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Income Generating Opportunities Available to Widows in Agriculture and Home Economics related Trends

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Abstract

This study was on the income generation opportunities available to widows in Agriculture and Home economics related trades in Ebonyi State of Nigeria. Specifically, the study determined income generating opportunities for the widows in Agriculture related trades and income generating opportunities for the widows in Home Economics related trades in Ebonyi State. This was a survey. The sample of the study was 228. Instrument for data collection was questionnaire. The data were analyzed using mean. Findings were that cake baking, soap making, indoors and outdoor decorations, crop husbandry, fish farming, marketing and distribution of agricultural commodities among others were identified as income generating opportunities available to the widows in Ebonyi State. Based on the findings, the researchers recommended that the widows should be given training on how to engage in the above mentioned trades for them to generate income for their families using the skill centers in the state as well as organizing training workshops and conferences among others.

Key Words: Income, Agriculture, Home, Economics, Widows, Opportunities

Introduction

Widows are women who lost their spouses through death and did not remarry. Widowhood is often a challenging experience. Christopher (2016) reported that traditionally, some widows are left without any economic and social support. This has led many widows to suffer. Many widows face serious challenges in their daily life, such as difficulties in social interaction, financial difficulties, loneliness, loss of husband's properties to in-laws, poor relationships with the in-laws, depression and sometimes death. Prominent among the problems of widows is economic challenge. Many of them lack finance for sustaining themselves and their children. The problem is often most challenging where widows have no means of income but had depended wholly on their spouses. Some of the widows had no skills or any income generating activities when their husbands were still alive. This situation has put many

widows into difficult economic situations. To alleviate their poverty and suffering, they need viable income generating activities or opportunities.

Income generation opportunities are such ventures that can yield income to the widows. Vocational Agriculture and Home Economics are areas that can afford the widows some income generating opportunities. Vocational agricultural deals with the development of skills, competencies, values, ideas, attitudes relating to agricultural production. Ndem and Odido (2016). Identified some income generating opportunities in agricultural production such as crop production, poultry production, fishery, rabbit rearing, dry season vegetable growing, snail rearing, garri processing, marketing and distribution of agricultural commodities, marketing of simple farm tools and many others. .

Home economic according to IFHE (2012) is a field of study and profession situated in human science that draws from range of disciplines to achieve optional and sustainable living for individuals, families, and communities. The document further explained that home economics also concerned with the empowerment and wellbeing of individuals, families, and communities; and facilitates the development of attributes for lifelong learning for paid, unpaid and voluntary advocates for individuals, families and communities. Furthermore home economics covers studies on food, nutrition and health; child development, textiles and clothing, shelter and housing; consumption and consumer science, household management, design and technology, food science and hospitality; human development and family studies; as well as education and community services. The profession of home economics has the potentials to influence all sectors of the society by intervening and transforming political, social cultural, economic, ecological and technological systems.

Home economic also has the attributes of focusing on fundamental needs and practical concerns of individuals and the family in everyday life and in their community levels and at societal and global levels so that wellbeing can be enhanced in ever changing environment.

Home economics integrates knowledge, processes practical skills from multiple disciplines synthesized through inter-disciplinary and transdisciplinary inquiry. It demonstrates capacity to take critical transformative and emancipator action to enhance wellbeing and advocates for individuals, families, communities and other sectors of the society. As a result of these attributes, home economics is distinctively positioned to generate income opportunities to the widows through numerous trades such as fashion and design, bakery, cake baking and decorations, dyeing, indoor and outdoor decoration, pastry productions, cosmetic productions, bead making, weaving of mats, sweaters and caps to mention but a few.

In Ebonyi State, experience and critical observation has shown that majority of the widows are engaged in petty trading such as selling of food

stuff, vegetables, fruits, second hand shoes and clothes, package water, serving as nanny in some families, serving in restaurant, cleaning and sweeping the street for meager pay by the government. Many others are involved in street hawking while some serve as helps in building sites as well as gardeners on part time basis in government, company and individual premises. These jobs being engaged by some of these widows are hazardous and invariably expose most of them to dangers as well as not economically rewarding for them to carter for themselves and their families. It is on this back ground that this work is designed to determine the income generation opportunities available to the widows in agricultural and home economics trades in Ebonyi State.

Purpose of the Study

The main purpose of this study was to evolve the income generation opportunities for widows in Vocational Agriculture and Home Economics trades in Ebonyi State. Specifically, the study determined:

1. income generating opportunities for the widows in Agricultural related trades in Ebonyi State.
2. income generating opportunities for the widows in Home Economics related trades in Ebonyi State.

Research Questions

The following research questions guided the study

1. What are the income generating opportunities for the widows in Vocational Agriculture related trades in Ebonyi State?
2. What are the income generating opportunities for the widows in home economics related trades in Ebonyi State?

Methodology: This work adopted survey research design. The area of the study was in Ebonyi State of Nigeria.

Population of the Study: The population of the study was 2109. This comprised of 2089 widows, 5 Home economists and 15 Agriculturists drawn from the 13 Local Government Areas of Ebonyi State. Most of the widows have primary education while some have secondary education. The age range of the widows was between 30 and 55 years they have common cultural background and predominantly farmers, and petty trades.

Sample for the Study: A simple random sampling techniques was used to draw 10% of the widows' population while all the home economists and agriculturists were used for the study making the sample size to be 228.

Instrument for Data Collection: The instrument used for data collection was a structured questionnaire developed by the researchers. The instrument has four points rating scale of Strongly Agree, Agree, Disagree and Strongly Disagree with their nominal values of 4, 3, 2 and 1 respectively. The instrument contained two parts, part one and part two. Part one collected data on the demographic information of the respondents while part two got information on income generation opportunities for the widows through

agriculture and home economics related trade in Ebonyi State. The instrument was validated by five experts. Two of the experts were agricultural education specialists, two experts in home economics and one expert in measurement and evaluation, all from the Ebonyi State University, Abakaliki. The experts assessed the instrument based on the content coverage, suitability of the items and sentence structure. The observations of the experts were incorporated in the final draft of the instrument.

The reliability of the instrument was determined by carrying out a pilot test using 30 agricultural and home economics lecturers from the Enugu State University of Science and Technology, Enugu. The data generated from the pilot study were analyzed using Cronbach alpha which yielded a reliability coefficient of 0.74 which made the instrument to be reliable for the study.

Data Collection Techniques: 228 copies of the questionnaire were distributed to the respondents by personal contact. Out of the 228 copies, only 220 were retrieved representing 96.49%.

Data Analysis Techniques: Data were analyzed using mean with standard deviation for the research questions. Based on 4-point scale of the instrument, 2.50 was used as a criterion point for decisions. Any item with the mean score of 2.50 and above was adjudged as an income generating opportunity for the widows while any item with the mean score below 2.50 was regarded as a non-income generating opportunity for the widows.

Findings of the Study

Based on the analysis of the data collected, the following findings were made:

1. Thirteen agricultural related trades were identified as income generating opportunities available for the widows in Table 1.
2. Twenty four home economics related trades opportunities were identified as income generating opportunities available for the widows. These are presented in Table 2.

Table 1: Mean responses on the income generating opportunities for the widows in agriculture related trades. N = 220.

S/N	Voc Agric Trade Related Income Generating Opportunities.	$\overline{X}$	SD	Remarks
1	Dry season vegetable gardening	2.90	1.00	Agree
2	Poultry production	2.96	0.99	Agree
3	Fishery	2.95	0.96	Agree
4	Piggery	2.09	0.98	Disagree
5	Processing of soya bean to soya milk	2.80	0.07	Agree
6	Rabbit rearing	2.91	1.01	Agree
7	Heliculture (Snail rearing)	2.96	0.99	Agree
8	Apiculture (Bee rearing)	2.12	1.03	Disagree
9	Processing of cassava to garri	3.04	0.93	Agree
10	Marketing of agric-commodities	2.95	0.94	Agree

11	Horticulture	2.16	1.01	Disagree
12	Marketing and distribution of farm tools and equipment	2.98	0.99	Agree
13	Processing of maize to pulp	2.60	0.05	Agree
14	Goat and sheep rearing	3.06	0.922	Agree
15	Growing of pepper	2.90	0.98	Disagree
16	Marketing of agric-chemicals	1.93	0.06	Agree
17	Growing of tomatoes	2.96	1.02	Agree

Table 1 shows that items 1, 2, 3, 5, 6, 7, 9, 10, 12, 13, 14, 15 and 17 had their mean scores above the cut-off point of 2.50. This shows that the widows can generate income through those items while items 4, 8, 11, 16 and 17 had their mean scores less than the cut-off point of 2.50. This implies that the widows cannot generate income through those items in agriculture related trades such as piggery, apiculture, horticulture, and marketing of agro-chemicals with their corresponding standard deviation showing a close relationship on the opinions of the respondents.

Table 2: Mean responses on the income generating opportunities for the widows in home economics related trades. N = 220.

S/N	Home Economics Trade Related Income Generating Opportunities.	X	SD	Remarks
1	Fashion and design	2.74	1.00	Agree
2	Tie and dye	2.79	1.05	Agree
3	Bead making	2.82	1.04	Agree
4	Soap making	2.93	1.00	Agree
5	Production of body cream	2.87	1.03	Agree
6	Production of insecticide	2.79	1.4	Agree
7	Cake making and decoration	3.01	0.98	Agree
8	In-door and out-door decoration	2.95	1.01	Agree
9	Soya-milk production	2.79	0.99	Agree
10	Pastry production	2.83	1.05	Agree
11	Hat making	2.91	0.94	Agree
12	Baking meat pile	2.95	0.99	Agree
13	Frying of Akara	2.67	0.99	Agree
14	Frying of bons	3.60	0.64	Agree
15	Making of Yogurt	3.54	0.67	Agree
16	Weaving of mats	3.50	0.64	Agree
17	Production of liquid soap	3.52	0.70	Agree
18	Production of Air-refreshers	3.37	0.75	Agree
19	Baking of chin-chin	3.12	0.82	Agree
20	Making of egg-role	2.88	0.89	Agree
21	Cosmetology	3.00	1.05	Agree
22	Production of hair cream	3.45	0.74	Agree

23	Production of bags	3.50	0.75	Agree
24	Organization of events such as birth day and wedding	3.44	0.78	Agree

Table 2 shows that all the items had their mean scores greater than the cut-off point of 2.50 while items with their corresponding standard deviations. This implies that the respondents agreed that the widows can generate income through fashion and design, Tie and dye, bead making, soap and pomade making, production of insecticides as well as indoor and outdoor decorations among others. The value of the standard deviation indicates that the respondents' opinions did not deviate widely.

Discussion of Findings

The discussion of the finding is done as below. The work revealed that the widows require trades in Home Economics such as fashion and design tie and dye, bead making soap making, pomade production, insecticide production cake baking, decorations, both indoor and outdoor, soya-milk production, pastry production and hat making and weaving among others. This findings are in line with Duru (2009) who reported that fashion and designing, tie and dye, bead making, cake making and other trades in home economics are good trades which can help an individual to be self-sustenance and self-reliant. He further explained that bead making, decorations and baking of cakes and chin-chin do not require huge sum of capital for starting. He further stressed that most of the home economics related trades are indoor activities which are suitable for women for sustainable income in the family.

Secondly, the research revealed that the widows need trades in agriculture related trades for sustainable income in the following areas, dry season vegetable gardening poultry production, fish rearing, snail rearing, processing of cassava to garri, processing of soya bean to soya milk among others. This finding is in agreement with Daniel and Chinazo (2016) who reported that fish farming processing of agric-products like cassava provides alternative source of income to the producer which invariably makes the producer to be self-sufficient and self-reliant. They further explained that fish farmers have provided employment opportunities to may unemployed youth, house wives, graduates and individuals. Equally Duru (2009) reported that in Nigeria, there is a high demand of fish and that fish farming in Nigeria is one of the agricultural sector that has the lowest farmers or practitioners, therefore, fish farming is a lucrative agric-venture that can bring sustainable income to the farmers who are engaged in it.

Additionally, the finding is in line with Chima (2005) who reported that poultry production is one of the cheapest agro-enterprises that provide sustainable income to the farmer with little investment capital. He further explained that poultry production

requires little space and initial capital to start. The author stressed that the management of poultry is less stressful compared to most other agricultural enterprises. He further reported that poultry production is capable of reducing poverty among unemployed individuals as well as contributing to national, economic development.

The finding is also in line with Eze and Egbe (2017) who stated that Rabbit rearing is an agro-enterprise trade which provides assistant to low income earners. They further explained that rabbit production can be carried out at the back-yard of residential houses with little starting income. Also the research found that snail rearing can be attractive income generating opportunities for the widows. This finding is also in line with Ndem and Odido (2016) who reported that snail rearing is a good agricultural related trade which can be used for sustainable income. He further stressed that snail can be reared within the compounds without requiring large hectare of land. Snail can feed on varieties of feeds which are common in the household. The authors also explained that snail meat are in high demand and are needed daily by people, with it's medicinal values.

Furthermore, the research found out that the widows can generate income through processing of agricultural commodities such as cassava to garri and soya beans to soya milk. This finding is in line with Ndem and Odido (2016) who stated that processing of agricultural commodities such as vegetables, fruits, yam, beans, cassava to fruit Juice, yam flour and cassava flours and fish farming could be an attractive source of income to sustain a family. They further explained that processing of agricultural commodities do not require huge amount of money to start and does not require big store or warehouse, rather a shade can serve the purpose.

Conclusion

Widowhood is a difficult condition especially for fulltime house wives before the demise of their husband. Widows are faced with difficult economic situation which lead some of them to certain anti-social activities like prostitution, stealing, drug and child trafficking as well as aiding and baiting other crimes. For the widows to be alleviated from economic difficulties, they need viable economic activities which can help generate income for them to maintain their families. Some of these altercative income generating opportunities are fashion and design, tie and dyeing of cloths, bead making, soap making, production of pomades, insecticides, baking of cake, indoor and outdoor decorations, dry season vegetable gardening, poultry production, fish farming, rabbit rearing, as well as keeping livestock like goats and sheep.

Recommendations

Based on the findings of the work, the researchers recommended that;

- Workshop training on income generating trades and activities in

fashion and designing, in-door and outdoor decoration, cake making soap and pomade production should be organized for the widows by the local and state governments in the area of the study.

- Efforts should be made by the Ebonyi State government to train widows on crop and animal husbandry, fish farming rabbit rearing, processing and marketing of farm products to enable them acquire the basic skills on the above mentioned enterprises.
- Widows should make themselves available for training on agriculture and home economics related trades at the skill acquisition center in Ebonyi state.

References

Bruce, B. (2016). Entrepreneurship; much more than creation of new business venture, Entrepreneurship Laboratory, *Pace University*.

Chima, W. C. (2005). Poultry farm management practice for small and medium scale farmers Loison: *Faith production*. 30-93.

Christopher, R. (2016). Origin and Etymology of widow. Retrieved from www.marrian.webster.com

Cumberbatch, C. (1993). Economic scarcity and family survival

Daniel C. O and Chinazo N. (2016). Socio-economic analysis of vocational fish pond production in Anambra East Local Government Area. *Journal of association of vocational and technical educators of Nigeria* 21(1) 47-53.

Duru, C. (2009). Fish, fishing and rural poor. A case study of the household importance of small-scale fisheries in Lao PDR. *Aquatic Resources, culture and Development* 1(2) 131-144.

Eze S. O and Egbe B. O. (2017). Small scale rabbit rearing. *Journal of association of vocational and technical educators of Nigeria.* 2(2) 186-192.

FRN (2013). *National Policy on Education* Lagos: NERDC.

Government of Ebonyi State (2010). 2010 Dairies. Abakaliki: Ministry of Information and State Orientation, Ebonyi State.

Hayton, J. (2015). Leadership and management skills in SMEs, War wick *Business school Department of Business Industry and Skills*.

International Federation for Home Economic (IFHE) (2012). Home economics in the 21st Century

James, E. R. & Joel, W. (2002). Entrepreneurship in International trade. *Journal of Economics and management Strategy*. 13 (69-73).

National Policy on Education (2012). Federal Government Commence *Review on National Policy on Education*.

Ndem, J. U and Odido, M. (2016). Skills in fish farming: AN instrument for economic diversification and food security. *Ebonyi technology and vocational Education Journal* 7(1) 1-9.

Nwachukwu, C. C. (2009). *Management theory and practice*. Anambra Africana FEP Publisher Limited.

Ochs, m & Paulson J. (2003). Home Economics Achieve: *Research Tradition and History, Cornell University.*

Oduma, C. A. (2014). *Entrepreneurship Education.* Abakaliki: Citizens Advocate.

Olaitan, S.O (1985). Competencies based professional improvement needs of agricultural science teachers in secondary schools. The Ondo State experience. Lagos: Macmillan Publishers.

Olaitan, S.O (1996). Vocational and Technical Education in Nigeria (issues and Analysis). Onitsha: Noble Press.

Owoh, N. P. (2013). *Marriage and Family Relationship.* Enugu: Computer Age Publishers.

Paula, F. (2016). Business news daily contributor. *Retrieved from* *www.businesnewsdaily.com*

Samual, A. Vivian, B. Adatara, A. Charlott, N.& Clara, D. B. (2014). Effect of widowhood Rites on the psychosocial well-being of widows in Nodowli Distinct of the Upper West-Region Ghana. *Journal of social sciences and Humanities invention (JSSHI).* 1(6).

Studymalasyia, (2016). Technical and Vocational Education Training in Malaysia.

Ugwuja, S. I. (2013). Technical and Vocational Education and Development. *Retrieved from* *www.nigerianbestforum.com/--/vocation--*

Walter, A. E. (1996). *Baker, Evangelical Dictionary of Biblical Theology*. Widow U.S.A Baker. Books Publisher.

Widows Care Foundation,(2017). Statistic of Widows in Ezza-North Local Government Area, Ebonyi State.

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Social Skills Needed by Adolescents for Curbing Conduct Disorders: A Case Study of Adolescents Dwelling along River Benue Banks in Benue State, Nigeria

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Abstract

The main purpose of the study was to investigate the social skills needed by adolescents for curbing conduct disorders along River Benue banks in Benue State, Nigeria. Specifically, the study identified common factors that cause adolescent conduct disorders and social skills needed to curb adolescents conduct disorders. Study was guided by two research questions. Survey research design and focus group discussion was adopted. Population of the study was 570 adolescents. Stratified proportionate random sampling technique was used to select sample 368 adolescents for the study. Data were collected with Riverine Adolescents Behavior Questionnaire (RABQ) and focus group discussion. The data collected were analyzed using frequencies and percentages. Find ings revealed that 10 common factors are responsible for adolescents conduct disorders such as bad friend, lack of formal education, lack of home training, poverty among others and 17 social skills or ways to curb adolescents conduct disorders such as Parental good mentorship, honesty, sincerity, knowing your right and respecting rights of others. Conclusively social skills are needed by adolescents with conduct disorders in order to help them to have a better behavior. It was recommended that Social skills trainings should be provided for these adolescents by the Ministry of Social Development to enable them establish businesses of their own or be gainfully employed in businesses in conducive environment, Social skills training programmes on communication, education (civic), social values, and health awareness skills should be provided by the Ministry of Social Development for the adolescents to enable them relate with colleagues, clients and the general public in a socially approved manner and Counseling services should also be made available by the Ministry of Women Affairs and Social Development to these adolescents to help them overcome harmful practices such as drug abuse, prostitution, aggressive behaviors and other conduct behavioral problems.

Key words: Social, Skills, Conduct, Disorders, Adolescents

Adolescent Conduct disorder is a blanket term used to cover a variety of maladaptive or anti-social or violent behaviours exhibited by individuals in inappropriate times (Legg, 2017). Conduct disorders may be a function of choice that is to say the individuals exhibiting the conduct disorder for example, defiance, may choose to exhibit that type of behaviour; therefore they have control over it. Conduct disorders differ from emotional disturbance. That is, adolescents with emotional disturbance generally do not have any control over the behaviour that they exhibit (Jan *et al*, 2012; Frick 2010 and Clare, 2006).

Adolescents with anti-social disorders have difficult time following rules and behaving in a socially acceptable way. They may characterized by aggressive, destructive, deceitful violation the rights of others, substance abuse, alcoholism, delinquency, prostitution, moral decadence, defiance, mistreatment of others and vulgarity, disobedience, physical assault, damage to property, verbal abuse to minors and seniors, indecent dressing, lack of empathy, misperception of others intent, lack of guilt or remorse, showing off, low self-esteem and suicidal ideas (Okonkwo, 2013). Legg (2017) went further to categories conduct disorders into 4 groups namely: aggressive conduct, deceitful behavior, destructive behavior and violation of rules. Aggressive conducts includes; intimidating or bullying others, physically harming people or animals on purpose, committing rape and using weapon. Deceitful behavior may include; lying, lying, stealing and forgery. Destructive conduct may include arson, act of vandalism and intentional destruction of property. Violation of rules include; skipping school, running away from home, drug and alcohol use and sexual behavior at an early stage.

All these conduct disorders exhibited by the adolescent are caused by several factors. According to Hill and Maughan (2015) these factors may be genetic or from the environment. Hereditary disorders are those abnormal behaviors that are associated with leaning difficulties which a child is born with for example autism which require special educational programmes or services (Igbo, Ako & Remen, 2010). These genetic factors are characterized by lack of impulse control, reduced ability to plan future actions and decreased ability to learn from past negative experiences. The intentional conduct disorders are influence from the environment in which the adolescents fine themselves such as a dysfunctional family back ground, negative family characteristics, poor neibourhood, high risk neibourhood, enrolment in a poor school with inconsistent and clear discipline policies, unemployment and low social-economic status pose as stressors from the environment (Igbo & Okpenge, 2003).

Globally, among the various racial and ethnic groups, prevalence of conduct disorders was found among non-Hispanic children in America (Hinshaw & Lee, 2010). As opined by Harden and Mendel (2011), Royes

(2008), Homes (2001) and Sylod (2002) conduct disorders among these adolescents include drug dealings, drug abuse, gang bang, sexual promiscuity, loss of respect for elders and constituted authority these constitute a big challege to the healthy development of adolescents and the society. In Nigeria, the Nigerian adolescent's conduct problems have been estimated at about 75 % among college students (Gideon, 2009). It has been observed that many adolescents of school going age are engage in out of school business activities due to reasons that ranged from poverty, deviancy, run away from homes and those who live and survive on the street (Egger and Angold, 2006; Okonko, 2013).

In Benue State, People are worried and horrified at the sight of the number of adolescents at the river banks of river Benue, particularly at the time when they are supposed to be in school. These adolescents are exposed to being involved in harmful activities that are harmful to them and the society such as kidnapping, robbery and cultism. This situation makes adolescents more vulnerable to aggressive disorder behaviour toward their clients and exploitation of people that engage them for services. This indicates deficit of behaviors from values, norms and expectation of the family and the society (Tsang, 2003 and Lynch & Samson, 2010). Therefore there is need for re-orientation of the values system to the adolescents through social skills training programmes.

Social skill is the ability to interact with other people in a way that is both appropriate and effective, to achieve this appropriateness and effectiveness, the adolescent's behaviour needs conform to social norms, values and expectations and not to be viewed negatively by others (Isawumi et al 2016 and Nmom, 2011)

The main purpose of introducing social skills programmes to the adolescents dwelling in River Bank is to correct or eliminate of maladaptive behaviors, to equip the individuals with the ability to function effectively in real life setting, to increase performance competence at workplace, to expand their behavioural repertoires to succeed in different situations (Isawumi, 2016). According to Lynch and Simpson, (2010) these social skills programmes include; communication skills, education (civic) skills, social value skills and health awareness skills.

Communication skills is an act of sending and receiving information between two or more people.it is sub-divided into verbal and non-verbal skills. The verbal skills have to do with spoken and written information to convey ideas, views, concepts, attitude, opinions, instructions and emotion , while non-verbal communication have to do with conveying ideas, views through facial expression, gesture, body language and how one dresses (Turner & West, 2013). The social values skills are values that ensure the stability of social order in the society. These skills are set of behaviour that could be learnt and maintain through regular interaction with others. That is a treatment team such as social workers,

psychologist, councilors and family therapist (Coon, 2006).

Civic Education has been viewed by many academics as a course of study that is geared towards producing responsible and law abiding citizens (Ukegbu, Mezieobi, Ajileye, Abdulrahaman and Anyaoha 2009 and Ogundare, 2011). For instance, Ukegbu et al (2009) outlined objectives of Civic Education to include; developing and transforming the Nigeria youths into effective and responsible citizens by making them law-abiding, creating awareness of one's rights, duties and obligations as citizens of this great nation and also to appreciate the rights of other citizens, and helping the adolescents to acquire a sense of loyalty, honesty, discipline, courage, dedication, respect, patriotism, hard work. It inculcates in them, the spirit of nationalism and desirable habits, values and attitudes. This education is a vital tool for peaceful co-existent of adolescents dwelling in the River Banks and the people they make with daily. Health awareness skills deals with preventing drug abuse and excessive alcohol use, it exposes the adolescents on its consequences such as mental health challenges, risky lifestyle health challenges that decreases people chances of living long, healthy and productive lives.

The persistent conduct behaviour of adolescent over a period of time may prevent them from participation in multiple societal useful events. This necessitated the researcher to investigate the social skills needed by the adolescents dwelling along River Benue banks in order to curb conduct disorders among them.

Objectives of the Study

The study investigated social skills needed by adolescents for curbing conduct disorders: A case study of adolescents dwelling along River Benue banks in Benue state. Specifically the study;

1. identified common factors that causes conduct disorders among adolescents along River Benue Banks.
2. determined social skills adolescents need to curtail conduct disorders along River Benue Banks.

Research Questions

The following research questions were raised to guide the study:

1. What are common factors that causes conduct disorders among adolescents along River Benue Banks?
2. What social skills are needed by adolescents to curtail conduct disorders along River Benue Banks?

Methodology

Area of the study: The study was carried out in specific settlement areas along River Benue banks in Benue state. These were North Bank in Makurdi, Tyulen (Kwantan Sule) in Guma, Buruku in Buruku and Katsina-Ala Local Government Areas. These settlement areas provide business activities for the youth/adolescents along the banks of River Benue in Benue State.

Population of the study: The population is 570 adolescents which comprised school going and non-school going. The school going adolescents age range from 10 to 17 years both males and females who dwell along the River Benue bank, after school they engage in economic activities fishing, brick laying, scooping of sand from the river, boat transportation and hawking of wares. They exhibit different forms of conduct behaviours such as, fighting, cheating, smoking Indian hemp, excessive alcohol use and indiscriminate sexual activities. The non-school going adolescents exhibit similar conduct problems with the school going adolescents

Sample for the study: The sample of the study was 368 adolescents drawn from the four settlement areas along the banks of River Benue in Benue state. The sample comprised 91school going and 277 non-school going adolescents respectively. Stratified proportionate random sampling technique was used to draw the sample. The sample was selected in the four settlement areas and it was done among the school going and non-school going adolescents

Instrument for data collection: The Riverine Adolescents Behavior Questionnaire (RABQ) was used for data collection. The RABQ is a likert scale format instrument with four point response rating options namely; Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD), scores of 4, 3, 2 and 1 respectively were assigned to SA, A, D and SD for positively worded items while scores 1, 2, 3 and 4 respectively were assigned to SA, A, D and SD for negatively worded items.

The instrument was validated by three Home Economist. The instrument initially comprised 30 items which were pruned down to 20 in the validation process. The face validation was done with regards to content, appropriateness of items and clarity of language used. After validation, 20 copies of the RABQ were administered on 20 adolescents who were not part of the target population but did not participate in the actual study. The scores obtained were analyzed to establish reliability of the questionnaire using Cronbach's Alpha coefficient method. A reliability of 0.77 was obtained. This was considered adequate for reliable data collection. Focus group discussion was also organized to collect verbal information from the adolescents.

Data collection method: A total of 368 questionnaires were administered to the respondents. However, 343 fully completed questionnaires were returned and 25 of the questionnaires were not returned. The questionnaires were administered to the respondents while they were carrying out their activities at the river banks of River Benue. Those who could not read, the researcher read out, interpreted and assisted them to select the option of their choice. Notes were taken on responses of adolescents during the focus group discussion.

Data analysis techniques: Data were analyzed using descriptive statistics namely, frequencies and percentages.

Results

Research question 1: What are common factors that causes conduct disorders among adolescents along River Benue Banks?

Table 1: Percentage Responses on Common Factors Causing Conduct Disorder among Adolescents who dwell at River Benue Bank

S/N	Factors/causes of Conduct Disorders	Agree F (%)	Disagree F (%)	Remark
1.	Bad friends	246(71.72)	97(28.28)	Agreed
2.	Lack of formal education	303(88.34)	40(11.66)	Agreed
3.	Lack of home training	294(85.71)	49(14.29)	Agreed
4.	Poverty	285(83.09)	58(16.91)	Agreed
5.	Lack of good mentorship	298(86.88)	45(13.12)	Agreed
6.	Drinking of alcohol	289(84.26)	54(15.74)	Agreed

Table 1 indicates that six factors were identified as major causes of conduct disorders among the adolescents along river banks of River Benue with the following frequency and percentage as follows; bad friends 246(71.72%), lack of formal education 303(88.34%), and lack of home training 294(85.71%), poverty 285(83.09%), Lack of good mentorship 298(86.88%), and drinking of alcohol 289(84.26%). Focus group discussion also revealed some adolescents are into anti-social behaviors as a result of parent's negative attitudes such as hash child rearing practice by either or both parents, family dysfunction/stress, poor school and neighborhood influences.

Research question 2: What social skills are needed by adolescents to curtail conduct disorders along River Benue Banks?

Table 2: Social Skills Needed by Adolescents for Curbing Conduct Disorders

S/n	Ways of Curbing Conduct Disorders	Agree F (%)	Disagree F (%)	Remark
1	Talk less, listen more.	257(74.93)	86(25.07)	Needed
2	Understanding one's point of view and emotion clear.	245(71.43)	98(28.57)	Needed
3	Understand others view points and makes them feel happy.	254(74.05)	89(25.95)	Needed
4	Asks polite questions to clarify issues when not understand.	281(81.92)	62(18.08)	Needed
5	Parental good mentorship	334(97.38)	9(2.62)	Needed
6	Honesty and sincerity	198(57.73)	145(42.27)	Needed
7	Know you right and respect rights of others.	243(70.85)	100(29.15)	Needed

8	Give respect to human dignities	264(76.97)	79(23.03)	Needed
9	Acknowledge individuals' worth.	283(82.51)	60 (17.49)	Needed
10	Obey rules and laws of the society.	232(67.64)	111(32.36)	Needed
11	Obey constituted authorities.	219(63.85)	124(36.15)	Needed
12	Show respect to elder people in the society	199(58.02)	144(41.98)	Needed
13	Patient and calmness in all ideals.	311(90.67)	32(9.33)	Needed
14	Exhibiting good temperament	314(91.55)	29(8.45)	Needed

Table 2 shows that respondents accepted item 1-14 listed as social skills needed by adolescents to curtail conduct disorders with their respective frequency and percentage from item 1-14: Talk less, listen more 257(74.93); Understanding one's point of view and emotion clear 245(71.43); Understand others view points and makes them feel happy 254(74.05); ask polite questions to clarify issues when not understand 281(81.08); Parental good mentorship 267 (77.84); honesty and sincerity 198(57.73); know you right and respect rights of others 243(70.85); give respect to human dignities 264(76.97); acknowledge individuals' worth 283(82.51); obey rules and laws of the society 232 (67.64); obey constituted authorities 219(63.83); show respect to elder people in the society 199(58.02); patient and calmness in all ideals 311(90.67) and exhibiting good temperament 314(91.55). The focus group discussion also revealed that adolescents living in abusive homes may be placed into other homes/families that have positive rearing practices, the adolescents should also be taught on behavioral management skills and parental management training should be given to parents.

Discussion

This study investigated the social skills needed by adolescents for curbing conduct disorder among adolescents who embark on business activities along the river banks at River Benue in Benue state, Nigeria. Two specific objectives were investigated; they were to identify common factors that causes conduct disorder among adolescents and the social skills needed by adolescents to curb conduct disorders.

The findings of research question one revealed that lack of formal education, lack of home training, poverty, Lack of good mentorship, drinking of alcohol, parent's attitudes, parental separation/ divorce, poor school and neighborhood influences adolescents conduct problems. This in agreement with Kembe (2005) and Okonko (2013) who opined that lack formal education is a potent factor that causes conduct disorders among adolescents. This is because the school is view as an agent of socialization which serve as an extension of parental authority for continuation of guidance for societal acceptable norms for the child.

This implies that adolescents that do not attend school hence do not have access to the control functions of school

against conduct disorder behaviors in terms of lack of teacher's mentorship and home training. Mostly mentorship among adolescents takes place at home and school (Ekong, 2014 & Kathryn, 2012). The authors further stated that it is the duty of parents and teachers to mentor adolescents to become great future leaders. The implication is that when parents and teachers fail to provide good mentorship and guidance, adolescents tend to become wayward.

With regards to influence of bad friends and drinking of alcohol, the two are positively correlated. Bad friends can negatively influence their peers to engage in bad conduct disorders, while intake of alcohol can expose adolescents to bad friends at drinking joints. These factors have been recognized as gateways to conduct disorders among adolescents (Archibong &Akpan, 2012 and Gideon, 2009).

