also in line with the findings of Melissa (2012) in that the author suggests that educating teens from early age about practicing safe sex prevents teenage pregnancy.

Conclusion

Teenage is a period that intersects between childhood and adulthood and features a transformation of an individual from a dependent to a more independent being. In the quest for independence, teenagers are quite exploratory and seek to experience almost everything within and outside their environment. In the quest to explore, the teenager becomes very inquisitive and an active information seeker. This predisposes the teenager to different kinds of experiences of which exposure to sexual information is not left out. In the same vein, the teenager is exposed to sexual content on television, different forms of sexuality in the media, pornographic and sex chat rooms on different social media platforms, amongst others. All these forms of exposition to sexual content as well as peer pressure most likely tunes teenagers to engage in sexual activities of which one of the pitfalls is unwanted teenage pregnancy.

Based on the findings of this study and previous studies as discussed, it can be inferred that teenage pregnancy has a lot of influences on the teenagers, the family (parents and siblings), and the community at large. For the teenagers, they should be encouraged to abstain from sex as they may not be able to cope with its outcome. The study also proves the need to redouble efforts in educating teenagers on the pertinent issues surrounding sex and its outcome, teenage pregnancy. This will go a long way to reduce unwanted

pregnancies among the teenagers and thus stem its ever-increasing effect on teenagers, the family and the society at large.

Recommendations

1. Teenagers should be encouraged to abstain from sex activities to avoid unwanted pregnancies.
2. Parents should endeavour to give adequate sex education to prepare teenagers to face their teenage years. Offering proper sex education to teenagers will expose them to adequate knowledge on how to practice abstinence from sex.
3. The government should make sex education compulsory in the junior secondary schools in all states of the federation.
4. Government, Non-Governmental organisations (NGOs) and other concerned bodies should provide comprehensive educational and support services to pregnant and teenage mothers.
5. Government, NGOs and other concerned bodies should increase efforts towards providing support to teen mothers and ensure that they do not drop out from school.

References

Achema G., Emmanuel A. & Moses A. O. (2015). Factors responsible for teenage pregnancy and its implication on adolescent health and education: Perception of secondary school students in Nigeria. *International Journal of Medical and Health Research*, 1(2), 48 - 51.

Adeyanju, A.B. and Afolayan, J.A. (2012). Health and social problem of teenage pregnancy and future childbearing in Ammoma community, Bayelsa state Nigeria. *Research Journal of Medical Sciences*, 6 (5), 251 - 260.

Alabi O. T. & Oni, Isaac Oluwafemi (2017). Teenage Pregnancy in Nigeria: Causes, Effect and Control. *International Journal of Academic Research in Business and Social Sciences*, 7 (2), 17 - 32, DOI: 10.6007/IJARBS/v7-i2/2610

Amadi Stella (2019). Teenage Pregnancy and Its Influence on Secondary School Education in Nigeria. *British Journal of Education*, 7 (11), 87 - 96.

Aman Sharma (2019). *Stages of Development of Psychology of People at Different Ages from Infancy to Old Age*. Retrieved from <http://www.psychologydiscussion.net/psychology/732> on 23rd May, 2019.

Ashimolowo, O.R., Ojebiyi, W.G., Adelakun, I. I., Odediran, O. F., Soetan, O. J. & Iskil-Ogunyomi, S. O. (2017). Causes and Consequences of Teenage Pregnancy among Rural Youths in Ejigbo Local Government Area of Osun State, Nigeria. *Scholarly Journal of Science Research and Essay*, 6 (1), 10 - 17.

Briggs, L.A. (2011). *Adolescent pregnancy: A World-Wide Concern*. Lagos: Timi Hyacinth Enterprises.

Brown, J. (2011). *Single and Gifted: Making the Most of your Singleness*. England: Autumn House Grantham Lines.

Chiazor, I. A., Ozoya, M. I., Idowu A. E., Udume M. & Osagide M. (2017). Teenage Pregnancy: The Female Adolescent Dilemma. *International Journal of Science Commerce and Humanities*, 5 (1), 70 - 82

Federal Ministry of Health (2003). *National HIV/AIDS and Reproductive Health Survey*. Abuja: Federal Ministry of Health.

- Gunawardena N, Fantaye A. W. & Yaya S. (2019). Predictors of pregnancy among young people in sub-Saharan Africa: a systematic review and narrative synthesis. *BMJ Global Health*, 4, doi:10.1136/bmjgh-2019-001499
- Igwenagu C. M. (2015). The Effect of Age on the outcome of Teenage Pregnancy in Nigeria: A Demographic Study. *Journal of Advancement in Engineering and Technology*, 3 (3), 1 - 4.
- Kaphagawani N. C. & Kalipeni E. (2017). Sociocultural factors contributing to teenage pregnancy in Zomba district, Malawi. *Global Public Health*, 12, 694 - 710.
- Katowa-Mukwato P., Maimbolwa C. M., Mwape L. & Mutinta C. M. (2017). Experiences, needs and coping strategies of pregnant and parenting teenagers: A perspective from Lusaka and North Western Provinces of Zambia. *Journal of Research in Nursing and Midwifery (JRNM)*, 6 (4), 56 - 67. DOI :/dx.doi.org/10.14303/JRNM.2017.110
- Kinby, D. (2011). The Impact of Schools and School Programmes upon Adolescent Sexual Behaviour. *Journal of Sex Research*, 29 (1), 27 - 33.
- Kouanda S., Coulibaly A., Ouedraogo A., Millogo T., Meda B. I. & Dumont A. (2014). Audit of caesarean delivery in Burkina Faso. *International Journal of Gynaecology & Obstetrics*, 125, 214-218.
- Krugu, J. K., Mevissen, F. E., Prinsen, A., & Ruiters, R. A. (2016). Who's that girl? A qualitative analysis of adolescent girls' views on factors associated with teenage pregnancies in Bolgatanga, Ghana. *Reproductive Health*, 13, 39 - 50. doi:10.1186/s12978-016-0161-9
- L'Engle, K.L., J.D. Brown and K. Kenneavy (2016). The Mass Media are an Important Context for Adolescent Sexual Behaviour. *Journal of Adolescent Health*, 38 (3), 186 - 192.
- Liabsuetrakul T. (2012). Trends and outcome of teenage pregnancy. *Thai Journal of Obstetrics and Gynaecology*, 20, 162 - 164.
- Lovespaces (2019). *Stages of Human Development*. Retrieved online from http://www.infobarrel.com/8_Stages_of_Human_Development on 16th of May, 2019.
- Mang'atu, M. B., & Kisimbii, J. (2019). Factors Influencing Teenage Pregnancies in Kenyan Public Primary Schools: A Case of Kitui County Kenya. *Journal of Entrepreneurship & Project management*, 3 (4), 11 - 26.
- Masemola-Yende J. P. F. & Mataboge S. M. (2015). Access to information and decision making on teenage pregnancy prevention by females in Tshwane. *Curationis*, 38, 32 - 40.
- Melissa, F. (2012). *Teenage Pregnancy*. Retrieved online from 24th April, 2019 <http://wwerarly/teenagepregnancy/symptomsofpregnancy>
- Mezmur H., Assefa N. & Alemayehu T. (2021). Teenage Pregnancy and Its Associated Factors in Eastern Ethiopia: A Community-Based Study. *International Journal of Women's Health*, 13, 267 - 278. <http://doi.org/10.2147/IJWH.S287715>
- National Population Commission (2010). *Priority Table Volume III; Population distribution by sex, state, LGA & senatorial district*. www.population.gov.ng
- National Population Commission (NPC) [Nigeria] and ICF International. 2014. *Nigeria Demographic and Health Survey 2013*. Abuja, Nigeria, and Rockville, Maryland, USA: NPC and ICF International.
- Onuzulike, N.M. (2012). *Issues in Health*. Owerri: McWilliams Publishers.

- Onyishi F. M. (2019). Effects of Teenage Pregnancy on Education of the Female Youths in Nsukka Local Government Area of Enugu State. *Unpublished B.Sc. Project*, University of Nigeria, Nsukka.
- Ozoemena, L.E. (2018). Teenage Pregnancy Patterns and Associated Factors in Igbo-Etiti LGA of Enugu State. *Unpublished M.Ed Dissertation*, Department of Health and Physical Education, University Of Nigeria, Nsukka.
- Park, A. (2018). *Sex on Television Increases Teen Pregnancy*. Available from <http://www.time.com/time/nation/article/08599,1855842100.html> [Accessed 20th, June, 2013].
- Saim N. J., Dufâker M., Ghazinour M. (2014). Teenagers' Experiences of Pregnancy and the Parents' and Partners' Reactions: A Malaysian Perspective. 1(29), 465-472.
- Shah M. K., Gee R. E & Theall K. P. (2014). Partner support and impact on birth outcomes among teen pregnancies in the United States. *Journal of Pediatric Adolescent Gynecology*, 27, 14 - 19.
- Stanley, J. & Swierzewskii, M. D. (2011). *Teen Pregnancy, Consequences of Teenage Pregnancy*. Retrieved from www.healthcommunities.com on 23rd February, 2020.
- Umeano, N.M. (2003). Patterns of heterosexual relationship among in-school adolescent in Njikoka LGA, Anambra State. *Unpublished M.Ed. Dissertation*, University Nigeria, Nsukka.
- Undiyaundeye F. A., Agba A. A. & Mandeun T. (2015). The Effect of Teenage Pregnancy on the Girl-Child in Nigerian Society. *International Journal of Multidisciplinary Thought*, 5(4), 283 - 289.
- United Nations, (2011). Widowed women: Invisible women, secluded or excluded. *Trends and Statistics UN Publication*, 18 (14), 2 - 10.
- Uwizeye D., Muhayiteto R., Kantarama E., Wiehler S. & Murangwa Y. (2020). Prevalence of Teenage Pregnancy and the Associated Contextual Correlates in Rwanda. *Heliyon*, 6 (10), 1 - 7. <http://doi.org/10.1016/j.heliyon.2020.e05037>
- Widman, L., Choukas-Bradley, S., Helms, S. W., & Prinstein, M. J. (2016). Adolescent susceptibility to peer influence in sexual situations. *Journal of Adolescent Health*, 58 (3), 323 - 329.
- Yampolskaya, S., Brown, E., & Greenbaum, P. (2012). 'Early Pregnancy among Adolescent Females with Serious Emotional Disturbances: Risk Factors and Outcomes. *Journal of Emotional and Behavioral Disorders*. 10(2), 108 -115.10.1186/s12978-017-0443-x

Consumers' Views and Acceptability of Hand-embroidered Textiles Articles inNsukka Community

Iweka, O. A.

Department of Fine and Applied Arts
University of Nigeria, Nsukka.

Abstract

This paper investigated on consumers' views and acceptability of hand-embroidered textiles articles in Nsukka community. Specifically it determined consumers' perception of hand-embroidered fabric articles; willingness to purchase or acquired hand-embroidered articles and willingness to venture into hand-embroidery business. Descriptive survey research design was adopted. Population was made up of University of Nigeria Nsukka undergraduate students (males and females) who are either consumers or potential consumers of hand-embroidered article. Questionnaire was used for data collection. Data were analysed using frequency and percentage. Findings of the study reveal four areas where the respondents had positive perceptions of hand-embroidery. These include that they like hand-embroidered garment (95%), they know about hand-embroidery (72.5%). Also the respondents indicated "willingness" to purchase hand-embroidered articles in eight ways, including that they do not consider hand-embroidery out dated and should not be explored (92.5%). Other findings are eight ways consumers are willing to venture into hand-embroidery business. These include acquire skills of hand-embroidery (79.37), and that entrepreneurs should organise skill acquisition to train people on hand-embroidery (98.12). Based on the findings five recommendations were made for promoting youth skill acquisition of skills in hand embroidery.

Keywords: Hand-embroidery, Textiles, Consumers, Youth, Acceptability, Business.

Introduction

Embroidery is the art of using needle and threads to make decorative stitches on fabrics for various uses such as clothing and furnishings. Stitches are classified into two groups. There are temporary stitches and permanent stitches. The temporary stitches are the basic stitches used to

hold fabrics in place before applying the permanent stitches on the fabrics. Some temporary stitches can also be manipulated to sew fabrics permanently. Temporary stitches include running stitches and tacking. Running stitches can also be manipulated to produce effective embroidery which is permanent. Back

stitch, lock stitch (sewing machine stitch) and all the embroidery stitches are permanent stitches. Some embroidery stitches include chain stitch, satin stitch, leather stich, cross stitch, ladder stitch and decorative darning. Some of them are demonstrated in the following website www.thesprucecraft.com and authors and stitchers such as Heathcote (1972), Evans (1987), Woodruffs and Packham (1989), Nicol (1995) and Rousset (2002) have through the years illustrated and elaborated magnanimously on hand embroidery.

Hand-embroidery is an art that Nigerians (especially Nsukka community of southeast of Nigeria) have not explored generously unlike Asians and some other European nations who have immensely explored the art. Their hand embroideries are lavishly displayed in published books, magazines and the internet. This is despite the fact that almost every community in the old Nsukka division engaged in indigenous cloth weaving (Okagu, 2012). This indigenous cloth weaving is however presently a venture that Nsukka community very minimally engage.

Akinwunmi (199) reported that automated embroidery machines came to Nigeria for the first time in the 1950s. Before then, Nigerians engaged confidently in hand-embroideries but very minimally. The minimal practice of hand-embroidery by Nigerians calls for more exposure of the efficacy to the art and skill to Nigerians. As of the 20th century some northern Nigerians did engage in hand-embroidery on

cotton fabrics. Hausa people of Nigeria engage in hand-embroidery or stitches utilising mainly the chain stitch. They also engaged the satin stitch and the button-hole stitch. Fulani people of Nigeria hand-embroidered on local and imported cotton. They utilised commercial silk threads and they enjoyed working with bright emerald colour green. They often embroidered with one colour of thread on plain cotton backgrounds (Gostelow, 1978). However, the interview conducted by this research discovered that these people of northern part of Nigeria currently engage the hand embroidery minimally due to the presence of automated embroidery machines that people resort to. The Yorubas in Nigeria are known for their efforts at embroidery. They work or design their indigenous embroidery on their indigenous weave known as *aso-oke*. Embroidery had therefore been practiced in Nigeria by different tribes.