Poverty is also a predisposing factor for adolescents conduct disorders. This is in consonance with Okonkwo (2013) and Egger and Angold (2006) who opined that adolescents, who are from poor background and lack school related materials, often abandon school and engage in out of school activities. The study also finds out that parents attitudes, parental separation/divorce, poor school enrolment and neighborhood influences conduct problems in adolescents. This in agreement with Legg (2017) that unstable homes such separation of parents, drinking or smoking habits exposed children to anti-social behavior.

The second finding revealed the social skills needed by adolescents to curb conduct disorders and these include; talking less, listening more, understanding one's point of view and emotion clearly, understanding others view points and making them feel happy, asking polite questions to clarify issues when not understood, adolescents should be taught behavioral management skills and parental management training should be given to parents.

This is in line with Orhungur (2003) and Fiyifolu (2011) who posited that good parental mentoring, respecting other people's opinion, asking polite questions can help to curb conduct disorder among adolescents. The study is also in agreement with Asogwa (2009) who stated that in everyday interactions emotional control, respect for others calms nerves. Adolescents who show respect to others through emotional control, even in intense provocation will minimize the exhibition of conduct behaviours problem.

The study in also line with Akpan and Archibong (2012) who opined that listening more, talking less, given respect to human dignities, understanding ones view point, enhances effective and cordial communication that promotes good interpersonal relationship.

Conclusion

Based on the findings of this study it is concluded that parental and school mentorship has potent social skills that is needed to curb conduct disorders among adolescents. This means that positive parental and teachers

mentoring will help in the training of children with great potentials, to achieve good social skills which lead to actualization of value recognition, poverty eradication, job creation, wealth generation and adolescents becoming functional members of the society. Finally social skills in effective communication skills will improve better conversation in the adolescent's social life with family, boss, co-workers, clients. It will also help them become good citizens and participate in civic life especially in democratic society and these will determine the development and progress of the nation.

Recommendations

The following recommendations are made based on the findings of this study.

- Social skills trainings should be provided for these adolescents by the Ministry of Social Development to enable them establish businesses of their own or be gainfully employed in businesses in conducive environment.
- Social skills training programmes on communication, education (civic), social values, and health skills should be provided by the Ministry of Social Deveploment for the adolescents to enable them relate with colleagues, clients and the general public in a socially approved manner.
- Counseling services should be made available to by the Ministry of Women Affairs and Social Development on behavioral management skills and parental management training to these adolescent to help them overcome harmful practices such as drug abuse, prostitution, aggressive behavior among others.

References

Akpan, C. P. & Archibong, I. A. (2012). Personality variables as predictors of leadership role performance effectiveness of administrators of public secondary schools in Cross River State. *International Education Studies5(4),*213-221.

Asogwa, S.N (2009), Nigeria Citizenship Education "A matter of the Constitution and the Law Enugu: John Jacob's.

Coon D. (2006). *Psychology: A modular approach to mind and behavior. 10th ed*. Belmont: Thomson Wadsworth.

Egger, H. L. & Angold, A.(2006). Common emotional and behavioural disorders in preschool children: presentation, nosology, and epidemiology. *Journal of Child Psychology and Psychiatry,* 47(2), 313-337.

Ekong, B. E. (2014). *The role of child: And what the parent can do*. Uyo: Grand Printers Business Company.

Fiyifolu, B. A. L. (2011). Reflection on unacceptable behaviour among Nigerian youths in Nigerian universities in the past decades. *The Nigerian Social Scientist, March,*7(4), 7-11.

Frick, P. J. (2010). Effective Interventions for Children and Adolescents with Conduct Disoders. *Journal of Canadian Psychiatry*, 46(3), 597-608.

Gideon, L. (2009). Latency versus certainty means of guiding against relapse. *Quarterly, Journal of Public Opinion,* 17(2), 14-21.

Harden, K., & Mendle, J. (2011). Adolescents sexual activity and the development of delinquent behaviour: the role of

relationship context. *Journal of Youth and Adolescents,* 40(7), 825-838.

Hill, J. & Maughan, B.(2015)*Conduct Disorder in Child and Adolescence*. New York. CUP.

Holmes, D. S.(2001). *Abnormal Psychology*. 4th Edition, Boston, Allyn and Bacon press,

Igbo, H. I. and Okpenge, G. E. (2003). Moral correctness of the political class in Nigeria: Counseling concerns and implications. *The Journal of Counseling and Development,* 1(1) 46-51.

Isawumi, O. D. and Oyundoyin, J. O. (2016). Home and School Environments as Determinant ofSocial Skills Deficit among Learners with Intellectual Disability in Lagos State. *Journal of Education and Practice*, 7(20), 75-80. Retrieved from https://files.eric.ed.gov/fulltext/EJ1109217.pdf

Jan, B., Kirsten, C. S., Plerre, C. M. H., and Floors, S. (2012). Conduct Disorder. *Journal of European Child Adolescents Psychiatry*, 22(1), 49-54.

Kathryn, R.(2012). *Parents as mentors*. Retrieved from: http//www.child-family services.org/parent-mentor-program. On 3 November 2017.

Kembe, E. M. (2005). Influence of family background on patterns of child misbehaviour in Makurdi metropolis. *Journal of Home Economics Research,* 6(2), 45-49.

Legg,T. J. (2017). Conduct Disorder. Retrieved from **Error! Hyperlink reference not valid.**

Lynch S A. and Simpson, C. G. (2010). Social Skills: Laying the Foundation for Success. *Dimensions of Early Childhood,* 38(2), 1-12. Retrieved from https://southernearlychildhood.org/upload/pdf/Social_Skills_Laying_the_Foundation_for_Success_Sharon_A_Lynch_and_Cynthia_G_Simpson_Volume_38_Issue_2_1.pdf on 15/10/2018.

Nmom, O. C. (2011) The Attitudinal Development of Nigerian Children: The Role of Social Studies in the 21st Century. *African Journal of Education and Technology,* 1(3), 25-31. Retrieved from http://www.sachajournals.com/user/image/nmomajetv3002.pdf

Ogundara, S.E. (2011). Reflections and lessons from the international association for the evaluation of educational achievement"s globalization of Civic Education. *Nigeria Journal of Social Studies*. 9(20), 105-122.

Okonkwo, L. E.(2013). Institutional homes and rehabilitation of of street children Benue State. *Unpublished Master's thesis University of Agriculture Makurdi*.

Orhungur, M. M. (2003). Morality and character development for the well-being of Nigerians. *The Journal Counseling and Development* 1(1) 1-6.

Royse, D.(2008). Mentoring high-risk minority youth. *Evaluation of Brothers Project, Adolescence.* 33, 145-158.

Slyod, C. (2002). Behaviour problems of adolescents in secondary school of Bulawayo: Causes, manifestations and educational support. *Unpublished master Thesis University of South Africa.*

Tsang H.W.H. (2003). Augmenting vocational outcomes of supported employment with social skills training. *Journal of Rehabilitation*, 69(3):25-30.

Ukegbu, M.N., Mezieobi, K: Ajileye, G; Abdulrahaman, B.G.; and Anyaoch, C.N. (2009). *Basic civic education for Junior secondary schools*. Owerri: Alphabet Publishers.

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Antenatal Health Care Services Utilization among Childbearing Mothers in Ebonyi State, Nigeria

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Abstract

Utilization of antenatal care by mothers is one of the surest ways of reducing maternal morbidity and mortality due to the fact that it leads to early detection and treatment of negative maternal outcomes. The study investigated utilization of antenatal health care (ANC) services among women of child-bearing age in Ebonyi State, Nigeria. Specifically it determined antenatal services utilized, and factors that influence the use of antenatal care. Population of the study Questionnaire was used for data collection on 400 mothers of childbearing age (15-49 years) who were selected using multi-stage sampling procedure. Data were analyzed using frequency and chi-square at 0.05 level of significance. The study was guided by one specific objective, one research question and two hypotheses. Findings show that mothers utilized antenatal services in varying proportions such as 86.8% health and nutrition education; 54.3% urine test; 73.0% HIV test; 88.5% physical examination; 27.0% ultrasound; 75.3% measuring of height; 91% measuring weight; 94% tetanus injection; 93.8% routine drugs; 96% blood pressure measurement, and 61.3% malaria preventive. Factors such as Location and education significantly influenced ANC utilization. It recommended that government should make effort to formulate policies that enhance the utilization of ultrasound aspect of antenatal care services and continuous public health enlightenment by stakeholders.

Keywords: Antenatal, Child-Bearing Mothers, Services, Location, Education

Introduction

Antenatal Care (ANC) is one of the components of maternal health, and is a key strategy for reducing maternal and neonatal morbidity and mortality rate worldwide .Antenatal care services and its utilization are associated with improved maternal and neonatal health outcomes. It also saves the lives of mothers and babies by promoting and establishing good health before childbirth and the early postnatal period Adeniyi and Erhabour (2015). It often presents the first contact opportunity for a pregnant woman to connect with health services, thus offering an entry point for integrated care, promoting health-seeking behaviour and linking women with pregnancy complication to a referral system, thus impacting positively on maternal and fetal health Adamu and Salihu (2002).

Africa has the highest burden in the world and sub-Saharan Africa is largely responsible for the dismal maternal deaths figure for that region, contributing approximately 98 percent of maternal deaths for the region. They also disclosed that, two countries reported one third of global maternal deaths in 2010; India (19%) and Nigeria (14%) WHO, UNICEF, and World Bank (2010).

Meanwhile, Nigeria has the highest burden of the global maternal and neo-natal mortalities ranking first and second country in the world for the highest number of deaths among mothers and neonates (UNICEF 2015). These poor indices may be linked with the low utilization of maternal health services in the country (NPC 2014, Adewuyi and Zhoa 2017). Also, ANC prevalence is (51%) which is far below the recommended target of 90% attendance compare to other developing countries like; Cameroon (62.9%), Ghana (87%) and Peru (94%) (Adewuyi, *et al* 2018).

However, many of these deaths could be prevented through reinforcing the importance of ensuring that all pregnant mothers receive adequate antenatal care. Chapman,2003). Antenatal is relatively a new concept, and pregnant women in most developed countries now receive an integrated package of antenatal, child birth and post-partum care. This contrast with the situation in developing countries, were antenatal care tends to be the first services to receive resources and is commonly widely implemented within maternal health programs. Most pregnant women in developing countries visit health facilities antenatal care at least once during each pregnancy (NDHS 2013; Chukwuma, Uche, Kelechi, Irene, Henry and Chima, 2014).

Over the last decade, the definition of prenatal care, also known as antenatal care, has been expanded to include other ancillary services occurring during antenatal period such as nutrition education, and psychosocial services). From an initial focus on preventing maternal mortality, the role of prenatal care has progressed to encompass detection, treatment, and prevention of adverse maternal, foetal, and infant outcomes and the amelioration of adverse health

behaviours and socio -economic conditions. It also provides an essential link between women and the health system and offers essential health care services in line with national policies (Dario and Owoyokun, 2010).

However, late booking for Antenatal care is a frequent occurrence among pregnant women in Nigeria on like the most developed countries (Nwanari, Ndubuisi, Okoronkwo, Ezike and Umebuani 2018). For best maternal outcome, eight ANC visits is recommended from the first contact in the 12th week gestation with subsequent contacts at 20, 26, 30, 34, 36, 38, and 40th week gestation. The first antenatal visit is the most in-depth and includes a complete health history and physical examination, including measuring of height, weight, and blood pressure. Expectant mothers are also tested for diseases that could harm their babies such as diabetes, hepatitis B, syphilis and HIV infection. During each visit, tests are carried out to check for high blood pressure and protein in the urine, which could indicate a problem with the pregnancy (WHO 2016).

Factors such as education and residence influence the utilization of antenatal care (Dansou, Adekunle and Arowojolu 2017) Disparities in care remain between rural and urban areas and more educated and wealthier women tend to receive more prenatal care (NDHS 2013), (Gazali, Falmata and Mohamoud, 2012). ,(Dairo and Owoyokun (2010) Ibnouf and Yussuf, (2009) and Thu Ha (2005). However, most mothers do not deliver at the health facility after going for antenatal. Report from Ebonyi State University Teaching Hospital from January 2004 through December 2007 revealed that out of 3,471 live births recorded; there were 35 maternal deaths for a maternal mortality rate of 1,008 per 100,000 live births (Ogbonna, Anuma, Umeora, and Obuna, 2009). Also, Ebonyi State Ministry of Health (2011) revealed that most pregnant women do not access health facility for antenatal care; only few do so voluntarily in the health centres. Out of 71, 671 new cases who register for antenatal care in 2011, less than 50 per cent of these delivered in the health facility despite the Mother and Child Care initiative (MCCI) law in Ebonyi State which makes it mandatory for all pregnant women to register for ANC and deliver in a health facility, 29.6% received two doses of IPT while 37.6% received Intermittent Preventive Treatment (IPT) State Malaria Control Programme (ESMCP, 2011).

Purpose of the Study

The main purpose of study was to investigate maternal health services utilization among childbearing mothers in Ebonyi State. Specifically, the study

(1) Determined the antenatal services utilized by child bearing mothers in Ebonyi State.

(2) Determined factors that influence use of antenatal care.

Research Questions

1. What are the prenatal services utilized by women in Ebonyi State?
2. What are the factors influencing the utilization of antenatal care services among women in Ebonyi State?

Research Hypotheses

Utilization of antenatal services by women of childbearing age in Ebonyi State is independent of their:

1. Level of educational status at 0.05 level of significance.
2. Place of residence (location) at 0.05 of significance.

Methodology

***Area of the study*:** The study was carried out in Ebonyi State. It has three senatorial zones and 13 Local Government Areas (LGA), every ward has at least one health center and every LGA has one general hospital.

***Design of study*:** The study adopted cross-sectional descriptive survey research design.

***Population for the Study*:** Population of the study comprised 548,969 mothers of child-bearing age. (15-49 years). This consisted of 179,069 mothers in Abakaliki zone, 162.278 mothers in Onueke, zone, and 207, 125 mothers in Afikpo zone (Ebonyi State Ministry of Health, 2011).

***Sample for the study*:** The study made use of proportionate sample of 400 mothers of childbearing age (15-49 years).

The multi-stage sampling procedure was used for the study and this involved five stages. The first stage involved the three zones namely: Abakaliki zone (4 LGAs), Afikpo zone (5 LGAs), and Onueke zone (4 LGAs). The second stage involved random selection of three Local Government Areas from each of the three zones identified in stage one. Through this method, nine LGAs were selected.

At the third stage, three communities were randomly selected from each of the nine selected LGAs which yielded a total of 27 communities.

***Instrument for data Collection*:** The instrument for data collection was a 14-item semi structured questionnaire. The questionnaire consists of two sections: Section A contains 2 question items which elicit responses on the socio-demographic characteristics of the respondents. Section B consists of 12 items that elicit information on antenatal/prenatal service.

Three experts from the Department of Human Kinetics and Health Education, Ebonyi State University, Abakaliki were used to establish the face and content validity of the instrument and corrections and suggestions made were incorporated in the final version of the instrument used to collect data.

A test-retest reliability evaluation was conducted on 30 mothers of childbearing age in two communities Okpuitimo and Ephuenyim that were not included in the study using the Guttman Split-Half measure of stability. A high reliability co-efficient of 0.934 was obtained hence, the instrument was considered reliable for use in this study.

***Data Collection Technique*:** Four hundred copies of the questionnaire were distributed by hand. The subjects' informed consent was duly obtained and the ethical approval of the Ethics committee of the Ebonyi State Ministry of Health was obtained before commencing the study. Explanations

were made in the local Igbo dialect for uneducated subjects. The nature, objectives and relevance of the study were explained to them by the researchers. The questionnaires were recovered immediately after completion by the respondents. All the 400 copies were returned representing 100% return rate.

***Data Analysis Technique*:** The returned copies of the questionnaires were cross-checked for completeness of responses. Chi square was used to test HOs level of significance was set at 0.05

Findings of the study

Table 1: Frequency, Percentage and Chi-square of Responses on Health Service Received during Antenatal in the Last Pregnancy by Level of Education (400)

Service Received	f & % response by level of education						
	f %	f %	f %	f %	f %	χ^2 cal.	Dec
Health and nutrition education	347(86.8)	62 (17.9)	114(32.9)	117(33.7)	54(15.6)	4.775	NS
Urine testing	292(54.3)	14(6.5)	56(25.8)	96(44.2)	51(23.5)	68.083	S
HIV Testing	217(73.0)	17(5.8)	94(32.2)	124(42.5)	57(19.5)	108.523	S
Ultrasound	108(27.0)	13(5.1)	75(29.6)	110(41.5)	55(21.7)	90.016	S
Physical examination	354(88.5)	52(14.7)	109(30.8)	134(37.9)	59(16.7)	20.453	S
Measuring of height	301(75.3)	21(7.0)	100(33.2)	127(42.2)	53(17.6)	93.793	S
Measuring of weight	364(91.0)	55(15.1)	116(31.9)	136(37.4)	57(15.7)	14.143	S
Tetanus injection	374(93.5)	61(16.3)	119(31.8)	137(36.6)	57(15.2)	4.204	NS
Routine drugs	375(93.8)	61(16.3)	112(29.9)	142(37.9)	60(16.0)	19.799	S
Blood pressure checked	374(93.5)	64(17.1)	115(30.7)	138(36.9)	57(15.2)	4.003	NS
Malaria preventing drugs given	245(61.3)	55(22.4)	54(22.0)	84(34.3)	52(21.2)	43.857	S
Antenatal Services						186.910	S

Dec = Decision, S = Significant, NS = Not significant df = 30 χ^2 tab = 7.815
NPE = No primary education, PE = Primary education, SE = Secondary Education, PSE = Post secondary education

Table 1 shows the prenatal services utilized by women of child bearing age. The prenatal service mentioned by respondents were health and nutrition education by 374 (86.8%); urine test 292 (54.3%); HIV test by 217 (73.0%); physical examination by 354 (88.5%); ultrasound by 108 (27.0%);measuring of height 301 (75.3%); measuring weight 364 (91%); tetanus injection by 374 (94%); received routine drugs by 375 (93.8%); blood pressure measurement by 374 (96%); and malaria preventive by 245 (61.3%).

Overall, the table shows that calculated chi-square value with regard to antenatal services (χ^2cal = 186.910 < 43.773) is greater than chi-square value. This is implies that there is a significant difference in the antenatal services utilized among pregnant women of different educational attainment.

However there was no significant association between level of education of mothers and utilization of health and nutrition education, tetanus injection and checking of blood pressure.

Table 2: Frequency, Percentage and Chi-square of Responses on Health Service Received during Antenatal in the Last Pregnancy by Location of Residence (400)

	Location of Residence			
Service Received	**Urban**	**Rural**		
	f %	f %	**χ^2 cal.**	**Dec**
Health and nutrition education	115(33.1)	232(66.9)	7.032	S
Urine testing	84 (38.7)	133(61.3)	14.112	S
HIV Testing	100(34.2)	192(65.8)	6.209	S
Ultrasound	95(37.5	158(62.5)	14.090	S
Physical examination	111(31.4)	243(68.6)	0.531	NS
Measuring of height	99(32.9)	202(67.1)	2.616	NS
Measuring of weight	112(30.8)	252(69.2)	0.001	NS
Tetanus injection	117(31.3)	257(68.7)	0.769	NS
Routine drugs	119(31.1)	256(68.3)	2.725	NS
Blood pressure checked	116(31.0)	258(69.0)	0.191	NS
Malaria preventing drugs given	95(38.8)	150(612)	19.124	S
Antenatal Services			41.558	S

Df = 10 χ^2 tab = 3.841

Table 2 shows that each of the calculated chi-square with regard to location, health and nutrition education (χ^2 cal = 7.032 > 3.841), Urine testing (χ^2 cal = 14.112 > 3.841), HIV testing (χ^2 cal = 6.209 > 3.841), Ultrasound (χ^2 cal = 14.090 > 3.841), Physical examination (χ^2 cal = 0.531 < 3.841), Measurement of height (χ^2 cal = 2. 616 < 3.841), Measurement of weight (χ^2 cal = 0.001 < 3.841), Tetanus injection (χ^2 cal = 0.769 < 3.841), Routine drugs (χ^2 cal = 2.725 < 3.841), Blood pressure (χ^2 cal = 0.191 < 3.841), Malaria preventive drugs (χ^2 cal = 19.124 > 3.841). Overall, the table shows that calculated chi-square (χ^2 cal = 41.558 > 18.307). This implies that there is a significant difference in the influence of location on mother utilization of antennal services. However there was no significant association between level of education of mothers and utilization of physical examination, measurement of height and weight and tetanus injection, among others (Table 3).

Discussion

Results of the study showed that there was high level of utilization of antenatal care services (79.7%) among women of childbearing age in Ebonyi State. Some of the services utilized were health and nutrition education, urine testing, HIV

testing, ultrasound, physical examination, height and weight measurement, tetanus injection, routine drugs, checking of blood pressure and malaria preventive drugs (Tables 1). In fact, this high utilization of antenatal services has been expressed by previous studies (National Institute for Health and Clinical Excellence, 2003; Osugbade, Ogini & Lumide, 2008; Nisar & White, 2008). Fakede and Mariam (2007) also reported high level of ANC (76.7%), Iyaniwura and Yussuf (2009) stated that, (84.69%) of women in South West Nigeria received antenatal care during their last pregnancy. The findings, however, seem to be in line with those of Zoakah and Lawan (2004) who found that booking among the mothers was 24.9 weeks and up to 62% of the mothers had about 1-4 ANC visit during pregnancy.

The findings of the study were found to be inconsistent with the study conducted by NDHS Adamu & Salihu (2002) in Kano that (88%) of women did not utilize antenatal care; and also inconsistent with Chapman (2003) which stated that 83% pregnant Mozambique women don't use ANC instead they consult prophets, pastors and traditional healers who understand women's vulnerability. Ogunlesi (2005) asserts that women took no form of prenatal care and those who did, eventually deflected into churches and thus concluded that prenatal and delivery services were still poor in Nigeria.

Moreover, location and educational level of childbearing mothers significantly influenced ANC utilization in the state and this consistent with NDHS (2013), Thu Ha (2005) opined that location and education level strongly affected use of ANC in Vietnam. On average, two-thirds of pregnant women in developing countries seek at least one ANC but disparities remain between rural and urban area (Pandey and Supendra (2014). This assertion, was collaborated by Emelumadu, Ukegbu, Ezeama, Kanu, Ifeadika and Onyeonovo 2015, Gazali, Murktar and Gana 2012; National HIV/AID and Reproductive Health Survey 2003; Dairo and Owoyokun 2010; Ibnouf, Bome and Maarse, 2007; Nwogu (2009). Dairo and Owoyokun (2010) also reported a high utilization of ANC services among urban dwellers when compared to rural women. For instance, Gazali, Murktar and Gana 2012 reported ANC urban utilization at 72% and 27% for rural in Borno state. Also National HIV/AID and Reproductive Health Survey 2003 in Nigeria stated that higher ANC attendance is more among urban 87% than rural 52%. Dairo and Owoyokun (2010) revealed a significant difference in residence, religion and age in relationship with antenatal care use in Ibadan and the women in the urban residence utilize antenatal care more than women in the rural residence. Moreover, Utilization of ANC was, 61.1% in urban and 22.4% in rural residence with N.W region having the highest prevalence of ANC poor utilization at 69.3%, 76.6% and 44% for the overall, rural and urban residence respectively (Adewuyi, Khamal,

Bamidele, Akuoka, Adelemi, Tapshak and Zhao (2018).

Timing of first antenatal care visit was strongly influenced by wealth and urban residence (Kuuire, Kalgmennaang, Atuoye, Antabe, Boamah, Vercillor (2017). Danson, Adekunle and Arowojolu (2017) reported that place of residence was next associated with ANC seeking while female education was the most important factor related to utilization of ANC.

The findings are at variance with those of Navaneetham and Dharmaling (2001) who reported that there was no significant difference in antenatal care utilization between urban and rural women due to the role played by the multi-purpose health workers posted in the rural areas to provide maternal health care services.

Conclusion

The findings of the study showed that 79.7% pregnant women utilized antenatal care services. In addition, location and education significantly influenced ANC utilization in the state. The study revealed that the utilization of services is significant in both location and education of mothers in prenatal service use.

Recommendation of the Study

- Government should formulate policies that enhance the use of ultrasound in all ANC clinics.
- Education of mothers through public enlightenment on importance of attending ANC and outreach services by health workers to remote areas.
- Primary health care should be well funded with personnel and material so that people at the grassroots can access it.

References

Adamu, Y .M., & Salihu, H .M. (2002). Barriers to the use of antenatal and obstetric care services in rural Kano, Nigeria. *Journal of Obstetrics and Gynecology, 22*(6), 600-603.

Adeniyi, F.F., & Erhabour, S (2015). Barriers to antenatal care in Nigeria: evidence from non-users and implication for maternal health programme. *BMC Pregnancy and Childbirth, 15*, 95.

Adewuyi E.. O., Auta, A., Khanal, V, Bamidele, O. D., Akuoko, C.P, Adefemi, K, Tapshak S.J., & Zhao Y (2018). Prevalence and factors associated with underutilization of antenatal care services in Nigeria: A comparative study of rural and urban residences based on the 2013 Nigeria demographic and health survey. *PLoS ONE 1*3(5): e0197324. https://doi.org/10.1371/journal.pone.0197324

Adewuyi E O, Zhao Y. Determinants of neonatal mortality in rural and urban Nigeria: evidence from a population-based national survey. Pediatrics International.2017;59(2):190-200. pmid:27378178.

Anwusi, V. O.,, Anyanwu, E.B., & Okeleke, V. (2008). *Determinants of antenatal care services in a rural village in Nigeria.* Retrieved January 3, 2010, from www.un.org/esa/socder/enable/diswpa01.htm

Chapman, L.R. (2003). Endangering safe motherhood in Mozambique: Prenatal

care as pregnancy risk. *Social Science and Medicine, 57*(2), 335-374.

Chukwuma, B. D. Uche,R. O. Kelechi, Kelvin, C. D. Irene, A. M. Henry, N. O. & Chima, A.E. (2015). Antenatal Care Services Utilization among women of reproductive age in semi-urban communities in Orlu LGA, Imo State, Nigeria. *Orient Journal of Medicine, 27(*1-2).

Dairo, M. D., & Owoyokun, K .E. (2010). Factors affecting the utilization of antenatal care services in Ibadan, Nigeria. *Benin Journal of Postgraduate Medicine, 12*(1), 6-12.

Dansou J, Adekunle A O, Arowojolu A O 2017. Factors associated with antenatal care services utilization patterns amongst reproductive age women in Benin Republic: An analysis of 2011/2012 Benin republic's demographic and health survey data Vol. 24 Issue 2 pp. 67-74 DOI: 10.4103/npmj.npmj_16_17

Ebonyi State Government. (2006*). Ebonyi State Economic Empowerment and Development Strategies.* Abakaliki: Ebonyi State Government.

Ebonyi State Ministry of Health Report. (2011). *Malaria in pregnancy and children under five years situation analysis.* Abakaliki: Ebonyi State Ministry of Health.

Emelumadu, O. F. Ukegbu, A. U. Ezeama, N. N. Kanu, O. O. Ifeadike, E. O. & Onyeonoro, U. U. (2014). Social Demographic Determinants of Maternal Care Service Utilization among Rural Women in Anambra State, South East Nigeria. *Annals of Medical and Health Science Research 4*(3), 374-382.

Fakede, B .G., & Marian, A. (2007). Antenatal care services utilization and associated factors amng mothers in Jimma Town (South West Ethiopia). *Ethiopian Medical Journal,*

Gazali, W. A., Falmata, M., & Mahamoud, M. G. (2012). Barriers to Utilization of Maternal Health Care facilities among pregnant and non pregnant women of child bearing age in Maiduguri Metropolitan Council (MMC) and Jere LGAs of Borno State. *Continental Journal Tropical Medicine, 6*(1), 12-21, 2012 ISSN: 214-4167.

Ibnouf, A.H., Van Den Borne, H.W., & Maarse, J.A. (2007). Utilization of antenatal care services by Sudanese women in their reproductive age. *Saudi Medical Journal, 28* (5), 737-743.

Iyaniwura, C.A., & Yussuf, Q.. (2009). Utilization of antenatal care delivery services in Shagamu, South West Nigeria. *African Journal of Reproductive Health, 13*(3), 34-40.

Kripet, C. (2010). Expectant management versus surgical treatment for miscarriage. Retrieved from http://webarchieve.org/afp/2010/001/cochrane.htm//cz

Kuuire, Z.V., Kangmennaang, J., Atuoye, K N, Antabe, R., Boamah, S.A., & Vercillo, S. (2017)). Timing and utilization of antenatal care service in Nigeria and Malawi. *International Journal for Research, Policy and Practice, 12*(6), 711–727.

Magadi, M. A., Madise, N .J., & Rodrigues, K .N. (2000). Frequency and timing of antenatal care in Kenya: Explaining the variations between women of different communities. *Social Science and Medicine, 51*(2), 551-561.

Maternal and Child Health Bureau. (2008). *A healthy start: Begin baby is born.*Retrieved from www.mchb.hrsa.gov/programs/womeninfants/prenata.htm.

National HIV/AIDS and Reproductive Health Survey (NARII) Nigeria. (2003). *Antenatal attendance among mothers of childbearing age.* Abuja: Federal Ministry of Health, Nigeria.

National Institute for Health and Clinical Excellence. (2003). *Antenatal care: Routine care for healthy pregnant women.* Abuja: Federal Ministry of Health, Nigeria.

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.

National Population Commission (NPC), Nigeria and ORC Macro. (2009). *Maternal health.* Abuja: NPC and ORC Macro.

Naveenthan, K., & Dhamaligan, A. (2000). Utilization of maternal health care services in South India .*Pan American Journal of Public Health, 16*(1), 12-18.

Nigeria Reproductive Health Resources and Services Survey. (2003). *Maternal health services in Nigeria.* Abuja: Federal Ministry of Health, Nigeria.

Nisar, N., & White, F. (2008). *Factors affecting utilization of antenatal care among reproductive age group women (15-49 years) in an urban squatter settlement of Karachi.* Department of Community Health Sciences, the Aga Khan University Karachi. Retrieved, from http://pma.org.pk/viewarticle/viewarticleaspx?article/D=835/2/2008

Nwaneri A C, Ndubuisi I, Okoronkwo I L, Ezike O and Umebuani N 2018. Determinants of late booking for antenatal care among pregnant women in selected hospitals in South East Nigeria. International Journal of Nursing and Midwifery Vol.10(7), pp. 74-80 DOI: 10.5897/IJNM.0308 ISSN: 2141-2456.

Nwogu, E .C. (2009). Utilization of maternity care in Nigeria. *Global Journal of Pure and Applied Sciences, 15*(3), 439-437.

Ochiawunma, I. (2002). *Child survival in Nigeria: Situations, response and prospects.* Abuja: Policy Project, Nigeria. *The Internet journal of Epidemiology* Vol 2, No 2

Ogbonna, N., Anuma, T .I., Umeora, O. U. J., Obuna, P. (2009). Trends and factors associated with maternal mortality in Ebonyi State University Teaching Hospital (EBSUTH), Abakaliki. *Tropical Obstetrics and Gynecology, 26*(2), 89-178.

Ogunlesi, T.(2005). The pattern of utilization of prenatal and delivery services in Ilesa, Nigeria.

Osugbade, K., Oginni, S., & Olumide, A. (2008). Content of antenatal care services in secondary health care facilities in Nigeria: Implications for quality of maternal health care. *International Journal for Quality Health Care, 20*(5), 346-351.

Pandey, K. & Supendra (2014). Maternal satisfaction studies and their limitations: what is must still be best. Birth *30*, 75-82.

Parmet, S.(2004). Prenatal care. *The Journal of the American Medical Association, 291*(1), 148-152 .

Thu Ha, N. (2005). *Factors influencing utilization of maternal health care services in Northern Vietnam*.(Unpublished s Master of Arts Thesis,) Mahidol University, Vietnam.

Toan, T .K. (2012). Antenatal and Delivery Care Utilization in Urban and Rural Contexts in Vietnam: A study in two health and demographic surveillance sites, thesis at the Nordic School of Public Health NHV Gothenburg, Sweden

UNICEF. (2015). Committing to child survival: A promise renewed, Progress Report 2014. 2014. New York, USA: UNICEF. 2015.

WHO, (2016). Sexual and reproductive heath. New guidelines on antenatal care

for a positive pregnancy experience. http: www.who.int/areproductivehealth/news/antental-care/en/ Retrieved 10 September 2017 10:54 pm.

WHO, UNICEF & UNFPA (2007). Advocacy Brief: In Family Planning/Child Birth Spacing for Health and National Development Action Points for Policymaker. Produced by the Federal Ministry of Health with support from ENHANCE projeact/USAID

WHO/UNICEF & World Bank. (2010).Trends in maternal mortality 1990 -2010 .Washington D .C: World Bank.

Zoakan, A .I., & Lawan, U. M. (2004). Utilization of antenatal care services in comprehensive health center (CHC) Gindri. *Medical Research Journal, 2*(1), 64-69.

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Improving the Communication Skills of Autistic Children through Artistic Interaction: Case Study of Therapeutic Daycare Centre, Abakpa Nike, Enugu

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Abstract

The major purpose of this study was to explore the possibilities of using the kinesthetic imports of art to improve interaction among autistic children. Specifically, the study exposed autistic children to the following; Drawing and Colouring for psychotherapy, Assemblage Art for cognition, Kinesthetic Art for interaction, and Re-test with the three art forms combined. It was an experimental study. Population comprised 30 autistic children, treatment group; (n=15) and control group; (n=15). The instruments developed and used for treatment and data collection were; the Syllabus for Experimental Art Classes (SEAC), which was the curriculum for interventions, and the Percentage Scoring and Rating Chart (PSRC), which was used to rate responses to the two interventions; School Treatment Art Classes (STAC) and the Home Re-test Combined Art Classes (HRCAC). Direct observation was basis for progress percentage rating. The results showed; (i) significant decline in screaming fits, (ii) improvement on photo-sense, (iii) elongation of attention span, (iv) development of assemblage skills, and (v) enormous drop in mood swing. It is recommended that art and interactive learning be improved upon in special schools, not just as a subject but a creative way of teaching other subjects. This is mainly because art is a reliable kinesthetic strategy for managing autistic children both at home and school.

Key words: Kinesthetic, therapeutic, assemblage art, autistic, photo-sense, attention span.

Introduction

Autism is a neuro-developmental disorder that hampers the interaction skills of children. The symptoms include repetitive behaviours, self-injuries, screaming fits and restricted interests. In defining autism, researchers get tempted to do so from the points of view of its characteristics, causes and effects. UnderstandingSpecialEducation.Com (2018) avers that the definition of autism

is a complex process. Most experts agree that autism is a brain development disorder characterized by impaired social interactions, limited communication and repetitive behaviours. Signs usually appear before age 3. The cause isn't clear, but recent scientific studies believe there is a strong genetic base. New research comes out almost every day on possible causes. Some groups advocate for environmental causes such as induced labor, heavy metals, pesticides and childhood vaccinations. **A**utism occurs four times more in boys than in girls**.** The diagnosis of autism spectrum disorders has drastically risen since the 1980's. Some studies now claim 1-150 children are diagnosed as autistic with occurrence in as many as 1-94 boys. The above submission by UnderstandingSpecialEducation.Com (2018), in its seeming all-encompassment, still wouldn't suffice, to relay all primary facts about autism. Happe (2008) states that it has long been presumed that there is a common cause at the genetic, cognitive and neural levels for autism's characteristic triad of symptoms. Happe, Ronald and Plomin (2006) further clarify that there is increasing suspicion that autism is instead a complex disorder whose aspects have distinct causes that often co-occur. While Ajumobi (2007) asserts; autism comes with some kind of characters like, a child can tip-toe, might not have good communication of language, speech might be blunt, and they find pleasure in repeating same things over and over. Snyder and Thomas (2011) aver that errors in cognition among the autistic are ubiquitous… even assumptions about the more intrinsic attributes in common with all objects can cause illusions. Activities for autistic children should be fun and engaging. But if they become a source of frustration, the benefits of the action may be lost. Autistic children may not know exactly what their interests and favourite activities might be. So, it is up to the parent to introduce them to several areas of interest (Cheryl, 2011).

According to Shankar Rao (2015), of all the groups that affect the lives of individuals in society none touches them so intimately or so, continuously as does the family. In view of the above, the family being the first and most immediate social environment a child is exposed to, should explore all creative variables for full child development especially where there are developmental challenges as in the case of autism. Haralambos and Holborn (2013) expatiate that family performs four basic functions of sexual, reproductive, economic and educational in all societies. He buttresses that all these are interconnected since without the sexual and reproductive functions there would be no members of society, without economic function life would cease and without education there would be no culture. According to Brasford, Brown and Cocking (2000, 217), all new learning involves transfer based on previous learning. Family, thus, plays a crucial role in the education of its members both handicapped and normal.

Art is an expressive mode of communication and artistic expressions play vital roles in human development and the understanding of his environment. Ndubuisi (2015) posits that each region in Nigeria has their own arts which are drawn from their rich cultural heritage and tradition. She buttresses that the arts make people complete, thus education and engagement in the fine arts are essential part of school curriculum. In the words of Ndubuisi (2016), every child is born with creative ability. This is why the first language of a child is scribbling; however, the environment will either develop or destroy it. The opinion of Ndubuisi above is succinct; a lot of creative potentials have not been tapped into, thereby wasting the chances of the bearers becoming better persons in society. According to Draycot (2018), art lessons have benefits both practical and emotional. Some young autistic children may struggle with their fine motor skills, for which the simple act of guiding crayons over paper can render a huge improvement. However, as well as honing their motor skills, making drawings allows autistic children to communicate thoughts and feelings they may otherwise struggle to express. The Department of Education and Early Childhood (2018) submits; education in art is essential. Human experience is ordered in various ways, including kinesthetically, musically, numerically, verbally, and visually. Students need to experience and practice recognizing and understanding the relations between these areas of human experience if they are to gain the optimal benefit from education. Education in art helps students become elective and discriminating in their judgments and improve their understanding of their environment.

In Nigeria, special education and care-giving have become more expensive both in schools and at homes. Parents and teachers of autistic children have inevitably become managers of "special" scarce resources while the same results are still being expected from them as in the days of economic boom. But art can be utilized, bearing a myriad of specialized teaching methods, to enhance learning for the autistic children. Draycot (2018) affirms that many autistic children struggle in conventional classrooms because the methods utilized do not suit their own particular way of doing things. The idea of adapting their personal methods can be upsetting. Art gives them a degree of control over their learning experience which many greatly appreciate.

The Art Council of England has long embraced the importance of art in general development. To this effect, Hickman (2010) submits that the art council of England has supported visual artists working in a range of places and situations since 1966 through its 'Art in Site for Learning Scheme' (AiSfLS). The role that artists play in the scheme is complex and multi-faceted. In providing opportunities for individuals, challenged or not, to express themselves, therapeutic and reassuring results could occur. Contemporary art can be driven by both theory and ideas, and is also characterized by a blurring of the distinction between art and other

categories of cultural experience, such as television, cinema, mass media, entertainment and digital technology (Ndon; 2016). And in the array of idealist and theoretic provenances of art, there is therapy, both in the long run and otherwise.

According to Packard (1987), therapy has been defined as a healing treatment; art therapy is the use of art in a therapeutic setting for the psychological improvement of human conditions. According to Wolf (1971), though the power of art to transform human emotions was recognized early by Plato, it was not until during the 19th century that the by-products of art activities and art objects were seen as having healing potentials. Okoli (2007) buttresses that therapy is working with a child physically, mentally, emotionally and academically. Care for them must be put at par with their mates. We discover that most autistic children are very brilliant and so we try to bring them out of their shell to exhibit their artistic talents which to them is also of healing potentials. Art therapy is ideally suited for addressing sensory processing disorder (SPD), a pervasive problem in autism which contributes to a great deal of difficult emotions and behaviors, yet is too often overlooked (Lacour, 2018).

In the words of Ovraiti (2005), art is a language that is embraced when you begin to understand the worth. Art Therapy is a mental health profession that uses the creative process of art making to improve and enhance the physical, mental and emotional well-being of individuals of all ages. And Kettley (2010) asserts that imagination is more important than knowledge; for knowledge is limited while imagination embraces the whole world. So it is right to point out the fact that education liberates the mind, especially if it's a combination of cognitive and kinesthetic measures. Approaches to art therapy differ. Broder (2008) observes that no particular effective treatment of autism which is life long has been pinned down. Special schooling, support and counseling of families and sometimes behaviour therapy can be helpful. Collier (1999) states that drawing should be used by beginning students to record their personal and instructive reactions to all kinds of stimuli whether initiated by the senses, by intuition, by emotion or by intellect. In the face of special schooling crises, managers of neural handicap sometimes adopt economic measures that do not augur well with the daily needs of special children. To the teacher or instructor of children in a special school, what matters is a way out of the cluster of possible pedagogical resorts. To the parent of an autistic child, care adjustments have to be considered because the autistic child has normal siblings who also need attention and care. But to the autistic child himself, his unpredictable needs and attention, in their diversities must be attended to, economic austerity notwithstanding. Special care givers, therefore, consistently adopt and shuffle inexpensive measures in order to arrive at the best therapeutic results. In the above instance, art is here fostered. Experienced specialist art therapist,

Claire Tottle submits; for many autistic pupils eye contact is difficult, reading the emotions and feelings of others a challenge. Portrait work can help this. Begin by looking at a selection of portraits, discuss how the people could be feeling, (the teacher might have to feed a lot into this discussion). Look at portraits where the emotion is obvious: for example a smile, asking: What makes you feel like this? Talk about anger and sadness too, if appropriate, emotions like shyness or excitement may be too complex for some pupils to read (Tottle, 2016).

And in furtherance, Lacour (2018) offers; broadly speaking, art therapy promotes mental and emotional growth through art making. Unlike art instruction, art therapy is conducted with the aim of building life skills, addressing deficits and problem behaviors, and promoting healthy self-expression. In the words of Lesser (2018), developing a familiarity with different art materials can help a child's fine and gross motor skills, while letting them become more flexible in unfamiliar scenarios. Perhaps most importantly, art therapy can allow a child with ASD to express their feelings and impressions of the world.

Purpose of the Study

The major purpose of this study was to investigate the potentials of ameliorating the communication skills of autistic children with artistic treatment. Specifically, the study;

1. used drawing and colouring exercises to achieve psychotherapy,
2. involved the autistic children in assemblage art with collage and paper puppet making to improve cognitive learning,
3. engaged the autistic children in kinesthetic learning with clay and plasticine moulding for interaction, and
4. engaged the artistic inclinations of autistic pupils in a different location by combining all three art forms in a home re-test exercise.

Methodology

Area of the Study: The area of study was Enugu, the Capital of Enugu State, South-East, Nigeria. Apart from the School for the Deaf and Dumb, Ogbete, in Enugu metropolis and the Special Education Centre, Oji River, and some mixed schools, it is in doubt if there is any other government-owned special school in Enugu and its surroundings where atypical students are taken care of, with specialized teaching. Even at that, only privately owned and mission special schools have proven to be partially embracing artistic and creative pedagogies for special care giving. One of such private special schools is The Therapeutic Day Care Centre Abakpa Nike, Enugu where the current research was carried out. The school was chosen because it embraces veritable creative opportunities and facilities that encourage kinesthetic and illustrative special education. Art and vocational education are fostered in the school with the provision of workshops, studios, and an array of materials suitable for different categories of special students. The elementary classes

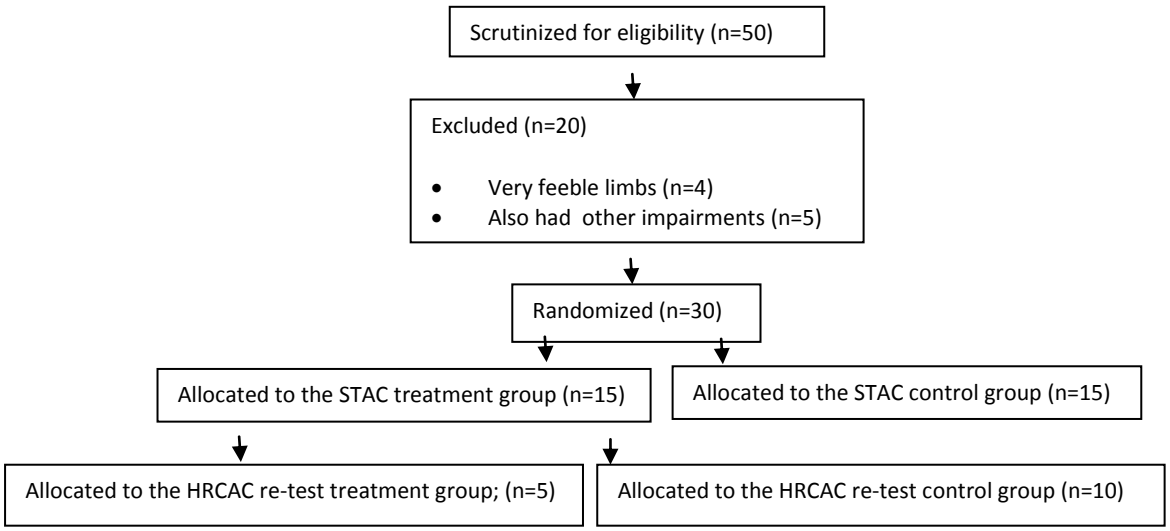
run special schooling for persons with cognitive difficulties, as well as inclusive education for various kinds of mentally and physically challenged persons. The sheltered workshop, an arm of the school, is specifically for older handicapped students, where crafts and vocational skills are taught. Both sections of the school are located in serene areas of Abakpa Nike, Enugu.

Design of the Study: The study was experimental. An experimental research design is the type in which comparison is made between causes and effects. It involves taking action to influence a phenomenon under study and then observing the consequences of the influence. The study was planned in such a way that the experimental group was exposed to selected art forms for three weeks; one art form (Tuesdays and Thursdays) of each week in the Therapeutic Daycare Centre, Abakpa Nike, Enugu. Then, on the fourth week, all the selected art forms were returned in a combined form for a home-re-test. The experimental group was treated to the exercise while the control group was not. Precaution was taken not to include children with mental and physical retardations other than autism. This is to ensure equality of treatment and chance of equal response to the stipulated artistic exercises they were being treated to.

Population for the Study: From an initial population of 50 autistic children between primary 1-4, 15; 10 boys and 5 girls were randomly selected for the treatment or experiment tagged: School Treatment Art Classes (STAC). The same population (n=15) also constituted the control group. After the 3 weeks exercise, 5 autistic children from the STAC experimental group (n=5: 3 boys and 2 girls) were re-tested with all 3 art forms in a sample home experiment tagged: Home Re-test Combined Art Classes (HRCAC) while the balance of 10 constituted the home re-test control group. Whole population (N=30); treatment group (n=15), control group (n=15), re-test treatment group (n=5); re-test control group (n=10).

Sample for the Study: From the initial population of 50 children bearing traces of autism, the randomized sampling approach was used to select 15 autistic children (n=15) for the treatment group and 15 (n=15) for the control group. 20 of them who did not meet with the required criteria for inclusion were left off. The criteria for selection are shown on the participant eligibility criteria chart below:

Fig 1: Participant eligibility criteria



Instruments for Execution and Data Collection: The primary instrument that guided treatment proceedings was the Syllabus for Experimental Art Classes (SEAC), developed by the researchers. In carrying out artistic experiment, care is usually taken to outline the foreseeable order of application of materials, media and their methods. The order of artistic events, must comply with the dictates of the elements and principles of design, especially where elementary visual art is concerned. In projecting the elements and principles of design, the two and three dimensional art forms are usually enclosed. When this is done, the treatment could boast of having administered all forms of visual art with their targeted, foreseeable or unforeseeable results. The goals of drafting such syllabuses for artistic treatment is also, usually enclosed. The current study has the structured syllabus containing the following manipulative elementary art forms; Drawing/Colouring (2-dimensional art), Collage/Paper Puppet Making (2 and 3-dimensional art combined) and Clay/Plasticine Moulding (3-dimensional art) for 3 weeks school treatment and 1 week home treatment. The contents of the syllabus were randomly selected from a programme of elementary art education developed. Based on the above-given principles, it was validated by Professor O.K. Oyeoku; Art Educationist and Ceramic Artist, also head of the Art Education section of the department of Fine and Applied Arts, University of Nigeria, Nsukka, and Dr. Mike Okwudili, Art Educationist and Curriculum designer, also Rector of OSISATECH Polytechnic, Enugu.

Fig 2: Syllabus for Experimental Art Classes (SEAC)

SCHOOL TREATMENT ART CLASSES (STAC)			
Duration: ART FORMS:	**WEEK I DRAWING & COLOURING**	**WEEK II COLLAGE/PAPER PUPPET MAKING**	**WEEK III CLAY/PLASTICINE MOULDING**
Objectives:	**2-dimensional design for increased photo-sense & Therapy**	**2-dimenaional design for improvement of Cognitive skills**	**3-dimensional design for Kinesthetic art and interactive learning**
Tuesday:	Free hand and imaginative drawing. Scrolls, spirals and adventitious lines.	Arrangement of basic shapes, placing of paper gums, beads, seeds and cut papers in heaps of colours. Drawing of objects as guided and assemblage of paper and other materials	Introduction to clay behavior by wetting, kneading and balling. Finger puppetting with clay. Introduction to rolling, coiling and placements of slabs
Thursday:	Compositional drawings of shapes and objects. Colouring with crayons, shading and hatching with pencils and pastels	Puppet making; demonstrative teaching of how to make selected paper puppets. Kites, teddies and self-made toys emerge.	Demonstrative teaching of clay wall building and image making; coiling, slab and thumbing methods. Introduction to plasticine use, colour combination in clay assemblage and miniature bust making etc
HOME RE-TEST COMBINESD ART CLASSES (HRCAC)			
WEEK IV:	**Tuesday;** Drawing & colouring	**Thursday;** Collage/paper puppet making	**Saturday;** Clay/plasticine moulding

Source: Alu, N. F. et al (Research 2018)

The secondary instrument was a technically drafted Percentage Scoring and Rating Chart (PSRC) meant for recording progressive responses and their percentage equivalents during the experiments. Specifically, the School Treatment Art Classes (STAC) and the Home Re-test Combined Art Classes

(HRCAC) were observed and their responses rated in percentages. The rating parameters (a combination of expected artistic and autistic behaviours) were the baselines for scoring, as to whether they increased or decreased, in each case. Each of them accrued to the selected art forms, a maximum of 25% score per week. The instrument was also validated by Professor O.K. Oyeoku; Art Educationist and Ceramic Artist, also head of the Art education section of the department of Fine and Applied Arts, University of Nigeria, Nsukka, and Dr. Mike Okwudili, Art Educationist and Curriculum designer, also Rector of OSISATECH Polytechnic, Enugu. During a pilot treatment class monitored by the experts mentioned above, the instrument was tested for surface and content validity, and it was approved. The scoring and rating chart has its assessment parameters as follows:

1. Identification of images and basic shapes (artistic)
2. Manipulation and exploration of art materials (artistic)
3. Self-withdrawal (autistic)
4. Cognitive and imaginative skills (artistic/autistic)
5. Assemblage and colour grading (artistic)
6. Interaction and hyperactivity (artistic/autistic)
7. Attention span (autistic/artistic)
8. Distraction and Screaming fits (autistic)
9. Mood swing (autistic)
10. Familiarizing with materials and media (artistic)

Data Collection/Treatment Procedure: Direct observation of response was the basis for percentage scoring. For 3 weeks (Tuesdays and Thursdays per week), the autistic children were treated SEAC. In the first week, DRAWING and COLOURING exercises was the subject of treatment, representing two dimensional designs. The autistic children were progressively, guided through the processes of lines making and image formation, aimed at eliciting cognitive and photo-sense communication through 'life and still life drawing' first, and later, 'image formation and colouration'. The second week had the subject COLLAGE/PAPER PUPPET MAKING being used to foster a combination of two-dimensional and three-dimensional arts. For collage art, cut pieces of paper, pebbles and beads were consciously and serially dislodged, and the children were guided to assemble them in ranges of colours, similitude or otherwise of shapes, and perspective making. The autistic children were not however made to handle sharp objects like the scissors and cutter. This was to avoid exposing them to harm, since some of them readily use anything within reach as play material. The skills of assemblage and installation art were targeted for improvement. The same assemblage process was followed to make paper and fabric puppets, targeted at elongating attention span

and redirecting moribund focus, among other benefits. In the third week, Clay/Plasticine Moulding was the subject being used to foster the procedures of elementary three-dimensional art. Though clay is readily more available and cheaper to obtain than plasticine, the latter is a medium easily manipulated and degradable by children. The free-range system and exploration tendencies in clay manipulation made this a readily accepted subject of artistic and social interaction. In the fourth week, a combination of the three treatment subjects was made in a selected home re-test exercise five of the 15 autistic children hitherto treated in school. In each week, data were being collated by direct observation while response to each treatment subject (per week) was scored at 25% maximum rating per column. The home re-test experiment (fourth week) was also maximally rated at 25%. All the four subjects should, therefore poll a maximum score of 100% cumulative rating per rating parameter row. The aim was not to score the individual response rate of the autistic pupils to each art form but to assess the progress rate or otherwise of all members of the experimental group per art form as guided by the purpose of the study.

Findings of the Study

The Percentage Rating and Scoring Chart (PRSC) below bears data collated from the school based experiments (as contained in weeks 1-3) and the home re-test exercises (week 4).

Fig 3: Percentage Rating and Scoring Chart (PRSC) bearing the STAC and HRCAC Interventions Findings

ASSESSMENT PARAMETERS		**STAC WK 1 25%**	**STAC WK 2 25%**	**STAC WK 3 25%**	**HRCAC WK 4 25%**	**TOTAL 100%**	**REMARKS**
1	Identification of images and basic shapes	20%	17%	21%	24%	82%	Excellent improvement
2	Manipulation/ Exploration	15%	15%	22%	23%	75%	Very good discovery
3	Self-withdrawal	10%	6%	3%	4%	23%	Massive drop
4	Cognitive/ imaginative skills	15%	22%	24%	25%	86%	Excellent improvement
5	Assemblage/colour grading	9%	20%	21%	23%	73%	Very good improvement
6	Interaction/Hyperactivity	10%	23%	25%	24%	82%	Massive increase
7	Attention span	15%	22%	24%	24%	85%	Huge elongation
8	Distraction/Screami	10%	5%	3%	4%	22%	Massive drop

	ng fits						
9	Mood swing	10%	5%	2%	4%	21%	Massive drop
10	Familiarizing with materials and media	8%	18%	20%	24%	70%	Increase in familiarization

In the first week, under ***Drawing/Colouring,*** *Identification of Images* garnered a score of 20% shift from communicative redundancy while *Manipulation* had 15%. *Self Withdrawal* got a low ebb of 10%, *Cognitive Skills*; 15%, *Assemblage*; 9%, *Interaction*; 10%, *Attention Span*: 15%, *Distraction and Screaming Fits;* 10%, *Mood swing*; 10% and *Familiarization with art media*; 8%. The second week exercise; ***Collage and Paper Puppet Art*** polled 17% score under *Identification of Images, Manipulation;* 15%. *Self Withdrawal; 6%*, *Cognitive Skills*; 22%, *Assemblage*; 20%, *Interaction*; 23%, *Attention Span*: 22%, *Distraction and Screaming Fits*; 23%, *Mood swing*; 5% and *Familiarization with art media*; 18%. In the third week under the exercise ***Clay and Plasticine Moulding,*** 21% accrued to *Identification of Images*, *Manipulation of clay;* 22%. *Self Withdrawal; 3%*, *Cognitive Skills*; 24%, *Assemblage*; 21%, *Interaction*; 25%, *Attention Span*: 24%, *Distraction and Screaming Fits*; 3%, *Mood swing*; 2% and *Familiarization with art media*; 20%. The HRCAC had 5 of the sampled 15 STAC autistic pupils re-tested with all 3 art forms and *Identification of Images ganered* 24%, *Manipulation of all the art media*; 23%, *Self Withdrawal and* 4% drop. But *Cognitive Skills* polled a 100% score of 25%. *Assemblage*; 23%, *Interaction*; 24%, *Attention Span*: 24%, *Distraction and Screaming Fits*; 4%, *Mood swing*; 4% and *Familiarization with art media*: 24%. The HRCAC results showed significant improvement from the earlier records of the STAC intervention, meaning that if interventions continued, improvement would have increased along.

Discussion of Findings

A summative relay of the interventions findings is shown below:

Fig 4: Summary of the STAC and HRCAC Intervention Findings

	ASSESSMENT PARAMETERS	STAC and HRCAC cumulative percentage ratings	DISCUSSION OF FINDINGS
1	Identification of images and basic shapes	82%	The autistic children broadened their knowledge of basic shapes with guided drawings and lines making. This however, progressed weekly.
2	Manipulation/Exploration	75%	They discovered wider ranges of manipulative

			skills with three dimensional and assemblage art
3	Self-withdrawal	23%	There were individual massive drops on self-withdrawal and extreme introversion, due to the kinesthetic involvements offered by creative arts
4	Cognitive/ imaginative skills	86%	A very high level of thinking in form of images and colours was achieved. The autistic children thus became better cognitive learners.
5	Assemblage/colour grading	73%	There was a very rapid improvement on the skills of arranging objects, compositional drawing, colour sorting, and gradation.
6	Interaction/Hyperactivity	82%	Interaction generally improved and rapidly too, especially among the introverted autistic children.
7	Attention span	85%	Attention span was significantly elongated, this was noticeable when those in the control groups were sampled in normal classes with those treated to the intervention art classes.
8	Distraction/Screaming fits	22%	There were massive drops in screaming fits.
9	Mood swing	21%	Mood swing was put under check and Subsequently diverted to creative thinking and artistic manipulations.
10	Familiarizing with materials and media	70%	In view of all the above, the autistic children familiarized a great deal with art materials and media compared to those in the control groups.

Source: Alu, N. F. et al (Research 2018)

In consonance with the research purpose which was aimed at using; Drawing and Colouring exercises to achieve therapy, Assemblage Art for improving cognition, Kinesthetic Art for interaction and re-testing with Combined Art Forms and from the discussion of findings on fig. 4, we deduce that the therapeutic options of creative arts for autistic children are of very high amplitude. Findings are buttressed by Marcos (2016) affirming

that art projects are recognized as effective forms of therapy to help kids who have a diagnosis of autism or other learning disabilities. Marcos buttresses; the American Art Therapy Association and the British Association for Art Therapists recognize that art therapy fosters 'healing and enhances life.' Art is often the strength of autistic children. Encouraging strengths is important in developing self-esteem. From data on fig 3 and 4, it is clear that Drawing and Colouring helped the autistic children to achieve therapy whereas Assemblage and Puppet art making elicited worthwhile cognitive learning. Also Kinesthetic Art exercise improved inter and intra personal interactions among the sampled autistic children. This was even more evident among the STAC treatment and waitlist group members when they were compared. And also during the HRCAC post-test.

Ordinarily, children with autism Spectrum Disorder don't have the same motor fantasies as normal children, their play skills and emotions differ and they have problems keeping friendships due to their communication weaknesses (Raisingchildren.net.au, 2017; 160,459). But art can be an effective way to communicate. Art can also fulfill the sensory needs of children on the autism spectrum (Marcos; 2016, 1). Lacour (2018) posits that in recent years, caregivers seeking alternative or complimentary treatments have a broader range of options available. One such treatment is art therapy. In addition, we also infer that it is more therapeutically rewarding to engage autistic children in artistic exercises than using finished artistic images to teach them. This inference is supported by Draycot, (2018) in his assertion that a child shown a map and told the names of the countries on it may become bored or frustrated, let their attention wander, or simply refuse to participate in the lesson. (But) a child asked to draw their own map, and make it as accurate as possible, immediately has much more control over their learning experience. They are more likely to become engaged in the task, actively seeking out the information they need on their own terms. Still on exploration and freedom of the mind, Sholt & Gavron (2004) posit that the softness of an art medium like clay, for example, helps children in art therapy to express their inner fantasies and emotions, while its three-dimensional quality encourages them to engage in the creative process. Specialist SEN art teacher, Claire Tottle would not hesitate to submit the benefits of art for autistic children. According to Tottle (2016), with the right approach, in my opinion all children on the autistic spectrum can benefit from art activities. My experience of teaching art to autistic pupils has shown me this. In the art room many will find a sense of calm, inspiration and sensory fulfillment. And, Themomkind.com (2017) adds that though it may seem cliché art and autism are a great combination. For those of us who cannot always get words to come out of our mouths, art offers a way of self-expression. For children, it allows their imagination to

run wild and come to life before their eyes.

In the tropics, having an autistic child at home is a source of great worry. Regretting the untoward experiences autistic and other Special Needs children go through in Nigeria, Obinna (2017) cries; imagine having to take care of a child with disability without knowing what to do or where to go? If you can imagine these, then you will appreciate what a number of Nigerian parents who have children with Autism Spectrum Disorder, ASD, are going through. In addition to Obinna's submission, the comparative care giving approaches between the normal children and the autistic one (as the parents are wont to suffer), and the feeling of abnormality by the autistic child himself, are tending angles to the autism trauma. So, on the side of the parents or care givers, it is very tasking to cope with the cost of managing autism. But artistic options are reachable and relatively cheap. To avoid the bias of inferiority complex on the side of the autistic child, which he may not be able to express vocally, it is good to adopt measures that would increase interaction between the autistic child and the normal ones. On the engendering of interaction during art exercises, Tottle (2016) posits that art is a way of building social skills. Pupils can be encouraged to work together on a joint piece of art, scaffolded by an adult.

Conclusion

Legally, every Nigerian child has the right to education and good health, rights to develop, and to participate actively in the promotion of his/ her rights, according to the 1990 Convention on the Rights of the Child. These also include the right of children with disability. But the one dollar question now is: Are these children really getting attention as written in the said convention which Nigeria has ratified and signed into law? (Obinna, 2017).

From the foregoing, irrespective of whether a child is autistic or normal, he deserves all the care and education that the parents can muster. Care givers must detach from superstitious beliefs accruing to Special Needs Children in order to be able to accept available psychotherapeutic options like the arts. Obinna (2017) regrets that today, little or no attention is paid to various disabilities in Nigeria. Many of these children are erroneously believed to be products of witchcraft while some are locked up in a room by their parents and left to die. Most children living with ASD are denied basic human rights, resulting in poor quality of life and trauma for their parents, relations and care givers.

The current experimental study was result-yielding but not without the attendant challenges of indulging special children with autism, some of whom are morbidly fascinated, in the repetitious, play-like and kinesthetically involving programme of visual arts. Though the experiment was carried out at the elementary levels of 2-dimensional and 3-dimensional arts, care was taken not to expose the autistic children to toxic and sharp art

objects, to avoid injury. This is because for the extroverted ones among them, anything within reach soon goes to the mouth and even becomes a material for playing.

Recommendations

- It is recommended that art be explored in special schooling, not just as a subject but a creative way of teaching other aspects of learning or subjects.
- There is need for parents, teachers and guardians of autistic children to adapt artistic measures for reliable therapeutic and neuro-developmental results.
- For autistic children, mood swing is a common feature but art could be used to re-direct them towards skills-engaging and communicable activities.
- Interactive art activities are capable of elongating the attention span of autistic children.
- The psychotherapeutic impact of art on autistic children is so positive that art is recommended to be part of their daily educational routines
- With artistic engagements, even the hyperactive autistic child can be localized to a concentration point that will focus his brain to the precepts of kinesthetic education.
- Home handicap management should have no straight jacket method. Most times what the handicapped persons' hands could manipulate should not be disregarded with prejudice but given a chance at possibly evolving into a corrective communication habit.

References

Ajumobi, F. (2007). *Autism spectrum adaptive programme*. Abeokuta; Chrisdiamond Publishers Ltd.

Brasford, J.D., Brown, A.L. and Cocking, R.R. (2000). *How People learn; Brain, mind, experience and school.* Washington D.C: Academy Press.

Broder, T. (2008). *Illustrated medical dictionary.* London; The British Medical Association.

Collier, G. (1999). *Form, space and vision; Discovering design through drawing.* Prentice Hall Inc., Eaglewood Cliffs.

Department of Education and Early Childhood (2018). Elementary art curriculum guide. **Error! Hyperlink reference not valid.**. Assessed on November 03, 2018

Draycot, C. (2018). Using art and creativity to engage an autistic child in the classroom. In; The art of autism, connecting through the arts. https://the-art-of-autism.com/educating-autism-art-and-creativity-to-engage-an-autistic-child-in-the-classroom/ Assessed on November 02, 2018.

Happe, F., and Ronald. A (2008). The Fractionable autism triad'*: A review of evidence from behavioural, genetic, cognitive and neural research. Neuropsychol Rev.* 2008:18 (4): 287 –

Happe, F., Ronald, A, and Plomin, R. (2006). *Time to Give up on single explanation for Autism. Nat Neurosci.* 2006: 9 (10): 1218 – 20. doi: 10.1038/nn1770.PMID 17001340.

Happe, F., Ronald, A, and Plomin, R. (2006). *Time to Give up on single explanation for Autism. Nat Neurosci.* 2006: 9 (10): 1218 – 20. doi: 10.1038/nn1770.PMID 17001340.

Haralambos and Holbron (2013). *Themes and perspectives*. London; Harper Collins Publishers Ltd. P.512

https://www.understandingspecialeducation.com/definition-of-autism.html

Lacour, K. (2018). The value of art therapy for those on the autism spectrum. In; The art of autism, connecting through the arts. https://the-art-of-autism.com/the-value-of-art-therapy-for-those-on-the-autism-spectrum/ Assessed on October 31, 2018

Lesser, C. (2018). How art therapy is helping children with autism express themselves. Artsy. https://www.artsy.net/article/artsy-editorial-art-therapy-helping-children-autism-express Assessed on November 02, 2018

Marcos, L. (2016). How low-budget art projects can enhance the lives of children with autism and other learning differences. In: The Art of Autism; connecting through the arts. https://the-art-of-autism.com/how-low-budget-art-projects-can-enhance-the-lives-of-children-with-autism-and-other-learning-differences/ P.1 Assessed on, November 07, 2018

Ndon, E. B. (2016). The ukara cloth: Relevance and appropriation in contemporary art. *The Artist Journal (TAJ). Journal of the Faculty of Environmental Studies, University of Uyo*.1 (3) 2016. ISSN 2142-2775. P.19

Ndubuisi, C. (2016). Repositioning visual arts in Nigerian higher education. *The Artist Journal (TAJ) Journal of the Faculty of Environmental Studies, University of Uyo.1 (2)237*. ISSN 2142-2775

Obinna, C. (2017). Autistic children: they are sometimes locked up in a room and left to die. Vanguard Newspaper Online. February 26. https://www.vanguardngr.com/2017/02/autistic-children-sometimes-locked-room-parents-left-die/ Assessed on November 08, 2018.