Hand-embroidery need to be encouraged and taught even in schools. It is as effective as machine made embroidery and is less costly to produce. In affirmation, Ossai, (2020) declared that "it is cheaper and easy to sew clothes". All a designer needs in other to engage the hand embroidery is the haberdashery. Whereas in addition to the haberdashery, the designer that works with the embroidery machine has to buy the machine, pay the electric bills incurred by the machine, pay the technician that services and repairs the machine and is rooted in one location as the machine is not conveniently carried about. In

affirmation on costs and management, Diogu et al (2013) discovered that tailoring business “suffer some constraints that slows down the progress of the business. Among these constraints are irregular supply of light, high cost of workshops and poor work environment.” This paper therefore directs people’s attention towards the efficacy of hand embroidery and its economic potential. The stitcher can engage amongst others, different types of thread such as the tailor’s thread, knitting yarn and silk thread. In learning, Ekwealor et al (2020) stated that “it is a process of acculturation through which an individual is helped to attain the development of his/her potentialities and their maximum activation when necessary, according to right reason and to achieve his or her perfect self-fulfilment”.

It is necessary to introduce and expose to people, the art of hand-embroidery which has economic efficacy that is capable of fetching them financial empowerment if they embark on the vocation of artistic hand embroidery. This, Nwigwe and Arua (2019) affirmed and asserted that a person with demonstrable or requisite artistic skills can be self-reliant. Ikenegbu et al (2021) observed that in Nigeria, a significant population of youths has taken to fraudulent activities to earn their living. This paper aims at helping people become properly and gainfully employed. In the long run, school leavers and university graduates can thus become

properly engaged and employed instead of resorting to fraudulence.

Sowemimo et al (2019) detected the current poor patronage of *adire* fabrics by Nigerians which is great financial loss in business for *adire* manufacturers in this era of financial impoverishment. This issue needs to be addressed, hence this study. Sani (2021) and Ozor et al (2019) observed that some of the reasons for clothing include enhancement of appearance and traditional identity which are also some contributions of hand-embroidered clothes. Hand-embroidery avails the designer the convenience of designing exactly the traditional theme he or she has in mind to design especially for Nigerians who appreciate dressing in clothing with indigenous Nigerian themes expressed on the cloth. Engaging in hand-embroidery will avail the stitcher (as a designer) the opportunity of developing and displaying his or her skills which will aid birthing out his or her personal ideas and the ideas of his or her clients visually on fabrics just as Tregenza (2021).

Hand-embroidery as a possible income generating opportunity for individuals needs to be popularized in Nigeria. One of the ways of doing this is to evolve ways of enhancing acceptance of hand-embroidered articles by consumers, and creating awareness of the potentials of the handi-craft as an income generating opportunity for individuals.

Purpose of Study

The major purpose of the study was to investigate consumers' views and acceptability of hand embroidered textiles articles in Nsukka community. Specifically the study determined consumers'

1. perceptions of hand embroidered fabric articles.
2. willingness to purchase or acquire hand-embroidered articles.
3. willingness to venture into hand embroidery business.

Methodology

Design of the Study: Descriptive survey research design was adopted for the research.

Area of the Study: The area of the study was Nsukka town of Enugu State. It is of the Igbo ethnicity although people from other ethnicities and nationalities are also resident in Nsukka because it is a University town.

Population of the Study: The population was made up of University of Nigeria Nsukka undergraduate students (males and females) who are either consumers or potential consumers of hand-embroidered articles. These youths are often conscious and mindful of their clothing. The size of the population could not be established at the time of the study.

Sample for the Study: The sample was made up of total 160 undergraduate students (youths). In order to obtain this sample, four Faculties were purposively selected and two Departments were randomly selected from each faculty. Twenty students

were (10 males and 10 females) were randomly selected from each of the eight Departments to give a total of 160 undergraduates.

Instrument for Data Collection: Questionnaire was used for data collection. The questionnaire was developed based on the specific purposes of the study and literature review. The instrument was validated by three University lecturers of Clothing and Textiles who also teach Embroidery. Respondents were expected to respond to "Yes" or "No" options for items in the questionnaire.

Data Collection Method: One hundred and sixty (160) copies of questionnaire were distributed to respondents by hand. The entire 160 copies of the questionnaires duly responded to and returned. The return rate was 100 percent.

Data Analysis Techniques: Data were analyzed using frequencies and percentages. Responses are presented in Tables 1, 2 and 3. For Table 1 which focuses on specific purpose No1, any item with a percentage responses of >50 percent is regarded as a "Positive Perception" (PP), while any with a percentage response of less than 50 percent (<50%) is regarded as a "Negative Perception" (NP). For Tables 2 and 3, responses of 50 percent and above (> 50%) are regarded as "Willingness" (W), while those of less than 50 percent were regarded as "Not Willing" (NW).

Findings of the Study

Table 1: Percentage Responses on Consumers Perception of Hand Embroidery

S/N	Consumers' Perception	Yes (F %)	Remarks
1.	Do you like embroidered garments?	152(95)	PP
2.	Do you know about hand-embroidery?	116(72.5)	PP
3.	Do you engage in hand-embroidery?	19(11.87)	NP
4.	Do you have a personal embroidery machine?	4(2.5)	NP
5.	Do you have hand-embroidery hoop or frame?	8(5)	NP
6.	Do you know of any club where hand-embroidery is taught?	22(13.7)	NP
7.	Do members of your family engage in hand embroidery?	10(6.2)	NP
8.	Do your friends engage in hand-embroidery?	24(15)	NP
9.	Was hand-embroidery taught in the school you attended?	29(18.1)	NP
10.	Do you have embroidered cloth?	123(76.8)	PP
11.	Do you engage in any hand clothing work?	135(84.3)	PP

PP = Positive Perception; NP = Negative Perception

Table1 shows that four out of the 11 perception indicators have percentage responses of more than 50 percent (>50%) (95%, 72.5%, 76.8% and 84.3%). Each of the other seven indicators has percentage responses of less than 50 percent (<50%). The highest percentage of them (95%) is they, "like embroidered garments", while 72.5 percent "know about hand-embroidery". There are thus four items with "positive perception" scores of >50 percent.

Table 2: Percentage Responses on Consumers Willingness to Purchase or Acquire Hand-embroidered Articles

S/N	Consumers' Willingness to Purchase	F(%)	Remarks
1.	Do you consider hand-embroidery out dated and should not be explored?	148(92.5)	W
2.	Will you prefer the patronage of hand embroidery to machine made ones?	121(75.62)	W
3.	Will you prefer to purchase dresses with hand-embroidery to none embroidered ones?	134(83.75)	W
4.	Is your choice of hand-embroidered informed by the beauty?	152(95)	W
5.	Is your preference of hand-embroidered informed by the cost?	(48.75)	N W
6.	Do people like your hand works?	128(80)	W
7.	Do you consider the quality of hand-embroidered cloth good enough and acceptable?	146(91.25)	W
8.	Do you consider hand-embroidery time wasting?	41(25.62)	N W
9.	Will you encourage others to embark on hand-embroidery?	41(88.12)	W
10.	Have you ever seen anyone dressed in hand-embroidered garment?	150(93.75)	W

W = Willingness to Purchase; NW = Not Willing to Purchase

Table 2 shows that eight out of the 10 “willingness” indicators obtained percentage responses of more than 50 percent (>50%) (92.5%, 75.62%, 83.75%, 95%, 80%, 91.25%, 88.12% and 93.75%). Only two “willingness” indicators scored below 50 percent (<50%) (48.75% and 25.62%). It could be said that there high willingness to acquire embroidered articles among the consumers.

Table 3: Percentage Responses on Consumers Willingness to Venture into Hand-embroidery Business.

S/N	Consumers’ Willingness to Venture	F(%)	Remarks
1.	Are you presently employed?	33(20.62)	N W
2.	Will you like to acquire skills of hand embroidery?	129(79.37)	W
3.	Do you like my samples of hand- embroidered?	146(91.25)	W
4.	Do you prefer machine made embroidery to hand- embroidery?	75(46.87)	N W
5.	Do you think that business of hand- embroidery can help people survive socio-economic challenges?	147(91.87)	W
6.	Should unemployed graduates be encouraged to venture into hand-embroidery?	148(92.5)	N W
7.	Are you less busy for hand-embroidery skill acquisition?	68(42.5)	N W
8.	Do you foresee chances of you making money with the hand-embroidery?	93(58.12)	W
9.	Do you have flair for hand works?	137(85.62)	W
10.	Do you consider that engaging in hand-embroidery works would give you joy?	160(100)	W
11.	Should hand-embroidery be given enough practical application in the classes in schools?	153(95.62)	W
12.	Do you think entrepreneurs should organise skill acquisition to train people on hand- embroidery?	157(98.12)	W
13.	Do you personally know of anybody that engages in hand-embroidery in Nsukka, write his or her name?	5(3.12)	N W

W = Willingness to Venture; NW; Not Willing to Venture.

Table 3 shows that nine out of the 13 indicators of “willingness to venture” into hand-embroidery business, obtained percentage scores of 50 percent and above (>50%). Only four “willingness indicators” have scores less than 50 percent. Infact, item No 10 has a score of 100 percent, showing that all the respondents (consumers), “do consider that engaging in hand-embroidery work would give you (them) joy”

Discussion of Findings

The finding in Table 1 shows that most of the respondents are aware of the hand embroidery but generally do not engage in the hand embroidery which is a result of lack of inspiration, motivation and avenues of learning hand embroidery. Wonah and Sonye(2020) agreed and stated that there is “the need for more practical teaching in clothing and textile related

business ventures for self-reliance". Similarly, Kumudha and Rizwana (2013) who attempted to understand the customer awareness about handloom products with special reference to Erode district in India, discovered that consumers are not very much aware of handloom products and thus suggested that sufficient efforts should be made in order to increase the awareness of handloom products. Their suggestions included "more promotions like special offers, rebates, free gifts..." This study proposes that such promotional strategies should also be adopted by motivators in order to elevate the engagement of hand embroidery.

The findings on the willingness of consumers to purchase or acquire hand embroidered articles are derived from Table 2. Hand embroidery has the efficacy of aiding expressions of traditional ideas and symbols on fabrics. Adiji (2018) disclosed that Hausa traditional embroidery designs on caps are particularly appreciated and valued for their symbolism which expresses Hausa cultures. The Hausas have for decades best expressed these symbolisms by hand embroidery.

Although the American Marketing Association (AMA) (2015) inferred that products of machine-make are generally of very high quality, and mostly cheaper than handmade items, some consumers view the handmade products themselves to be imbued with affection. Thus, while explaining what love has to do with handmade products, Fuchs et al. (2014) affirmed

that consumers distinctly preferred handmade products when they purchased items for loved ones, and many people were willing to pay as much as 17% above the actual price for items that were handmade. Consumers appeared to accept that the handmade products demonstrate love attached to them especially when they come as a gift from an associate.

In the light of the present research, it is logical to assume that emphasizing the handmade aspect of a product can make it significantly more attractive, especially when consumers want to express affection to someone. Thus, artistic hand embroidery possesses the additive potential of attracting purchasing power if there is quality assurance that makes them acceptable to consumers. Adiji et al (2016) mentioned "that quality remained the motivation for the consumers of hand embroidery".

The findings on the willingness of consumers to venture into the business of hand embroidery as demonstrated in Table 3 reveals that a significant number of consumers are willing to consider this vocation as means of livelihood. Although hand embroidery is not a common business in Nsukka, it is an ever growing practice with a worldwide popularity. Western authors including Rousset (2002) have extensively exposed the world popularity of hand embroidery. Onorhiere and Bamson (2020) identified "lack of entrepreneurial development center" as a factor that constrains skill acquisition in Delta State of Nigeria.

This research discovered that consumers (respondents) have neither shown much interest in acquiring the skill/art of hand embroidery nor embarking on it as money making venture because of the presence of automated machines that engages the designs. However, the interview by this research discovered resident in Nsukka a man from Agatu ethnic group of Benue State of Nigeria who engages in hand embroidery on clothes as a profession. Mr Mukaila Adamu came to reside in Nsukka in 2004 and on learning the hand embroidery from his brother Yusuf Adamu, he took up the hand embroidery as a profession in 2007. He designs with the cross-stitches, blanket stitches, running stitches and star stitches. Mr Mukaila Adamu disclosed that ever since his stay in Nsukka, which is 17 years today, people have not shown much interest in acquiring the skill/art and embarking on it. He revealed that before he came to Nsukka, his parents had lived in Nsukka for as long as 15 years and never witnessed anybody engage the hand embroidery. Adamu disclosed that patronage of the handmade embroidery is minimal because of the presence of automated machines that engages the designs. His brother Yusuf Adamu who learnt the hand embroidery from Oturukpo town in Idoma ethnic group of Benue State has switched or changed business because the hand embroidery was not fetching him enough money.

Mr Mukaila Adamu who has a secondary school certificate and

currently engages in the hand-embroidery, supplements his meager earning from the handmade embroidery with the proceeds of the security work he also engages in. Out of the 160 people interviewed, only Mukaila Adamu engages in the hand embroidery as money making venture.

It is worthwhile to support and promote the business of hand embroidery as a means of alleviating Nigeria from the poverty rate in the nation. According to Oparah et al (2018), more than 70 percent of Nigerians are poverty stricken. In the words of Oparah et al (2018), "successful small businesses are critical to maintaining a robust and virile economy. They broaden the base of participation in the society, create jobs, decentralize economic power and give the citizens a stake in the future".

This research also discovered amongst the university undergraduate students interviewed that there are some students (especially of Home Economics studies) who are knowledgeable of some types of stitches that exists but do not however, engage in the hand embroidery. However, the research encountered one student of home economics education who showed the researcher some of her hand embroideries on her personal dresses. The student's name is Esther Nnadi.

Conclusion

This study has shown that high percentage of the consumers (youth) are willing to purchase or acquire hand-embroidered articles even

though many might not have the right or positive perceptions of the art work that goes into the craft. They might not even appreciate that the skills involved could be learned. Also it is interesting to note that many of them see hand-embroidery as a worthwhile entrepreneurial venture. This means that acquisition of hand-embroidery skills could help youths engage in income generating activities and avert unemployment and related challenges.

Recommendations

Based on the findings of the research, it was recommended that:

1. Schools should give opportunities to learners for more practical teaching on hand-embroidery in fashion designing, clothing and textile subjects and courses in order to make them familiar with hand embroidery and be prepared for the business venture and self-reliance.
2. The government should provide the necessary hand-embroidery facilities and train teachers to motivate students to be willing to venture into the business of hand-embroidery after school.
3. The government and Non-Governmental-Organisations (NGO) should also build tutorial and skill acquisition centres where the stitches can be taught in collaboration with entrepreneurs and skilled artists.
4. People explore the hand-embroidery as a means of economic empowerment. School leavers and unemployed graduates who do not have the capital to purchase embroidery machines with which to

engage the embroidery can most easily and conveniently engage the hand embroidery and produce equally effective and even better embroidery.

5. Fashion designers who are in the business of hand embroidery should be more creative and innovative so as to improve on consumers' organoleptic perception and appreciation of the handmade embroidered products.

References

- Adiji, B. E. (2018). The effects of modern technology on the production of embroidered clothing in south-western Nigeria. *Global Journal of Arts, Humanities and Social Sciences*. European Centre for Research Training and Development UK. Vol.6, No.6, pp.61-66. www.eajournals.org
- Adiji, B. E., Ogunduyile S. R., Ojo, E.B. (2016). The documentation of embroidery types in south western Nigeria. *Global Journal Of Interdisciplinary Social Sciences*. Global Institute for Research and Education. Vol.5(5):7-14 www.gifre.org
- Akinwunmi, T. M. (1997). High fashion in African dress machine embroidery: a futuristic model for the Lagos garment industry. *Nigerian Journal of Arts*, 2 (1 and 2), Lagos. National Gallery of Arts.
- American Marketing Association (AMA) (2015). Consumers value handmade products: What's love got to do with it? *Science Daily*, 24 March 2015. <http://www.sciencedaily.com/releases/2015/03/150324111544.htm>.
- Diogu, A. N., Ezeibe, A. B. C., Diogu, G. O. (2013). A study of women small scale enterprise in Nsukka, Enugu state, Nigeria: The case of the tailoring business. *International journal of research*

- in arts and social sciences*. Society for research and academic excellence university of Nigeria, Nsukka. 5; 34-40. www.academicexcellencesociety.com
- Ekwealor, N. E., Okeke, P. M., Koledoye, U. L. (2010). Strategies for promoting lifelong education among adult learners in Anambra state. *Journal of Home Economics Research*. 26 (2); 111-118. www.heran.org
- Evans, H. (1987). *The W.I. creative guide to cross stitch*. London. Unwin Hyman Ltd.
- Fuchs, C., Schreier, M., and Osselaer, S. V. (2014). The handmade effect: What's love got to do with it? *Journal of Marketing*, 79 (2): 98
DOI: 10.1509/jm.14.0018 <http://som.yale.edu/sites/default/files/files/HandmadeSept2014.pdf>
- Gostelow, M. (1978). *Embroidery: Traditional designs techniques and patterns from all over the world*; London. Marshall Cavendish Books Ltd.
- Heathcote, D. (1972). Hausa embroidered dress. *African Arts*. Winter 1972. Quarterly Magazine. The African Studies Center, University of California Los Angeles.
- Ikenegbu, T. C., Onyejebu, M. N., Okemini, O. O. (2021). *Entrepreneurial criminality: The question of African youth population in the 21st century-a risk or an asset?* A paper presented at the 4th Chinua Achebe international conference at institute of African studies of University of Nigeria Nsukka.
- Kumudha, A. and Rizwana. M. (2013). A Study on Consumer Awareness about Handloom Products with Special Reference to Erode District. *Journal of Marketing and Consumer Research*, 1:17-22.
- Nicol, G. (1995). *Cross stitch*. Clarkson Potter/Publishers. New York.
- Nwigwe, C. and Arua J. (2019). Factors affecting skill acquisition in visual arts in mission secondary schools in Nsukka. *Awka Journal of Fine and Applied Arts Nnamdi Azikiwe University, Awka*. 6 (2); 36-45.
- Okagu, G. O. (2012). Indigenous knowledge systems on traditional textile weaving technology among the people of Aku in Igbo-Etiti L.G.A. of Enugu State. *Ikenga International Journal of Institute of African Studies, University of Nigeria Nsukka*. 12 (2); 149-181.
- Onorhiere, L. L. and Bamson, M. (2020). Constraints to acquisition of entrepreneurial skills in garment making by undergraduates: A case study of Ignatius Ajuru University of Education, Port Harcourt, Rivers state. *Journal of Home Economics Research*. 27 (1); 172-184. www.heran.org
- Oparah, P. C., Aghara, G. C., Ndubuisi, V. N. O. A., & Chidozie, E. (2018). The importance of marketing in entrepreneurial development and poverty alleviation in Nigeria. *International Journal of Academic Research in Business and Social Sciences*. 8(10), 524-538. <https://www.researchgate.net/publication/328783670>
- Ossai, R. B., (2020). Clothing provision practices of households in Ogba/Egbema/Ndoni Local government area of River state. *Journal of Home Economics Research*. 27 (1); 185-197. www.heran.org
- Ozor, P. E., Olubiyi, E. O., and Okeke, E. N. (2019). Clothig maintenance practices of Alvan Ikeoku federal college of education students in Owerri municipal of Imo state: A case study. *Journal of Home Economics Research*. 26 (2); 181-190. www.heran.org
- Rousset, G. (2002). *Magic Cross Stitch*. May and June Edition. Bimonthly Magazine. Keesing International Publishers. Lyon, France.

- Sani, I. R. (2021). *Iriacostumes as a cultural identity in the Port-Harcourt carnival, Rivers State*. A paper presented at the 4th Chinua Achebe international conference at institute of African studies of University of Nigeria Nsukka.
- Sowemimo, B. O., Folarin, K. T., and Amubode, A.A. (2019). Use of locally dyed fabric (adire) as ceremonial group attire (asoebi) in Lagos Nigeria. *Journal of Home Economics Research*. 26 (2);20-30. www.heran.org
- Tregenza, L. (2021). Copying a master: London whole sale couture and Cristobal Balenciaga in the 1950s. *Fashion Theory: The Journal of Dress Body and Culture*. 25 (3) <https://doi.org/10.1080/1362704X.2021.1905945> Routledge, Taylor and Frances Group. Retrieved on 4th March 2021.
- Wonah, E. E. and Sonye, C. U. (2020). Footwear merchandizing skills needed by graduates of college of education for self-reliance in Delta State. *Journal of Home Economics Research*. 27 (1); 79-88. www.heran.org
- Woodruff, B. and Packham, J. (1989). *Holidays in Cross Stitch*. Oxmoor House Inc. Birmingham Alabama 35201.

Information and Communication Technology Utilization for Skill Acquisition among Adult Distance Learners in Enugu State, Nigeria

Koledoye, U.L.

Department of Adult Education & Extra Mural Studies
University of Nigeria, Nsukka, Enugu state

Abstract

The main purpose of the study was to investigate issues relating to utilization of ICT by adult learners in distance education centres in Enugu State. Specifically the study determined various ICT resources available to the learners, ways ICT utilization facilitate skill acquisition and problems hindering the use of ICT. The study used descriptive survey research design. Three research questions and two null hypotheses guided the study. The population was 943 adult distance education learners in the area. A random sample size of 491 distance learners (195 males and 296 females) was drawn from six National Teachers Institute Centres in Enugu state. Data were collected through questionnaire. Data were analyzed using frequency, percentage, mean, standard deviation and t-test. Findings showed 13 ICT resources available, including mobile phones, computers, internet among others. Also 10 ways utilization of ICT facilitate skill acquisition were identified. These include independent learning; acquisition of competence in a short time. Other findings are 17 problems that hinder the use of ICT in facilitating skill acquisition. These include poor remuneration of instructors; inadequate ICT infrastructures and irregular electricity power supply. The study recommends that government should hasten full integration and use of ICT in the education programmes, provide adequate fund for education sector, especially for ICT, among others.

Keywords: Skill, Acquisition, ICT, Utilization, Adult, Distance, Learners.

Introduction

Access to knowledge and skills is enormously important if human capital development must be attained. Education and training must be all inclusive and reflect the vastly diversified nature of the economy as well as the various fields of manpower needs (Mishra, 2002). However

achieving all-inclusive education and training for all remains a challenge in many countries including Nigeria. Available data indicate that almost 60 per cent of youths between the ages of 15 and 17 are not in school coupled with the huge deficit of people relegated by the formal school system largely in operation due to different

circumstances like poverty, disability, illiteracy, occupation, location, age etc (UNESCO Institute for Statistics [UIS], 2019).

These categories of people that do not fit into the formal education system are clientele of Adult Education. According to International Standard Classification of Education (ISCED) (2011), Adult Education specifically targeted individuals who are adults by the society to which they belong, to improve their technical or professional qualifications, further develop their abilities, enrich their knowledge with the purpose to complete a level of formal education, or to acquire knowledge, skills and competencies in a new field or to refresh or update their knowledge in a particular field.

Distance education, also referred interchangeably as distance learning is not a new phenomenon. It evolved from correspondence study, open universities, tele-conferencing, networks and multimedia delivery to today's web-based technologies. This evolution is characterized by new teaching approaches, including the adjustment of instructional materials supported by different delivery media including the internet, which has developed into viable system for distance education (Passerini and Granger, 2000). New series of learning opportunities are therefore open for learners from diverse background and location.

Skill acquisition is the process and the means of providing an opportunity for people to make maximum

contribution to their self-development. It is a form of training by individuals or group of individuals that can lead to acquisition of knowledge for self-sustenance and geared towards instilling in individuals, the spirit of entrepreneurship needed for meaningful development (Douli, 2002; Idoko, 2014). Skill acquisition training is an adult education programme which is design to impact various skills on the participants and meet immediate needs such as jobs, self-reliance and curb restiveness among youths (Teiboweri & Osusu, 2017). Efforts geared at building capacity and empowerment by various developing nations hinged on adult literacy and skill acquisition programmes (Olagbaju, 2020). According to Ukwungwu & Oyedepo (2012), many artisans and petty traders had availed themselves the opportunity offer through this programme of distance education to improve their economic status, creating jobs and become self-fulfilled. The National Teachers Institute (NTI), has been the agency running this programme, making use of trained and qualified professionals from the tertiary institutions in the catchment area, as resource persons and instructors. The Nigeria Federal government through the NTI believed that the skills acquisition programme will help to enhance the economic status, and self esteem of the participants (the adult learners), through learning a skill or an additional vocation that can serve as a source of income generation. According to Ememe (2012), skill

acquisition by adult learners prepare and equip them to be self-employed as well as become employers of labour. They are therefore, equipped with knowledge that offer them opportunities to become creative and innovative, as to discover and explore novel ideas and business opportunities (Kaegon, 2009). Okolochaet *al.*, (2020) argued that much emphasis on academic excellence without quality and skilled trainers, with acute shortage of facilities and poor funding, are among the problems facing skill acquisition in Nigeria.

As many adults are unable to participate in on-campus education, ICT offers flexible learning platform that greatly enhance accessibility to education. Bandele (2006), described ICT as a revolution that involves the use of computers, internet and other telecommunication technologies in every aspect of human endeavour. In respect to education, ICT has enormous potential of transforming the education of developing countries (Mbachu, 2008). Reddi (2012), grouped the media used in education into two categories namely: synchronous and asynchronous media.

Okafor (2011), observed that one of the major challenges facing education in Nigeria is the gap between theory and practice, which makes effort in providing needed skills for her citizens to be far from being actualized. As a result, many graduates and non-graduates are helpless and roaming about the streets, regrettably due to lack of viable skills. This lack of basic skills needed for meaningful survival

has led to soaring unemployment rate, with our graduates becoming job seekers instead of job creators and the attendant frustrations, with the rising insecurity among other social vices (Okolochaet *al.*, 2002; Arogundade, 2011).

Information and Communication Technology (ICT) have come to make teaching and learning more practicable to learners especially, distance education learners and greatly facilitates knowledge and skills acquisition (World Bank, 2006; Abubakar, 2012; Bassey&Ofre, 2013). According to Obiefuna and Enwereuzo (2012), the use of ICT affects the way teachers teach and learners learn hence, integration and improve utilization of ICT would greatly facilitate knowledge and skills acquisition in adult distance education learners that can improve their economic status and open job creating opportunities.

Available ICT resources for education today include: faculty digital library; digital microteaching lab; computerize centres for educational technology; virtual labs, internet connected classrooms; videophone systems; teleconferencing devices; multimedia computers; multimedia projectors, educational robots and other artificial intelligent devices; as well as internet, intranet, e-mail, WhatsApp, Web-sites, YouTube, Computers and smart mobile phones. However, only a fraction of the educational institutions in Nigeria use ICT resources such as computers, computer laboratory, online library,

virtual classrooms, videophone systems and teleconferencing devices, educational robots, multimedia projectors and multimedia coursewares viz: CD-ROM, Flash drives and Diskettes (Nwana, 2008, Nwana, 2012).

According to Nwana (2012), the curriculum for e-learning can be presented online in the form of texts, visuals, sound, multicolour images, maps and graphics, using ready-made instructional packages and teacher developed instructional packages. The author observed that instructional communication devices such as laptops, desktops, pocket computers, note book computers and smart phones are becoming readily available to teachers and learners.

According to Akudolu (2012), for skill to be effectively transferred and acquired by learners, e-learning design must be based on: instructional objectives, learners' level of technical and theoretical knowledge and nature of multimedia systems available to the learners. The author opined that in a not so-rich technology environment like Nigeria, it would be better to adapt e-learning design to accommodate the available ICT facilities. The teacher/instructor can present learning content, assignment and assessment online via e-mail, WhatsApp and organize discussions via Skype software devices. As learners have access to multimedia facilities, especially computer with internet, other forms of e-learning design can be used to facilitate acquisition of knowledge and skills

(Akudolu, 2012; Okafor, 2016). The use of ICT such as distance education software application model can facilitate interaction between instructors and learners, speed up works as well as makes it interactive and users friendly (Faisal & Kisman, 2020).

The use of ICT to facilitate knowledge and skill acquisition among adult distance education learners in Nigeria is still at very low ebb (Education Trust Fund, 2006). Okoli and Egbunonu (2012), argued that Nigeria as many developing nations, need to surmount a number of teething obstacles that hinder full utilization of ICT in her educational system. Some of these hindrances they identified include: lack of adequate funding, insufficient teachers with necessary ICT skill, lack of trained and qualified computer personnel to operate and maintain the computers, lack of internet facility in many parts of the country, lack of other ICT infrastructures like broad-band, erratic electricity power supply; high cost of computers, mobile phones and other ICT devices.

Skill acquisition has been on-going for quite a while, for adult distance learners in Enugu State, in such areas as: decorative skills (interior & exterior); photography/video coverage; graphic design, web site design/coding; Microsoft Excel, Word and Power Point; cooking/baking/drinks making as well as skills in animal husbandry. In spite of the flexibility and vast opportunity provided by ICT for the

transformation and enhancement of all forms of education and skill acquisition, utilization of ICT, is still very low among adult distance learners in Enugu State. This study therefore, was carried out to investigate the ways ICT was utilized for skill acquisition among adult distance learners in Enugu State of Nigeria.

Purpose of the Study

The purpose of this study was to investigate issues relating to utilization of ICT for skill acquisition by adult learners in distance education centres in Enugu State. Specifically the study:

1. identified various ICT resources available for facilitating skill acquisition among adult distance education learners in Enugu State;
2. determined ways ICT facilitate skill acquisition among adult distance education learners in the state.
3. identified problems hindering the use of ICT for skill acquisition among adult distance education learners in the state.