Okoli, N. (2007). *What Does Autism Entail?* Vanguard Newspapers. July 22, 2007.

Ovraitti, S. (2005). *Propelled by the fear of poverty*. Hallmark Newspapers. July 5, 2005.

Packard, S. (1987). The history of art education therapy; *A journal of issues and Research in art education.* April 1980 Vol. 33 No 4.

psychotherapy: A Review. *Art Therapy: Journal of American Art Therapy Association*, *23,* 66-72. Kettley, N. (2010). *Theory building in educational research*. London; International Publishing Group. P. 119

Raisingchildren.net.au (2017). Friends and peers; Children and teenagers with autism spectrum disorder. https://raisingchildren.net.au/autism/school-play-work/play-learning/play-asd#types-of-play-skills-for-children-with-autism-spectrum-disorder-nav-title P.160. Assessed on November 06, 2018.

Raisingchildren.net.au (2017). Play and children with autism spectrum disorder. https://raisingchildren.net.au/autism/school-play-work/play-learning/play-asd#types-of-play-skills-for-children-with-autism-spectrum-disorder-nav-title P.459. Assessed on November 06, 2018.

Shankar, R.C.N. (2015). *Sociology; Principles of sociology with an introduction to social thought* . Delhi: Chand & Co. Ltd . P.348

Sholt, M. and Gavron, T. (2004). Therapeutic qualities of clay-work in art therapy and

Themomkind.com (2017). Autism art therapy/the benefits of art for autistic children. https://themomkind.com/autism-art-therapy/ Assessed on November 07, 2018

Tottle, C. (2016). Autism, art and the classroom. In ; National autistic society, network autism. https://network.autism.org.uk/knowledge/insight-opinion/autism-art-and-classroom Assessed on November 04, 2018

UnderstandiSpecialEduction.Com (2018). Understanding the definition of autism.

Wolf, R. P. (1971). *Philosophy; A modern encounter with the Arts.* New Jersey, Prentice Hall Inc. Eaglewood Cliff.

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Nutrients and Organoleptic Properties of Soup and Stew made from *Glossocalyx brevipes* (Benth)

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Abstract

Proximate composition, nutrient composition and sensory evaluation of soup and stew made from *Glossocalyx brevipes* (Benth) were investigated. The proximate analysis showed that the moisture contents of the soup and stew ranged from 6.25 – 7.52%, protein 18.03 – 21.65%, fat 13.04 – 19.23%, crude fibre 6.12 – 7.58%, ash 6.10 – 6.89%, and carbohydrate 38.32 – 80.80% on wet weight basis. The result for the minerals and vitamin determination showed that the calcium content of the soup and stew samples ranged from (3.57 – 4.20mg/100g, iron (1.01 – 91.80mg/100g), magnesium (0.61 – 1.28mg/100g), sodium (0.30 – 0.33mg/100g), potassium (1.25 – 1.73mg/100g), manganese (1.01 – 92.13mg/100g), zinc (58.87 – 68.15mg/100g), copper(31.36 – 36.28mg/100g), pro -vitamin A (0.51 – 1.06mg/100g), niacin (0.38 – 0.49mg/100g), riboflavin (0.20 – 0.95mg/100g), pyridoxine (0.43 – 0.50mg/100g), cyanocobalamine (0.37 – 1.36mg/100g), vitamin E (2.82 – 3.30mg/100g) and vitamin C (2.91 – 3.53mg/100g).The results of the sensory evaluation indicated that *G. brevipes* stew leaf had the highest sensory attributes when compared to other products. In conclusion, the soup and stew made from *G. brevipes* leaf and bark contains nutrients, vitamin and mineral elements that are of high nutritional value. However, focusing our attention on underutilized vegetables is an effective way to help maintain a diverse and healthy diet and to combat micronutrient deficiencies and other dietary deficiencies particularly among the rural poor and the more vulnerable social groups.

Keywords: Nutrients, soup, *Glossocalyx brevipes, diet,* underutilized vegetables.

Introduction

There are different types of vegetables and each group contributes in its own way to the diet. Vegetables are regular ingredients in the diet of an average Nigerian and they are the cheapest, highly valuable and most available sources of important nutrients including protein, mineral elements, vitamins, fibre, essential amino acids and other nutrients which are usually in inadequate supply in daily diets (Adeniyi, Olufunmilayo & Akinnuoye, 2018). They play prominent roles in the traditional-food culture and various ethnic groups consume a variety of

different indigenous types of vegetable for different reasons, some have medicinal properties reserved for the sick and their recuperation (Mensah et al., 2008). Generally, vegetables are widely designated as "protective foods" in human diet due to their varied health benefits attributable to the richness in vitamins, essential fatty acids, minerals, amino acids and dietary fiber and various essential bioactive compounds (Shukla, Kumar & Raib, 2016).

G. brevipes (Benth) is a shrub 8m high of the lowland rainforest, recorded only in south Nigeria, West and East Cameroun. The bark is fibrous and aromatic, the flower has a flavour of nutmeg. It has young branches with fascicles of short stiff hairs. The leaves are oblong, long-acuminate, 20cm long, 6.5cm wide, obliquely cordate at the base, quite entirely glabrous above. It is hairy beneath especially on the nerve and the petiole is 5mm long. The flowers are in auxiliary fascicles; pedicels are villous and 1cm long. The perianth 4mm in diameter, oblique, green, and pubescent outside; the lip is about 5cm long, 4mm wide at the base and triangular. The carpels are about 5 in number, fusiform, and hairy. *G. brevipes* plant is used as folk medicine to treat the problem of diarrhoea and dysentery in Omuooke Ekiti, western Nigereia.

In most local Nigerian diets, approximately half of the leafy vegetables consumed are from indigenous sources constituting significant micronutrient sources especially in times of drought and famine (Lockett *et al*, 2000). Leafy vegetables alleviate the problems of micronutrient malnutrition dominant in tropical Africa (Ejoh, 2005; Grivetti and Ogle 2000). Adding a small amount of vegetable in one's food intake can prevent disease spread. The use of green leafy vegetables for the preparation of soup cuts across different cultures within Nigeria and other parts of West Africa with similar cultural and socioeconomic background. In addition, *G. brevipes* are used in the diet of postpartum women during which time it is claimed that they aid the contraction of the uterus. It is worthwhile to note that consumption of numerous types of edible plants as sources of food could be beneficial to nutritionally marginal population especially in developing countries where poverty and climate change is causing havoc to rural populace.

According to IPGRI (International Plant Genetic Resource Institute, 2002), neglected and underutilized plant species are often considered 'minor crops' because they are less important than staple crops and agricultural commodities in terms of global production and market value. However, from the standpoint of the rural poor who depend on many of these species for their food security, nutrition and income, they are hardly minor. They may also be underutilized in terms of their potential to contribute to the income and well-being of the poor and to global food security in general. These species are also described as "neglected" or "orphan" plants since they have received scanty attention from research and development, and

there is little scientific information about them (Otitoju et al., 2014). Their potential economic value remains "underexploited" (Padulosi, 2002).

The specific objective of the study was to analyse the proximate composition of soups and stews made from *Glossocarlyx brevipes*. Similarly, analysis of vitamins and mineral contents as well as the evaluation of sensory attributes of the soups and stew were carried out.

Methodology

Materials: The leaves and bark of *G. brevipes* was collected from Aroju farm, Omuooke, Ekiti State in the Western part of Nigeria. One kilogram of the leaf was collected and cleaned by hand picking to remove extraneous materials. The leaf was washed in de-ionized water to remove dirt's. The leaf was drained in a winnower. Thereafter, the 1kg sample was divided into 500g each. Each part was chopped into small piece.

One kilogram of the bark sample collected was cleaned by hand picking and washed to remove extraneous materials. The sample was pound with mortar into pulp and afterward ground with grinding stone to a smooth paste. It was moulded into balls and sun dried. It was packaged in an air tight container.

Recipe development for the soup and stew: Traditional recipe was developed and used to prepare the soup and stew. These were done by weighing the quantities of different ingredients used in the preparation of the soup and stew made from *Glossocalyx brevipes*, by the local women (Table 1 and 2).

Table 1: Recipe for soup made from G. brevipes leaf or bark samples

Ingredients	Qty.
G. brevipes leaf/bark	45g/200g
Palm oil	200ml
Water	0.4liter
Pepper	25g
Onions	125
Okra	251g
Locust bean	5g
Maggi	25g
Salt	2g
Crayfish	125g
Stock fish	450g
Smoked fish	200g
Beef	1kg

Method of Preparation for *G. brevipes* (B) Leaf Soup

1. The meat for the soup was seasoned with pepper, onions, maggi, and salt in a sauce pan. It was allowed to marinade for 30minutes and then cooked under low temperature to tenderize the meat for 30minutes.
2. The stock fish and smoked fish were washed separately in a bowl of hot salt water twice to wash off the possible contaminants and dirt's during packaging.
3. Separate the beef and the stock. To the stock, add the stock fish and smoked fish with a little amount of palm oil. Allow to cook for 20minutes.
4. Gradually add the other ingredients in this order; crayfish, locust beans, diced onions and pepper.
5. Stir the soup evenly and allow cooking. Add the chopped okra into

the soup and cover the sauce pan to cook for 10minutes.

6. Finally, cut the *G. brevipes* vegetable and add to the soup, allow the vegetable to cook for 5minutes and then bring down.

Method of Preparation of *G. brevipes* Bark Soup

1. Repeat methods 1 to 6 above.
2. Finally, make a paste of the caked bark and stir into the soup. Allow to cook for 10minutes and bring down.

Table 2: Recipe for stew made from G. brevipes leaf or bark samples

Ingredients	Qty.
G.brevipes leaf/bark	25g/200g
Palm oil	200ml
Water	0.25liter
Pepper	25g
Onions	400
Tomatoes	325g
Locust bean	3g
Maggi	15g
Salt	2g
Crayfish	125g
Smoked fish	400g
Beaf	1kg

Methods of Preparation of *G. brevipes* Leaf Stew

1. Season the meat for the soup with pepper, onions, magi, and salt in a sauce pan. Allow to marinade for 30minutes and then cook under low temperature to tenderize the meat for another 30minutes.
2. Wash the smoked fish in a bowl of hot salt water twice to wash off any extraneous materials.
3. Separate the beef and the stock in a separate sauce pan. Thereafter, blend the fresh tomatoes and pepper together.
4. In another sauce pan, add a little quantity of palm oil and blanch for few seconds, add the sliced onions and the blended tomatoes. Stir continuously until the tomatoes is dry.
5. Add the stock and boil for 5minutes.
6. Gradually add the other ingredients in these order; crayfish, locust beans, salt and maggi.
7. Finally, add the macerated leaf of *G. brevipes* to the stew. Cook for 5minutes and bring down.

Methods of Preparation of *G. brevipes* Bark Stew

1. Repeat methods 1 to 6 above.
2. Finally, make a paste of the cake bark and stir into the soup. Allow to cook for 10minutes and then bring down.

Proximate Composition and Nutrient Analysis

The proximate composition of the soup and stew made from *G. brevipes* (B) leaf and bark was determined by Association of Official Analytical Chemists (AOAC, 2005) was used to determine the moisture, crude protein, crude fat, total ash and crude fibre contents of each sample. Calcium, copper, iron, zinc, magnesium, potassium, phosphorus and manganese contents of the soup and stew were determined using AOAC, (1995).

Vitamins E and C were determined using the Institute of Public Analytes, (2005). Pro - vitamin A and thiamine content was determined using Harborne method as described by Pearson, (1976). Riboflavin, pyridoxine, cyanocobalamin contents was determined using atomic absorbance spectrophotometer (Onwuka 2005).

Sensory Evaluation

Population of study: The population of this study consisted of students in various programmes in the Department of Home Science, Nutrition and Dietetics, University of Nigeria, Nsukka.

Sample panel: A panel of 20 women was selected at random sampling from the final year class of Home Science, Nutrition and Dietetics to determine the sensory attributes of test products. The sensory evaluation was conducted in one day using the food and diet therapy laboratory. The laboratory was large enough to accommodate 20 women. Each of the panelists was seated comfortably with windows opened for proper ventilation; fluorescent lightening and the environment were free from distractions.

Instrument for the study: The judges evaluated the samples using a nine point hedonic scale, where 9 was the highest score and one the lowest score. The soup and stew were presented to each of the panelist as coded in the hedonic scale. Each panelist were given serving bowl, with spoon and a cup of water to rinse their mouth after testing each sample to avoid carrying over effect. Ambient room temperature was maintained throughout the testing session. The soup and stew were evaluated by the panelists for flavour, texture, colour, taste and general acceptability.

Data collection Procedure: The sensory evaluation hedonic scoring form with the codes of the products was placed near the product so that each judge collects one and fills accordingly. These forms were collected at the end of the evaluation for data analysis.

Nutrient Analysis: The proximate composition of the soup and stew made from *G. brevipes* (B) leaf and bark was determined by Association of Official Analytical Chemists (AOAC, 2005) was used to determine the moisture, crude protein, crude fat, total ash and crude fibre contents of each sample. Calcium, copper, iron, zinc, magnesium, potassium, phosphorus and manganese contents of the soup and stew were determined using AOAC, (1995). Vitamins E and C were determined using the institute of public analytes, (2005). Pro - vitamin A and thiamine content was determined using Harborne method as described by Pearson, (1976). Riboflavin, pyridoxine, cyanocobalamin contents was determined using atomic absorbance spectrophotometer (Onwuka 2005).

Statistical Analysis: Data generated from the study was statistically analyzed using SPSS (Statistical Package for Social Sciences) to calculate the mean and Standard deviation and Duncan's New Multiple Range Test was used to separate the means. The analysis was done in triplicates. Significance was accepted at ($p < 0.05$).

Results

Table 3: Proximate composition of soup and stew made from *G. brevipes* (Benth) leaf and bark

Nutrients (%) (100g/sample)	Gbsl	Gbsb	Gbpl	Gbpb
Moisture	6.25 ± 1.20[a]	6.34 ± 0.61[a]	7.52 ± 2.20[a]	6.94 ± 1.10[a]
Protein	18.03 ± 1.69[a]	21.65 ± 2.29[a]	20.73 ± 6.49[a]	20.83 ± 1.51[a]
Fat	13.04 ± 2.54	18.93 ± 3.01	19.23 ± 1.70	16.22 ± 1.12
Carbohydrate	48.28 ± 0.64[a]	40.53 ± 7.01[a]	38.32 ± 7.60[a]	42.91 ± 3.43[a]
Crude fibre	7.58 ± 1.53[a]	6.12 ± 0.56[a]	7.31 ± 0.76[a]	7.01 ± 2.15[a]
Ash	6.82 ± 1.60[a]	6.43 ± 1.36[a]	6.89 ± 1.22[a]	6.10 ± 1.26[a]

Mean ± SD of samples in triplicates
Mean values of different alphabets are statistically significant at $p < 0.05$
Gbsl = *Glossocalyx brevipes* stew leaf
Gbsb = *G. brevipes*stew bark
Gbpl = *G. brevipes*soup leaf
Gbpb = *G. brevipes*soup bark

Table 3 shows the proximate composition of soup and stew made from *G. brevipes* leaf and bark. The *G. brevipes* soup leaf (Gbpl), had the highest moisture content (7.52%) while the *G. brevipe s*stew leaf (Gbsl) had the least (6.25%). *G. brevipes* stew bark (Gbsb) had the highest protein content (21.65%) while the *G. brevipes* stew leaf (Gbsl) had the least (18.03 %). The *G. brevipes* soup leaf (Gbpl) had the highest fat content (19.23%) while the *G. brevipes* stew leaf (Gbsl) had the least (13.04 %). The G. *brevipe*s stew leaf (Gbsl) had the highest crude fibre content 7.58% while the *G. brevipes* stew bark (Gbsb) had the least 6.12%. The *G. brevipes* soup leaf (Gbpl) had the highest ash content (6.89%) while the *G. brevipes* soup bark (Gbpb) had the least 6.10%. The *G. brevipes* stew leaf (Gbsl) had the highest carbohydrate content 48.28% when compared to others.

Table 4: Vitamin composition of soup and stew made from *G. brevipes* (Benth) leaf and bark

Vitamins (mg/100g)	Gbsl	Gbsb	Gbpl	Gbpb
Pro vitamin A	0.51 ± 0.43[a]	1.06 ± 0.31[a]	0.89 ± 0.09[a]	1.01 ± 0.09[a]
Vitamin B_1	0.45 ± 0.45[a]	0.49 ± 0.03[a]	0.40 ± 0.06[a]	0.38 ± 0.09[a]
Vitamin B_2	0.73 ± 0.20[a]	0.20 ± 0.06[a]	0.95 ± 0.75[a]	0.38 ± 0.36[a]
Vitamin B_6	0.43 ± 0.70[a]	0.43 ± 0.11[a]	0.45 ± 0.06[a]	0.50 ± 0.07[a]
Vitamin B_{12}	0.76 ± 0.30[a]	1.36 ± 1.48[a]	0.37 ± 0.30[a]	0.38 ± 0.11[a]
Vitamin E	2.82 ± 0.36[a]	3.12 ± 0.48[a]	3.03 ±1.39[a]	3.30 ± 0.51[a]
Vitamin C	3.35 ± 0.77[a]	2.91 ± 0.58[a]	3.25 ± 0.59[a]	2.95 ± 0.45[a]

Mean ±SD of samples in triplicates
Mean values of different alphabets are statistically significant at $p < 0.05$

Table 4 shows the vitamin composition of the different soup and stew samples. The pro- vitamin A content of the soup and stew ranged from (0.01 – 0.89mg/100g). The vitamin B_1content of the soup and stew values ranged from (0.38 – 0.49mg/100g). The vitamin B_2 content ranged from (0.20– 0.95mg/100g). The vitamin B_6 content of the soup and stew ranged from (0.43 – 0.50mg/100g). The vitamin B_{12} content of the soup and stew differed. The values ranged from (0.37 – 1.36mg/100g). The vitamin E content of the soup and stew ranged from (2.82 – 3.30mg/100g). The vitamin C content of the soup and stew ranged from (2.91 – 3.53mg/100g).

Table 5: Mineral composition of soup and stew made from *G. brevipes*(Benth) leaf and bark

Minerals(mg/100g)	Gbsl	Gbsb	Gbpl	Gbpb
Calcium	3.59 ± 1.20[a]	3.75 ± 0.72[a]	4.02 ± 0.28[a]	3.57 ± 1.41[a]
Magnesium	0.61 ± 0.25[a]	0.98 ± 0.58[a]	1.28 ± 0.53[a]	1.06 ± 0.81[a]
Potassium	1.42 ± 0.39[a]	1.25 ± 0.79[a]	1.41 ± 0.49[a]	1.73 ± 0.94[a]
Sodium	0.33 ± 0.05[a]	0.30 ± 0.03[a]	0.32 ± 0.04[a]	0.33 ± 0.55[a]
Phosphorus	69.63 ± 1.14[a]	69.89 ± 2.56[a]	69.29 ± 0.95[a]	69.57 ± 1.12[a]
Manganese	1.02 ± 15.48[a]	1.11 ± 19.90[a]	92.13 ± 16.17[a]	1.01 ± 17.78[a]
Iron	1.06 ± 29.92[a]	91.80 ± 17.24[a]	1.01 ± 23.02[a]	1.04 ± 27.75[a]
Zinc	68.15 ± 19.63[a]	58.87 ± 11.29[a]	64.85 ± 15.67[a]	67.20 ± 18.28[a]
Copper	36.28 ± 10.45[a]	31.36 ± 6.04[a]	34.52 ± 8.07[a]	35.75 ± 9.73[a]

Mean ± SD of samples in triplicate
Mean values of different alphabets are statistically significant at $p < 0.05$

Table 5 shows the mineral composition of the different soup and stew samples. The calcium content of the soup and stew ranged from (3.57 - 4.20mg/100g). The magnesium content of the soup and stew ranged from (0.61 – 1.28mg/100g). The potassium content of the soup and stew ranged from (1.25 – 1.73mg/100g). The *G. brevipes* soup bark (Gbpb) had the highest potassium content, while the *G. brevipes* stew bark (Gbsb) had the lowest potassium content. The sodium content of the soup and stew ranged from (0.30– 0.33mg/100g). The phosphorus content of the soup and stew ranged from (69.29 – 69.89mg/100g). The *G. brevipes* soup bark (Gbsb) had the highest phosphorus content while the *G. brevipes* soup leaf (Gbpl) had the lowest phosphorus content. The manganese content of the soup and stew ranged from (1.01 – 92.13mg/100g). The iron content of the soup and stew ranged from (1.01 – 91.80 mg/100g). The zinc content of the soup and stew ranged from (58.87 – 68.15mg/100g). The copper content of the soup and stew ranged from (31.36 – 36.28mg/100g).

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Table 6: Sensory evaluation of soup and stew made from *G. brevipes* (Benth) leaf and bark

Parameters	Gbsl	Gbsb	Gbpl	Gbpb
Colour	8.25 ± 0.85^{b}	7.50 ± 1.93^{b}	3.90 ± 3.68^{a}	7.30 ± 2.15^{b}
Flavour	8.15 ± 0.88^{b}	7.40 ± 1.96^{ab}	5.90 ± 3.31^{a}	6.40 ± 2.64^{a}
Taste	6.35 ± 3.33^{ab}	7.40 ± 1.98^{b}	6.80 ± 3.11^{ab}	5.15 ± 3.38^{a}
Texture	7.75 ± 2.71^{b}	8.00 ± 0.86^{b}	5.65 ± 3.47^{a}	7.15 ± 1.57^{b}
Degree of Acceptability	7.65 ± 1.50^{a}	6.95 ± 1.96^{ab}	6.75 ± 1.86^{ab}	6.10 ± 2.61^{a}

Mean ± SD of samples in triplicates

Mean values of different alphabets are statistically significant at $p < 0.05$

Table 6 shows the organoleptic characteristics of soup and stew made from *G. brevipes* (Benth) leaf and bark. The scores for colour ranged from (3.90-8.25). The scores for flavour ranged from (5.90 – 8.15). The taste of the soup and stews varied. It ranged from (5.15–7.40). The scores for texture ranged from (5.65- 8.00). The degree of acceptability ranged from (6.10 – 7.65).

Discussion

Consumption of parts or whole plant as a vegetable source is a common practice in most developing countries as a means to fight hunger and diseases. In the south west region of Nigeria *G. brevipes* is mostly use in the preparation of soup accompanying new yam products. Although the locals believe that new yam causes diarrhea and dysentery but when consumed with

soup prepared with *G. brevipes,* the diarrhea or dysentery will not be experienced. Hence a traditional condiment use in the celebration of new yam festival. The import of this work is to look at the nutrient and chemical composition of this plant and products (soup and stew) made from it.

The moisture content of any food is an index of its water activity as reported by (Parra and Magan 2004). In Table 3, the lower moisture content (6.25%) for *G. brevipes* stew leaf indicates that it will keep longer than the other soup and stew samples.

The protein content of *G. brevipes* soup bark (20.83%) was high when compared to other soup and stew samples, which makes it a good source of protein. The utilization of lesser known vegetables cheaply available and equally rich in protein cannot be overemphasized in the reduction of protein energy malnutrition (Ubesie and Ibeziakor, 2012). The vegetable studied contain appreciable amount of protein which indicates that the vegetables can be used for building and repairing of body tissues, regulation of body processes and formation of enzymes and hormones. The fat content of soup and stew made from *G. brevipes* leaf and bark samples (13.04 – 19.23%) could be due to the added oil during the soup and stew preparation. Lipids are essential nutrients since they provide the body with maximum energy.

The crude fibre content (7.58 – 7.31%) of *G. brevipes* soup leaf and stew leaf of the samples were high compared to that of *G. brevipes* soup bark and stew bark which could be as a result of the high fibre content in the leaf. Consumption of most leafy vegetables, relatively high in crude fibre, has been shown to reduce serum cholesterol level, risk of coronary heart diseases and hypertension. It also increases glucose tolerance and insulin sensitivity (John *et al*., 2004).

Ash content of the soup and stew sample is a non-organic compound containing mineral in food substances and nutritionally it aids in the metabolism of other organic compounds such as fat and carbohydrate (Tiga., *et al* 2008). The comparable value for ash (6.10 – 6.89%) indicates that any of the soup and stew can equally supply the nutrient. The samples produced from *G. brevipes* leaf had the highest ash content (6.82 – 6.89%). Nutritionally, this means that when used in food preparation, it will improve the ash content of the food. The varying carbohydrate contents of the samples (38.32 – 48.28%) support the statements made by (Ubesie & Ibeziakor, 2012) that the lower the protein, fat, and ash contents, the higher the carbohydrate.

In table 4, the pro-vitamin A content of the four soup and stew samples ranged from (0.51 – 1.06mg/100g). Pro-vitamin A is important for normal vision, gene expression, growth and immune function by its maintenance of epithelial cell functions (Lukaski, 2004). *G. brevipes* stew leaf had (3.53mg/100g) of vitamin C content when compared with *G. brevipes* stew bark with (2.91mg/100g) which is the least. Vitamin C is an antioxidant that facilitates the transport and uptake of

non-heme iron at the mucosa, the reduction of folic acid intermediates and the synthesis of cortisol. Its deficiency includes fragility to blood capillaries, gum decay, scurvy (Sharanabasappa *et al*., 2013). Vitamin E content varied from (2.82–3.30mg/100m). Vitamin E is a powerful antioxidant which helps to protect cells from damage by free radicals and it is vital to the formation and normal function of red blood cell and muscles (Lukaski, 2004). The B complex vitamins contents B_1 (0.38 -0.49mg/100g), B_2 (0.20 - 0.95mg/100g), B_6 (0.43 - 0.50mg/100g), B_{12} (0.37 – 1.36mg/100g), in the soup and stews made from *G. brevipes* leaf and bark were in appreciable amount. *Glossocarlyx brevipes* stew leaf had the highest value of B complex vitamin when compared to other soup and stew samples. The B complex vitamins are a group of water soluble vitamins that play important roles in cell metabolism, its inclusion in diet could be good source of anti-oxidants and enough vitamins for formation of enzymes that are essential for optimum health (Ekeanyanwu, *et al.,* 2005).

In Table 5, the result showed that *G. brevipes* soup and stew leaf, were richer in mineral elements than *G. brevipes* soup and stew bark. Sodium and potassium are closely related in the body fluids. They regulate the acid-base balance. Sodium remains one of the major electrolytes in the blood. The sodium contents of *G. brevipes* soup and stew had comparable values (0.30 – 0.33mg/100g) while that of potassium varied a little (1.25 – 1.73mg/100g). The values of sodium and potassium were higher in *G. brevipes* soup and stew leaf and lower in *G. brevipes* soup and stew bark. According to Akinyeye, (2010), a diet high in potassium and low in sodium content has added advantage because of the direct relationship of sodium intake with hypertension in humans.

The calcium and manganese concentration were found to be higher in *G. brevipes* soup leaf (4.20mg/100g) when compared to other soup and stew samples. High concentration of calcium in the body is very important because of its role in formation of bones and teeth, clotting of blood, muscle contraction and synaptic transmission of nerve impulses (Ghani, 2012). Calcium is an essential structural and functional element in living cells. The intake of calcium has been found to be very important for cancer patients (Raju, 2013). Thus, the concentration of calcium contained in *G. brevipes* soup leaf (4.20mg/100g) may be of high therapeutic value. Magnesium is a mineral, known to prevent cardiomyopathy, muscle degeneration, growth retardation, alopecia, dermatitis, immunologic dysfunction, gonadal atrophy, impaired spermatogenesis, congenital malformations and bleeding disorders **(**Arasaretnam, Kiruthika & Mahendran, 2018)**,** . Magnesium content was found to be in the range of (0.61 – 1.28mg/100g). The magnesium concentrations are expected since magnesium is a component of the chlorophyll of plant leaves.

The iron content (91mg/100g) of *G. brevipes* stew bark was considerably high when compared to other samples

which indicate that *G. brevipes* bark is high in iron which could be used to fight anemia in rural communities. Iron is very important in the formation of haemoglobin and in transporting oxygen in the body. Iron deficiency effects include reduced work capacity, impairments in behaviour and intellectual performance and decreased resistance to infection (Adeniyi, Olufunmilayo & Akinnuoye, 2018). *G. brevipes* present a good source of iron, and thus guiding against its deficiency effects when regularly consumed. Zinc concentrations in *G. brevipes* soup and stew made from the leaf and bark obtained in the present study were within this range (58.87 – 68.15mg/100g). Zinc is essential for growth and development. It is essential for the function of the cells of the immune system. It is used in the prevention and treatment of diarrhoea, pneumonia, cold, respiratory infections and malaria (Ghani, 2012). Zinc is one of the most important mineral elements for normal growth and development in humans. It is a co-factor for enzymes such as arginase and diaminase and it takes part in the synthesis of DNA and insulin. It is essential for the normal functioning of the cells including protein synthesis, carbohydrate metabolism, cell growth and cell division (Hussain, *et. al* 2011). It is also important for normal sexual development, especially for the development of testes and ovaries, and also essential for reproduction, and for healthy functioning of the heart (Ayoola, Adeyeye & Onawumi, 2010).

The copper content of the samples ranged from (31.36 – 36.28mg/100g). Copper is an essential nutrient, required for a wide range of biological functions such as enzymatic and redox reactions (McLaughlin et al., 2006). Copper is an essential micronutrient which functions as a biocatalyst. It is required for body pigmentation in addition to iron, to maintain a healthy central nervous system and to prevent anaemia, while it is interrelated with the functions of zinc and iron in the body. It is also necessary for normal biological activities of aminooxides and tyrosinase enzymes. Tyrosinase enzyme is required for the catalytic conversion of tyrosine to melanin, the vital pigment located beneath the skin, which protects the skin from dangerous radiation (Hussain, *et. al* 2011).

The result of the sensory evaluation indicates that *G. brevipes* stew leaf had the highest score for colour (8.75) when compared to other soup and stew sample. The comparable colour of *G. brevipes* stew bark and *G. brevipes* soup bark indicates that the colour of these soup and stew were equally liked by the judges. The lower colour (3.90) indicates that *G. brevipes* leaf did not improve the colour of the soup as compared to *G. brevipes* stew leaf. The high flavour (8.15) for *Glossocarlyx brevipes* stew leaf indicates that it has an edge over the other soup and stew samples in terms of its flavour. The taste of *G. brevipes* stew bark was high (7.40) which indicate that the sample will be generally accepted because of its taste. The higher values for texture (8.00) in *G. brevipes* stew bark showed that the judges liked the texture

of the *G. brevipes* soup bark sample when compared to other samples. The result of the degree of acceptability of the soup and stew samples indicates that the judges preferred *G. brevipes* stew leaf which had the highest value (7.65) and would be generally accepted when compared to other samples made from *G. brevipes* leaf and bark.

Conclusion

The soup and stew made from *G. brevipes* leaf and bark have good nutritional profile. However, focusing our attention on neglected and underutilized species is an effective way to help maintain a diverse and healthy diet, and to combat micronutrient deficiencies, and other dietary deficiencies particularly among the rural poor and the more vulnerable social groups.

Recommendations

Based on the findings of this study, the following recommendations were made:

- The use of *Glossocarlyx brevipes* in our diets should be encouraged because of its nutritional benefits.
- More awareness and promotion should to be created on the nutritional benefits of our indigenous vegetable plants both leaf and bark as this would increase its utilization thereby enhancing the nutritional wellbeing of the population.
- Intensive and aggressive nutrition education in both rural and urban communities should be pursued to elucidate the nutrient potentials of lesser known vegetables and their effective utilization.

References

Adeniyi A., Olufunmilayo, D.A., Akinnuoye, G.A.(2018). Evaluation of the Nutritional Composition of Some Less Common Edible Leafy Vegetables in Nigeria. *American Journal of Food Science and Nutrition.* Vol. 5, No. 1, pp. 26-31.

Akinyeye, R.O., A. Oluwadunsi and A. Omoyeni, Ekumankama,I.O.(2008). Nutrient composition of Proximate,mineral, anti-nutrients, phyto-chemical screening and amino acid compositions of the leaves of *Pterocarpus mildbraedi harms*. Electron J. Environ., Agric. Food Chem. 9:1322-1333.

AOAC (2005). *Official Methods of Analysis*.15th ed. Association of Official Analytical Chemists. Washington D.C. USA.

rasaretnam, S., Kiruthika, A. & Mahendran.(2018). T. Nutritional and mineral composition of selected green leafy vegetables. *Ceylon Journal of Science 47(1):35-41.*

Ayoola P. B., Adeyeye A. and Onawumi O. O. (2010). Trace element and major mineral evaluation of Spondias mombin,Vernonia amygdalina and Momordica charantia leaves. Pak. J. Nutri. 9 (8): 755-758.

Ejoh, A.R, Tanya, A.N, Djuikwo, N.A & Mbofung, C.M (2005). *Effect of Processing and Preservation Methods on Vitamin C and Total Carotenoid Levels of Some Vernonia (Bitter Leaf) Species*. African Journals Food Agricultural Nutrition Development. 5, 105-117.

Ekeanyanwu, C.R., Oge, I.G. and Nwachukwu, U.P. (2005). Biochemical

characteristics of Africa nutmeg. *Agricultural Journal.* 5 (5): 303-308.

Ghani A, Ali Z, Ishtiaq M, Maqbool M, Parveen S (2012). Estimation of macro and micro nutrients in some important medicinal plants of Soon Valley, District Khu-shab, Pakistan. Afr. J. Biotechnol. 11(78): 14386–14391.

Grivetti, L.E. & B.M. Ogle, (2000). Value of traditional foods in meeting macro-and micronutrients needs: The wild plant connection. Nutr. Res. Rev., 13: 31-46.

Hussain J., Rehman N. U., Khan A. L., Hussain H., Al-Harrasi A., Ali L., Sami F. and Shinwari, Z. K. (2011). Determination of macro and micronutrients and nutritional prospects of six vegetable species of Mardan, Pakistan. Pak. J. Bot. 43 (6): 2829-2833.

Iniaghe, O.M., Malomo, S.O &Adebayo, J.O (2009). *Proximate composition and phytochemical constituents of leaf of some Acalypha Species*. Pakistan Journal Nutrition.8, 256-258.

Institute of Public Analyst of Nigeria (IPAN), (2005), Vitamin determination. 6(24): 11-14.

International Plant Genetic Resources Institute (2002).*Neglected and Underutilized Plant Species: Strategy Action Plan of the International Plant Genetic Resources Institute*. Rome, Italy: IPGRI.

John A.D, Age W. J. and Martin W. A.V. (2004). Dietary Fiber Stabilizes Blood Glucose and Insulin Levels and Reduces Physical Activity in Sows (Sus scrofa). J. Nutr. 134: 1481–1486.

Lockett, C.T., Calvert, C.C and Grivetti, L.E. (2000). Energy and micronutrient composition of dietary and medicinal wild plants consumed during drought. Study of rural Fulani, Northeastern Nigeria. Int. J. Food Sci. Nutr., 51: 195-208.

Lukaski, C. H., (2004). Vitamin and Mineral Status: Effect on Physical Performance. Nutrition Research Centre, Grand Forks, North Dakota, USA. 20: 632 644.

McLaughlin, K., F. P. Chavez, J. T. Pennington, and A. Paytan (2006). A time series investigation of the oxygen isotopic composition of dissolved inorganic phosphate in Monterey Bay, Limnol. Oceanogr. ,51,2370–2379, doi:10.4319/lo.2006.51.5.2370.

Mensah, J.K. Okoli, R.I., Ohaju-Obodo, J.O & Eifediyi, K (2008). *Phytochemical, nutritional and medical properties of some leafy vegetables consumed by Edo people of Nigeria.*African Journal.Biotechnology. 7(14), 2304-2309

Njoku P.C. and Akumefula, M.I. (2007). Phytochemical and Nutrient Evaluation of Spondias Mombin Leaves. Pakistan Journal of Nutrition 6 (6): 613-615.

Onwuka, G.I. (2005). Food analysis and instrumentation theory and practice. Napthalid prints. Lagos, Nigeria.

Otitoju, G.T.O., Nwamarah, J.U., Otitoju, O., Odoh, E.C. and Iyeghe, L.U. (2014). Phytochemical composition of some underutilized green leafy vegetables in nsukka urban Lga of Enugu State. Journal of Biodiversity and Environmental Sciences (JBES). 4 (4): 208-217.

Padulosi, S.T., Hodgkin, J.T. Williams and Haq, N. (2002). Underutilized crops: trends, challenges and opportunities in the 21st Century. In: "Managing plant genetic resources" J.M.M. Engels et al. Eds. pp. 323-338.

Parra R. and Magan N. (2004). Modelling the effect of temperature and water activity on growth of Aspergillus niger strains and applications for food spoilage moulds. J Appl Microbiol. 97(2):429-38.

Pearson, D. (1976). *The Chemical Analysis of Foods.*Churchchill Living. Edinburgh London and New York.

Raju, G. J. N., Sarita P., Rao J.C.S., Rao K.C. B. and Reddy S.B. (2013). Correlation of trace elemental content in selected anticancer medicinal plants with their curative ability using particle induced x-ray emission (PIXE) Journal of Medicinal Plants Research. 7(16), pp. 1081-1086, 25 April, 2013

Sharanabasappa R. J., Anuradha B., Manjunath R., Chidambar Y.S., Satish P., and Priyanka V. (2013). Scurvy-scorbutic siderosis of gingiva: A diagnostic challenge - A rare case report. Dent Res J (Isfahan). 10(3): 394–400.

Shukla P, Kumar R and Raib AK. (2016). Detection of minerals in green leafy vegetables using laser induced breakdown spectroscopy. Journal of Applied Spectroscopy. 2016;83(5):872–877.

Taiga A, Suleiman MN, Aina DO, Sule WF, Alege GO (2008). Proximate analysis of some dry season vegetables in Anyigba, Kogi State, Nig. Afr. J. Biotechnol., 7(10): 1588-1590.

Ubesie AC and Ibeziakor NS. (2012). High Burden of Protein–Energy Malnutrition in Nigeria: Beyond the Health Care Setting. Ann Med Health Sci Res. 2012 Jan-Jun; 2(1): 66–69.

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Benefits of Health Extension Education Programmes in Healthcare Delivery in Boki Local Government Area of Cross River State

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Abstract

The study was designed to ascertain the extent to which Health Extension Education Programmes (HEEP) improved healthcare delivery in Boki Local Government of Cross River State. Specifically, the study determined the extent to which HEEP improved maternal and child health, disease prevention and control as well as early identification of diseases and treatment. The study answered three research questions. Descriptive survey design was adopted. Population of the study comprised of 305 health workers in the ten primary health centres in the ten wards of Boki LGA. A random sample of 100 workers was drawn for the study. Questionnaire was used to elicit information from the respondents. Data was analyzed using mean. Findings revealed that, health workers to a high extent benefited from the Health extension education programmes in their abilities to educate people on needs and methods to prevent common diseases, provide remedial treatment, encourage child spacing, identify early symptoms, handle pre and post natal cases, reduce maternal and infant mortality and improved relationship with patients. The paper recommended that, health extension education programmes should be integrated into health workers knowledge, skills update and re-training programmes for an improvement in maternal and child health, disease prevention and early identification of disease.

Keywords: Health Extension Education, Health Workers, Healthcare.

Introduction

The quality of life enjoyed by the citizen of any nation, depends on the capability of the government to make healthcare delivery accessible, affordable, sustainable, properly managed and controlled especially at the grassroots level. Access to health services is one of the greatest challenges that are facing most African countries as most of the available health institutions especially in rural Nigeria are inaccessible to the majority of the population (Bisrat and Nega, 2014). Health care is a basic social responsibility any directional government owes her citizens as a fundamental right.

Health care is the provision of suitable environment which is aimed at the promotion and development of man's full potentials (Eme, Uche and Uche 2014). It is the identification of the

health needs of the people and providing them with the requisite medical care. Primary health care services are basic programmes that design to attend to the health needs of rural people where secondary health is not accessible. It is in their views that Fajewonyomi, B. A. (2010) and Oyibocha, Irinoye, Sagua, Ogungide, Edike, & Okome, (2014) posited that, the Federal Ministry of Health in 2005, estimated 23,640 health facilities in Nigeria of which 85.8% are primary healthcare facilities.

In spite of the availability of this huge number of healthcare facilities and advancement in technology as well as the teeming population now estimated 180 million, Nigeria is still struggling with the provision of basic health services. This of course clearly explains the high child mortality and maternal death rates. According to the Federal Ministry of Health (2005) nearly fifteen percent of Nigerian children do not survive to their fifth birthday as a result of the severity of child health problems. In addition, World Health Organization (WHO) estimated that 587,000 maternal deaths result each year from complications arising from pregnancy, and a high proportion of these deaths occur in Sub-Saharan Africa (WHO, 2010). Nigeria accounts for about 10% of all maternal deaths globally and has the second highest maternal mortality rate in the world after India (WHO, 2004). Furthermore, key issue linked with health indicators in Nigeria is poverty, household survey was conducted by the government and results revealed that 54.4 percent of the Nigeria population is poor, with a higher poverty rate of 63.3% in rural areas. Over half of the population live below the poverty line, and so cannot afford the high cost of health care (HERFON, 2006). Hence; the sustainability of any healthcare delivery system is dependent on the capacity and ability of the rural health workers to understand and perform their required roles effectively for an improvement in the health care delivery. This requires a dedicated and efficient healthcare delivery system such as health extension education that places emphasis on knowledge update and capacity building for effective service delivery.

Health extension education is one aspect of extension education whose function is to ensure the dissemination of useful and practical information that is related to health and also ensure the practical application of such knowledge to health situations for improvement in the standards of living of the people (Ezimah, 2004). It is a planned educational activity which is carried out outside the fore wall of a formal institution, for health workers to upgrade existing knowledge and provide valuable health information for the purpose of providing preventive and basic curative health services to the people. According to Sally, Henry, Garba, Musa, Abu, Cathy and Godwin (2014) the impact of the intervention on maternal health outcomes in 3 northern Nigerian states by comparing data from 2360 women in 2009 and 4628 women in 2013 who had a birth or pregnancy in the 5 years prior to the survey. Results: From 2009 to 2013, women with

standing permission from their husband to go to the health center doubled (from 40.2% to 82.7%), and health care utilization increased.

Health workers are people trained and empowerment to render services in health care delivery systems for curative, preventive, palliative, informative and rehabilitative as well as health maintenance (Ugwu, 2015). Health workers require to regularly update their professional knowledge through health extension education programmes. The programmes have tangible benefits on the delivery of rural health relating to maternal and child health, disease prevention and control, early identification of disease symptoms and treatment, family health, hygiene and environmental sanitation, health education and communication (Federal Ministry of Health, 2010). The success of the programmes is based on models that will ensure effective mobilization of the people for participation (Akinola, 2003).

In spite of the many benefits of these education programmes to health workers, little is known about its practice in rural health facilities in Boki Local Government Area. Literature on the subject matter is scanty and it's an indicator of poor patronage of the programmes in enhancing the capacity of health workers for an improvement in healthcare delivery. Health workers in Boki may not have benefits from the programmes and it may be because the programmes are yet to be incorporated in their retraining programmes which may account for their low performance. This has necessitated this study on the benefits of health extension programmes to health workers in health care delivery in Boki LGA of Cross River State.

Purpose of the study

The general purpose of the study was to ascertain the benefits of health extension education programmes improving healthcare delivery in Boki Local Government of Cross River State. Specifically, the study determined

1. The extent to which health extension education programmes improves maternal and child health,
2. The extent to which health extension education programmes improves disease prevention and control
3. The extent to which health extension education programmes improves early diagnosis of disease symptoms and treatment in Boki Local Government of Cross River State.

Research questions

The following research questions guided the study:

1. what extent did health extension education programmes improve maternal and child health?
2. what extent did health extension education programmes improve disease prevention and control practice?
3. what extent did health extension education programmes improve early diagnosis of diseases symptoms and treatment?

Methodology

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

to Nworgu, (2015) descriptive survey design studies seeks to collect data and describe them in a systematic manner showing the characteristics features or facts about a given population. This design is considered appropriate for the study as data collected from the respondents in the primary health centres is described in a systematic manner without manipulation.

Area of the study:The study was carried out in Boki Local Government Area of Cross River State. The Local Government is made up of ten council wards with one primary health centre in each ward. The justification for using Boki local government area is based on the fact most of the wards and communities where the health centres located lack good access road which makes it difficult for the local health workers to regularly update their skills and knowledge on current practices.

Population of the study: The population comprised of 305 health workers in the ten primary health centres in the ten wards of Boki LGA. The decision to use health workers in the study is borne out of the fact that, they are directly responsible for the provision of healthcare services in the primary healthcare centres in the area. It is also based on this responsibility that they are regularly trained and retrained through in-service programmes as workshops, conferences, seminars and symposia.

Sample and sampling technique: A sample of 100 health workers was drawn for the study from the ten health centre in the Local Government Area. Ten health workers were randomly selected from each of the ten health centres in the LGA through the balloting process, where only respondents from each health centre who picked "yes" were sampled representing about 40 percent of the population used for the study. The decision to use 10 respondents from each health centre was to ensure equal responses that will not be lopsided.

Instrument for data collection: Data for the study was collected through a researcher designed structured questionnaire and focus group discussions. The questionnaire was titled "Benefits of Extension Education Programmes to Health Workers in Healthcare Delivery Questionnaire" (BEEPHWHCDQ). It was used to elicit information from the respondents. The instrument was divided into two sections. Section "A" was designed to elicit information that is related to the respondents' health centres, while section B was arranged into three clusters. Cluster "A" elicited information on improvement of maternal and child health. Cluster "B" elicited information on improvement of disease prevention and control, while cluster "C" elicited information on improvement of early diagnosis of disease symptoms and treatment. The instrument was based on a 4 point rating scale of Very High Extent (4), High Extent (3), Low Extent (2) and Very Low Extent (1). The instrument was face-validated by three experts and the Cronbach Alpha method of reliability was used to ascertain the reliability of the instrument and the reliability coefficient was .72, .75 and .81

for the three clusters, with an overall reliability coefficient of 0.771.

Method of data collection and analysis: The instrument was administered to the health workers in their respective health centres with the aid of two trained research assistants. This was done after meeting with the Director in charge of Primary Health Care in the Local Government Council for approval to allow the respondents respond freely to the instrument and also participate in the focus groups discussions. 100 copies of the questionnaire were distributed by hand and all were completed and returned immediately. The instruments were accordingly completed and a 100% return rate was recorded.

The focus groups (subjects) comprised of health workers and the subjects were chosen from the ten health centres. The subjects in each group were considered independently. The subjects were randomly selected from each of the health centres in the ten wards of the local government area, comprising of ten health workers each. In all ten focus group discussions were conducted and each group met three times and the sessions lasted for two hours with every participant contributing. Discussions were strictly focused on benefits of health extension education programmes to health workers in healthcare delivery. With specially emphasis on improving maternal and child health, improving disease prevention and practice and improving early diagnosis of disease symptoms and treatment. The participants were adequately informed of the purpose of the discussions for the purposes of eliciting objective and correct responses about the benefits of the programme in terms of cost effectiveness. Analysis of the responses arising from the focus group discussion was carried out through adequate control of statements on issues, consensus and differences. Disagreements were noted and summarized.

Data collected were analyzed using mean, the analyses were interpreted using the real limit mean of numbers and any item with mean rating of 3.5-4.00 is regarded as very high extent 3.00-3.49 is regarded as high extent, 2.00-2.59 is regarded as low extent and X< 2.00 is regarded as very low extent.

Results

The following findings were made:

A. What extent did health extension education programmes improve maternal and child health?

Table 1: Mean of respondents on the extent health extension education programmes improve maternal and child health (MCH)

	Improvements in MCH	Mean	Decision
1	conducting retraining workshops to Improves health workers ability to handle pre-natal cases	2.82	High Extent
2.	Upgrading health workers capability of handling post natal cases through seminars	3.48	High Extent
3	Providing on the job refresher courses to improve health workers capability to refer cases that cannot be treated locally	3.33	High Extent
4	Providing retraining programmes for health worker to improves on the way they relate with their patients through discussions.	3.37	High Extent
5	Acquisition of new skills in workshops Improves ability to handle maternal and child health cases	3.36	High Extent
6	HEEP improves ability to reduce infant mortality	3.47	High Extent
7	HEEP improves ability to educate on child spacing	3.35	High Extent
8	HEEP enhances ability to control maternal mortality	3.44	High Extent
9	HEEP improves overall mother and child health	3.00	High Extent
10	HEEP improves ability to handle pre and post natal cases	3.50	Very High Extent

Key: LE = Lower extent, HE = High extent, VHE =Very high extent. N=100

The result in Table 1 shows the respondents agree with items 2, 3, 4, 5, 6, 7, 8, and 9 on the improvement in maternal and child health to a high extent. The items have mean rating ranging from 3.33- 3.50 indicating of mean for items 1,2, 3, 4,5, 6, 7, 8, 9 and 10 are greater than the criterion mean of 2.5.

B. What extent did health extension education programmes improve disease prevention and control?

Table 2: Frequencies and means of respondents on the extent health extension education programmes benefited health workers in disease prevention and control

Improvement in disease prevention and control	Mean	Decision
1. Knowledge acquire in seminars improves Ability to educate people on prevention of common diseases	3.30	High Extent
2. Regular retraining improves ability to Prevent spread communicable diseases	3.39	High Extent
3. Knowledge acquired in retraining Seminars provides opportunities to Learn new techniques of disease Prevention	3.41	High Extent
4. New knowledge enhances ability to Provide first aid before referral	3.47	High Extent
5. Conferences provide new knowledge On how to educate people on prevention Of common diseases	3.44	High Extent
6 HEEP enhances ability to administer remedial treatment	3.47	High Extent
7 HEEP improves ability on timely referral of complex cases	3.51	Very High Extent
8 HEEP improves control measures for infectious diseases	3.36	High Extent
9 HEEP improves knowledge on home hygiene	3.31	High Extent

Key: LE = Lower extent, HE = High extent, VHE =Very high extent. N= 100

The result in table 1 shows the respondents agree with items 1, 2, 3, 4, 5, 6, 7, 8, and 9 on the improvement in disease prevention and control to a high extent. The items have mean rating ranging from 3.30- 3.51 indicating that the mean for items 1,2, 3, 4, 5, 6, 7, 8 and 9 are greater than the criterion mean of 2.5.

C. What extent did health extension education programmes improves early diagnosis of diseases symptoms and treatment

Table 3: Mean of the respondents on the extent health extension education programmes improves early diagnosis of disease symptoms and treatment

Improvement in early diagnosis of disease symptoms and treatment	Mean	Decision
1. New knowledge from retraining programmes enhances ability to diagnose early symptoms of communicable disease	3.46	High Extent
2. New skills and knowledge improves ability to treat common communicable disease	3.36	High Extent
3. Acquisition of new skills enhance ability to conduct simple tests to diagnose common diseases	3.38	High Extent
4. Knowledge update in seminars enhance		

ability to administer remedial treatment	3.36	High Extent
5. Seminars provide new techniques on how isolate patients with infectious diseases	3.33	High Extent
6 Retraining enhances ability to diagnose	3.47	High Extent
7.HEEP improves ability to apply confinement of contagious case	3.50	V. High Extent
8 HEEP improves ability to conduct simple test for treatment	3.48	High Extent

Key: LE = Lower extent, HE = High extent, VHE =Very high extent: N=100

The result in table 1 shows the respondents agree with items 1, 2, 3, 4, 5, 6, 7 and 8 on the improvement in early diagnosis of disease symptoms and treatment. The items have mean rating ranging from 3.33- 3.50 indicating that the mean for items 1, 2, 3, 4 and 5 are greater than the criterion mean of 2.5.

Responses from the Focus Group Discussions

The responses revealed that health workers in the various health centres perceive health extension education programmes as avenues to improve their skills, knowledge and capacity for the purpose of improving healthcare delivery in Boki Local Government Area of Cross River State. The health workers express happiness in the opportunities offered them by health extension education programmes to improve their ability to handle cases related to maternal and child health, educate the people on the methods of preventing and controlling diseases and also assist them carried out early diagnosis of diseases through the symptoms and also treat cases that fall within the purview of their operations. The responses from the participants also revealed that health extension education programmes encourages immediate application of knowledge gained in the programmes. The implication is that whatever new skills or knowledge they acquire in the programmes is immediately put into use in their work places.

Discussion of Findings

The result of this study revealed that health extension education programmes upgrades health workers capacity to handle pre and post natal complications, understand when to refer cases they cannot handle, improves their relationships with patients. The findings are related to that of Ordinioha (2010) who revealed that health workers who undergo retraining treat cases with phone conversations with doctors, treat some less complex cases in their health post, while complex cases are referred. It is related to the findings of Araya, Mark and Yemane (2016) which revealed that extension education enables workers attend to a variety of health cases, enhances service delivery and also offer services on child spacing.

The study also revealed that health extension education programmes improves ability to educate people on methods preventing diseases,

preventing spread of infectious diseases and provide remedial treatment. Abdulraheem, Olapipo and Amodu (2012) in their study revealed that, ability of the health workers to prevent and control diseases especially communicable diseases is one benefit of health extension education. Ibama and Denis (2016) also reported that adequate retraining of health workers has improved their ability on maternal and newborn services and also assisted in the overall improvement of malnutrition levels.

The findings of the study further revealed that health extension education programmes improves the application of modern methods to quarantine patients with highly contagious diseases, enhance ability to carry out simple laboratory analysis and also dictate and diagnose symptoms of diseases. Gombe., Suandi., Ismail and Omar (2016) in their findings revealed extension education enables the health workers to function effectively in the absence of professional personnel in arresting health cases that might degenerate without timely and adequate care. Gadanya (2016) also revealed that extension education programmes enriches and enhances the operational scope and also develop confidences in the health workers with a view performing maximally.

Conclusion

This paper was targeted at awakening the consciousness in health educators, health workers and indeed government on the need to develop and implement health extension education programmes that benefits and improve the skills of health workers with a view to ensuring quality healthcare delivery. Health extension education programmes should be routine exercise to update health staff on the most recent skills of promoting maternal and child health, disease prevention and control and early diagnosis of symptoms and treatment.

Recommendations

The paper recommended that:

- Health extension education should be integrated into the healthcare delivery system.
- Improved funding of health extension education programmes for health workers efficiency
- Health workers are encouraged to participate on retraining programmes.
- Government should partner NGOs to provide incentives for training programmes

References

Abdulraheem I. S., Olapipo A. R and Amodu M. O. (2012). Primary health care services in Nigeria: Critical issues and strategies for enhancing the use by the rural communities *Journal of Public Health and Epidemiology Vol. 4(1) 5-13*

Akinsola, H. A. (2003) *Community health and social medicine in medical and nursing practice.* Ibadan: 3 AM Communications.

Araya, M., Mark, S. and Yemane, B (2016) *The role of health workers in improving utilization of maternal health services in rural areas in Ethiopia: A cross sectional study.* Retrieved from https://www.ncbi.nlm.nlh.gov/pmc/a

rticles/PMC34965861 On the 24/10/2018

Bisrat, T and Nega, J (2014) Health extension programme as innovative health care service: The socio-cultural factors affecting its implementation in Jimma zone, south western oromia" *International Journal of Sociology and Anthropology vol 6 (8) 235- 245*

Eme, O. I, Uche, O. A., Uche, I. B. (2016) Building a Solid Health Care System in Nigeria: Challenges and Prospects. *Academic Journal of Interdisciplinary Studies Vol 3 (6)501510*

Ezimah, M.O.A. (2004). *Knowing adult education: Its nature, scope and processes*, Owerri: Springfield publishers.

Fajewonyomi, B. A. (2010). Strategies for the delivery of primary health care at the Local Government Level. *The Nigerian Journal of Local Government Studies,* 4(1). 24 – 30.

Federal Ministry of Health [FMoH] (2005) *Inventory of Health Facilities in Nigeria*. Abuja: Federal Ministry of Health.

Federal Ministry of Health [FMH] (2010) *Health sector development* (HSDP) IV. 2010/11-2014/15 Final Draft

Gandaya, R (2016) *Preservice education of community health extension workers, nurses, and midwives in Nigeria: Findings and recommendations from a rapid scoping assessment*. Retrieved from https://www.researchgate.net/publication/31580828 on the 24/10/2018.

Gombe, S. Y., Suandi, I. B., Ismail, A. I and Omar, Z. (2016) Extension education role towards community empowerment in Nigeria: Issues, challenges and prospects. *Journal of Education ans Social Policy.* 3(2) 135-142

Health Reform Foundation of Nigeria (HERFON) (2006) *Nigeria Health Review*. Kenbim Press Ltd, Ibadan.

Ibama, A. S. & Denis, P (2016) Role of community health practitioners in national development: The Nigerian situation. *International Journal of Clinical Medicine.* 7 (1) 511-518

Nworgu, B.G. (2015). *Educational Research Basic Issues and Methodology* (Third Edition). Nsukka: University Trust Publisher

Ordinioha, B. (2010) Experince with the use of community health extension workers in primary care, in a private health care institution in South-South, Nigeria. *Annals of African Medicine.* 9(4) 240-245. From https//www.researchate.net/publication/47384600

Oyibocha, E.O, Irinoye, O., Sagua, E. O., Ogungide, O. T, Edike, J.E & Okome, O. L (2014)Sustainable Healthcare System in Nigeria: vision, Strategies and Challenges. *IOSR Journal of Economics and Finance vol 5 (2) 22-39*

Sally, E. F., Henry,V. D., Garba, M. A., Musa, A. K., Abu, S. M., Cathy, G. and Godwin, Y. A. (2014). Reinvigorating Health Systems and Community-Based Services to ImproveMaternal Health Outcomes: Case Study from Northern Nigeria**.** *Journal of Primary Care & Community Health. Vol. 6(2) 88-99*

Ugwu, C. U. (2015) Health professional's understanding of dignified care to elderly patients accessing teaching hospitals: A framework for policy formulation. *International Journal of Educational Research.* 14(3) 1-7

World Health Organization (2010). *Trends in maternal mortality: 1990 to 2008. Estimates developed by WHO, UNICEF, UNFPA and The World Bank. Geneva.*

World Health Organization (WHO) (2004). *Making pregnancy safer: The critical role of the skilled attendant.* A joint statement by WHO, KM and FIGO

http://wholibdoc.who.int/publication/2004/9241591692

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Enhancing Social Competences among Preschool Children in Anambra State

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Abstract

The major purpose of the study was to identify ways of enhancing social competence among preschool children in Anambra State. Specifically, the study determined ways of enhancing negotiation competence, cooperation competence and compromise competences among preschool children. The study adopted descriptive survey research design and was carried out in Anambra State, Nigeria. The population of this study was made up of 2,315 subjects which was made up of 2269 preschool teachers and 46 lecturers of Home Economics & Early Childhood Education in higher institutions of Anambra state. The total sample frame for this study was 386 subjects made up 340 preschool teachers and 46 lecturers. Structured questionnaire was used for data collection. The data for this study was analyzed using mean. The reliability of the instrument was tested using Cronbach alpha coefficient reliability. Based on the data analyzed, the study identified 12 ways of enhancing negotiation, 9 ways of enhancing cooperation and 11 ways of enhancing compromise among preschool children in Anambra State. The study among others recommended that administrators and proprietors of preschools must ensure that these institutions provide regular opportunities for child initiated social activities, adequate play materials, time and all favorable conditions that will enable a child develop social competence.

Key words: Social, Competence, Preschoolers, Negotiation, Compromise, Cooperation.

Introduction

Preschool children are children between the ages of 2-5 years. The most critical aspect of this stage of life phase however, is children's adaptation to new environment. Sarah, (2005) enumerated the following as the social characteristics of preschool children: easily encouraged; affectionate; demonstrate intense fear, joy, anger, love; may show off and demand attention; display independence and engage in pretend play; develop friendship; easily encouraged. This period of adaptation often entails a series of transition in the social life of these children as they move from the familiarity of their home environment

to new public places, notably, kindergarten, crèche and preschool. To achieve their balance, Corcoran (2012) noted that young children need to develop certain social competences, some of which look inwards towards themselves and some of which look to the other individuals in their group.

Social competence is the ability to get along well with other people. It encompasses social, emotional and intellectual skills, and conduct needed to thrive as a member of the society. More specifically; Kostelnik, Gregory, Soderman and Whiren, (2012) breaks the simplistic understanding into seven components that integrate knowledge, values and skills as they relate to self and others which are social values(e.g. caring, helpfulness, flexibility, honesty); positive self-identity (e.g. self-awareness, sense of competence, sense of worth); interpersonal skills (e.g. communication ideas and needs, adjust behaviour to fit societal circumstances, acknowledge other people's right; self-regulation (e.g. control impulses, delay gratification, resist peer pressure); planning and decision making (e.g. make choice, solve problems, plan ahead); cultural competence (e.g. recognizes and question unfair treatment, demonstrates knowledge, respect for individuals of varying backgrounds); intelligence (e.g. recognizes emotion in self and others, demonstrates empathy, gives and receives emotional support).

Social competences require improved complex socio-cognitive and emotional knowledge, behaviour and competences such as negotiation, sharing, helping, cooperating and compromising (Encyclopedia of Children health, 2013). This study focused on compromise, cooperation and negotiation competences.

Negotiation is a method by which people settle differences. It is a process by which agreement is reached while avoiding argument. The point of negotiation is to try to reach agreement without causing future barrier to communication. Gwen (2018) is the of the view that preschoolers find it difficult to learn social skills such as taking turn, negotiation and conflict resolution, he advised that these social skills can be taught and enhanced by modelling them, encouraging the preschoolers to practice them and engage them in pretend plays. Children need to know what these skills look like and they need to practice them to get better at making and keeping friends. According to Family Education (2017), children who learn to negotiate have enhanced confidence, self-esteem, empathy and social relationship skills, moreover that negotiation involves empathy and compromise. On the hand, Halil (2001) stated that language development, communication skills, allowing & encouraging children to solve their problems improves their negotiation skills and social competence. Military Families (2015) also suggested that setting rules, giving every child a say, and allowing children make suggestion for solution helps them learn negotiation, compromise and resolving conflicts among themselves.

Compromise is reaching an agreement in which each person or group gives up something that was wanted in order to end an argument or a dispute (The Hanen Center, 2011). Compromise is a concept of finding agreement through communication, through a mutual acceptance of terms-often involving variations from original goal or desire. Family-Times (2016), defined compromise as the ability to make concession, or adjust our position or opinion to reach a settlement or an agreement, and further pointed out that, modelling, teaching empathy & compassion, and plays are ways improving compromise, negotiation and cooperation among young children. Pickle-burns (2014) noted that though compromise may be difficult but it remains an important skill for lifelong impact on children relationship. On ways of enhancing compromise competence, Darlene (2017) identified turn taking as a very vital skill for compromise while Family Times (2016) and Andrew (2018) agreed that care givers, adults and older children in the home are the best model for teaching how to behave and interact with people, and that families should make sure that that there is enough caring, kindness and generosity in the home. Cheryl (2018) noted that manners can be role played and practiced. Pretend play, emotion charade games and teaching empathy are important ways the children learn about negotiation, compromise, cooperation and form friendship (Family times, 2016) and (Gwen, 2018).

Cooperation is any activity that involves the willing interdependence of two or more people. It should be distinguished from compliance, which may represent something that was wanted in order to end an argument or a dispute (Parenting Resource, 2010). Cooperation is about working together and helping others. When kids cooperate, they have more optimistic social interactions and are more capable to make and retain friends. Parents and teachers can help their children improve the skills needed for a lifespan of friendships and positive social connections by training and encouraging cooperation skills early. Parenting resources (2010) supported by Kids (2018) agreed that helping kids to understand the meaning of cooperation, praising children's effort to cooperate, role playing cooperation, doing chores together and teaching children turn taking are some of the ways of helping preschool children learn cooperation, more so that providing non-threatening environment, grouping and pairing of children, watching out for bullying and rejection, and providing opportunity for pretend play are ways cooperation can be enhanced among preschool children. Deborah (2013) also noted that cooperation is enhanced among children by encouraging team work, communication and collaboration. According to Dodge (2006), children who are rejected by peers at early stage shows higher rate of antisocial behaviour four years later. Kids (2018) identified some tips on improving young children's social competences to include modeling cooperation, role

playing cooperation and praising cooperation effort.

Social competences are important for preschool children because it influences peer acceptance and friendship, school adjustment and success. Corcoran, (2012) stated that children who are not socially competent find it difficult to be easily accepted by their peers because they interrupt others, converse disconnectedly, draw attention to themselves and lack emotional understanding such as identifying the emotions of others, reading social cues and expressing and controlling their own behaviors. They may also lack self attributes of confidence, self-esteem and autonomy. They find it difficult to negotiate and compromise; they find it difficult to take turns, share toys and other play materials; their plays are often short, and marked with squabbles; some are aggressive and use force on others to have their way. Katz & McClellan (1997) purported that children who do not have a basic level of social competence between the age of ($2^{1/2}$ – 5) may have trouble with relationship when they are adults. Adrian (2010) in a study on social competence and its relationship on peer preference reported that there is greatest peer acceptance in children who are socially competent, and that children are familiar with their preferred peers on several dimension of social competences. In another study carried out by Bree, Malinda and Eric (2012) on preschool children's conflict and social competence, it was discovered that preschool children peer conflict is positively associated with their social competence.

Considering the lifetime significances of social competences in the life of the preschoolers, it becomes necessary that the current study was carried out for the purpose of enhancing social competence among preschool children. Children may be not born socially competent, but they can be assisted to develop social competences. Early childhood/preschool education and families must address and provide more structures for enhancing young children's social competences via providing the time, opportunities and support for social interaction (Corcoran, 2012).

Purpose of the Study

The main purpose of this study was to find out possible ways to be adopted for enhancing social competence among preschool children in Anambra state. Specifically, this study determined

1. ways of enhancing negotiation competence among preschool children in Anambra state.
2. ways of enhancing cooperation competence among preschool children in Anambra state.
3. ways of enhancing compromise competence among preschool children in Anambra state.

Research Questions

1. what are the ways of enhancing negotiation competence among preschool children?
2. What are the ways of enhancing cooperation competence among preschool children?