Research Questions

1. What are the various ICT resources available for facilitating skill acquisition among adult distance education learners in Enugu State?
2. In what ways does ICT facilitate skill acquisition among adult distance education learners in Enugu State?
3. What are the problems hindering the use of ICT for skill acquisition

among adult distance education learners in Enugu State?

Hypotheses

1. There is no significant difference in the mean responses of male and female adult distance education learners on the ways ICT facilitate skill acquisition among distance education learners in Enugu State.
2. There is no significant difference in the mean responses of male and female adult distance education learners on the problems hindering the use of ICT for skill acquisition among distance education learners in Enugu State.

Methodology

Research Design: The descriptive survey research design was adopted for this study.

Area of the Study: The study was carried out in Enugu state of Nigeria. There are six educational zones in the state, with 11 National Teachers Institute (NTI), centres.

Population for the Study: The population for the study was 943 adult distance education learners from all the training centres in Enugu state.

Sample for the Study: The sample size for the study was 491 distance education learners, which was 52 per cent of the population and was made up of 195 males and 296 females. Cluster technique was used to select 6 training centers in the state. No sampling was carried out to select respondents as the entire 491 distance education learners from the 6 training centers selected were considered

manageable size and used for the study.

Instruments for Data Collection: A structured questionnaire designed by the researcher was the instrument used for data collection. The questionnaire consisted of two sections: I and II. Section I provided personal information of the respondents while section II was made up of three clusters addressing to the three specific objectives and research questions. Responses to items in the questionnaire were based on a Four-point rating scale, ranging from: To a great extent (TGE) (4 points), Somewhat (S) (3 points), Very little extent (VLE) (2 points), to Not at all (NA) (1 point) for question 2. While for research question 3, the rating scale ranges from: Strongly agree (SA) (4 points), Agree (A) (3 points), Disagree (D) (2 points), to Strongly Disagree (SD) (1 point). The instrument was duly validated by three experts (2 from the Department of Adult Education and Extra-mural Studies, University of Nigeria, Nsukka and 1 from the Department of Vocational Education, University of Nigeria, Nsukka). The instrument was subjected to a reliability analysis using Cronbach

Alpha. A reliability coefficient of 0.7 was established which signified very high reliability of the instrument.

Data Collection Methods: Four hundred and Ninety-one (491) copies of the questionnaire were distributed by hand, through the help of two trained research assistants. All the 491 copies were duly completed questionnaires and retrieved. There was hundred per cent return rate of the questionnaire.

Data Analysis Techniques: Data were analyzed using frequency, percentages, mean and standard deviation. A mean of 2.50 was used as the benchmark for decision making for each of the item. Thus any item with a mean score of 2.50 and above was considered agreed by the respondents, while below 2.50 was considered as disagreed by the respondents. t-test was used to test the hypotheses for differences among the mean responses of the male and female distance education learners at $P < 0.05$.

Results

The ICT Resources Available to Adult Distance Education Learners in Enugu State.

Table 1: Frequency and Percentage Responses on ICT Resources Available to Adult Distance Education Learners in Enugu State

S/N	ICT Resources available	Availability F (%)
1	Personal mobile phone	491 (100%)
2	Personal computer (desktop, laptop, notebook tablet)	353 (71.89%)
3	Own a multimedia courseware (CD-ROM, flash drive, diskette)	453 (92.26%)
4	Internet connection available	326 (66.40%)
5	Use e-mail	491 (100%)

6	Use WhatsApp	491 (100%)
7	Use Telegram	206 (41.96%)
8	Use YouTube	479 (97.56%)
9	Use Skype	368 (74.95%)
10	Use Videophone	343 (69.86%)
11	Use Online reference	491 (100%)
12	Use Teleconferencing Device	380 (77.40%)
13	Use Digital Library	209 (42.57%)
14	Use Computer Centre	0 (0%)
15	Use Educational Robot	0 (0%)

F = Frequency

Table 1 shows the frequency and percentage score on ICT available to distance education learners in Enugu State. Result on the table shows that 100% that is, all the 491 respondents had a mobile phone, used: e-mail, WhatsApp and online references. A good percentage of the respondents owned a multimedia courseware and used YouTube (92.26% and 97.56%) respectively, while a fairly good percentage of the respondents owned a computer, had internet connection

(71.89% and 66.40%) respectively, used Teleconferencing device, skype, videophone, (77.40%, 74.95% and 69.86%) respectively. A fair percentage (42.57% and 41.96%) of respondents used digital library and Telegram respectively. However, none of the respondents used computer centre nor used educational robot.

Ways ICT Facilitate Skill Acquisition among Adult Distance Education Learners in Enugu State.

Table 2: Mean and Standard Deviation Responses on Ways ICT Facilitate Skill Acquisition among Adult Distance Education Learners in Enugu State.

S/N	Ways ICT facilitates skill acquisition	X	SD	Decision
ICT facilitates:				
1	independent learning	3.97	0.81	Agree
2	learning of new skill	3.00	0.90	Agree
3	learning at individual pace	3.89	0.67	Agree
4	learners interest and attention	3.81	1.02	Agree
5	intellectual thinking	3.65	0.83	Agree
6	acquisition of competence in a short time	3.05	0.91	Agree
7	continuous improvement of skills and knowledge	3.06	0.95	Agree
8	access to unlimited learning resources	3.11	0.82	Agree
9	access to more illustrations for learning	3.92	0.85	Agree
10	access to clear pictures for practicals	3.84	1.01	Agree
11	problem solving	3.02	0.76	Agree
12	access to options readily available	3.97	0.87	Agree
13	access to learning new concepts	3.97	0.90	Agree
14	collaborative and interactive learning	3.04	0.93	Agree
15	acquisition of cognitive experience	3.01	0.82	Agree

$N = 491$, $X = \text{Mean}$, $SD = \text{Standard Deviation}$

Table 2 shows the mean and standard deviation score on ways ICT facilitated skill acquisition among adult distance education learners in Enugu State. The table reveals that all items had mean scores above the benchmark of 2.50 implying that ICT facilitated skill acquisition in the distance education learners. The table shows that ICT facilitate: independent learning; learning of new skill; learning at individual pace; learners' interest and attention; intellectual thinking; acquisition of competence in a short time; and continuous improvement of skills and knowledge, all having their mean scores above the benchmark of

2.50. Table 2 also shows that the respondents agreed that ICT facilitate access to: unlimited learning resources; clear pictures for practicals; more illustrations in learning; and learning new concepts, as their mean scores were above the 2.50 benchmark. ICT also facilitates collaboration and interactive learning as well as acquisition of cognitive experience, with mean scores above 2.50 respectively.

Problems Hindering Effective Utilization of ICT among Adult Distance Education Learners in Enugu State.

Table 3: Mean Responses on Problems Hindering Effective Utilization of ICT among Adult Distance Education Learners in Enugu State

S/N	Problems hindering ICT utilization	\bar{X}	SD	Decision
1	Lack of knowledge of learners about ways in using computer and internet	3.09	1.02	Agree
2	Lack of skill of learners in the use of computer and internet	1.22	0.96	Disagree
3	Inadequate ICT infrastructures	2.56	0.83	Agree
4	Insufficient instructors	3.18	1.06	Agree
5	Poor remuneration of instructors			
6	Lack of skill of ICT instructors			
7	High cost of ICT products (phones, computers etc)	3.49	0.81	Agree
8	Irregular electricity power supply	3.42	0.79	Agree
9	Lack of access to necessary technology at the home base of learner	3.01	1.04	Agree
10	Erratic internet connectivity	3.14	0.97	Agree
11	Lack of adequate technical support	2.62	1.01	Agree
12	Problems associated with faulty ICT products/devices	2.52	1.04	Agree
13	Lack of qualified personnel to maintain faulty ICT products	2.56	0.98	Agree
14	Family pressure and demands on learners	1.91	0.96	Disagree
15	Low economic status of learners	1.79	0.88	Disagree
16	Lack of financial and other supports for learners	2.97	0.81	Agree
17	Poor funding of programme by government	3.50	0.80	Agree

N = 491, X = Mean, SD = Standard Deviation

Table 3 shows the problems hindering effective utilization of ICT among adult distance education learners in Enugu State. The table reveals that items 1, 3 to 5, 7 to 13 as well as 16 to 17 (lack of knowledge of learners in using computer and internet, inadequate ICT infrastructures, insufficient instructors among others), had mean scores above 2.50, signifying that the items were agreed by respondent as problems hindering ICT

utilization by adult distance education learners. However, items 2,6, 14 and 15 (lack of skill of learners in the use of computer and internet, lack of skill of ICT instructors, family pressure and demands on learners, as well as low income status of learners), had mean scores below 2.50, meaning that these items were not considered as problems hindering ICT utilization by adult distance education learners.

Table 4: t-test Analysis of Mean Responses of Male and Female Adult Distance Education Learners on Ways ICT Facilitates Skills Acquisition for Distance Education Learners.

Groups	N	X	SD	Df	t-cal	P-value	Decision
Male	195	2.86	0.83	489	1.31	0.19	Not rejected
Female	296	2.93	0.54				
Total	491						

N=Sample, X = Mean, SD = Standard deviation, df = Degree of freedom, t-cal = t-calculated and P-value = Probability value.

Table 4 shows that mean response for male respondents at 2.86 is lower than the mean response for female respondents at 2.93. However, the difference in mean responses between male and female respondents was not significant because the P-value (0.19) is greater than 0.05 level of significance.

Therefore, there was no significant difference in the mean responses of male and female respondents on the ways ICT facilitates skills acquisition among adult distance education learners. The null hypothesis was therefore, not rejected.

Table 5: t-test Analysis of the Mean Responses of Male and Female Distance Education Learners on the Problems Hindering Utilization of ICT among Adult Distance Education Learners.

Groups	N	X	SD	df	t-cal	P-value	Decision
Male	195	2.90	0.94	489	0.67	0.50	Not Rejected
Female	296	2.95	0.66				
Total	491						

N = Sample, X = Mean, SD = Standard deviation, df = Degree of freedom, t-cal = t-calculated

Table 5 shows that male respondents had lower mean response (2.90) relative to mean response of the female respondents (2.96). The difference in the mean response was not significant at 0.05 level of significance (P-value = 0.50 >0.05). Therefore, the null hypothesis was not rejected.

Discussion

The study identified some ICT resources available for facilitating skill acquisition among adult distance education learners in Enugu State. Respondents agreed that resources such as mobile phones, computer, e-mail, WhatsApp, online reference, multimedia courseware (CD-ROM, flash drive, diskette), internet connection were among the ICT resources available to adult distance education learners in the State (Table 1). This finding is in agreement with Obiefuna and Ewereuzo (2012) who observed that vast numbers of ICT resources are now available for educational use to facilitate knowledge and skill acquisition. Nwana (2012) found that ICT resources such as laptops, desktops, pocket computers and smart mobile phones are becoming readily available to teachers and learners. It is a known fact that almost everyone (including adult learners), now own a mobile phone that can be used and adapted for various applications. The extension of internet and other telecommunication networks to more areas of the communities has greatly helped in making these ICT resources available

to more people including the adult distance education learners as observed by (Passerini and Granger, 2000) who are of the view that increases in bandwidth technologies and worldwide access to interconnected networks enable the internet and worldwide web to develop into a viable delivery system for distance education and for acquisition of knowledge and skills. The respondents pointed out the lack of digital library, computing centre and educational robot resources which can be attributed to paucity of fund, in line with the view of Egboka (2012) who saw a great need for radical changes in educational budget in Nigeria.

The study also identified ways ICT utilization facilitated skill acquisition among adult distance learners in Enugu state. Respondents agreed that ICT utilization facilitated: independent learning; learning of new skill; learning at individual pace; facilitate learners interest and attention; intellectual thinking, among others (Table 2). This finding is in agreement with Obiefuna and Ewereuzo (2012) who stated that use of ICT greatly affect the way teachers teach and learners learn which in no small measure facilitates knowledge and skill acquisition in adult distance learners that can translate to improved economic status and open job creating opportunities. The use of ICT has revolutionized the education landscape, as it has successfully eliminated every form of barrier that

hinders teaching, learning and acquisition of knowledge and skills, as shown in the responses of the respondents. This is in agreement with (Abubakar,2012; Bassey&Ofre,2013), who asserted that ICT have come to make teaching and learning more accessible, flexible and practicable to learners especially, distance education learners.

Findings from the study revealed some of the problems hindering effective utilization of ICT among adult distance education learners in Enugu State. Respondents identified; lack of knowledge of learners about ways in using computer and internet; lack of trained and qualified personnel to operate and maintain computers; poor remuneration of instructors; inadequate ICT infrastructure; inadequate funding; irregular power supply; irregular internet connectivity and high cost of ICT products among the problems hindering effective utilization of ICT among adult distance education learners. This is in agreement with findings of Okoli&Egbonu (2012) that lack of adequate funding, lack of trained and qualified personnel to maintain ICT wares, inadequate infrastructure and high cost of ICT wares are some of the teething problems hindering full utilization of ICT in the education system that Nigeria need to surmount. Aheisibwe&Byamukama (2020) found that lack of knowledge on how to use computers, limited access to computer and accessories as well as irregular power supply, are problems

hindering utilization of ICT in Uganda. The issue of poor funding of education system is no doubt a major and primary factor among the problems hindering effective utilization of ICT among adult distance education learners. This is because many of the other problems identified by the respondents can all be addressed with better funding of the education system. This is in agreement with Egboka (2012) who saw a great need for radical changes in educational budget in Nigeria.

Conclusion

The goal of the nation to empower its teaming youths and citizens with viable skills can be realized if ICT is fully utilized for knowledge and skill acquisition. It is a common knowledge today, that utilization of ICT facilitates the actualization of every human endeavour, as this study revealed. The adoption and utilization of ICT resources facilitated skill acquisition among adult distance education learners in Enugu State. Some problems were identified, hindering the effective utilization of ICT for skill acquisitions among adult distance education learners. These problems can be tackled if priority is given to adequate funding of education especially, ICT in education as well as improvement in electricity power supply nationwide.

Recommendations

Government should:

1. encourage full utilization of ICT in the educational system, through

legislation and policy implementation.

2. provide adequate fund for the education sector especially for ICT.
3. bring down the cost of ICT wares as well as subsidies ICT wares for learners.
4. invest more in the provision of ICT infrastructures, to make ICT facilities available and accessible to all and improve electricity power supply nationwide.