3. What are the ways of enhancing compromise competence among preschool children?

Methodology

***Design of the study*:** A descriptive survey design was adopted for this study to gather information from the preschool teachers, Early childhood education lecturers and Home Economics lecturers of higher institutions of Anambra state on the possible ways of enhancing social competence among preschool children in Anambra state.

***Area of the study*:** The area studied was Anambra state. Educationally, Anambra has six zones which include: Aguata educational zone, Awka educational zone, Ihiala educational zone, Nnewi educational zone, Ogidi educational zone, and Onitsha educational zone. According to Basic Education Profile, National & Regional Statistics, Anambra state has the highest enrolment of preschool children in preschools with the net enrolment of 111,163 (Universal Basic Education Commission, Awka, 2010).

***Population of the study*:** The population for this study was made up of preschool teachers, and lecturers from early childhood education and home economics from the higher institutions in the state. Anambra state has a total no of 2,269 preschool teachers (National Bureau of Statistics - NBS, 2016). Departments of home economics and early childhood education in Anambra state has a total no of 46 lecturers consisting of 13 home economics lecturers and 3 early childhood lecturers from Nwafor Orizu college of education, Nsugbe; 8 lecturers from early childhood education, Nnamdi Azikiwe university , Awka; 16 lecturers from early childhood education & home economics departments of Federal College of Education (Technical) Umunze; and 6 early childhood education lecturer from Odumegwu Ojukwu university, Uli. (Source: Personnel department Nwafor Orizu College of Education; unizik.ed.com; Statistics Department, FCE (T) Umunze).

Sample and sampling techniques: The total sample frame for this study was 386 preschool teachers and lecturers from departments of home economics and early childhood education of higher institutions in Anambra state. Total sample of 340 preschool teachers were obtained through stratified random sampling from the six educational zones of Anambra state. The entire population of the lecturers (46) was used.

***Instrument for data collection*:** Questionnaire was used to collect the information on the possible ways of enhancing social competence among preschool children in Anambra state. The instrument was subjected to face validation by three experts. The reliability of the instrument was tested using Cronbach alpha coefficient reliability which a reliability coefficient of 0.76 was obtained for the instrument.

***Method of Data collection*:** The three hundred and eighty-six (386) copies of the questionnaire were administered to the respondents by hand by the researcher with the help of three research assistants. The administration

and retrieval of the instrument lasted for a period of four weeks. Out of the 386 copies of the questionnaire administered, only 369 copies were completely filled and retrieved. This represents 95.4 percentage rate of return.

***Method of data analysis*:** The data were analyzed using mean and standard deviation, cut off point of 2.50 was used for decision making. For the research questions, the items with the mean values of 2.50 and above were accepted as ways of enhancing social competences among preschool children while any item with the mean value below 2.50 was rejected.

Findings

Table 1: Mean Rating & standard deviation of the responses of preschool teachers and lecturers on the ways of enhancing negotiation competences among preschool children. Teachers (N=325), lecturers (N=44)

S/N	Ways of enhancing negotiation	X_1	X_2	X_G	SD	RK
1	Provide opportunity for good listening & concentration.	3.51	3.86	3.67	0.55	A
2	Provision of materials that encourage language development & communication skills.	3.75	3.73	3.74	0.50	A
3	Provide opportunity for children to solve problems themselves.	3.69	3.67	3.68	0.50	A
4	Encourage the children to verbally express thought & feeling	3.63	3.64	3.64	0.60	A
5	Avoid blaming anybody during negotiation	3.42	3.41	3.42	0.63	A
6	Never allow physical and verbal aggression	3.38	3.42	3.40	0.62	A
7	Set ground rules for negotiation	3.59	3.59	3.59	0.68	A
8	Let each person have a say	3.48	3.66	3.57	0.60	A
9	Let each person suggest a solution	3.37	3.56	3.47	0.65	A
10	Ask each person to suggest a solution	3.46	3.47	3.47	0.61	A
11	Help them to analyse the solution and put them into effect	3.37	3.56	3.47	0.65	A
12	Be calm with an upset child	3.46	3.47	3.47	0.61	A

Note: X_1= Means of the preschool teachers, X_2 of the lecturers, X_G=grand mean. SD =Standard Deviation. RK = Remarks, A = Agreed, N= number of respondents.

Table 1 shows that the preschool teachers and the lecturers agreed that 12 items in the table are ways of enhancing negotiation among preschool children, since the mean rating ranged from 3.40 to 3.74 which are greater than the cut-off point value of 2.50 used for decision making. The SD ranged from 0.50 to 0.68 which shows closeness in the mean opinion of the respondents.

Table 2: Mean rating & standard deviation of the responses of preschool teachers on the ways of enhancing cooperation competences among preschool children. Teachers (N=325), lecturers (N=44)

S/N	Ways of enhancing cooperation	X_1	X_2	X_G	SD	RK
1	Provide friendly non-threatening environment	3.38	3.42	3.41	0.62	A
2	Grouping & pairing preschoolers during classwork, play & games	3.59	3.59	3.59	0.68	A
3	Encourage children's creativity & not teacher's sheet or craft behaviour	3.48	3.66	3.57	0.60	A
4	Provide verbal encouragement rather than focus on negative behaviour	3.37	3.56	3.47	0.65	A
5	Watch for rejection & bullying among the preschool children	3.46	3.47	3.47	0.61	A
6	Model cooperation	3.51	3.86	3.67	0.55	A
7	Role play cooperation	3.75	3.73	3.74	0.50	A
8	Reward children's cooperative effort	3.69	3.67	3.68	0.50	A
9	Plan activities that encourage cooperation e.g. passing the ball	3.63	3.64	3.64	0.60	A

Note: X_1= Means of the preschool teachers, X_2 of the lecturers, X_G=grand mean. SD =Standard Deviation. RK = Remarks, A = Agreed, N= number of respondents.

Table 2 shows that the respondents agreed that the 9 items are ways of enhancing cooperation among preschool children, since the mean rating ranged from 3.41 to 3.74 which is greater than 2.50 cut-off used for decision making. The standard deviation ranged from 0.50 to 0.68 which indicates closeness in the mean responses of the respondents.

Table 3: Mean rating & standard deviation of the responses of preschool teachers on the ways of enhancing compromise competences among preschool children. Teachers (N=325), lecturers (N=44)

S/N	**Ways of enhancing compromise**	**X_1**	**X_2**	**X_G**	**SD**	**RK**
1	Provide friendly, non-threatening environment for the preschoolers	3.62	3.68	3.65	0.50	A
2	Show care and support to the children	3.43	3.74	3.59	0.54	A
3	Model prosocial behaviour such as compromise	3.45	3.50	3.48	0.58	A
4	Provide opportunities for pretend play that encourage compromise	3.42	3.51	3.47	0.61	A
5	Encourage independence & assertiveness	3.45	3.45	3.45	0.56	A
6	Role play compromise	3.69	3.67	3.68	0.50	A
7	Teach empathy and kindness	3.63	3.64	3.64	0.60	A
8	Choose emotion charade games	3.37	3.56	3.47	0.65	A

9	Choose television games that promote social skills	3.46	3.47	3.47	0.61	A
10	Choose games that reward compromise	3.37	3.56	3.47	0.65	A
11	Teach turn taking	3.46	3.47	3.47	0.61	A

Note: X_1= Means of the preschool teachers, X_2 of the lecturers, X_G=grand mean. SD =Standard Deviation. RK = Remarks, A = Agreed, N= number of respondents.

Table 3 indicates that the respondents agreed that the 11 items are ways of enhancing compromise among preschool children, since the mean rating ranged from 3.45 to 3.68 which is greater than 2.50 used for decision making. The standard deviation ranged from 0.50 to 0.65 which indicates closeness in the men responses of the respondents.

Discussion of the findings

The findings on research question 1 show that opportunity for good listening, language development, communication skills and children ability to solve problems themselves enhances negotiation. This finding is in agreement with Halil (2014) who noted that language development, communication skills, allowing & encouraging children to solve their problems improves their social competence. The findings also indicated that encouraging the children to verbally express their thought, to never allow physical and verbal aggression, setting ground rules for negotiation and allowing each person have a say and suggesting solutions are ways negotiation can be enhanced among preschool children. These are in corroboration with Military Families (2015) who suggested setting rules, giving every child a say, and allowing children make suggestion for solution helps them learn negotiation and resolve conflicts among themselves.

The findings on research question 2 acknowledged that providing non-threatening environment, grouping and pairing of children, watching out for bullying and rejection, and providing opportunity for pretend play are ways cooperation can be enhanced among preschool children. These are in corroboration with Deborah (2013) who noted that cooperation is enhanced among children by encouraging team work and communication; and that collaboration improves preschoolers' social competence. Dodge (2003) also pointed out that, children who are rejected by peers at early stage shows higher rate of antisocial behaviour four years later. Other findings in research question 2 indicates modeling and role playing cooperation; rewarding children's cooperative efforts and planning activities that encourage cooperation as ways of enhancing cooperation among preschool children. The findings are in alliance with Kids (2018) which stated that modeling and role playing cooperation supports young children's cooperation skills. On the other hand, Parenting Resources (2010) advised that children should be praised when they make cooperation effort.

Furthermore, the findings on research questions 3 pointed out that friendly environment; care & support; model prosocial behaviour; opportunity for pretend play as ways of enhancing compromise competencies. This is in alignment with Andrew (2018) and Family Times (2016), who stated that adults, and older children in the home are the best model for teaching how to behave and interact with people, and that families should make sure that there is enough caring, kindness and generosity in the home while Cheryl (2018) specified that manners can be role played and practiced. Family times (2016) pointed out that pretend play and teaching empathy are important ways the children form friendship, learn about negotiation and compromise. Other findings in research question 3 shows that emotion charade games, choosing television programmes that promotes social skills, and encouraging independence and assertiveness will aid the children compromise skills. These findings are supported by Gwen (2018) who stated that emotion charades games and some television programmes help children strengthen their social skills.

Recommendation

Based on the findings of the research, the following recommendation are made:

- Administrators and proprietors of preschools must ensure that these institutions provide regular opportunities for child initiated social activities; adequate play materials; recruitment of trained and competent preschool teachers for effective teaching and all favorable conditions that will enable the enhancement of social competence among preschool children.
- Preschool teachers, parents and every other care giver should be role models/ model prosocial behaviours to the preschoolers. There should be quality attachment with care givers and preschool teachers and quality of care giving setting as it has great impact on social competence.
- Young children become more socially competent when they have the opportunity to team up, and interact socially with their peers, therefore the need for federal and the state government through their respective parastatals to make quality preschool education compulsory and free for every child.

Conclusion

Social competences are important to the preschool child as it affects their acceptability among peers, friendship and even their academic outcome. Social competences include negotiation, compromise and cooperation competences. They are learnable if taught to the preschoolers. For enhanced social competence among preschoolers, there is need for quality opportunities and conditions which include: modelling prosocial behaviours; rewarding well behaved children; grouping and pairing children in different classroom & outdoor activities; showing care and support to

the children; and watching out for bullying and rejection among others.

References

Adrian, M (2010). *Social competence and its relationship with peer preference*. https://bir.brandeis.edu. Retrieved on 12th February, 2014.

Andrew, L (2018). Promoting Social Competence- Simple Methods & Techniques. *Brainy Child*. **Error! Hyperlink reference not valid.**. Retrieved on 4th May, 2018.

Beauchat K.A, Blamey, K.I, & Walpole, S (2009). *Building preschool children's language and literacy*. Onlinelibrary. wiley.com

Bree, A.D., Malinda, J.C., and Eric, L.C. (2012). *Preschool Children Conflicts and Social Competence: A Comparative View*. Texas: Texas University.

Cheryl, L (2018). *Improving Kids Social Competence.* http://www.parents.com. Retrieved on 4th of May, 2018.

Corcoran T.J. (2012). *Importance of Fostering Children Social Competence.* http//www. willintonherald.com/ opinion/columinist/the-importance-of-fostering-children-soc-comp. Retrieved on 4th of March, 2013.

Darlene, C (2017). Compromising activities for children. **Error! Hyperlink reference not valid.**. Retrieved on 12th August, 2018.

Deborah, J.S (2013). *Teach Preschool: Promoting Excellence in Early Childhood Education.* http://www.teachpreschool.org/2013/07/five/activities. Retrieved on 24th July, 2014.

Denham, S.A., Mitchel-Copeland, J., Strindberg, K., Anerbach, S., and Blair K. (1997). Parental Contribution to Preschoolers Emotional Competence: Direct and Indirect Effects. *Motivation and Emotion*. *21:65-86.*

Dodge, K. A., Coie, J. D., & Lynam, D. (2006). Aggression and Antisocial Behavior in Youth. In Damon, W., Lerner, R.M., & Eisenberg, N. (Eds.), *Handbook of Child Psychology: Social, Emotional, And Personality Development 3 (6) 719−788)*. New York: Wiley.

Dunn, J., and Cutting, A.L., (1999). Understanding Others, and Individual Differences in Friendship Interaction in Young Children. *Social Development*, *8*, (*2), 201-219*. New York: Blackwell Publishers Ltd.

Family Education, (2017). *Teaching Children to Negotiate*. http//www.family education.com. Retrieved on 21st September, 2017.

Family Times (2016). Negotiation and the art of compromise. **Error! Hyperlink reference not valid.**. Retrieved on 15th August, 2018.

Federal Republic of Nigeria (2013). *National Policy on Education, Nigeria*. (6th Eds.). Abuja: NERDC Press.

Gale Encyclopedia of Children Health (2013). Social Competence. www.healthofchildren.com. Retrieved on 24th February, 2014.

Gwen, D. (2018). Social skills activities for children and teens: evidence based games and exercises. **Error! Hyperlink reference not valid.**. Retrieved on 15th August, 2018.

Halil, E (2014). *Relationship among the Parenting Styles and Social Competence and Prosocial Behaviour* of *the Children who are Attending State and Private Schools*. Ankara: Academia Ed. Community.

Isadora, F (2014). Teaching Children to Mind Their Manners. *Meredith WomenNetwork. http. // www. parent. com / free /stuff/psrc=pm*. Retrieved on 24thjuly, 2014.

Jolanda, H. (2009). Characteristics of Preschool Children. *Work with Me Coordinators Handbook*. North America: Faith Alive Christian Resources.

Kaiser B, & Rasminsky, J.S,.1999. *Meeting The Challenge: Effective Strategies for Challenging Behaviour in Early Childhood Environment.* Ottawa, ON. Canadian Child Care Federation. NAEYC

Kart, L. G., and McClellan, D.E. (1997). *Fostering Children's Social Competence: The Teacher's Role*. Washington DC: The National Association of Young Children (NAEYC).

Kids (2018). 5 tips for teaching cooperation. www.kidsintransitiontoschool.org. retrieved on 15th August, 2018.

Kostelink, M.J, Gregory, K.M., Soderman, A.K., & Whiren, A.P. (2012). Guiding Children's Social development and Learning. (7th Eds.). Belmont, C.A: Wadworth.

La-Paro, K.M., and Pianta, R.C. (2003). *Class: Classroom Assessment Scoring System.* Charlottesville: University of Virginia.

Military Families (2015). *Ways Child Care Providers Can Teach Young Ones to Resolve Conflicts*. articlesextension, org. Retrieved on 15th August, 2018.

National Bureau of Statistics (2016). Universal Basic Public Education and Key Statistics, Nigeria.

Parenting Resource (2010). *Tips on helping your child to cooperate*. https//www.zerotothree.org. Retrieved on 15th August, 2018.

Pickle Burns (2014). *Compromise Is Not the Same as Giving In.* https://pickleburn.com. Retrieved on 15th August, 2018.

The Hanen Center (2011). Help The Child to be Outspoken and Polite During Negotiation. http://www.hanen.org/about/us. Retrieved on 24th July,2014.

UBEC, (2010). Basic Education Profile. National & Education regional statistics, Anambra state.

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Educational Challenges of Autistic Children within Families in Benue State, Nigeria

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Abstract

The study investigated educational challenges of autistic children among families in Benue state. The study was guided by three research questions. Survey research design was used. Population was made up of 96 autistic children, 96 parents, and 22 teachers totalling 214 derived from three institutional homes in Benue State. Educational package for autistic children questionnaire (EPACQ) and Autistic Children Engagement Training Programme (ACETP) were used as the instrument for data collection. Data were analysed using means, standard deviation and bar charts. Results show that the training programme used for educational development of autistic children showed a significant relevance to changes in intellectual behaviour. It follows that the educational challenges faced by autistic children and families can be modified through selected educational programmes. Recommendations include, among others, that curriculum developers need to develop standardized learning materials for autistic children.

Key words: Autism, Children, Challenges, Programmes, Development

Introduction

Autism is a complex developmental disability that typically appears during the first three years of life. It is the result of a neurological disorder that affects the normal functioning of the brain, impacting development in the areas of social interaction and communication skills (The Autism Society of America, 2010). According to Barlow and Durand (2007), autism is a childhood disorder characterized by significant impairment in the areas of socialization, communication and by restricted patterns of behaviour, interest and activities as well as a puzzling array of symptoms.

Autism is a spectrum disorder, meaning that there is a wide degree of variation in the way it affects people.

Every child on the autism spectrum has unique abilities, symptoms, and challenges. A major feature of autism is the variety of symptoms that autistic children display. Some children are aggressive, some have problems with eating or toileting and almost all have difficulty with language (Nwanze, 2013).

Autism is today considered a big challenge to the family and it is ranked as the most stressful of all childhood developmental disabilities with a fast prevalence rate. There is an estimate of 190,000 children in Nigeria who may not have been diagnosed because of the low level of awareness in Nigeria (Audu & Egbochuku, 2010). It is a childhood brain development disorder which affects a child's social interaction, communication and behaviour. Most autistic children are normal in appearance but different from the way children behave because of the disruptive behaviour associated with autism. Other characteristics often associated with autism are engagement in repetitive activities and stereotyped movements, resistance to environmental change or change in daily routines, and unusual responses to sensory experiences. Children with autism are usually unstable, less predictive in their abilities, intelligence, behaviours and shows little interest in the world and people around him/her (Smart, 2009 & Heward, 2009, Geier, Kern & Geier, 2010; Mintz, 2016).

It is even more disturbing to parents of African descent, where there is a high belief system in witchcraft and other superstitious beliefs. For example, Obaji (2010) reported that autistic children are perceived as child-witches, destructive, waste, cause hardship, disease and death to their families. Identifiable symptoms of autism such as crying and screaming in the night, hallucinations and others all tend to confirm these suspicious behaviour a situation which worsen the plight of the parents.

Autism remains a puzzling condition and a stressful disorder with multiple causes grouped into biological and psychosocial dimensions. The biological dimension has to do with genetic factors and medical conditions such as rubella (German measles), tuberous sclerosis, difficulties during pregnancy and labour, organic (brain) damage, parental characteristics such as advanced maternal age and advanced parental age while the psychosocial dimensions is as a result of poor parental responsibility occasioned by illiteracy, poor socio-economic status denies the unborn child some basic medical attention and vaccinations (Cook, 2001; LePage, 2001; Barlow & Durand, 2007; Nordqvist, 2008; Geier, Kern & Geier, 2010; Parisi, Filippo & Rocella, 2015; Mintz, 2016).

In many parts of Africa and Nigeria specifically, there is an increasing concern over the rise in cases of autism among children. Nwokolo (2010) stated that the level of awareness about autism in Nigeria is pathetically low, the little awareness among the medical community is grossly insufficient in mediating issues of autism, hence among the medical community, some have limited knowledge on autism, many of the health workers are only knowledgeable on the symptoms and

manifestations of infantile autism with no clue as to where to refer autistic children to for professional attention.

Audu and Egbochukwu (2010) asserted that there is a low level of awareness among parents and institutional care givers about autism, and this has increased the prevalence rate, putting it on growing increase within the West African Sub-region which records about 2-20 cases in 1000 children at birth to three years. Several other researchers such as Bakare & Munir (2012) agree that there is low level of awareness among parents and caregivers in Nigeria leading to an increased prevalence rate of autism with a devastating effect on the child health, social and educational performance and development. School becomes a problem because autistic children do not easily fit into the mainstreaming of children. Autism adversely affects a child's educational performance and social activity at home, school, and community.

Autism has life-time consequences with a range of impacts on the health, economic wellbeing, social integration and quality of life of individuals with the disorder, and also on their families especially the parents and potentially the rest of society, this makes it an issue of great concern to the parents, educators, health service providers and the government (Ehiemua, 2014). Today, 3 in about 100 children are diagnosed with autism and the level of awareness of this dreaded phenomenon is still very low in Nigeria (Okey-Martins, 2007). The low awareness continues to serve as a predictor of increased prevalence rate with very poor care and attention given to the autistic children who eventually orients very poor academic grades with their peers in schools (Audu & Egbochukwu, 2010).

In Benue State the level of low awareness is pathetic. This is likely due to what Nwokolo (2011) termed parental misconception and cultural misinterpretation of autistic children as child witching. This could have led to some parents of the autistic children resorting to hiding them while some troop to Christian worship centers or traditional institutions to seek for solutions. Consequently, most autistic children are at risk of being excluded from educational activities.

Several organizations and government grant aided institutions in Nigeria such as the National Society for Autism Nigeria, Autism Associates, Healthcare Assessments, Aids and Training, Lagos and GTB Orange Ribbon Initiative are very commendable in their roles in creating awareness on the causes of child autism, provision of homes, rehabilitation services like functional communication and ample health and educational opportunities for the autistic children. Some Non-Governmental Organizations in Benue State are also responsible in the identification, awareness creation and the educational development and wellbeing of autistic children such as Nan-Tor Special Children's School, Makurdi. Much is however, still needed to be done in reducing the prevalence of child autism, designing

good educational programmes that fits the educational needs and social support for the autistic children in Nigeria. Although several educational practices can be used in the process of teaching autistic children especially in the western world Nwanze (2013) maintains that the combination of specific learning characteristics and highly individualized instruction and programmes suggests the need for continued innovations and ideas on the best strategies for actively engaging autistic children. It is to this effect that this investigation was carried out on the educational challenges of autistic children among families in Benue state with a view of developing a training programme for educational development of autistic children.

Objectives of the Study

The primary objective of this research was to investigate the educational challenges of autistic children among families in Benue State. Specifically, the study:

1. identified the educational challenges of autistic children in Benue State.
2. identified training programmes being used by institutions in educational development of autistic children in Benue State.
3. determined educational intervention for the autistic children in Benue State.

Methodology

***Area of the study*:** Area of the study was Benue State. The study was conducted in three special institutions in Benue state. They are; St. Francis School Vandikya, Elim School Ibilla Oju and Nan-Tor Special School, Makurdi.

Research Design: The research design considered appropriate for this study was in twofold: the survey research design and Research and Development (R&D) research design.

Population for the study: Population of the study consists of a total of 214 respondents in the three special institutions in Benue State. This is made up of 96 parents, 22 teachers and 96 autistic children.

***Sample for the study*:** The population was small and manageable. Thus there was no sampling. The entire population was studied.

***Instrument for data collection*:** The instruments used in data gathering were Educational Package for Autistic Children Questionnaire (EPACQ) and Autistic Children Educational Engagement Training Programme (ACEETP). The study adopted a 5 point Likert scale with Strongly Agree SA – 5points; Agree A – 4points; Strongly Disagree SA - 3points and Disagree D – 2point, undecided – 1point.

ACEETP was divided into six (6) units covering interview with parents and teachers, autistic children's initial problems were evaluation, therapeutic training on vocal speech and communication, training on affective behaviour, skill training and development, and programme evaluation and assessment. The instruments for data collection were validated by three experts in Child/Developmental psychology at Benue State University, Makurdi. The

reliability of the instruments was established using cronbach Alpha and .825 and 0.958 was taken as significant for the instruments respectively.

Data Collection Techniques: A total of 118 copies of the questionnaire were distributed by hand on the parents and teachers. All the copies of questionnaire administered were duly returned. This gives 100 percent return. ACEETP was administered on the 96 autistic children through the use of engagement practices and learning experiences with interactive reading materials using visual cues and music in building engagement behaviour. In addition to visual learning materials, the programme involved the use of music in promoting increased engagement to improve the autistic child attitudes and abilities to process and recall information.

Data Analysis Techniques: Descriptive method of data analysis was used in analyzing the research questions. Specifically, research question one was analyzed using mean and standard deviation, while research questions two and three were analyzed using frequencies and bar charts to show the level of educational development of the autistic children.

Results

The results of data analysis are presented below in Table1 and chart 1–2.

Educational Challenges of Autistic Children

Table 1: Educational Challenges of Autistic Children in Benue State

Educational Challenges	Mean	Standard deviation	Decision
Language difficulty	4.31	0.91	Agreed
Less attentive in class	3.85	1.17	Agreed
Aggressive with class mates	3.48	1.44	Agreed
Low IQ	4.31	0.91	Agreed
Reading Difficulty	3.48	1.44	Agreed
Exclusion from academic activities	3.48	1.44	Agreed
Drop out of school	3.85	1.17	Agreed
Poor organization ability	3.48	1.44	Agreed
Less predictive in behaviour	3.48	1.38	Agreed
General learning disability	3.85	1.17	Agreed

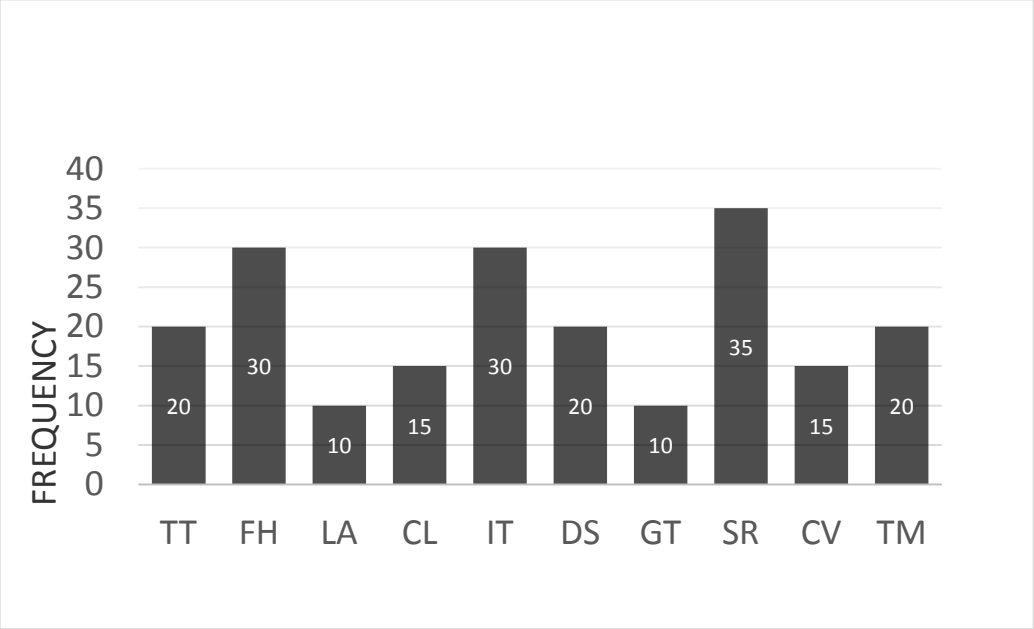
Table 1 shows respondents' view on the educational challenges of autistic children in Benue State. The mean response to each question shows that difficulty in language and communication and low IQ with a mean of 4.31 each is the highest educational challenge of autistic children in Benue State. This is followed by general learning disability; drop out of school and less attentive in class with a mean of 3.85 each. The

standard deviation ranges from 1.44 to 0.91 indicating low variation in the responses among the respondents.

Training programmes being used by institutions in educational development of autistic children in Benue State

It was found that the three institutions studied did not have specific programme for training of autistic children in educational development. The children receive training from their parents and their teachers. This training centred on toilet training, feeding habit, cleanliness, learning ability and integration (self management skills). The performance of the autistic children is presented on the chart 1.

Chart 1: Performance of Autistic children on Educational programmes being used by institutions in educational development of autistic children in Benue State.



Key: TT = Toilet training, FH = Feeding habits, LA = Learning ability, CL = Cleanliness, IT = Integration, DS = Dressing, GT = Greeting, SR = Sharing, CV = Conversation, TM = Table manners.

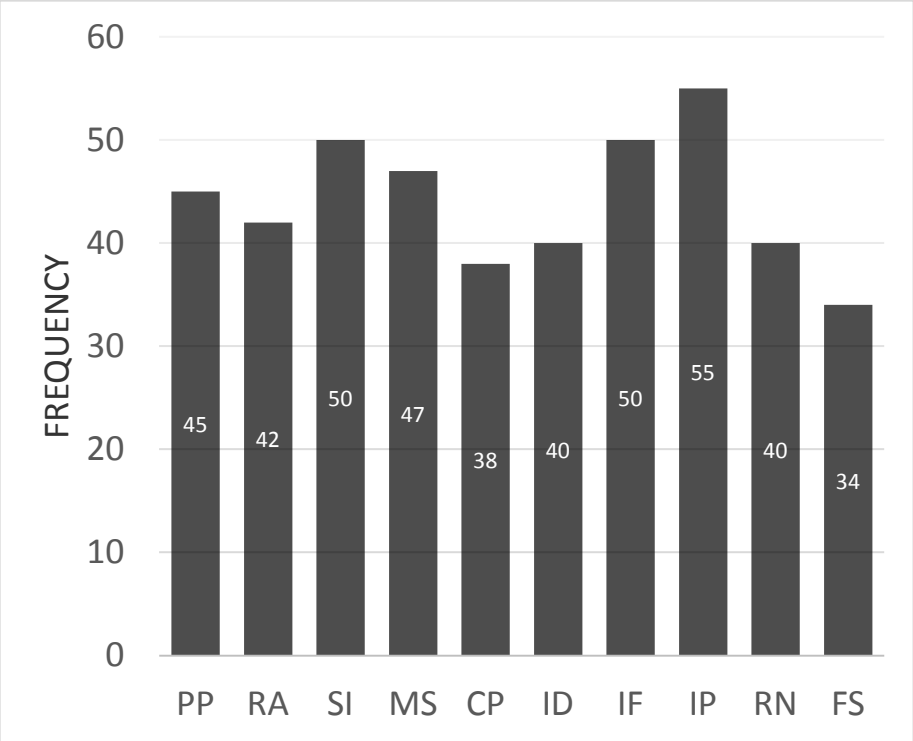
Chart 1 shows performance of autistic children based on self management training received in their institutions before application of educational programme administered by the researchers. The result reveals that sharing have the highest frequency of 35. This is followed by feeding habit and integration with frequency of 30 each while learning ability and greeting have the lowest frequency of 10 each. It is clear from above that educational skills of autistic children were

neglected and the children exhibited poor performance in self management.

Educational Intervention for Autistic Children

This involves the use of engagement practices and learning experiences with interactive reading materials using visual cues and music in building engagement behaviour. In addition to visual learning materials, other educational intervention identified involves the use of music in promoting increased engagement, and improves autistic children attitudes and abilities to process and recall information. The performance of the autistic children based on the educational intervention is depicted on Chart 2.

Chart 2: Result of Educational Intervention for Autistic Children in Benue State**.**



Key: PP = Picture pointing, RA =Repetition of alphabets, SI = Speech imitation, MS = Music (rhythms), CP= Constructive play, ID = Identification of colours, IF = Identification of farm animals, IP = Interactive play, RN = Repetition of numbers, FS = Finger spelling.

Chart 2 shows the result of the educational intervention for Autistic children in Benue State. The result reveals that interactive play have the highest frequency of 55 followed by speech imitation and identification of farm animals with a frequency of 50 each while finger spelling have the lowest frequency of 34. The educational intervention method has proved effective since autistic children show significant responses to the training

parameters designed for the development of their educational skills. Hence, the educational intervention strategy could be said to have a significant impact on the educational development of the autistic children in Benue State.

Discussion

The result of the analysis of research question one reveals that the major educational challenges of autistic children in Benue State are difficulty in language acquisition and communication, and low IQ (intelligent quotient). Other challenges include self-withdrawal leading to dropping out of school, general learning disability, and less attentive and engaging in classroom activities among other challenges. This agrees with Obrusnikova and Dillon (2011) who identified challenges such as inattentive and hyperactive behaviours, emotional regulation difficulties, difficulties understanding and performing tasks, narrow focus and inflexible adherence to routines and structure, isolation by classmates, negative effect on classmates learning and need for support. Autistic children are considered abnormal with special needs, including educational developmental needs. The educational challenges no doubt can frustrate parents and care givers in and outside the home, if they are not able to help them develop appropriate behaviours and learn like other children (Barlow & Durand, 2007).

The wide range of behaviours that are associated with autism make such children less available for learning, or less engaged, during academic instruction. Thus, children with autism are often excluded from academic activities (Kluth & Darmody-Latham, 2008). According to Le Page (2001) problems such as the absence of language, bizarre anti-social behaviours and tantrums are likely to produce high levels of deficits in learning and developmental disabilities, withdrawing from the class or dropping out of school.

It was found that the three institutions studied did not have specific programme for training of autistic children in educational development. The children receive training from their parents and their teachers. It was clear from investigation that educational skills of autistic children were neglected and the children exhibited poor performance in self management. This scenario is indicative to a number of challenges similar to those identified by Nilford (2014). These include lack of skills amongst teachers that enable them to function effectively and the use of instructional materials that do not take into consideration the operational levels of those with learning disabilities. In the study of Lindsay, Proulx, Thomson and Scott (2013) the participants (teachers in an inclusive class room) reported that teachers considered that they do not have enough information about autism spectrum disorder, especially with specific ways to work with a child in a class room and how to deal with a child when a behavioral explosion occurs. Kavita, Amina, Eben, Muideen, Karren, Diane, Harry, Kirsten, Jo, Andy, David,

and Charles (2016) maintained that at school level, education providers require basic knowledge of autism not only to manage the challenging behaviours, but appropriate training would help caregivers take into account the individual needs of a child with autism so as to address his challenges in the school environment.

The educational intervention and training methods for educational and psychosocial development of the autistic children in Benue State identified were administered and the outcome indicates that the training model significantly helped to improve their psychosocial and educational development of the autistic children. This agrees with Paul (2003) who asserted that daily exposure in peer play with trained peers has found to increase several social behaviours in children with autism including proximity, appropriateness and eye contact. Hillman (2018) maintained that since children with autism have difficulty relating to others, play therapy may be a wonderful tool for helping them move beyond self-absorption into varied, shared interactions. Also Reichow and Volkmar (2010) ascertained that visual supports have been found to be an effective method for enhancing social understanding and structuring social interactions for pre-school and school aged children with autism. McCorkle (2012) confirmed that the students she worked with respond well with visual schedules and teaching support.

Early behavioral, cognitive, or speech interventions can help autistic children gain self-care, social, and communication skills. Therefore, there is need to diversify autism intervention programmes and promote the use of interactive reading materials using visual cues and embodied music-based approaches to facilitate learning process and engagement behavior of the autistic children. Meadan, Ostrosky, Triplett, Michna, and Fettig (2011) sees visual supports such as real objects pictures and visual task analysis and others as a method of teaching. This has the implication that, the real objects and visual aids the teachers use for their students are useful. Gersham and McMillan (1997) accepted that children with Autistic Spectrum Disorders (ASD) can benefit from specific behavioral and educational interventions that take cognizance of implications of ASD for the children's learning and teaching programmes. Soomro and Soomro (2018) therefore advocates the development of Autism Children's app using Picture Exchange and Communication System (PECS) since (PECS) truly helped people grow spoken language, reduce tantrums and strange manners and improved socializing.

LaGasse (2017) maintained that the unique stimulus of music provides an engaging way for children with ASD to interact socially and work toward non-musical social outcomes. Alzerayer and Banda (2017), Xin and Leornard (2015) advocates the use of tablet based devices such as ipads to improve communication skills of autistic children. Nepo (2018) maintained that advancement of technology in the past

few decades has made many high-tech devices available that help to overcome the limitations experienced by people with autism. The high-tech devices can be effectively integrated with other Evidence Based Practices (EBPs), such as video modeling/prompting to improve social, communication, and organizational skills.

Kaufman (1994); Nind (1999) agrees that participation in interactive approaches can effect progress in children's social communicative abilities. According to Malgorzata (2012) students and their teachers can use the available mental resources as well as share the knowledge, experience and competencies of the whole class, and thus should be perceived not only as an important enrichment of the experiences associated with the learning process but also as a form of support of the activities related to the proximal development of all children with disabilities.

Conclusion

Autism is a mental condition characterized by difficulty in communicating and interacting, therefore this study established that autistic children face educational challenges, but special educational programmes can assist in the training of these children to become functional adults. The study established that there is significant difference between training and change in educational behaviour of autistic children and that a well developed training programme would promote and developed their learning and communication skills and help them achieve optimal educational status.

Recommendations

In view of the need for appropriate facilities for early intervention in the educational challenges of autistic children, the following recommendations are made.

- Families and parents should involve every form of positive parenting practices to enhance the education of the autistic child. A combination of efforts by parents, grandparents and siblings in proper care and love can make a beautiful life for the autistic child.
- Government should provide adequate budgetary allocations to enhance proper funding of programmes, facilities and care for autistic children and welfare support to parents. Specifically, Benue State Government should aim at supporting institutions charged with working with autistic children.
- Curriculum developers need to develop standardized learning materials for autistic children. Care givers for the autistic children, must include behavioural skill training programmes and other integrated approaches in the curricula for the training of autistic children. Also professional care givers must undergo continuous education in behavioural skills.
- Home Economists especially those that specialise in child development should take advantage of the prevalence of autism by setting up

consultancy officers for counselling of parents, training of Autistic children and continuous research on Autism.

References

Audu, V.E.I. & Egbochuku, E.O. (2010). Autism among primary school pupils in Benin Metropolis: Implications for counselling. *Counselling Association of Nigeria*, 3, (2) 257-268.

Autism Society of America (2010). Defining Autism. Retrieved 20/2/15 from http://www.autism-society.org.

Bakare, H and Munir, T (2012) The history of autism. *European Child Adolescent Psychiatry*. 13(4).

Barlow, D.H and Durand, V.M (2007). *Abnormal Psychology : An Integrative Approach*. New York : Wadsworth Publishers.

Cook, S.A.(2001) Improving the health of people with intellectual disabilities: outcomes of a health screening programme after 1 year. *Journal of Intellectual Disability Research*, 50(9), 667-677.

Ehiemua, S. (2014). Autism: Educational strategies in schools. *European Journal of Research and Reflection in Educational Sciences,* 2 (2).

Geier, D. A.,Kern, J.K., and Geier, M.R. (2010). The biological basis of autism spectrum disorders: Understanding causation and treatment by clinical geneticists. *Acta Neurobiologiae Experimentalis,* 70, 209-226.

Gersham, F.M. & McMillan, D. L. (1997). Autisitic recovery: An analysis and critique of the empirical evidence on the early intervention project. *Behavioural Disorders* 22 (4), 185 – 201.

Heward, W. (2009). *Reasons applied behaviour analysis is good for education and why those reasons have been insufficient.* New York: Prentice Hall

Hillman, H. (2018). Is play therapy and evidenced – based intervention for children with autism. *Autism Spectrum News,* 10(3).

Kaufman, B. N. (1994). *Son rise: The miracle continues.* California: Tibouron

Kavita, R., Amina, A., Eben, B., Muideen, B., Karren, V., Diane, C. C., Harry, T. C., Kirsten, A. D., Jo, M. W., Andy, S., David, S., and Charles, R. N. (2016). Autism Spectrum Disorders in Africa: Current Challenges in Identification, Assessment, and Treatment: A Report on the International Child Neurology Association Meeting on ASD in Africa, Ghana, April 3-5, 2014. Journal of Child Neurology, 31(8), 1018-1026.

Kluth, P. & Darmody-Latham, J. (2008). Beyond sight words: Literacy opportunities for students with autism. *The Reading Teacher*,56, 532-534.

LaGasse, A. B. (2018). Social outcomes in children with autism spectrum disorder: A review of music therapy outcomes. *Patient Related Outcomes Measures.*

LePage, M (2001). False alarm. *The New Scientist*. 3(4) 17-20.

Lindsay,S.,Proulx,M.,Thomson, N and Scott,H.,(2013). Educators' challenges of including children with autism in main stream class rooms. *International journal of disability, development and education*, 60(4), 347-362,

Malgorzata, K. (2012). Education of children with learning disabilities from social and cultural perspective. *Procedia-Social and Behavioural Sciences,* 15, 1243 – 1249.

McCorkle, S.L. (2012). Visual strategies for students with autism spectrum disorders. Retrieved from https://www.lynchburg.edu on 29th March, 2018.

Meadan,H.,Ostrosky,M.,Triplett,B.,Michna, A and Fettig,A.(2011). Using visual

supports with young children with autism spectrum disorder,*Teaching Exceptional Children*, 43 (6),28-35

Mintz, M. (2016). Evolution in the understanding of autism spectrum disorder: Historical perspective. *Indian Journal of Pediatrics.*

Nepo, K. (2018). The use of technology as an evidenced-based practice. *Autism Spectrum News,* 10(3).

Nind, M. (1999). Intensive interaction and autism: A useful approach. *Brtish Journal of Special Education, 26* (2), 96 – 102.

Nordquist, B. M. (2008) Using video modelling and reinforcement to teach perspective-taking skills to children with autism. *Journal of Applied Behaviour Analysis, 36*, 253- 257.

Nilford, H. (2014).Teaching children with learning disabilities in the mainstream classes: The challenges. *Mediterranean Journal of Social Sciences 5(27), 711-715*

Nwanze, H. (2013). Spoken Language in Nigerian Children with Features of Autism. *British Journal of Humanities and Social Sciences 8(2)* 1 – 8

Nwokolo, P (2011). Complex linguistic structure of Children with Autism. *South African Journal of Psychiatry 17(3).* 347-359.

Obaji, R (2010). Trends in early identification of Autism. *Journal of Mental Retard.* 4(1). 65-73.

Obrusnikova, I. and Dillon, S.R.(2011). Challenging situation when teaching children with autism spectrum disorder in general physical education. *Adopted Physical Activity Quarterly,* 28, 113-131,

Okey-Martins N. (2007). *Autism in Nigeria; a Brief on current situation*. England: Chichester, W, Sussex. P0197UY.

Parisi, L., Di Filippo, T. and Roccella, M. (2015). The child with autism spectrum disorder (ASDS): Behavioural and neurobiological aspects. *Acta Medica Mediterranea,* 31(1187).

Smart, C (2009). *Disability, society, and the individual* (2nd edition). Austin: Texas,Pro-ed.

Soomro, N and Soomro, S. (2018). Autism children's app using PECS. *Annals of Emerging Technologies in Computing (AETiC),* 2(1).

Xin, J.F. and Leonard, D. A. (2016). Using ipads to teach communication skills of students with autism. J*ournal of Autism and Developmental Disorders,* 45, 4154-4164

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Strategies for Strengthening Spousal Relationships in the Family in Enugu State

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Abstract

This study focused on spousal relationship. Specifically, the study determined indicators and challenges of spousal relationships, as well as strategies for strengthening such relationships among couples in the family in Enugu state. It was a survey. The population was made up of 33, 245 secondary school teachers in Enugu State.. A sample of 385 spouses was selected for the study. Instrument for data collection was the questionnaire. Data were analyzed using mean. Findings reveal 15 indicators of spousal relationship such as communication; 15 challenges of spousal relationships including financial and communication problems; and 10 strategies for improving spousal relationship such as making sacrifices in relationship for the sake of the other person.

Keywords: Couples; Marriage; Nigeria; Spousal; Strategies

Introduction

Spousal relationship describes that kind of relationship that exists between a husband and wife. Farlex (2016) defines spousal relationship as the state of being a married couple, voluntarily joined for life (or until divorce). Furthermore, Thomas (2004) defines spousal relationship as any form of interaction that exist between husbands and wives, couples or two persons who live as such even though they are not. To this end Ryan-Froslie (2010) adds that spousal relationships are many and varied. According to the author, individuals in spousal relationships, whether they are married or otherwise, structure their relationships differently as the basis of some relationships are expressed in the presence or lack of the following: finance, property(ies), sexual relations, companionship, demonstrative and public display of affection, team work at all times, procreation, and so forth. Ryan-Froslie (2010) therefore concludes that it is the variation in the way human beings structure their relationships that makes the determination of when a spousal relationship exists. However, for the purpose of this study, spousal relationship is conceptualised to mean the interaction between two married couples who in the eyes of the law are seen to be husbands and wives.

In understanding spousal relationships, there are certain characteristics or indicators that help define its nature and function. For example, the 2008 relationship indicators survey carried out by Credit Union Australia (CUA, 2008) highlighted the fact that the vast majority of couples in Australia have relationships of some kind which are marked by friendship, romance and being familial with each other. Other studies such as that of Terman and Buttenwieser (1988) have pointed at certain personality indicators such as interest maturity, masculinity-femininity, self sufficiency, introversion and dominance as typifying most type of spousal relationships. Other indicators assessed by Kelly, Berscheid, Christensen, Harvey, Huston, Levinger, McClintock, Peplau, and Peterson (1983) include: direct and indirect interdependence, among others. Campbell (2009) have identified the following variables as indicators of a normal, functional couple relationships: honesty and accountability, open communication, negotiation and fairness, economic and financial partnership, shared responsibility; shared power, respect, trust and support, non-threatening behaviour, intimacy, physical affection, and personal integrity. To a greater extent, these indicators help to measure "relationship temperature" among married couples.

There is need to maintain cordial spousal relationship because it is very essential for peaceful home. Studies have shown that spousal relationships play significant roles on the health status and psychosocial well being, children's growth and upbringing, and decision making of couples on issues concerning the family and beyond (Gallo, Troxel, Kuller, Sutton-Tyrrell, Edmundowicz, & Mathews, 2003; Nyakato & Rwaubkwali, 2013; Robles & Kielcolt-Glaser, 2003; Saxbe & Repetti, 2009). The ways of maintaining spousal relationship include constant communication, good listening to each other, doing things in common, ability to endure each other an expression of sincerity (Saxbe & Repetti, 2009).

Relationships of every kind are filled with challenges which if not properly and carefully managed, may lead to the degeneration or expiration of such relationships. A number of studies have been done in this regard to highlight the problems couples face in their relationships. For example in the area of communication, O'leary and Smith (1991) observed that distressed couples show more negative statements and fewer positive statements and show greater reciprocation of negative behaviours during problem solving interaction. According to Weiss and Heyman (1997) one of the greatest challenges for couples locked into negative exchanges is to find an adaptive way of existing from such cycle. This is usually attempted through responses designed to repair the interaction (e.g., "You are not listening to me") that are typically delivered with negative emotion. Distressed couples therefore tend to respond to the negative affect by continuing the cycle. In all, one of fundamental challenge that

spouses experience in their relationships lies in the way they communicate with each other. The mismanagement of such communication gap could lead to a deteriorating relationship as time passes by. Additionally, the Psychotherapy Institute of Individual Family and Community Development (2008) identified the following problems in spousal relationships: disagreement resulting in unhappiness, criticism of each other, feeling of being treated unfairly, insecurity, feeling of being controlled by the other partner, feeling of being trapped in to marriage and thinking that one is sacrificing too much on marriage in the place of one's career.

In Enugu State, it has been observed that spousal relationships may be characterised by both "pain and pleasure," In this regard Lauren, (2017) posits that marriages in the state are besieged by numerous constraints that lead to divorce, marital disharmony, hatred, rancour, uncertainty, hostility, lack of love, lack of respects and trust among other things. With the report of the Social Welfare Department, Nsukka Local Government Area putting the number of broken homes and unsuccessful spousal relationships in the under listed years at: 141 in 2008, 144 in 2009, 135 in 2010, 164 in 2011 and 139 in 2012 in Nsukka alone, the extent of the problem across the entire state can better be imagined.

Purpose of the Study

The general purpose of the study was to evolve ways for strengthening spousal relationships in families in Enugu State. Specifically, this study determined

1. indicators of positive spousal relationships among married couples in Enugu State.
2. factors that militate against positive spousal relationships in the family.
3. ways of promoting positive spousal relationships in the family.

Research Questions

This study answered the following questions:

1. What are the indicators of positive spousal relationships among married couples in Enugu State?
2. What are the factors that militate against positive spousal relationships?
3. What are the ways for promoting positive spousal relationships in the family?

Methodology

***Design of the Study*:** The research design adopted for this study was descriptive survey research design. It was considered suitable for describing the characteristics of the subject under investigation.

***Area of the Study*:** The study area was Enugu State. Enugu state has 17 local government areas (LGAs) with Enugu as its capital There are three educational zones in Enugu State. Family values, including marriage appear to be held highly in the state.

***Population of the Study*:** The target population was married female and male teachers in secondary school in Enugu State. Most of the secondary school teachers from Enugu State

possess the National Certificate in Education, others have first degrees where few even have higher degrees. The total number of secondary school teachers in Enugu state is 33, 245 (Ministry of Education, 2017).

Sample for the Study: The sample for the study was made up of 385 (192 male and 193 female) who were married. Multi-stage sampling technique was employed. One educational zone, Nsukka as purposively selected. At the second Stage 15 secondary schools with high population were purposively selected from the zone. At the third stage, married teachers from the selected schools were purposively sampled.

***Instrument for Data Collection*:** Questionnaire was used for data collection. It was developed based on literature review and the specific purposes of the study. It had a 4- point scale. It was validated by three Home Economic lecturers. To determine the reliability of the instrument questionnaire, it was trial tested on 20 respondents from Enugu State, which is outside the study area. Cronbach Alpha method was adopted to measure the consistency coefficient of the questionnaire. It yield reliability coefficient of .70 .84 and .74 for table 1, 2 and 3 respectively. The overall reliability of the instrument was .76. The results indicated that the various section s were reliable.

***Method of Data Collection*:** Three hundred and eighty-five copies of the questionnaire were administered to the respondents in their various by hand. All the 385 copies of the questionnaire were properly responded to. There was 100 percent return.

***Method of Data Analysis*:** Data were analyzed using mean and standard deviation Mean ratings from 2.5 and above were considered as agreed upon while mean ratings of 2.49 and below were considered as disagreed upon.

Findings of the Study

The Findings of this study are presented in tables 1-3

Table 1: Mean Response of the Indicators of Spousal Relationships among Married Couples in the Family

S/N	Indicators of Spousal Relationship Scale	$\tilde{X}_1$	$\tilde{X}_2$	$\tilde{X}_3$	Rmks
1	Ability to freely express feelings to partner verbally	2.5	3.24	2.55	Agree
2	Freely express feelings and thought exactly as one wants	3.1	2.55	3.55	Agree
3	Not harsh to partner during discussions	2.7	3.55	2.57	Agree
4	Regularly using the word 'please'' during discussion	2.3	2.57	2.48	Agree
5	Share experience with partner with positive statements	2.5	2.48	2.4	Disagree
6	Maintaining eye contact during discussion	2.7	2.96	2.97	Agree

7	Observant to know when partner is not in good mood for long discussions.	1.09	2.2	1.09	Agree
8	Give time to each other's complaints	1.9	1.09	2.3	Disagree
9	Observe coded expression of partner in the form of gesture.	3.3	3.7	3.3	Agree
10	Understand non-verbal messages of spouse	2.5	3.3	2.6	Agree
11	Regular kissing of partner	2.5	2.5	2.8	Agree
12	Regular hugging	2.9	2.8	2.7	Agree
13	Patting partner when necessary	2. 7	2.8	2.6	Agree
14	Engagement in sexual intercourse with partner	2.6	2.7	2.5	Agree
15	Creating time to do funny things together	2. 9	2.56	2.6	Agree

Note: No of teachers385; N_1 =No of male teachers192; $N_{2=}$ number of teachers193; $\tilde{X}_1$=mean responses of female male teachers, $\tilde{X}_2$ =mean responses of female teachers, $\tilde{X}_3$ mean responses of both female and male teachers.

Table 1 shows that items 5, 8 were disagreed upon with mean scores of 2.48, 2.33, respectively. While all other items were agreed upon as indicators of spousal relationships among married couples, the aforementioned mean scores show that respondents did not agree with the listed items. The result also showed that both male and female respondents disagree with items 5 and 8.

Table 2: Showing the Challenges of Spousal Relationships among Married in Enugu State

S/N	Challenges (Spousal Relationship Scale)	$\tilde{X}_1$	$\tilde{X}_2$	$\tilde{X}_3$	Remarks
1	Hiding of debts or extravagant spending by husband or wife	2.6	2.6	2.51	Agree
2	Spending one partner's saving account without his/her consent	1.9	1.6	1.8	Disagree
3	Showing controlling behaviour in financial or money matters.	2.2	2.3	2.4	Disagree
4	Not enough income in to cover required spending	2.3	2.1	2.4	Disagree
5	Lack of financial security in the family	2.0	2.2	2.4	Disagree
6	Mental illness issues	2.3	2.3	2.3	Disagree
7	Infidelity problem	2.6	2.7	2.5	Agree
8	Sudden development of a terminal illness	1.0	1.1	1.9	Disagree
9	Work related	1.4	1.6	1.7	Disagree
10	Depression as a result of other factors like lack of finance	2.2	2.1	2.1	Disagree

11	Poor communication style with ones' partner	2.4	2.2	2.4	Disagree
12	Often criticising ones' partner	2.2	2.1	2.4	Disagree
13	Exposing one's partner's weakness to a third party	2.6	2.5	2.8	Agree
14	Responding harshly to one's in-law's criticisms or observations	2.5	2.6	2.7	Agree
15	Not being accommodating to one's in-laws	2.6	2.50	2.8	Agree

Note: No of teachers385; N_1 =No of male teachers192; $N_{2=}$ number of teachers193; $\tilde{X}_1$=mean responses of female male teachers, $\tilde{X}_2$ =mean responses of female teachers, $\tilde{X}_3$ mean responses of both female and male teachers.

Table 2 shows that respondents agreed that the following challenges are common with couple's relationships in marriage: Poor communication style between couples (X, 1.89) and financial issues (X, 2.57). On the other hand, respondents disagreed having any of the other challenges as affecting their relationship with their spouse. The result showed no difference in the responses of male and female respondents.

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Table 3: Mean Responses on Strategies on how to Combat Challenges of Spousal Relationships among Married Couples in Enugu State

S/N	Strategies for enhancing Spousal Relationship	$\tilde{X}_1$	$\tilde{X}_2$	$\tilde{X}_3$	Rmrks
1	Spouse should have open discussions to identify the causes and solution to their problems	3.5	3.7	3.5	Agree
2	Improve their communication skills	3.4	3.6	3.8	Agree
3	Negotiation on what to give and take for issues to be resolved	2.8	2.9	3.1	Agree
4	Develop the skills to make compromises	3.2	3.0	3.2	Agree
5	Marriage counselors/therapist, religious leaders or respected members of the extended family should be allowed to resolve marital problems	3.1	3.2	3.3	Agree
6	Listening and evaluating each other's point of view	3.1	3.0	3.6	Agree
7	Develop the ability to endure each other's excesses	3.5	3.2	3.4	Agree
8	Doing things in common	3.1	3.5	3.5	Agree
9	Revive romantic relationships between couples	3.4	3.4	3.4	Agree

9	Have role models or mentors we should consult, listen to or aspire to be like	3.0	3.1	3.0	Agree

Note: No of teachers385; N_1 =No of male teachers192; $N_{2=}$ number of teachers193; $\tilde{X}_1$=mean responses of female male teachers, $\tilde{X}_2$ =mean responses of female teachers, $\tilde{X}_3$ mean responses of both female and male teachers.

Table 3 shows the strategies on how to combat challenges of spousal relationships among married couples in the family. Result revealed that respondents agreed with all the possible strategies that can be adopted in tackling the problems associated with spousal relationships. There was no difference in the responses between male and female respondents.

Discussion of Finding

The findings show that variables such as: trust, sense of humor, empathy, ability to resolve conflicts, effective communication among others are indicators of spousal relationships. There was no difference in the responses of both male and female respondents. This result is found to be consistent studies of Campbell, 2009; Credit Union Australia, 2008; United States National Survey of Marital Strength, 2013). For example, Campbell, (2009) in a study reported humour as an essential indicator of spousal relationship. Credit Union Australia, (2008) reported that the ability of resolve conflict as a critical indicator of spousal relationship. The United States National Survey of Marital Strength, (2013) found that effective communication is a fundamental indicator of spousal relationship. The result of this study is equally consistent to that of Jason and Kristi (2017) who found that communication is essential in spousal relationship.

Findings on the challenges that are associated with spousal relationships among married couples in the family, respondents only agreed that two fundamental variables are the perceived challenges they face in their relationships with their spouses. This is shown in Table 2. Respondents agreed that the following challenges are common with couple's relationships in marriage: Poor communication style between couples and financial issues (X, 2.57). On the other hand, respondents disagreed having any of the other challenges as affecting their relationship with their spouse. These core problems have been highlighted by studies in this regard. Some of these studies like that of Dew and Stewart (2012) have found out that economic pressure, communication issues and financial issues contribute to the problems of spousal relationships among married couples. When the result of the study was examined based on the responses of both male and female respondents, it was found that they did not differ in their responses. Overall, the result of this study is consistent with that of Katherine and Markie (2018) and Lauren (2017).

Findings on possible strategies that could reduce the challenges that stare

couples in the face in their bid to enjoying their relationships. In response to this request, respondents agreed that sacrificing in relationship for the sake of the other person, making compromises, visit to Marriage counselors/therapist, religious leaders or respected members of the extended family, listening and evaluation of each other's views, endurance, re-igniting romantic relationships, having role models or mentors to consult or listen to, among others are effective strategies that must e employed in order to alleviate the challenges of spousal relationships as well as its effects on married couples. There was no difference in the responses of both male and female respondents. The result of this study was found to be consistent with that of Ameron, Barros-Gomes, Smith-Marek, Bryan and Stith (2017) who found that spousal relationship could be better enhanced through romance and other emotional related strategies. Saxbe, and Repetti, (2009) reported that one of the ways of promoting spousal relationship is through humour while Nyakato, and Rwabukwali. (2013) found that effective communication and quick resolution of conflicts could help promote spousal relationship. Lauren (2017) found that couples wishing to promote positive relationship must develop conflict resolution mechanisms. Jason and Kristi (2017) found that communication among couples based on mutual respect could best promote positive spousal relationship.

Conclusion

The finding that communication, skill to resolve conflict, handling differences, and trust among other qualities are central to ideal spousal relationships. Challenges of spousal relationships among married couples are inherent in financial and communication problems. The result of this study has implications on family wellness, marriage counselling and theory development. Regarding family wellness, the result could prove beneficial to those who may be interesting in promoted the wellness of families through improvements in spousal relationship. Such persons could have empirical evidence that could guide them. With regard to marriage counselling, the result could be helpful to marriage counsellors in their task of promoting good relationship among couples. Finally, those who may be interested in advancing theory relating to healthy spousal relationship could also find the result of this study useful. Therefore, the basic contribution of this study is that it has shown evidence regarding how to improve spousal relationship among couples.

Recommendations

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

- Marriage counselors/therapist, religious leaders or respected members of the extended family must also e involved in the sensitization programme. People involved in marital challenges must know where to go for help and

understand what to do to strengthen and if need be salvage their relationship.

- Couples should share feelings, personal information and provide emotional support if need be to salvage their relationship.
- Couples should maintain constant communication and promote humour in their families ass doing so could enhance positive relationship among them.

References

Awok, I. K. (2003). Marriage expectation, marriage encounters lectures. St. Charles Parish, Obudu Cross River.

Babbie, E. (2013). *The Practice of Social Research.* United States: Wadsworth, Cengage Learning.

Cameron C., Barros-Gomes,P. Smith-Marek, E. Bryan, C. & Stith, B. (2017). The contextual Role of depression within couples experiencing partner violence, *Journal of Couple & Relationship Therapy*, DOI: 10.1080/15332691.2017.137283

Campbell, C. (2009). Characteristics of a healthy, functional romantic relationship. Retrieved from http://www.cambpell.edu/pdf/counselling-services/characteristics-of-healthy-romantic-relationships.pdf

Credit Union Australia (2008). *Issues and Concerns that Australians have in their Relationships Today.* Australia: Relationships Australian Inc.

Dew, J. P., & Stewart, R. (2012). A financial issue, a relationship issue, or both? Examining the predictors of marital financial conflict. *Journal of Financial Therapy, 3*(1), 42-61.

Dora, T. M., & Halim, B. N. A. (2011). Issues and factors of problematic families in Malaysia. *International Journal of Humanities and Social Science, 1*(4), 155-159.

Farlex, S. E. (2016). *The Free Dictionary*. United Kingdom: Farlex Inc.

Fayeye, J. O., & Akinola, B. (2000). The family institutional problems. Retrieved from https://unilorin.edu.ng/publications/fayeyejo/The%20Family%20Institutional%20problems.pdf

Gallo, I. C., Troxel, W. M., Kuller, L. H., Sutton-Tyrrell, K., Edmundowicz, D., & Mathews, K. A. (2003). Marital status, marital quality, and atherosclerotic burden in postmenopausal women. *Psychosomatic Medicine, 65*, 952-962.

George, I. N., & Ukpong, D. E. (2013). Combating the 21st century family challenges in Nigeria for social stability through family counseling services. *Developing Country Studies, 3*(4), 52-58.

Jason W. M & Kristi E. G. (2017). Constructive communication patterns and associated factors among Male couples, *Journal of Couple & Relationship Therapy*, DOI: 10.1080/15332691.2017.1302378.

Katherine M. H. & Markie L. C. T (2018). Attachment to technology: The missing link, *Journal of Couple & Relationship Therapy*, DOI: 10.1080/15332691.2017.1414530

Kelly, H. H., Berscheid, E., Christensen, A., Harvey, J. H., Huston, T. L., Levinger, G., McClintock, E., Peplau, L. A., & Peterson, D. R. (1983). *Close Relationships*. New York: W. H. Freeman and Company.

Lauren, M. P (2017). Topics of marital conflict in the everyday lives of empty nest couples and their implications for conflict resolution, *Journal of Couple & Relationship Therapy*, DOI: 10.1080/15332691.2017.1302377

Nyakato, V., & Rwabukwali, C. B. (2013). Couples relations, decision-making

hierarchy and use of maternal healthcare in rural Uganda. *European Academic Research, 1*(6), 1216-1248.

Robles, T. F., & Kielcolt-Glaser, J. K. (2003). The physiology of marriage: pathways to health. *Physiology and Behavior, 79*(3), 409-416.

Saxbe, D. E., & Repetti, R. L. (2009). Brief report: Fathers' and mothers' marital relationship predicts daughters' pubertal development two years later. *Journal of Adolescence, 32*, 415-423.

Terman, L. M., & Buttenwieser, P. (1988). Personality factors in marital compatibility: II. *Journal of Social Psychology, 18*, 267-290.

Thomas, S. A. (2004). Spousal relationships: Definitions Beyond acts. *Journal of International Law, 6*(2), 17-29.

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Undergraduates Participation in Entrepreneurship Skill Acquisition in Tertiary Institutions: A case study of Federal Institutions in Akoka Lagos

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Abstract

The paper is an expository of the current practices on implementation of Education Reform Policy on acquisition of entrepreneurship skills in Federal Institutions in Akoka Lagos, Nigeria. It investigates the current participation in entrepreneurship ventures among undergraduate. Using both qualitative and quantitative descriptive survey designs. The study involved one hundred and twenty-four (124) respondents from various disciplines in Sciences and Technology Education degree programmes run in the two Federal Institutions at Akoka Campus. Simple percentages were used to process the data collected by hand. The result of the study reveals levels of participation of undergraduate students in various entrepreneurial skills while schooling. It also reveals benefits accrued from engagement in entrepreneurial skill acquisition by students as well as levels of desire to continue entrepreneurship ventures for livelihood after graduation. Results confirmed that all concerned undergraduates of the Institutions participated in one venture or the other. The paper recommended among others that the government should allocate in budget special fund for practical entrepreneurship education and training in tertiary Institutions.

Keywords: Entrepreneurial Skills, Undergraduates, Family Survival.

Introduction

It is important to empower the youth with entrepreneurial skills while they are still in school. The youths are future leaders, at home, work places and play important part in any society. Youth at the tertiary institutions are able and healthy minds that could rationalize well on the present and future needs of the environment. Hence, they are ready for skill acquisition because of the futuristic benefits accrued to entrepreneurship ventures.

Nigeria youths are promising, able bodies who are ready to learn if properly guided and trained in entrepreneurial venture that would fetch money to solve their immediate needs. It has been observed that undergraduates in some institutions exposed to entrepreneurship practicum classes have shown great interest and participation in acquiring one skill or

the other. These skills are such that do not require much capital for initial take-off cost. Entrepreneurship skills exposed to undergraduate students are such that could help in engaging them with minimal starting cost on small scale ventures before proceeding to medium scale enterprises (SME). Entrepreneurial studies derive its origin from the traditional stone Age where man had to learn the art of learning a vocation for self-empowerment. Robert et al (2009) ascertain that this traditional stance in skill acquisition has gone through phases of modifications for realistic practice from generation to generation involving both adults and youth in modern societies. In essence the skills acquired through practical training is for life and remains a source of livelihood for the traditional and modern man. In a study carried out on preferences of undergraduates in entrepreneurship ventures, in Photography, Cake-making and decoration / Event-planning, Bag, Shoe making and Garment Construction, Fashion designing have high scores compared to production of confectionaries and cosmetics production probably because of the cost implications (Osifeso and Chigbu, 2015). However, more study on undergraduate students participation in acquiring entrepreneurial skills while at school still reflect positive and high attendance during entrepreneurship practical classes.

Over 95 percent of both Science and Industrial Technical Education students were always present in classes for two consecutive academic sessions in these institutions in Lagos. Release of fund for practicum classes was not a challenge, for the leadership of the institutions, placed high premium on acquisition of entrepreneurial skills by students before graduation. This practice is in conformity with the expectations of Education reforms. It has also been observed that some of the students from such Institutions claim to be self-employed, even while in school. The acquired entrepreneurial skills have made recipients self employed after graduation, able to make and has solved problems of depending and unemployment among Nigerian youths.

However, the Nigerian educational system has created a good platform for the acquisition of practical skills while in school through Technical and Vocational Education (TVE). UNESCO & ILO 2002, FRN 2004). That is the inherent characteristics of TVE synonymous to the purpose of entrepreneurship education include:

- a means of preparing for occupational fields and for effective participation in the world of work.
- aspect of lifelong leanring and a preparation for responsible citizenship
- instrument for producing environmentally sound sustainable development; and
- method of facilitating poverty alleviation in Daniel. & Hultin (2002; FRN 2004) in Akinyemi (2009).