References

- Abubakar, Z.S. (2012). Integrating ICT in fostering entrepreneurship skills acquisition into secondary school curriculum for national development. *Nigerian Journal of Curriculum Studies*, 19(3), 102-110.
- Aheisibwe, I. & Byamukama, M.S. (2020). Utilization of Information Communication Technology in Effective Administration of Secondary Schools in Mitooma District, Uganda. *African Journal of Teacher Education (AJOTE)*, 9, 140-150.
- Akudolu, L.R. (2012). Exploring Appropriate Pedagogical Designs for Optimizing E-learning in Higher Education in Nigeria. *Unizik Orient Journal of Education*, 6(1), 105-119.
- Arogundade, B.B. (2011). Entrepreneurship Education: An imperative for Sustainable Development in Nigeria. *Journal of Emerging Trends in Educational Research and Policy Studies*, 2(1), 26-33.
- Bandebe, S.O. (2006). Development of Modern ICT and Internet System in Agagu A.A. (Ed). *Information and Communication Technology and Computer Applications*. Abuja, Panof Press, 1-3.
- Bassey, R.S. & Ofre, E.T. (2013). Training Initiative for Skill Acquisition in ICT by Academic Staff of the University of Calabar, Calabar, Nigeria. *Global Journal of Educational Research*, 12, 61-68.
- Douli, J.G. (2002). An Overview of Nigeria's Economic Reforms. *Central Bank of Nigeria: Economic and Financial Review*, 42 (4).
- Egboka, P.N. (2012). The Status of Information and Communication Technology (ICT) in Empowerment Policy Implementation in University in the South East of Nigeria. *International Journal of Educational Research and Development* 4(1), 231-236.
- Ememe, O.N. (2010). Entrepreneurship Education in Universities in Eastern Nigeria: Implication for Higher Education Administration. *Journal for Applied Research* 1 (1), 35-41.
- Emesini, N.O. (2015). Pattern of ICT-based skills by student-teachers: Implication for Teacher Education in Nigeria in this Era of Digitalization. *Journal of Education and Practice* 6(33), 81-88.
- Idoko, C.U. (2014). Skill Acquisition and Youth Empowerment in Nigeria. *Global Journal of Commerce and Management Perspective*. 3(1), 51-54.
- International Standard Classification of Education (ISCED), (2010). Non-formal Education in ISCED. Further Issue. UNESCO - UIS (Published Sept. 2012), 78-80.
- Kaegou, L.E.S. (2009). Entrepreneurship Education of Youths for Sustainable Development in Nigeria Tertiary Institutions. *African Journal of Educational Research and Development*. (AJERO) 3 (2), 133.
- Mishra, S. (2002). A Design Framework for Online Learning Environments. *British Journal of Educational Technology* 33 (4), 493-496.
- Nwana, S.E. (2008). The CD-ROM: A Necessity in Curriculum and

- Instructional Technology. *Journal of Knowledge Review*. 19(1) 74-78.
- Nwana, S.E. (2012). Availability and Use of ICT Resources by Lecturers for Teaching and Learning in Faculty of Education. *Unizik Orient Journal of Education*. 6(1), 256-280.
- Obiefuna, C.A. & Enwereuzo, N.M. (2012). An Appraisal of Re-Training Programmes for In-service Teachers: The Need for a Paradigm Shift from 20th to 21st Century Pedagogical Skills. *Unizik Orient Journal of Education*. 6(1), 14-25.
- Okafor, E.N. (2011). Acquisition of Entrepreneurial Skills through Educational technology: Challenges and Strategies for Improvement. In U.J. Obidiegwu, W.E. Obizor and E.N. Okafor (Eds), *Sustainable Training, Skill and Entrepreneurial Empowerment for Students in Tertiary Institutes*. Essays in Honour of Prof. J.O. Ogbuagu. Enugu: Kelu Press, pg. 83-90.
- Okoli, J.N. & Egbunonu, R.N. (2012). Effect of Blended Learning Approach on Nigerian Senior Secondary School Students' Achievement in Biology. *International Journal of Educational Research and Development*. 4(1), 91-97.
- Okolocha, C.C., Ile, C.M. & Emma, U.E. (2012). Poverty Eradication through Knowledge and Skill Empowerment Programmes among Nigerian Communities. *International Journal of Educational Research and Development*. 4(1), 120-129.
- Okolocha, C.C. Clinton, J.A. & Muogbo, U. (2020). Effect of Skill Acquisition on Youth Employability in Nigeria. *Journal of Research in Finance & Management*, 3(1), 33-37.
- Olagbaju, O.O. (2020). Adult Literacy and Skill Acquisition Programmes as Correlates of Women Empowerment and Self-Reliance in The Gambia. *Education Research International*, Article ID 7264171, 1-8.
- Passerini, K. & Granger, M.J. (2000). A Development Model for Distance Learning using the Internet. *Computers & Education*, 34(1), 1-15.
- Reddi, U.V. (2012). Role of ICTs in Education and Development: Potential, Pitfalls and Challenges. Retrieved from <http://www.role of ICT in education and development: potentials, pitfalls and challenges>.
- Ukwungwu, J.O. & Oyedepo, A.D. (2012). Curriculum and Entrepreneurship Skills Acquisition at Tertiary Education Levels: A case study of computer science education in Colleges of Education in Nigeria. *Nigeria Journal of Curriculum Studies*, 19 (1), 161-169.
- UNESCO Institute for Statistics (2019). A growing number of children and adolescents are out of school as aids falls to meet the mark (Policy Paper 22/Fact Sheet 56). Paris, France; UNESCO
- Young, J. (2002). The 24-Hour Professor. *The Chronicle of Higher Education*. 48(38), 31-33.

Metabolic Syndrome Issues among Bank Staff in Nsukka Local Government Area, Enugu State, Nigeria

¹Okafor, A.M.; ²Kalu-Uka, A.G.; ²Egumgbe, U.D.; ¹Otu, N.F.

¹Department of Nutrition and Dietetics;

²Department of Home Science and Management
University of Nigeria, Nsukka.

Abstract

The general purpose of the study was to investigate the prevalence of metabolic syndrome among bank staff in Nsukka LGA of Enugu State. Specifically, it determined the subjects' socio-demographic attributes, anthropometric indices lipid profile, blood pressure, fasting blood glucose prevalence of metabolic syndrome, nutrient intake, and physical activity level. Questionnaire was used to obtain information on socio-economic data, cigarette and alcoholic beverage consumption of subjects. Anthropometric (weight, height, waist and hip circumferences), blood pressure and blood sugar measurements were taken with appropriate instruments. Twenty percent of the sample size was used as sub-sample for biochemical studies (lipid profile and fasting blood glucose), food record and physical activity level studies. Data were analyzed using Pearson's correlation and Chi-square to determine relationship existing among variables at $p < 0.05$. Major findings revealed that the following among the subjects: borderline triglyceride (20.0%), hypoglycaemia (14.0%) and impaired fasting blood glucose (4.0%). A few of the respondents had raised systolic (12.0%) and diastolic (8.0%) blood pressure. Prevalence of metabolic syndrome was 70%. It was recommended that further research be carried out to determine the causative factors for the effective intervention metabolic syndrome issue. Also strategies must be taken to protect bankers and other sedentary workers from metabolic syndrome and its attendant effects.

Key words: Prevalence, Metabolic, Syndrome, Blood, Pressure, Lipid, Profile.

Introduction

Metabolic syndrome (MetS) has been described as a cluster of cardiovascular diseases risk factors of metabolic origin (Alberti, Zimmet & Shaw, 2005). It is a global health problem currently occupying the front burner in clinical and public health practice (Tokin,

2004). MetS is a cluster of biochemical and anthropometric abnormality that has high predictive ability for the development of atherosclerotic cardiovascular diseases (Alberti, Zimmet & Shaw, 2006). The components include central obesity, dyslipidemia (reduced high density

lipoprotein cholesterol and elevated triglycerides), raised blood pressure and hyperglycemia (Alberti, Zimmet & Shaw 2005).

It is a global time bomb, with a quarter of the world's adult estimated to have the condition (Awosan *et al.*, 2013). The prevalence of metabolic syndrome is increasing in developing countries as a result of genetic interactions with metabolic and environmental factors (Silva, Prata & Curha 2011). People with MetS are twice as likely to die from, and thrice as likely to have heart attack or stroke compared to people without it (Awosan *et al.*, 2013). It has been estimated that up to 80 percent of 200 million people with type 2 diabetes mellitus globally will die of cardiovascular diseases, thus putting MetS and diabetes mellitus ahead of HIV/AIDS in terms of morbidity and mortality (International Diabetic Federation [IDF], 2013).

Reports from studies show high prevalence of metabolic syndrome globally mirroring the rising prevalence of its components, sequel to urbanization, industrialization and changes in life style (Hu, 2011). According to Ogbu and Chukwukelu (2012), the prevalence of metabolic syndrome is about 23.4 percent in Nigeria. The increase in sedentary lifestyle as a health risk behaviour has since been noticed as a contributory factor to chronic diseases such as hypertension, obesity, diabetes and lipid disorders (Pate, O'neill & Lobelo, 2008). Physical inactivity, sedentary nature of jobs and unhealthy dietary

habits place bank staff at greater risk of developing MetS and its complications (Ayogu, Nwajuaku & Udenta 2019).

Busy schedule of bank staff who work 10-12 hours for five or sometimes six days in a week could be the reason why this occupational group may be at risk of MetS. This coupled with physical inactivity, unhealthy dietary habits and intake are believed to be among the underlying cause of the syndrome among bank staff. Bank workers, because of their busy work schedule skip meals. Again, due to their regular income, they tend to patronize food vendors whose foods and snacks are usually high in fats which are consumed with energy-dense carbonated sweetened beverages. This makes bank workers consume more calorie than they really need. Unhealthy diet and low physical activity levels have been described as common causes of metabolic syndrome (Churilla & Fitzhugh, 2012).

Bankers may further be exposed to physical inactivity and obesity as opportunities to walk to and from their work places and engage in other physical activities may be absent (Ayogu, Nwajuaku & Udenta, 2019). Information concerning the prevalence and components of MetS among bank staff is sparse. This study therefore sought to assess the prevalence of metabolic syndrome among staff of banks in Nsukka Local Government Area of Enugu State.

Objectives of the study

The major objective of the study was to assess the prevalence of metabolic

syndrome among bank staff in Nsukka urban Local Government Area, Enugu State, Nigeria. Specifically, the study determined the following indices of the subjects:

1. anthropometric indices;
2. lipid profile;
3. blood pressure;
4. fasting blood glucose;
5. prevalence of metabolic syndrome;
6. nutrient intake;
7. physical activity level;

Methodology

Design of the study: This study employed a cross-sectional survey design. Cross-sectional surveys are studies aimed at determining the prevalence of a particular attribute in a defined population at a particular time. Cross-sectional survey designs are used for population-based surveys to make inferences at a point in time about a defined population. Thus, this population-based study among bank staff in Nsukka Urban was designed to determine metabolic syndrome prevalence.

Area of study: The study was carried out in the urban area of Nsukka. Enugu State, Nigeria. Nsukka is surrounded by hills both within and outside its vicinity (Ezeh, 2004) and lies within the coordinates of 6°51'24''N and 7°23'45''E. There are 14 commercial banks in Nsukka urban that provide financial and related services for Nsukka residents. These services are provided to clients by people employed or hired by banks. Services provided include but are not

limited to assisting with services such as managing client's bank account, authorizing and counselling clients and banking products and services.

Population for the study: The study population consisted of all (510) bank employees in the 14 commercial banks in Nsukka LGA aged between 19-53 years of both genders. They have SSCE as the minimum educational qualification and earned between ₦5,500 to > ₦71,000.

Sample for the study: Random sampling by balloting without replacement was used to select subjects for the study based on the staff population of each bank. A total sample of 215 workers were selected.

Instruments for data collection: The instruments used for data collection include questionnaire, weighing scale, microtoise height meter, flexible non-stretchable tape, digital sphygmomanometer, glucometer, randox kit, (GPAQ) Global Physical Activity Questionnaire analysis framework and kitchen scales.

A structured questionnaire was constructed. The questionnaire was validated by lectures in the department of Home Science, Nutrition and Dietetics. The questionnaire was used to obtain information on the respondent's demographic and socio-economic characteristics, alcohol consumption and cigarette smoking habits.

Data collection: A total of 250 copies of questionnaires were distributed to subjects by hand. All the 250 were retrieved back. Other measurements were taken from 50 subjects as follows:

Anthropometric measurement: Anthropometric measurements of weight, height, waist circumference and hip circumference were taken from 50 subjects.

Weight measurement: Weight measurements were taken with Chris bathroom scale calibrated in kilogram with 120 Kg capacity. The subjects were weighed with minimum clothing on. The subjects stood erect on the platform of the scale with arms at the sides, head, knee and back kept erect. Readings were taken and recorded to the nearest 0.1kg.

Height measurement: Subject's heights were measured with a microtoise height metre calibrated in centimetres. The subjects were asked to stand erect bare-footed on the foot board of the microtoise metre with their heels together and parallel to each other and pointing forward with arm hanging freely at the side of the body. The headpiece was lowered, crushing the hair and making contact with the top of the head. The reading was taken to the nearest 0.1cm.

Body mass index (BMI), which is an index of weight for height is commonly used to classify overweight and obesity among adults (WHO, 2012), was calculated for each subject. It is defined as the weight in kilograms divided by the square of height in meters (kg/m²).

$$BMI = \frac{\text{Weight (kg)}}{\text{Height}^2 \text{ (m}^2\text{)}}$$

BMI values of the subjects were compared with WHO (2002) BMI classification.

Waist circumference: Subject's waist circumference was measured with a flexible non-stretchable measuring tape. The measuring tape was placed on the smallest area below the rib cage and at the level of the navel round the waist with the subject standing erect, abdominal muscles relaxed, arms at the side and feet together. The tape was held firmly without indenting the soft tissues and readings taken to the nearest 0.1 cm at the end of normal expiration. Waist circumference of > 94cm in men or > 80cm in women were classified as central obesity (International Diabetes Federation [IDF], 2006).

Hip circumference: Hip circumference was measured with a flexible, non-stretchable measuring tape. The measuring tape was placed at the point of greatest circumference round the hip region with the subject standing erect, arms at the sides and feet together. The tape was tightened to make close contact with the body without indenting the soft tissue. Readings were taken to the nearest 0.1 cm. **Waist-hip ratio** was calculated using the formula below:

$$WHR = \frac{\text{Waist circumference (cm)}}{\text{Hip circumference (cm)}}$$

According to IDF (2006) definition, WHR of > 0.9 in men and > 0.85cm in women is classified as central obesity.

Blood pressure measurement: The measurement of blood pressure (BP) was done using a digital sphygmomanometer after a five minutes rest on the right arm of 50 subjects. The subjects were seated with

their right arm placed on the table and palm facing upwards. The cuff was snugly wrapped and fastened securely around the arm. The start button was pressed and this enabled automatic inflation of the cuff after which the systolic and diastolic blood pressure reading was displayed in mmHg. Blood pressure measurement was done three consecutive times on each subject at a 15 minutes interval. Blood pressure measurement of the subjects was classified using the method described by WHO (1999).

Fasting blood glucose measurement: It was measured after 8-12 hour post-absorptive fast using Accu-chek glucometer with 600mg/dl measuring range by 50 subjects. Test strips were inserted into the glucometer to turn the glucometer on. Cotton wool soaked in methylated spirit was used to clean and sterilize the subjects' thumb. Lancet was used to prick the subject's finger tip. A small drop of the subjects' blood was applied on the middle of the orange coloured, square application area of the test strip after a dropping sign was displayed on the glucometer. The glucometer measured and displayed the level of glucose in the subject's blood. This was recorded in mg/dl. Fasting blood glucose level of the subjects was classified using the method described by WHO (2006).

Lipid profile determination: It was done using Randox kit. Fasting blood (10-12hours post-absorptive fast) was obtained from a vein in front of the elbow of 50 subjects by a Laboratory Scientist. The site was sterilised with cotton wool soaked in methylated

spirit. The Laboratory Scientist wrapped an elastic band around the arm to allow blood fill the vein. Five millilitre of blood was collected using a 5ml syringe. Mild pressure was applied at the point where the blood was drawn with a cotton ball. The blood sample was taken to the laboratory for lipid profile determination using Randox kit. Lipid profile of the subjects was classified using IDF (2006) standard.

Metabolic syndrome was classified using the International Diabetes Federation (IDF,2006) definition which states that diagnosis of metabolic syndrome is made by the presence of abdominal or central obesity (waist circumference > 94cm in men or > 85 cm in women) plus any two of the following: (a) raised triglycerides: triglycerides > 1.7mmol/l or specific treatment for lipid abnormality; (b) reduced high density lipoprotein (HDL) cholesterol: < 1.03mmol/l in men or 1.29 mmol/l in women or specific treatment for lipid abnormality; (c) raised blood pressure (BP): systolic BP >130mmHg or diastolic BP >85mmHg or treatment of previously diagnosed hypertension; and (d) raised fasting blood glucose: fasting blood glucose > 6.1mmol/l or 100mg/dl previously diagnosed type 2 diabetes.

Food record: The subjects were asked to keep a 3-day record of the foods eaten and their quantities. Kitchen scales were made available to the subjects. Their nutrient intake was estimated and compared with

WHO/FAO (1999) recommended nutrient intake standards for adults.

Physical activity: Energy expenditure measured in metabolic equivalent (MET) was estimated using duration, intensity and frequency of physical activities performed within three days. MET was calculated by multiplying the time spent on each activity by the MET values of each level of activity. The values were computed by the sum of the entire low moderate to vigorous intensity physical activities performed at work, transportation and recreation. Total MET/minutes/days of the subjects were classified into low, moderate and high physical activity levels as defined by GPAQ analysis framework (WHO, 2009).

Data analysis: Data obtained was analysed using descriptive statistics including means, frequencies and percentages. Inferential statistics was done using Pearson's correlation and

Chi-square to determine relationship existing among variables at $p < 0.05$.

Results

Socio-demographic profile of respondents

Data on the socio-demographic profile and lifestyle behaviours of the subjects, show that a good number (42.8%) of the subjects were between 26-32years whereas 6.0% were between the ages of 47-53 years. Majority (60.4%) of the subjects were females while 39.6% were males. Majority (53.6%) of the subjects were single while (46.0%) were married and 0.4% separated. The highest proportion (74.8%) of the subjects had BSc/HND while only 2.0% had OND. Majority (69.2%) of the subjects earned more than ₦71,000 while 6% earned between ₦5,500 – 20,500 monthly. Some (14.0%) of the subjects smoke cigarettes and 33.6% sprinkle salt on cooked food before eating.

Table 1: Anthropometric indices of the subjects by sex

Anthropometric indices	Male Frequency (%)	Female Frequency (%)	Total Frequency (%)
BMI			
Underweight	0 (0.0)	0(0.0)	0(0.0)
Normal	60(60.6)	100(66.2)	160(64.0)
Overweight	32(32.3)	43(28.5)	75(30.0)
Obese (class 1)	7(7.1)	8(5.3)	15(6.0)
Total	99(100.0)	151(100.0)	250(100.0)
	$\chi^2=0.903$	$p= 0.637$	
WC			
Normal	62(62.6)	83(54.9)	145(58.0)
Abdominal overweight	31(31.3)	64(42.4)	95(38.0)
Abdominal obesity	6(6.1)	4(2.7)	10(4.0)
Total	99(100.0)	151(100.0)	250(100.0)
	$\chi^2=4.273$	$p= 0.118$	

WHR			
Low	90(90.9)	125(82.8)	215(86.0)
Normal	9(9.1)	26(17.2)	35(14.0)
Very high	0(0.0)	0(0.0)	0
Total	99(100.0)	151(100.0)	250(100.0)
	$\chi^2=3.28$	$p= 0.07$	

BMI: Body mass index, WC: Waist circumference, WHR: Waist hip ratio

Table 1 shows the anthropometric indices of the subjects by sex. Overweight and obesity was seen in 30.0% and 6.0% of the subjects respectively. Abdominal overweight (38.0%) and abdominal obesity (4.0%) existed among the subjects. Majority (86.0) of the subjects showed a low waist hip ratio while (14.0%) of the subjects were normal.

Table 2: Biochemical parameters and blood pressure of the subjects

Variables	Male N(%)	Female N(%)	Total N(%)
Total C			
Normal	36 (94.7)	11(91.7)	47 (94.0)
Borderline high	2 (5.3)	1 (8.3)	3 (6.0)
High	0(0.0)	0(0.0)	0(0.0)
Total	38 (100.0)	12 (100.0)	50(100.0)
	$\chi^2=0.152$	$p= 0.696$	
HDL-C			
Low	6 (15.8)	5 (41.7)	11 (22.0)
Normal	26 (68.4)	4 (33.3)	30 (60.0)
Borderline	6 (15.8)	3 (25.0)	9 (18.0)
Total	38 (100.0)	12 (100.0)	50 (100.0)
	$\chi^2= 5.07$	$p= 0.079$	
LDL- C			
Better	26 (65.7)	8 (66.7)	34 (68.0)
Normal	8 (23.7)	2 (16.7)	10 (20.0)
Borderline	3 (7.9)	1 (8.3)	4 (8.0)
High	1 (2.6)	1 (8.3)	2 (4.0)
Total	38 (100.0)	12 (100.0)	50 (100.0)
	$\chi^2=0.835$	$p= 0.841$	
TG			
Normal	30 (78.9)	11 (91.7)	41 (80.0)
Borderline	8 (21.1)	1 (8.3)	9 (20.0)
Total	38 (100.0)	12 (100.0)	50 (100.0)
	$\chi^2=1.000$	$p= 0.317$	
FBS			
Hypoglycaemia	6 (15.8)	1 (8.3)	7 (14.0)
Normal	30 (78.9)	11 (91.7)	41 (82.0)
Impaired fasting blood glucose	2 (5.3)	0 (0.0)	2 (4.0)
Total	38 (100.0)	12 (100.0)	50 (100.0)

	$\chi^2=1.174$	p= 0.556	
Systolic BP			
Optimal	45 (45.5)	55 (36.4)	100 (40.0)
Normal	40 (40.4)	70 (46.5)	110 (44.0)
High normal	1 (9.1)	9 (6.0)	10 (4.0)
Hypertension	13 (13.1)	17 (11.3)	30 (12.0)
Total	99 (100.0)	151 (100.0)	250 (100.0)
	$\chi^2=5.539$	p= 0.136	
Diastolic BP			
Optimal	43 (43.4)	67 (44.4)	110 (44.0)
Normal	38 (38.4)	37 (24.5)	75 (30.0)
High normal	16 (16.2)	29 (19.3)	45 (18.0)
Hypertension	2 (2.0)	18 (11.9)	20 (8.0)
Total	99 (100)	151 (100.0)	250 (100.0)
	$\chi^2=11.486$	p= 0.009	

Total-C= Total cholesterol, HDL-C= High density lipoprotein cholesterol, LDL-C= low density lipoprotein cholesterol, TG= Triglycerides, FBS= Fasting blood sugar, BP= Blood pressure

Table 2 shows the biochemical parameters and blood pressure of the subjects. Borderline high total cholesterol (6.0%), low HDL-C (22.0%), high LDL-C (4.0%), borderline triglyceride (20.0%), hypoglycaemia (14.0%) and impaired fasting blood glucose (4.0%) were seen among the subjects. Some of the subjects had systolic (12.0%) and diastolic (8.0%) blood pressure. Diastolic blood pressure of the male and female subjects differed significantly ($p < 0.05$).

Table 3: Nutrient intake of the subjects

Nutrients	Males			Females		
	Mean intake	RNI	%RNI	Mean intake	RNI	%RNI
Energy (Kcal)	2787.0	2895	96.3	2086.6	2200	94.8
Protein (g)	76.0	47	161.7	70.6	50	141.2
Fat (g)	65.3	49	133.3	50.2	45	111.6
Carbohydrate (g)	314.7	130	242.0	137.0	125	109.6
Vitamin A (μ g)	260.4	600	43.4	238.1	500	47.6
Vitamin B ₆ (mg)	0.9	2	45.0	1.5	1.6	93.8
Folic acid (μ g)	80.8	200	40.4	94.7	180	52.6
Vitamin C (mg)	15.1	30	50.3	18.2	30	60.7
Calcium (mg)	315.1	450	70.0	213.7	800	26.7
Iron (mg)	9.1	15.0	60.7	9.4	29	32.4
Magnesium (mg)	205.5	350	58.7	183.3	280	65.5
Phosphorus (mg)	723.5	800	90.4	647.1	800	80.9

RNI = Recommended Nutrient Intake; Energy value: FAO (1990b) Protein: WHO (1995), Micronutrients: FAO (1988, 1982)

Table 4 shows the nutrient intake of the subjects. Mean caloric intake of male and female subjects were 2787.0 kcal and 2086.6kcal, respectively. Mean protein, fats and carbohydrate intake of the males and females were above 100.0% RNI whereas micronutrient intakes were below 100.0 RNI.

Table 4: Metabolic syndrome prevalence, physical activity level and alcoholic beverage consumption of the subjects

Variables	Female F(%)	Male F(%)	Total F(%)
Metabolic syndrome			
Present	10 (83.3)	25 (65.8)	35 (70.0)
Absent	2 (16.7)	13 (34.2)	15 (30.0)
Total	12 (100.0)	38 (100.0)	50 (100.0)
Physical Activity Level			
Low	8 (66.7)	14 (47.0)	22 (44.0)
Moderate	4 (33.3)	12 (31.5)	16 (32.0)
High	0	12 (31.5)	12 (24.0)
Total	12 (100.0)	38 (100.0)	50 (100.0)
Weekly alcoholic beverage consumption			
Normal	12 (16.7)	4 (20.0)	16 (17.4)
Above normal	60 (83.3)	16 (80.0)	76 (82.6)
Total	72 (100.0)	20 (100.0)	92 (100.0)

Normal: Males= \leq 14units/week, female \leq 7units/week; Above normal: Males $>$ 14units/week, Females $>$ 7units/week

Table 4 shows the metabolic syndrome prevalence, physical activity level and alcoholic beverage consumption of the subjects. Metabolic syndrome was present in 83.3% female and 65.8% male subjects. Overall prevalence of metabolic syndrome was 70.0%. Subjects had high (24.0%), moderate (32.0%) and low (44.0%) physical activity levels. Majority of the alcoholic beverage consumers consumed above normal quantity of alcohol weekly (82.6%) and this is seen among 83.3% male and 80.0% female alcoholic beverage consumers.

Discussion of findings

Prevalence of metabolic syndrome recorded in this study was more than 12.1% reported by Adaja and Idemudia, (2018) among health workers in a tertiary hospital in South-South, Nigeria, 32.5% reported among health workers in Turkey (Ozcelik, Uzunlulu, Kizilgul, Oguz, Antika (2013) and 17.5% reported in Sokoto, Northern Nigeria among civil servants (Awosan *et. al* (2013). The higher prevalence of MetS reported among females in this study were similar to the findings of Marbry, Reeves, Eakin and Owen (2010) who reported a higher prevalence of MetS among

females (32.1%) than males (20.7%) among gulfers in Gulf Cooperative Council countries. Some reasons for the high prevalence of metabolic syndrome among female bank workers might be as a result of their busy schedule, increased physical inactivity, challenges in balancing personal and professional life. Increased working hours has been found to be associated with metabolic syndrome, hypertension, elevated waist circumference and hyperglycemia (Guo, *et al.* 2015).

Higher prevalence of abdominal obesity among female bank staff compared to the males in the study supports the gender difference in metabolic risk factors that have been reported by Olawuyi and Adeoye (2018) among civil servants in Ibadan (females 68.3% and males 10.2%). The prevalence of obesity recorded in this study was lower than that obtained among adults in Aba (16.5%) (Ngwogu, Ekpo, Akpuaka & Ngwogu 2013), but was comparable to 6.8% reported among civil servants in Ebonyi State, Nigeria (Ugwuja, Ogbonna, Nwibo and Onimawo, 2013). A higher rate (25.8%) was however, observed among a group of bankers in Ibadan (Leshin & Fadupin, 2013). The occurrence of abdominal overweight and obesity is partly attributable to the sedentary nature of bank work as a result of physical inactivity, which is usually associated with prolonged hours of sitting, minimal energy expenditure, snacking on energy-dense foods with sugar-sweetened beverages. Prolonged hours of sitting

have been associated with increased risk of raised blood sugar, cardiovascular diseases, and cancers (Biswas, *et al.* 2015).

Prevalence of reduced high density lipoprotein cholesterol in this study was lower than the 23% prevalence reported in a study among working adults in Ethiopia (Tran, *et al.* 2011) but higher than the 0% prevalence reported by Ayogu, Nwajuaku and Udentia (2019) among rural Nigerian workers. Fezau, Balkau, Kengne, Sobnqwi and Mbanya (2007) reported zero prevalence of elevated triglycerides among adults subjects drawn from rural and urban communities in Cameroon. Prevalence of low high density lipoprotein and borderline triglyceride reported in this study could be attributed to excessive alcohol intake, physical inactivity, poor diet and obesity.

Systolic and diastolic blood pressure prevalence observed in this study was lower than the 14% (systolic blood pressure) and 12% (diastolic blood pressure) reported among civil servants in Idemili South Local Government Area, Southeast Nigeria (Ayogu, Nwajuaku & Udentia 2019) and 17.7% prevalence reported among bank employees in Benin City, Nigeria (Ofili & Omuemu 2005). Prevalence of raised systolic and diastolic blood pressure observed in this study implies a tendency to hypertension among the bank staff. Factors associated with raised blood pressure are harmful use of alcohol, excessive intake of salt and being overweight or obese. Hypertension, the major risk

factor for cardiovascular diseases such as coronary heart disease, cerebrovascular disease, peripheral vascular disease, has become a global concern (WHO, 2013).

Prevalence of impaired fasting blood glucose among the subjects was lower than 8% reported by Tesfaye, Shikur, Shimels and Firdu (2016) among federal policemen commission residing in Addis Ababa, Ethiopia and 7.0% reported by Ramakrishnan et al. (2013) among policemen in India. This might be accounted for by different criteria used for diagnoses of impaired fasting glucose level, other socioeconomic as well as behavioral characteristics such as excessive consumption of alcohol and unhealthy dietary habits.

Micronutrients intake of the subjects were grossly inadequate similar to the report of Edun and Odunga (2015) among bankers in Lagos state. This shows that the diets of bankers majorly consist of starchy staples which are micronutrient-poor and energy-dense; and fruits and vegetables which are micronutrient-dense are hardly consumed. Ene-Obong, Enugu and Uwaegbute. (2001) reported low intakes of vitamin B₆, vitamin C, calcium and magnesium among female working adults in Enugu State, Nigeria. Inadequate caloric intake was reported for male (75.1%) and female (85.0%) bankers in Lagos State by Edun and Odunga (2015) similar to the findings of this study. Inadequate micronutrient intake will have far-reaching nutritional

implications such the development of chronic metabolic disorders.

The Low physical activity reported in this study was lower than 79.0% reported in a study conducted among healthcare professionals in South-West, Nigeria (Iwuala, *et al.* 2015). Physical inactivity is now a public health concern among the working class. WHO recommends that adults should engage in at least 150 minutes of moderate-intensity aerobic physical activity or at least 75 minutes of vigorous-intensity aerobic physical activity during the week (WHO, 2015). Less than half of the subjects met this recommendation.

Low prevalence of cigarette smoking was similar to the 6% reported among the working class in Kaduna State, Nigeria (Oladimeji, Fawole, Nguku & Nsubuga (2012). A plausible reason for the low prevalence of smoking among the bankers in this study could be as a result of their busy schedule and meeting with deadlines and targets which may not give them enough time to engage in such unhealthy lifestyle behaviour.

Conclusion

Metabolic syndrome was highly prevalent among bankers which can be associated with an increased risk of developing cardiovascular diseases; therefore further research is required to determine the causative factors and effective intervention strategies that must be taken to protect bankers and other sedentary workers from metabolic syndrome and its attendant effect.

Recommendations

- 1) There is need for further research to assess the level of awareness, treatment and control of the components of metabolic syndrome, as well as its economic and social consequences on the individual.
- 2) Periodic screening of bank workers for metabolic syndrome components (elevated blood pressure, abnormal cholesterol levels, increased blood sugar and abdominal obesity) is imminent as this would lead to early detection and treatment of these conditions so as to delay the onset of metabolic syndrome and its complications.
- 3) Bank managers considering the long working hours should create refectories within the bank building where adequate diets will be prepared for the staff there by reducing their consumption of junk foods.

References

- Adaja, T. M. & Idemudia, J. O. (2018). Metabolic Syndrome among Healthcare Workers in a Tertiary Hospital in South-South, Nigeria. *Asian Journal of Medicine and Health* 12(3); 1-9.
- Alberti, K. G., Zimmet, P. Z. & Shaw, J. (2005). The metabolic syndrome- a new world definition. *Lancet*, 366(9491); 1059-1062.
- Alberti, K. G., Zimmet, P. Z. & Shaw, J. (2006). The metabolic syndrome- a new world definition. A consensus statement from the International Diabetes Federation. *Diabetes Medical*, 23: 469-80.
- American Society for Metabolic & Bariatric Surgery (2017). Type 2 Raised blood sugar and obesity: twin epidemics Accessed from <https://asmbs.org/resources/weight-and-type-2-Diabetes-after-bariatricsurgery-fact-sheet>.
- Awosan, K. J., Ibrahim, M. T. O., Arisegi, S. A., Ejimadu, S. P., Erhiano, E. E. & Aderahman, A.T. (2013). Prevalence of metabolic syndrome and its components among civil servants in a metropolitian city in Northern Nigeria. *Global Advanced Research Journal of Medicine and Medical Science*. 2: 238-246.
- Ayogu, R. N. B., Nwajuaku, C. & Udenta, E. A. (2019). Components and Risk Factors of Metabolic Syndrome among Rural Nigerian Workers. *Nigerian Medical Journal*. 60(2); 53-61.
- Biswas, A., Oh, P. I., Faulkner, G. E., Bajaj, R. R., Silver, M. A. & Mitchell, M. S. (2015). Sedentary time and its association with risk for disease incidence, mortality, and hospitalization in adults: A systematic review and meta-analysis. *Ann Intern Med*. 162(2); 123-132.
- Churilla, J. R. & Fitzhugh, E. C. (2012). Total physical activity volume, physical activity intensity, and metabolic syndrome: 1999-2004 national health and nutrition examination survey. *Metab Syndr Relat Disorder*; 10: 70-6.
- Edun, B. T. & Odunuga, B. A. (2015). Food Habits and Nutrient Intake of Bankers in Lagos State. *Journal of Nursing and Health Science*. 4(2); 1-3.
- Ene-Obong, H.N., Enugu G.L. & Uwaegbute A.C. (2001): Determinants of Health and Nutritional Status of Rural Nigerian Women. *Journal of*

- Health Population Nutrition* 19 (4); 320-330.
- Fezue, L., Balkau, B., Kengne, A. P., Sobngwi, E. & Mbanya, J. C. (2007). Metabolic syndrome in a sub-Saharan African setting: central obesity may be the key determinant. *Arteriosclerosis, Thrombosis and Vascular Biology*, 30(7); 1282-92.
- Guo, Y., Rong, Y., Huang, X., Lai, H., Luo, X. and Zhang, Z. (2015). Shift work and the relationship with metabolic syndrome in Chinese aged workers. *PLoS One*. 2015; 10(3);1-12.
- Hu, F. B. (2011). Globalization of diabetes: The role of diet, lifestyle, and genes. *Diabetes Care*. 34:1249-57.
- International Diabetes Federation IDF (2006). The IDF consensus worldwide definition of metabolic syndrome; 2006. Available: <http://www.idf.org/metabolic-syndrome>.
- International Diabetes Federation IDF (2013). IDF world-wide definition of the metabolic syndrome. International Diabetes Federation. Retrieved May 17th, from <https://www.idf.org/metabolic-syndrome>.
- Iwuala, S. O., Ayankogbe, O. O., Olatona, F. A., Olamoyegun, M. A., Okpara, I. U., Sabir A. A, et al. (2015). Obesity among health service providers in Nigeria: Danger to long term health worker retention? *Pan Afr Med Journal*. 22:1-8.
- Leshin, O. O. & Fadupin, G. T. (2013). Risk factors of the cardiovascular diseases among bankers in Ibadan, Oyo State. Nigeria. *Nigerian Journal of Nutrition Science*, 34(2); 10-106.
- Mabry, R. M., Reeves, M. M., Eakin, E. G. & Owen, N. (2010). Gender differences in the prevalence of metabolic syndrome in Gulf cooperative Council Countries: a systematic review. *Diabetes Medical*, 27(5); 593-597.
- Ngwogu, K. O., Ekpo, B. O., Akpuaka, F. C. & Ngwogu, A. C. (2013). Lipid profile of apparently healthy adults in Aba metropolis. *International Journal of Basic, Applied and Innovative Research* 2(4) 85-91.
- Ofili, A. N. & Omuemu, V.O. (2005). Knowledge and prevalence of risk factors for hypertension among workers in the banking industry in Benin-city, Edo state, Nigeria. *Trop J Health Sci.*; 12:26-30.
- Oladimeji, A., Fawole, O. I, Nguku, P. & Nsubuga, P. (2012) Prevalence and factors associated with hypertension and obesity among civil servants in Kaduna State. *Pan Africa Medical Journal*, 18; 26-31
- Olawuyi, A. T. & Adeoye, I. A. (2018). The prevalence and associated factors of noncommunicable disease risk factors among civil servants in Ibadan, Nigeria. *PLoS ONE* 13(9)
- Ogbu, I. S. I. & Chukwukelu, E. E. (2012). Prevalence of metabolic Syndrome using weight and weight indices in an apparently healthy Nigerian population. *Int J Med Biomed Res*.1(2);141-6.
- Ozcelik, M., Uzunlulu, M., Kizilgul, M., Oguz, A. & Antika T. (2013). The awareness of abdominal obesity and metabolic syndrome in health care workers. *J Endocrinol Metab.*; 3(3);57-61.
- Pate, R. R., O'neill, J. R. & Lobelo, F (2008). The evolving definition of "sedentary." *Exerc. Sport Sci. Rev*; 36(4);173-78.
- Ramakrishnan, J., Majgi, S. M., Premarajan, K. C., Lakshminarayanan, S., Thangaraj, S. & Chinnakali, P. (2013). High Prevalence of cardiovascular risk factors among policemen in Puducherry, South India. *J Cardiovasc Dis Res.*; 4:112-5.
- Rippe, J. M. & Angelopoulos, T. J. (2016). Relationship between added sugars

- consumption and chronic disease risk factors: Current understanding. *Nutrients*. 8:pii: E697. [PMC free article] [PubMed] [Google Scholar]
- Silva, K. F., Prata, A. & Curha, D.F. (2011). Frequency of metabolic syndrome and the food intake patterns in adults living in rural area of Brazil. *Rev Soc Bras Med Trop*. 44(4) 425-429.
- Tran, A., Gelaye, B., Girma, B., Lemma, S., Berhane, Y., Bekele T, et al. (2011). Prevalence of metabolic syndrome among working adults in Ethiopia. *Int J Hypertens*. 2011;2011:193719. [PMC free article] [PubMed] [Google Scholar]
- Tokin, A. (2004). The metabolic syndrome: a growing problem. *European Heart Journal Supplement*, 6, A32-A34.
- Tesfaye, T., Shikur, B., Shimels, T. & Firdu, N. (2016). Prevalence and factors associated with diabetes mellitus and impaired fasting glucose level among members of federal police commission residing in Addis Ababa, Ethiopia. *BMC Endocrine Disorders* (2016) 16:68.
- Ugwuja, E. I., Ogbonna, N. C., Nwibo, A. N. & Onimawo, I. A. (2013). Overweight and obesity, lipid profile and atherogenic indices among civil servants in Abakaliki, South Eastern Nigeria. *Annals Medical Health Science Research*, 3, 13-21.
- WHO (2000). The most commonly used definition, established by the World Health Organization (WHO) in 1997 and published in 2000, p.9. Retrieved February 8, 2015, from https://en.wikipedia.org/wiki/wikipedia:wikiproject_Medicine/Translation_tasksforce/RTT/Simple_Obesity.
- WHO Expert, Consultation (2004). Appropriate body-mass index for Asian population and its implications for policy and intervention strategies. *Lancet*, 363 (9403).
- WHO (2013). A global brief on hypertension: silent killer, global public health crises. WorldHealthDay2013. Available: <http://apps.who.int/iris/bitstream/10665/79059/1>
- WHO (2015). Global recommendations on physical activity for health. Geneva: World Health Organization.

Determinants of Acceptance and Non -Acceptance of Tattoo and Body Piercing among Youths: Universities in Ogun State: A Case of Federal University of Agriculture, Abeokuta

¹Mojeed, A.M. and ²Oose, M. O.

¹Department of Home and Rural Economics, Oyo State College of Agriculture and Technology, Igboora, Oyo State, Nigeria;

²Department of Agricultural Administration, Federal University of Agriculture, Abeokuta, Ogun State, Nigeria.

Abstract

This study focused on tattoo and body piercing among youths in tertiary institutions in Ogun State, Nigeria. Specifically, the study determined youths' awareness of body parts for the placement of tattoos and body piercing, factors influence youth's acceptance of tattoos and body piercing and factors that influence youths' non-acceptance of tattoos and body piercing. The area of the study was Ogun State. Population was made up of undergraduates of Federal University of Agriculture, Abeokuta, Ogun State. Data were obtained through questionnaire. Frequency counts and percentages were used for data analysis. Findings include 13 body parts were tattoo and body piercing are placed. These include hand (91.8%), leg (88.2%), nose (93.6%) navel (76.4%), among others. Other major findings include a major factor (Maf) that influencing youths' acceptance of tattoos and body piercing, namely, "Interest" with percentage score of (58.2%). Further, there are eight (8) major factors that influences youths' non-acceptance of tattoos and body piercing. These include; risk of disease (82.7%), risk of infection (66.4%), not interested (79.1%), it is difficult to remove (70.9%), and others. Based on the findings it is recommended that sensitization and educative awareness should be made available in various tertiary institutions on health and disease related risks associated with tattoos and body piercing.

Keywords: Body, Piercing, Tattoo, Youths, Acceptance, Non -Acceptance, Determinants.

Introduction

Tattoo is a form of body modification made by inserting indelible ink into the dermis layer of the skin to change the pigment (Schorzman, Gold,

Downs, and Murray, 2017). Body piercing, on its part, has been defined as the penetration of jewelry into openings made in body areas such as eyebrows, lips, tongues, nose, nipples

or genitals. In addition, piercings are often used in initiation rites with the purpose of assigning their bearer to a certain social or age group or the other hand, tattoos are utilized to signal religious affiliations, strength or social status (Gilbert, Schildkrout, 2014). Utoh-Ezeajugh (2015) also noted that body adornment is a significant cultural activity among many ethnic groups in Africa. These body modifications which may be temporary or permanent are often used for social, ritual and aesthetic purposes.

The modification of the body (that is, tattooing and body piercing) is becoming increasingly common globally and particularly in Nigeria. About 10 to 13 percent of youths and 3 to 8 percent of the general population have tattoos (Armstrong, Murphy, 2016). Body piercing at locations other than the ear lobes has also been increasing in frequency and acceptance. Currently, tattoos are done by a rapid injection from an electrical device into the dermal layer to make permanent markings. In contrast, body piercing among women involved a jewelry object inserted in the skin on any part of the body except the earlobes and anywhere among men. Pierces are done by making an opening in the skin inserting a metal bar or a ring and sometimes using a piercing gun Armstrong *et al* (2016).

Studies show that during the past decade, undergraduates in developed countries found between 30 and 60 percent of students reporting having body piercings at one point in their

lifetime. Tattooing among young adults in Colleges and Universities is reported to be less prevalent than body piercing. Nevertheless, very high proportions of young adults having tattoos have been reported elsewhere (Farrow, Schwartz, Vanderleeuw, 2015). It is still popular in many parts of the world and in different cultures, serving as a rite of passage, a mark of status or rank, a symbol of religious and spiritual devotion, a decoration for bravery, a sexual lure, a mark of fertility, a pledge of love, a punishment, a protection and as a mark of outcasts, (slaves and convicts). According to Raspa and Cusack (2018) people choose to be tattooed for cosmetic, sentimental/memorial/religious reasons, to symbolize their belonging to particular groups, including criminal gangs, ethnic groups or specific subcultures. (Armstrong, Murphy Sallee, 2016). Young adults obtained body modifications to embellish the body, achieve a fashion accessory and obtaining a piece of art (Dhossche, 2017). Other motivational investigations indicated that the cause of body modification is to demonstrate their self-identity or individuality and distinctive from others. It was also noted that men were much more likely to approach the women when they were wearing the tattoo, and took on average much less time to approach the sunbathing women in the first place. Other empirical studies found associations between some family characteristics and the prevalence of body modifications. In particular,

adolescents from single-parent households were more likely to be tattooed or pierced than adolescents living with both parents. In addition, youths whose parents had received little education were found more likely to have undergone body modifications (Armstrong *et al* 2016). The hazard effects of tattoo and body piercing causes skin problems such as granulomas (red bumps caused by inflammation) and keloid scars. It can also provoke allergic reactions like skin itches and break out (Wohlrab, Stahl, and Kappeler, 2017). Also, viral infectious diseases, such as hepatitis A, hepatitis B and HIV/AIDs can also be contracted via discharged body fluids and needles used during modification exercise.

In an attempt for young adolescent to solve the problem of social acceptance, body modifications are potentially solution to their identification (Starkie, 2015). This has significantly aided forensic anthropological cases in recent years (Thompson and Puxley 2017). Starkie (2015) articulates that the increasing use of body modifications encourages those undertaking the practices for their "extreme" nature to seek new methods of modifying their bodies. Today, tattoo and piercing are now becoming common, particularly among young individuals who use them as means of self-expression (Balci, Sari, and Mutlu, 2015) and according to Wessely (2013), the motivation for tattooing can be emotional, practical, complex or very simple. In Nigeria the rate of

acceptance of tattoo and body piercing among tertiary institutions students is now remarkable and worth investigating, hence this study.

Objectives of the study

The general objective of the study was to examine the determinants of young adults' acceptance and non-acceptance of tattoo and body piercing among youths in tertiary institutions in southwestern part of Nigeria. Specifically, the study determined

1. youths' awareness of body parts for the placement of tattoos and body piercing,
2. factors that influence youth's acceptance of tattoos and body piercing
3. factors that influence youths' non-acceptance of tattoos and body piercing.

Research Questions

1. Are youth's aware of the parts of the body where tattoo and body piercing are placed?
2. What are the factors that influence young adult's acceptance of tattoos and body piercing?
3. What are the factors influencing young adult's non-acceptance of tattoos and body piercing

Methodology

Design of the study: The design adopted for this study was descriptive survey. This was used to obtain information on awareness of placement of tattoo and body piercing, influence of youth's acceptance and non- acceptance of tattoo and body piercing.

Area of study: The area of the study was Ogun state in Southwestern part of Nigeria. There are three government owned and 13 private universities in stated.

Population of study: The population was made up of undergraduate students of Federal University of Agriculture, Abeokuta, Ogun State (FUNAAB). The University runs 10 Colleges. There are 49 Departments.

Sample for the study: One College was purposively selected for the study. Two Departments were also purposively selected from the College. A total of 150 students were randomly selected from the Departments to form the sample for the study.

Instrument for Data Collection: Questionnaire was the instrument for data collection. It was developed based on literature review and the specific objectives of the study. It was made up

of three sections. The first section focused on specific objective No 1 while the second and third focused on specific objectives 2 and 3 respectively. The first section was based on "Yes" and "No" responses. While the second and third had 3- point scales of "Major factor", "Mild factors" and "Not at all". The Instrument was validated by three Health Education experts.

Data Collection Methods: A total of 150 copies of the questionnaire were distributed to the respondents by hand. Only 110 copies were properly completed and retrieved. This gave 73.3 percent return.

Data Analysis Techniques: Data were analyzed using frequencies and percentage. Fifty percent (50%) scores were used for decision making regarding the factors in Tables 2 and 3.

Results

Table 1: Percentage Responses on Parts of the Body where Tattoos and Body Piercing are Placed

S/N	Body Parts	Frequency (F%)	Rank
Tattoo			
1	Back	77(70.0)	4 th
2	Hand	101(91.8)	1 st
3	Chest	81(73.6)	3 rd
4	Leg	97(88.2)	2 nd
Body pierced			
6	Eyebrow	54(49.1)	8 th
7	Nose	103(93.6)	1 st
8	Lip	76(69.1)	4 th
9	Tongue	77(70.0)	3 rd
10	Navel	84(76.4)	2 nd
11	Genital	55(50.0)	7 th
12	Cheek	74(67.3)	5 th
13	Breast	72(65.0)	6 th

Source: Field survey, 2020

Table 1 presents results on respondents' body areas of placement of tattoos/body piercing. The results indicate that hands (91.8%) and legs (88.2%) as parts of the body where tattoos are placed or inscribed. Also, respondents indicated nose (93.6%), navel (76.4%) and tongue (70.0%) as parts of the body that can be pierced. It follows that hands and legs were the main parts of the body that are often tattooed by young adults. This suggest that other parts of the body are usually

covered expect the hands and sometimes the lower parts of the legs. It is then deduced that young adults preferred to tattoo parts of the body that can be seen. In addition, ear and nose were mostly pierced by the respondents, this is probably because ear nose and nose nose are located on the head and are parts of the sense organs. This might due to reason young adults' particularly female pierce their nose.

Table 2: Percentage Responses on Factors Influencing Youth's Acceptance of Tattoos/Body Piercing (N=110)

S/N	Factors Influencing Acceptance	Maf F (%)	Mif F (%)	NaA F (%)
1	Curiosity	22(20.0)	39(35.5)	49(44.5)
2	Fun	5(4.5)	43(39.0)	62(56.4)
3	Adventure	12(10.9)	27(24.5)	71(64.5)
4	Self-expression	8(7.3)	50(45.5)	52(47.3)
5	Attraction	9(8.2)	19(17.3)	82(74.5)
6	Because it's the in-thing	27(24.5)	45(40.9)	38(34.5)
7	Peer pressure	17(15.5)	28(25.5)	65(59.1)
8	Increase sexual pleasure	46(41.8)	49(44.5)	15(13.6)
9	Enhances - facial look	22(20.0)	40(36.4)	48(43.8)
10	Rebellion	45(40.9)	34(30.9)	31(28.2)
11	Emulating famous person	47(42.7)	39(35.5)	24(21.8)
12	Interest	64(58.2)	31(28.2)	15(3.6)

Source: Field survey, 2020 Maf = Major factors; Mif = Mild factors; NaA = Not at all factors.

Table 2 shows various factors that influence young adults' acceptance of body modifications through tattoos and body piercing. Findings indicate that factor with Maf frequencies and percentage score of 50 percent and above is only one, that is, "Interest" {64

(58.2%)}. There is 10 factor with Mif of 50 percent and above. The Table however, shows that up to four factors have scores of 50 percent and above for NaA factors. These include Fun {5(56.4%)}, Adventure {71 (64.5%)}; and Peer pressure {65 (59.1%)}

Table 3: Percentage Responses on Factors Influencing Youth's Non-Acceptance of Tattoos/Body Piercing (N=110)

S/N	Factors Influencing Non-Acceptance	Maf F (%)	Mif F (%)	NaA F(%)
1	Risk of disease	91(82.7)	10(9.1)	9(8.2)
2	Risk of infection	73(66.4)	32(29.1)	5(4.5)
3	Scarring	68(61.8)	32(29.1)	10(9.1)
4	Don't like the message it sends	71(64.5)	32(29.1)	7(6.4)
5	Allergic reaction to metals	47(42.7)	37(33.6)	26(23.6)
6	Spiritual beliefs	70(63.6)	29(26.4)	11(10.0)
7	It difficult to remove	78(70.9)	24(21.8)	8(7.3)
8	Unattractive	41(37.3)	40(36.4)	29(26.4)
9	Not interested	87(79.1)	16(14.5)	7(6.4)
10	Fear	51(46.4)	35(31.8)	24(21.8)
11	Pain	72(65.5)	23(20.9)	15(13.6)

Source: Field survey, 2020 Maf = Major factors; Mif = Mild factors; NaA = Not at all factors.

Table 3 shows the factors that influence respondents' non-acceptance of tattoos and body piercing. The findings reveal that eight out of the 11 factors have Maf scores of 50 percent and above. These include, Risk of disease {91(82.7%)}; Risk of infection {73 (66.4%)}. It difficult to remove {78 (70.9%)}; and Not interested {51(46.4)}. The Table also shows that non of the items (factors) obtained any score that is 50 percent and above for Mif and NaA. This means that majority of the factors (72.7%) are major factors (Maf).

Discussion

It was discovered that there is high risk of disease/infection, non- interest and difficulty in the removal of the tattoos and body piercing were the main factors for the respondents' choice to decline the acceptance of body modification (that is, tattoos and piercing) which support the findings

of Wohlrab *et al* (2017) and Sperry (2012) that infections, viral and skin-related disease/rashes such as red bumps, keloids scars, hepatitis A/B even HIV/AIDS were reasons for non-acceptance of tattoos and body piercing. Also, increase in their sexual pleasure, emulation of a famous individuals and rebellion on the part of the students were the most part of the factors by the respondents as they were ranked first, second, third and fourth respectively. This indicates that most of the factors revolve round individual interest and enhancement/increase in sexual pleasure. This finding supports those of Thompson and Puxley (2017). They found that the use of body modifications encourages those undertaking the practices for their "extreme" nature that is the "own self"

A tattoo or body piercing, when viewed by someone, is always subject

to a perceptual process: “some sort of interpretation based on the past experiences or knowledge of that individual”. Tattooed professionals obviously have a lot of experience with body art in general, so theirs’ is an almost involuntary reaction to such stimuli Utoh-Ezeajugh (2015). This study’s results supported Cusack (2018) premise that females are increasingly being tattooed as reported by Armstrong (1991). In addition, the results of the study are consistent with those of (Dhossche, 2017).

Conclusion

The use of body piercing and tattooing were low among the youths in the select institution. Majority of respondents considered body piercing and tattooing to be less common and not socially acceptable by the public. The determinants for acceptance of body piercing and tattoo are interest of the youths, for personal interest and other reason. On the hand risks of infection, viral diseases contamination, fear and pain are factors associated with non- acceptance of tattoo and body piercing. Therefore, the study concluded that there are factors influencing the acceptance of tattoos and body piercing by young adults. There are also factors that influence non- acceptance.

Recommendations

It is recommended that:

1. Sensitization and educative awareness should be made

available in various tertiary institutions on health and disease related risk associated with tattoos and body piercing.

2. Awareness programmes to sensitized youths on body piercing/tattooing should be included in life building skills programmes for young people.
3. Awareness on temporal tattoos should also be carried out among youths and their parents/guardian as it is becoming a popular alternative to permanent tattoos.
4. Future studies should seek to more fully examine students’ attitudes and behaviors regarding piercings and tattoo.

References

- Armstrong M.L, Murphy K.P. (2016). Tattooing: another adolescent risk behavior warranting health education. *Applied Nursing Resource*. 10:181-189
- Armstrong M.L, Murphy KP, Sallee A, Watson MG(2016). Tattooed army soldiers: examining the incidence, behavior and risk. *Mil Med*;165:135-141
- Balci, S., E. Sari, and B. Mutlu. (2015) Comparison of Risk-Taking Behaviour and Frequency of Piercing and Tattooing among University Students. *Journal of Pakistan Medical Association* 65(6): 587-592.
- Dhossche, (2017) A case control study of tattoos in young suicide victims as a marker for their risk. *The effects of Discord*59:165-168
- Farrow JA, Schwartz RH, Vanderleeuw J (2015) Tattooing behavior in

- adolescence. *Am J Dis Child*.145:184-187
- Gilbert G, Schidikrout G(2014). *Tattoo History. A Source Book*. NewYork: Juno Books..
- Raspa R.F, Cusack J.(2018) Psychiatric implications of tattoos [review article].*Am Fam Physician*.41:1481-1486
- Schorzman, C., Gold, M., Downs, J. and Murray, P. (2017). *Body Art: Attitudes and Practices Regarding Body Piercing Among Urban Undergraduates*. (Online) Citeseerx.ist.psu.edu.Availableat:<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.846.5681&rep=rep1&type=pdf> [Accessed 21 Oct. 2018
- Schildkrout, E. (2014) *Inscribing the Body. Annual Review of Anthropology* 33: 319-344.
- Sperry, K. (2012). *Tattoos and Tattooing: Gross Pathology, Histopathology, Medical Complications, and Applications. American Journal of Forensic Medicine and Pathology*
- Starkie, A. (2015). *Body Modifications as a Tool to Aid Human Identification*. PhD Thesis, Teesside University.
- Thompson, T. and Puxley, A. (2017). *Body Modification*. Thompson, M. and Black, D (eds.), *Forensic Human Identification: An Introduction*. CRC Press. 379-400
- Utoh-Ezeajugh, T. (2009). *Body Adornment Practices in Nigerian Culture: A Multi-Ethnic Investigation*. *CreativeArtist: A Journal of Theatre and Media Studies*.
- Wessely, M. D. (2013). *Inked and in Public: Tattoos and Disclosure*. M.Sc. Project, The University of Wisconsin-Whitewater.
- Wohlrab, S., J. Stahl and P.M. Kappeler. (2017). *Modifying the Body: Motivations for Getting, Tattooed and Pierced*.*Body Image* 4: 87-95

ISSN 1118 - 0021

Journal of
**HOME
ECONOMICS
RESEARCH**

Volume 28 No. 1, September 2021

Published by the
**Home Economics Research Association of Nigeria
(HERAN)**

Journal of Home Economics Research Vol. 28 No. 1, September 2021

ISSN 1118 - 0021

Printed by Great AP Express Publishers Ltd. 08050555723