The involvement of undergraduates students in Nigeria TVE has made the participation in SIWES mandatory while at school; hence boosting the

opportunities for acquiring practical skills which are deep seated in entrepreneurship ventures.

World population today, shows that there has been increase the population from 7 billion of 2011 and 2012 to 7.5 billion in April 2017. Among these population are about 1.8 million young people between the ages of 10 and 24. This has been the largest youth population ever. Many of these youths are concentrated in the world's 48 least developed countries, as at April 2015 according to (Steven, 2015). There is urgent need to develop entrepreneurial talents inherent in these youths, in production of goods and services in order to reduce the level of unemployment, poverty and economy depression.

However, this study focuses on determining the level of undergraduate students participation in various entrepreneurship ventures made available in practicum classes. It also addresses the avenue through which students acquire entrepreneurship skills, as well as value accrued from acquired skills and desired entrepreneurship ventures of interest after graduation.

Purpose of the Study

The study explored participation of undergraduates in acquisition of entrepreneurship skills in tertiary institutions, specifically the study determine:

i) Students level of participation in selected entrepreneurship opportunities like Screen Printing, Hat Making, Sachet water production, Photography, Fashion designing / tailoring, Bag and Shoes making, Catering Craft and Cosmetic production.
ii) the avenues through which the undergraduate students can acquire entrepreneurship skills while schooling.
iii) the values accrued to the students from the acquired entrepreneurship skills, and
iv) those entrepreneurship ventures the students desire to continue with after graduation from school.

Research Question

The following research questions were posed:

i. What is the level of students' participation in selected entrepreneurship opportunities like screen printing, hat making, sachet water production, photography, fashion designing / tailoring, bag / shoe making, catering craft and cosmetic production?
ii. What are the avenues through which the undergraduate students can acquire entrepreneurship skills while schooling?
iii. What values are accrued to the students from acquiring entrepreneurship skills?
iv. What are the entrepreneurship ventures students desire to continue after graduation from school?

Methodology

Area of Study: The study was carried out at Akoka in Lagos State using the undergraduates of two tertiary Institutions, namely University of

Benin, Benin City (UniBen), and Federal University Technology, Minna (FUTMinna) whose Bachelor of Degree programme in Education are offered at Federal College of Education (Technical), Akoka Campus (the affiliate Institution) in Lagos State.

Design of the Study: A descriptive, survey research design was used in order give a vivid information of the current practices and engagement of the undergraduates students in entrepreneurship practical education.

Population of the Study:The target population comprised of all 500 Level, students of Federal University of Technology Minna and 300 level Students of University of Benin, Benin City all running degree programmes B.Tech. (Ed) and B.Sc(Ed) at Akoka Campus.

Sample for the Study: A purposive random sampling was utilized in selecting all students offering the Entrepreneurship education practicum courses in the Science and Technical / Technology Education departments. The total sample of 124 students were selected.

Instrument for Data Collection: The research instrument used for this study was a questionnaire captioned, Participation in Entrepreneurial Skill Questionnaire (PESQ). The Questionnaire consisted of sections A, B, C, D and E: Section A of the questionnaire sought information on demographic bio-data. These include sex, academic programme (by Department) and Institution (UniBen or FUTMinna). Section B was designed to identify different entrepreneurship ventures students chose during their practicum classes. Section C also sought information on avenues for acquisition of entrepreneurial skills among the undergraduates. There were five questions in Section C, Section D sought information on the profits accrued from participation in entrepreneurial skills. Section E, with eight questions solicited information on entrepreneurial skills students desired to engage in for livelihood after graduation. Face validity was done by the research expert for the questionnaire.

Data Collection Method: Hand to hand delivery method was used for administering and collection of data. The representatives for UniBen Degree Porgramme was given forty-four (44) questionnaires to distribute to only 300 level UniBen Students, while eighty questionnaire were administered by the class representative of FUTMinna. The representatives serve as research assistants who administer the questionnaire to the students in Biology, Mathematics, Educational Technology, Fine and Applied Art and Chemistry and Technology Education Departments. 95% questionnaire of about 130 administered were retrieved by hand.

Data Analysis: Data were analysed using frequency and percentages.

Results

The result of this study shows that demographic data indicates that 56% of participating undergraduates are University of Benin students while 44% are Federal University of Technology,

Minna. While 51% of the students are Science education undergraduates and 49% are from Technical / Technology Education departments.

The major findings of the study are divided into four parts, the first part established the different entrepreneurial skills chosen by undergraduates while in school. The second part, the avenues for entrepreneurial skill acquisition of undergraduates, the third part reveals the values accrued from participation in entrepreneurial skills acquisition and the fourth part is on the entrepreneurial venture desired by students for future livelihood after graduation. Below are the Tables 1 to 4 on each table.

Research Question 1

A: Level of Participation in Different Entrepreneurship Ventures among the Undergraduates in Tertiary Institutions

Table 1: Percentage Distribution on Undergraduates Participation in different Entrepreneurship Ventures

S/n	**Entrepreneurship Ventures**	**Present Participation**	
		Yes	No
1.	Screen Printing	36 (29%)	88 (71%)
2.	Hat Making	14 (11%)	110 (89%)
3.	Sachet Water Production	6 (5%)	118 (95%)
4.	Photography	19 (15%)	105 (85%)
5.	Fashion Designing	33 (27%)	91 (73%)
6.	Bag / Shoe Making	11 (9%)	113 (91%)
7.	Duvet Production	6 (5%)	118 (95%)
8.	Catering Craf	4 (3%)	120 (97%)
9.	Cosmetic Production (e.g. Soap, Dettol, Air Freshener etc)	19 (15%)	105(85%)
10.	Others (Please specify)	4(3%)	120(97%)

Table 1 indicates that 29% showed interest in Screen Printing, followed by 27% for Fashion Design / Tailoring, Photography and Cosmetic Production pulled a respondents of 15% each while 11% of the undergraduates students showed interest in acquiring the skill Hat Making, only 5% each showed interest in Sachet Water and Duvet Production.

B: Avenues for Acquisition of Entrepreneurial skills by undergraduates?

Table 2: Percentage Distribution on Undergraduate Students' Avenues for Entrepreneurial Skill Acquisition

s/n	Avenues for Acquisition of Skills	Yes	No
	Acquired Entrepreneurial Skill through:		
1	Practical Classes	103(83%)	21 (17%)
2. .	Self effort and practices	72 (58%)	52 (42%)
3.	Encouragement by parents	68 (55%)	56 (45%)
4.	Influence of friends	43 (35%)	81 (65%)
5.	Scholarship / Voluntary agency (SIWES)	33 (27%)	91 (73%)

Table 2 shows that there are five avenues for acquisition of entrepreneurial skills by students. Up to 83% of the undergraduates acquire entrepreneurial skills in through exposure to entrepreneurship practical classes at school. About 58% of the students acquire entrepreneurial skill through self efforts and practices probably by apprenticeship and attending refresher programmes. Up to 55% of undergraduates are encouraged by their parents who identify the entrepreneurial talent in their words to attend entrepreneurship centre. While 35% are influenced by their friend to engage in acquiring entrepreneurial skills.

C: Values of Engaging in Entrepreneurial Skill Acquisition by the Undergraduates Students

Table 3: Percentage Distribution of Responses on Values Acquired by undergraduates Students' from Entrepreneurial Skills

S/n	Avenues for Acquisition of Skills	Yes	No
1.	Acquired Entrepreneurial Skills helped in payment of Values from School fees	56 (45%)	68 (55%)
2.	Bills in my phone	54 (43%)	70 (57%)
3.	Family Food	52 (42%)	72 (58%)
4.	Family Clothing	47 (38%)	77 (62%)
5.	House Rent	42 (34%)	82 (66%)
6.	Helped in paying and transportation etc	39 (32%)	85 (68%)

Table 3, shows that 45% of the students confirmed that their participation in entrepreneurship skill acquisition have helped in payment of schools, while 43% students confirm ability for purchase of credit airtime for their phones, 42% for feeding 38% for clothing resources, 34% for payment of house-rent and 32% for other utilities including transpiration.

D: Undergraduates Desire to Continue Entrepreneurial Ventures for livelihood after graduation

Table 4: Percentage Distribution of Responses on Students desire to continue various Entrepreneurial Venture for Livelihood after Graduation.

S/n	**Items**	**Present Participation**	
		Yes	No
1.	Photography	34 (44%)	70 (56%)
2.	Duvet	7 (6%)	117 (94%)
3.	Wiring	10 (8%)	114 (92%)
4.	Catering	18 (15%)	106 (85%)
5.	Fashion Designing	37 (30%)	87 (70%)
6.	Cosmetic (Soap, Air Freshner Production)	15 (12%)	109(88%)
7.	Bag / Shoe	15 (12%)	109 (88%)
8.	Hat Making	17 (14%)	107 (86%)
9.	Others (Please specify)	14(11%)	110(89%)

Table 4 shows that 44% of the students desire photography while 30% desire Fashion Designing / Tailoring, 14% desire Hat Making venture while, 12% desire to produce bag and cosmetics respectively and only 15% of the students desire catering ventures. Very minimal percent of 8% and 6% will prefer wiring of house and making of duvet respectively for livelihood after graduation.

Discussion of Findings

Data analysis shown on Table 1 indicates that 29% of students participating in Screen Printing and others in Photography, Cosmetic Production, Hat Making and Sachet Water and Duvet Production. This is inline with the philosophies of the Empiricists an Pragmaticists who say that one learns to grow and one grows by practicing what has been learnt (Ethics of Aristole) 384 – 322 BC) as quoted in Abiogu (2008) and Abiogu (2004). However, this differs from the view of Abdul and Muthaiyan (2009) who say that acquired skills in any venture are tools used to manipulate knowledge in order to meet goals desired by attitudes and interest of the individuals.

Table 2 which shows that 58% of the undergraduates acquiring entrepreneurial skills through self-efforts and practices probably by apprenticeship and attending refreshers programmes, confirms Ifebajo (2005) who states that refreshers programmes provide the relevant and appropriate skills for today's and tomorrow's world of work. While 55% of undergraduates encouraged by parents and 35% influenced by friends is in line with the submission of Etuk, et al (2009) who affirm that youths should be encouraged to start their own entrepreneurial ventures by wealthy parents and friends aside micro-credit loans schemes introduced by Federal Government.

27% of the undergraduate students are enjoying scholarship scheme of

companies and voluntary agency for acquiring entrepreneurship skills, probably through the Students Industrial Work Experience Scheme (SIWES) programme of the Federal Government which provides opportunities for students to learn work and do work study within the tertiary and outside the institution in companies with related disciplines of the students in order to serve many purposes such as teaching students dignity of practical experience among other aims (Olateju, 2009) (ITF, 2004).

Table 3 shows 45% of the students participating in entrepreneurship skills, were able to pay schools fees and 43% students were able to purchase credit airtime for their phones and other benefits like feeding, clothing, payment for others utilities including transportation. This is in line with the Abiogu (2008) recommendations that acquiring entrepreneurship skills helps to build healthy and prosperous individuals in the nation as well as change the diverse basic needs and desires of individuals and their social groups Todamo and Smith (2003).

Table 4 which shows 44% of students desiring to continue photography venture and 30% Fashion Design / Tailoring venture for livelihood after graudation is in consonant with the report of Ozougwu (2008) as quoted in Ajeyalemi (1987) who state that undergraduates desire to have skills will reduce the rate dependency and unemployment rate.

Conclusion

In conclusion, entrepreneurship education remaining one of those valuable tool to prepare aspiring entrepreneurs for economic challenges and opportunities for better livelihood. For this functional education to thrive in any developing nation like Nigeria, there is need to encourage education and training for the youths at all levels of education. This attempt would make the younger generation to be usefully engaged and productive in the society. That is engaging in entrepreneurial activities will reduce poverty, dependency and engagement in social – vices such as kidnapping robbery, assassination, just mention of a few plaguing our societies. It would be a gainful venture if the educational system in Nigeria could continue to implement policy on Reforms in Education especially in tertiary Institutions.

Recommendations

It is recommended that:

- Federal Government should always budget special Fund for practical - entrepreneurship education and training in tertiary Institution.
- Entrepreneurship centres where various skills could be learnt and acquire should be built and established at Local Government Areas of each State, so that young graduates could be encouraged to improve on skills acquired when schooling.

- Capital fund should be provided to young graduates for engaging in entrepreneurial activities for livelihoods.

References

Abiogu, G. C. (2004). Educational and employment in Nigeria: *A Philosophical View. Journal of Educational Foundation* (JEF), 1: (1), 11 – 17.

Ajeyalemi, D. A. (1981). The Need of Cooperation between University Chemical Education and Industry in Nigeria. *Journal of Chemical Education, 58* (4); 365.

Ajibade, A. S. (2005). Vocational Agricultural Education: A Panacea for Promoting Self-Employment Among Nigeria Youth. *Akoka Journal of Vocational Education* 4 (1) 135 – 142.

Akinyemi, A. (2009). Technical and Vocational Educaiton for Entrepreneurship in response to the Millennium development goals. Journal of Federal College of Education (Technical) Issue, 000A.

Archibong, I. A. and Ejue, J. B. (2009). Entrepreneurship Education for Universities. In *Journal of Educational Review*, 1 (1 – 2), 27 – 42.

Daniel John and Hultin Goran (2002). A Joint Message from UNESCO and ILO in Technical and Vocational Education and Training for the Twenty-First Century UNESCO and ILO Recommendations: New York: United Nation Educational Scientific and Cultural Organization and Internal Labour Organization.

Emeriji, I. and Ghai, D. (1976). *Employment Problems in developing Countries' Lesson from the World Employment Programme". A Review on Employment*, New York: Holmes and Meier Publisher Inc. ES 55 – 70.

Etuk, G. K.; Etudo-Eyo, E. and Ekpo, I. V. (2009). Widening Employment Opportunities for African Youths through Higher Education. Measures Unexplored in Nigeria: *In Journal of Educational Review,* 2 (3) 345 – 350.

Federal Republic of Nigeria (2004). National Policy on Education, Lagos: NERDC Press.

Ifebajo, A. Y. (2005). Strategy for Improving Relevance of Vocational Education towards the Attainment of NEED Objectives. *Akoka Journal of Vocational Education,* 4 (1) 130 – 134.

Industrial Training of Fund (2004). Information and Guideline for Students Industrial work Experience Scheme (SIWES) Jose Ruche Press.

Olateju, A. S. O. (2009). The Relevance of Students Industrial Experience Scheme in the Consolidation of Educational the Colleges of Education Level: Journal of Federal College of Education (Technical) Akoka, Issue 000A 128 – 136.

Osifeso, G. A. T. (2012). Entrepreneurship Education: A strategic Approach for Sustaining the Economy in Developing Countries. *Journal of Educational Review*,. 5 (3) 413 – 418.

Osifeso, G. A. T. and Amire, C. M. (2015). Socio-Economic variables and Young Adults Attitude to Vocational Studies and Acquisition of Entrepreneurial Skills in Nigeria *Proceedings of EDULEARN 15 Conference 6th* – 8th July Barcelona, Spain.

Osifeso, G. A. T. and Chigbu, E. N. (2013). Entrepreneurship dispositions embedded in Home Economics education: Panacea for curbing unemployment among graduates from tertiary institutions in Nigeria. *Journal of Home Economics Research Association of Ghana* (HERG). 1611..

Ozougwu, S. U. (2008). F ;abric Based Indoor and Outdoor Decorations Entrepreneurial activities of Home

Economics Graduates in Enugu North Senetorial Zone of Enugu State in *Journal of Home Economics Research (JHER) 9*: 14 – 15.

Raheem, A. & P. Mathaiyan (2009). The features and Components of Engineering Education: A Vision for New Century. *In Journal of Educational Review 2* (3) 423 – 427.

Robert, E, S. I. Akpama, C. P. Akpan & C. R. Etar (2009). Higher Education and Youth Preparation for Entrepreneurship. A Focus on functional education, Journal of Educational Review 2 (2) 313 – 318.

Steven, E. (2015). *Enron on Youth for UNFPA UN Web Services Section. Dept. of Public Information United National Retrieved on 17th April, 2015*, News of Youths.

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Heavy Metal Quantification of Noodle Products Commonly Consumed in Nigeria

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Abstract

Technological advancement in the food industry in the last five decades has resulted in the production of ready meals and convenience food. Instant noodles are some of the most common convenience foods in Nigeria. Noodles' production in Nigeria is estimated to be the 12th biggest convenience food in the world. However, with the rate of its demand there is the need to know the safety of its consumption by consumers. This study investigated the levels of some heavy metals [arsenic (As), cadmium (Cd), chromium (Cr), lead (Pb) and mercury (Hg)] in eleven brands of noodles sold in Nigerian markets. The results shows that the levels of As, Cd, Cr and Pb in the noodles ranged from (0.13±0.04 to 0.34±0.05), (0.55±0.12 to 0.77±0.04), (0.18±0.05 to 0.46±0.21) and (0.55±0.08 to 1.46±0.17) respectively and they were relatively higher than the tolerable limit set by WHO. Although these noodles are above the tolerable limit, awareness among the consumers, industries and regulatory agencies will go a long way to reduce possible risk associated with its consumption. Noodles contamination with heavy metals is of public health importance because consumers are at higher risk of heavy metal toxicity which predisposes them to diseases such as nervous, cardiovascular, circulatory system disorders, liver and kidney damage as well as cancer. Therefore, regulatory bodies like NAFDAC, SON should monitor the processes involved in the production of these noodles to ensure that only wholesome products are given to consumers.

Introduction

Food is one of the basic needs of man and nature has provided abundant resources for man's exploitation and use (Iniobong, Atieme, & Inimfon, 2017). Interestingly, technological advancement in the food industry in the last five decades has resulted in the production of ready meals and convenience food, thus ensuring the availability of food for immediate consumption (Iniobong *et al.,* 2017). Instant noodles are one of the most common convenience foods in Nigeria, with a high category penetration of about 60% and market size of about

250,000 t in 2012. With just four (4) brands in 2006, the Nigeria instant noodles market now boasts of up to 16 competing brands (Marketing Edge, 2017).

Instant noodle is consumed on a global scale and is second only to bread (World Instant Noodles Association, 2016). It is a fast-growing sector of the pasta industry. This is because instant noodles are convenient, easy to cook, low cost and have relatively long shelf-life. As the consumption of instant noodles continues to grow globally, the processes involved in the production and packaging of these noodles become a global concern (Iniobong *et al.,* 2017).

Lack of food safety is a major problem in most developing nations including Africa. Many of our food items are laden with lots of pollutants ranging from fertilizer, pesticides to heavy metals (Otitoju, Otitoju G, Iyeghe, & Onwurah, 2014). Consumption of contaminated foods has serious implication on health and economic status of the populace (Cao et al., 2010). The occurrence of foreign materials in food has always elicited strong response from governments, and unravelling the possible occurrence of toxic substances in food continues to draw the attention of researchers. The use of contaminated raw materials has been identified as a major source of food contamination (Sousa, 2008). Heavy metals are generally defined as metals with relatively high densities, atomic weights, or atomic numbers (Paul, Clement, Anita, & Dwayne, 2012). They are chemical elements with a specific gravity that is at least five times the specific gravity of water. In recent years, there has been an increasing ecological and global public health concern associated with environmental contamination by these metals. Also, human exposure has risen dramatically as a result of an exponential increase of their use in several industrial, agricultural, domestic and technological applications (Bradl, 2002).

Dietary exposure to heavy metals, namely cadmium (Cd), lead (Pb), mercury (Hg), arsenic (As) and chromium (cr), has been identified as a risk to human health through the consumption of contaminated food (Otitoju, Akpanabiatu, Otitoju G, Ndem, & Uwah, 2012). These occur as natural constituents of the earth crust and are also distributed by human activities. They contaminate food source and accumulate in both agricultural products and sea food through water, air and soil pollution (Galadima & Garba, 2012). Apart from contamination from environmental contamination of food, food can also be contaminated during processing.

Most heavy metals are very harmful because of their non-biodegradable nature, long biological half-lives and their potential to accumulate in different body parts (Otitoju *et al*., 2014). However, these heavy metals become toxic when they do not get metabolized by the body and end up accumulating in the soft tissue (Otitoju, Otitoju, & Igwe, 2014). Even low concentrations of heavy metals have damaging effects to man and animals because there is no good mechanism for their elimination from the body (Chen, Wang, & Wang,

2005). They enter the body system through food, air and water (Duruibe, Ogwiegbu, & Egwurugwu, 2007). If the metals are ingested beyond the permitted concentration, they can cause serious health disorders which can seriously deplete some essential nutrients in the body causing a decrease in immunological defenses, intrauterine growth retardation, impaired psycho-social behaviour, disabilities associated with malnutrition and a high prevalence of upper gastrointestinal cancer (Arora *et al.,* 2008).

Toxic heavy metals like lead has no known beneficial function in human metabolism and has been implicated with several acute and chronic effects to living organisms including humans (Iniobong *et al.,* 2017). According to the Agency for Toxic Substances and Disease Registry (2014), some of the organ systems affected by lead, arsenic, and mercury include cardiovascular, gastrointestinal, neurological, renal, reproductive, and respiratory. In similar vein, cadmium is known to bio accumulate in the kidney for a relatively long time, ranging from two to three decades, and at high doses, is also known to produce health effects on the respiratory system and induce the renal and hepatic toxicity and has been associated with bone disease, poor reproductive capacity, hypertensions, tumours, and hepatic dysfunction (Waalkes, 2000). Although, beneficial to plants and animals in minute quantity, chromium and nickel become toxic in high concentration and can cause gastrointestinal haemorrhage, haemolysis, acute renal failure, chest pain, encephalopathy, reduced sperm count, pulmonary fibrosis, and lung cancer (Suzuki, *et al*., 2017).

Exposure of consumers to heavy metals and related health risk are usually expressed as percentage intake of Provisional Tolerable Weekly Intake (PTWI), a reference value established by WHO (1992) and WHO (1995). Despite the tolerable limit set by FAO/WHO most studies conducted on heavy metals in food indicated the presence of heavy metals in food. According to a study conducted by Otitoju *et al.,* (2014) on the presence of heavy metal in imported rice, it revealed that all the rice samples had levels of lead higher than the WHO permissible limit which therefore exposes all the consumers to lead toxicity.

As the consumption of instant noodles is growing at an astronomical rate in Nigeria and indeed the world as evidenced in the consumption of over 100 billion packs of noodles worldwide in 2012, with China constituting 44% of global demand (IMARC Group, 2017), there is need for intensive monitoring of ready meals and convenience food for consumer safety.

Materials and methods

***Study Design*:** The study design is experimental

***Samples*:** Eleven (11) brands of Instant noodles

***Equipment and Chemical Reagents Used in the Study*:** Several Laboratory equipment will be used and they include: volumetric flask, pipettes, funnels, filter papers, desiccator, sensitive balance, lamp, wash bottle,

round bottom flask, crucible, Atomic absorption spectrophotometer (UNICAM 939). The chemical reagents that will be used include: Hydrochloric acid (HCl), Nitric acid (HNO_3)

***Collection of Samples*:** A total number of 11 different samples from the 11 different noodle brands sold in Nigeria will be collected from major market in Enugu state. The samples will be put in a sealed polythene bag and transported to the laboratory.

***Determination of Heavy Metals*:** The samples were grinded and sieved using a mesh of 0.5m. One (1) of the sample was weighed into a round bottom flask, three (3) spatula of anti-bump granules was added. 50mls of 2molar HNO_3 was added, it was then put into an electro-thermal heater and allowed to concentrate for 1 hour**.** The samples were then poured into 100ml volumetric flask and distilled water was added up to the mark, the samples was then taken to the UNICAM 939 Atomic Absorption Spectrophotometer for heavy metal determination. **T**he method involved direct aspiration of the samples into an acetylene flame ignited by a hollow cathode lamp at specific wavelength. Arsenic ASTM D 3972**,** Cadmium ASTM D 3557**,** Chromium ASTM D 1667**,** Lead ASTM D 3559**,** Mercury ASTM D 3223.

Human health risk assessment: In evaluating the level of human exposure to heavy metals in contaminated noodles, the recommendations of the US EPA (2011) was adopted and the estimated average daily intake (ADI_e) (mg/kg/day) for adults was determined by the following equation:

$$ADI_e = C_m \times IR_n \times EFh \times EDf \div B_{aw} \times ATd$$

- Where C_m = the metal concentration in noodle samples (mg/kg)
- IR_n = the noodles ingestion per day. According to US EPA (2005), food intake for an adult is considered to 0.310kg/person/day.
- EFh = the exposure frequency (365 days/year).
- EDf = the exposure duration (70 years).
- B_{aw} = the average body weight of exposed individual considered to be 60kg for an African adult (FAO/WHO, 2011).
- ATd = the 70-year lifetime for carcinogenic effects (US EPA, 2005).

Target hazard quotient of heavy metals in the noodles: The non-carcinogenic health risks from consumption of the noodle samples were assessed based on the target hazard quotient (THQ). The method of estimating risk (US EPA, 2011) using THQ is stated below:

$$THQ = ADI_e \div RfD_{ing}$$

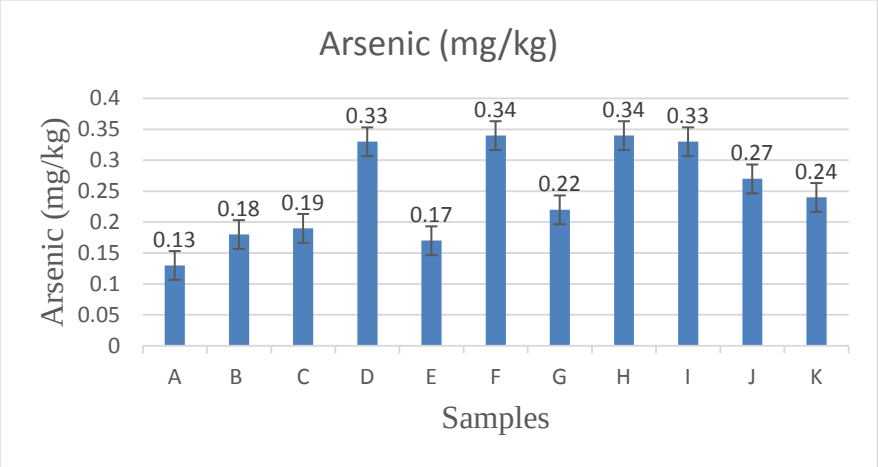
- Where THQ = target hazard quotient
- ADI_e = estimated average daily intake (mg/kg/day)
- RfD_{ing} = Oral reference dose (mg/kg/day)

Statistical Analysis: SPSS version 22 will be used to analyse the data obtained from the study. Descriptive analysis (mean and standard deviation) will be used to present the data obtained. Analysis of Variance (ANOVA) will be used to compare the means while Fishers Least Significant Difference (FLSD) test will be used for Post-Hoc analysis. A p value < 0.05 will be considered statistically significant.

Results

***Concentration of Arsenic (As) in noodles*:** The concentrations of arsenic in the eleven brands of noodle samples are presented in figure 4.1 below. The result shows that the range of the heavy metal concentration is from 0.13 ± 0.04 to 0.34 ± 0.05mg/kg with highest average (mean ± SD) concentrations observed in samples F (0.34 ± 0.05) and H (0.34 ± 0.05) which were significantly higher ($P < 0.05$) than those in sample A (0.13 ± 0.04) but not statistically significant in other samples.

Figure 1: levels of arsenic concentration in different brands of noodles

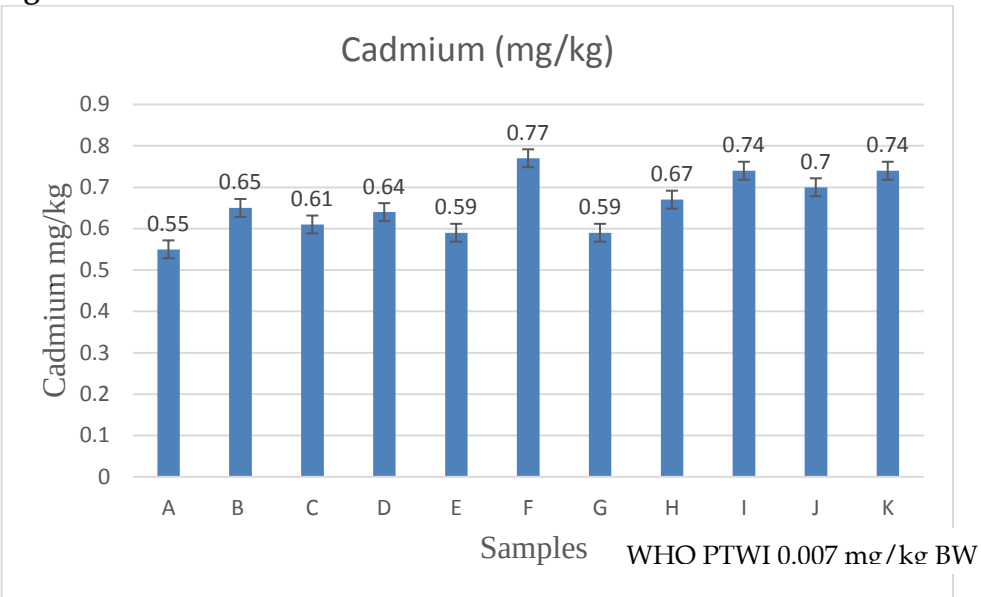


WHO PTWI 0.015 mg/kg BW

Concentration of Cadmium (Cd) in noodles

The concentrations of cadmium in the eleven brands of noodle samples are presented in figure 4.2. They ranged from 0.55 ± 0.12 to 0.77 ± 0.02mg/kg with highest and lowest average (mean ± SD) concentrations observed in sample F (0.77 ± 0.02) and A (0.55 ± 0.12) respectively. The concentration of cadmium in sample F is significantly higher ($P< 0.05$) than sample A (0.55 ± 0.12) but not statistically significant in other samples.

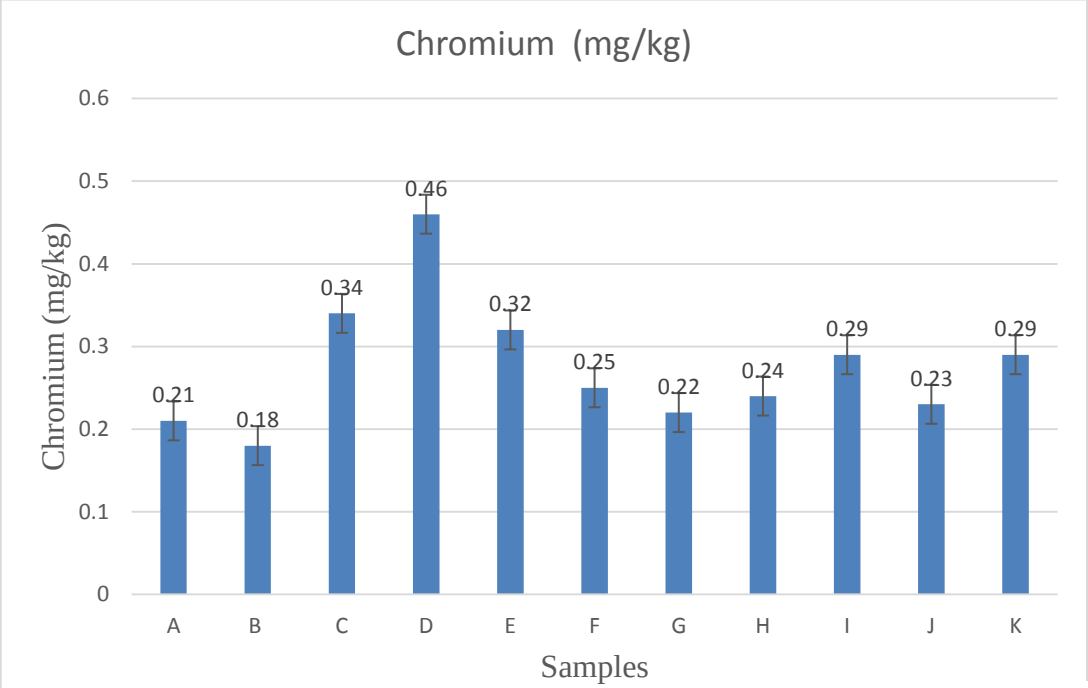
Figure 2: levels of cadmium concentration in different brands of noodles



Concentration of Chromium (Cr) in noodles

The concentrations of chromium in the eleven brands of noodle samples analysed are presented in figure 4.3 below. They ranged from 0.18 ± 0.05 to 0.46 ± 0.21 mg/kg with samples D (0.46 ± 0.21 mg/kg) and B (0.18 ± 0.05 mg/kg) recording the highest and lowest average (mean ± SD) concentrations respectively. The concentration of chromium in sample D is significantly higher ($P < 0.05$) than those in samples B (0.18 ± 0.05 mg/kg), F(0.25 ± 0.02 mg/kg), G(0.22 ± 0.99 mg/kg), H(0.24 ± 0.11 mg/kg), I(0.29 ± 0.06 mg/kg), J(0.23 ± 0.04 mg/kg) and K(0.39 ± 0.10 mg/kg) but not statistically significant in samples A(0.21 ± 0.03 mg/kg), C(0.34 ± 0.16 mg/kg) and E(0.32 ± 0.09 mg/kg).

Figure 3: levels of chromium concentration in different brands of noodles

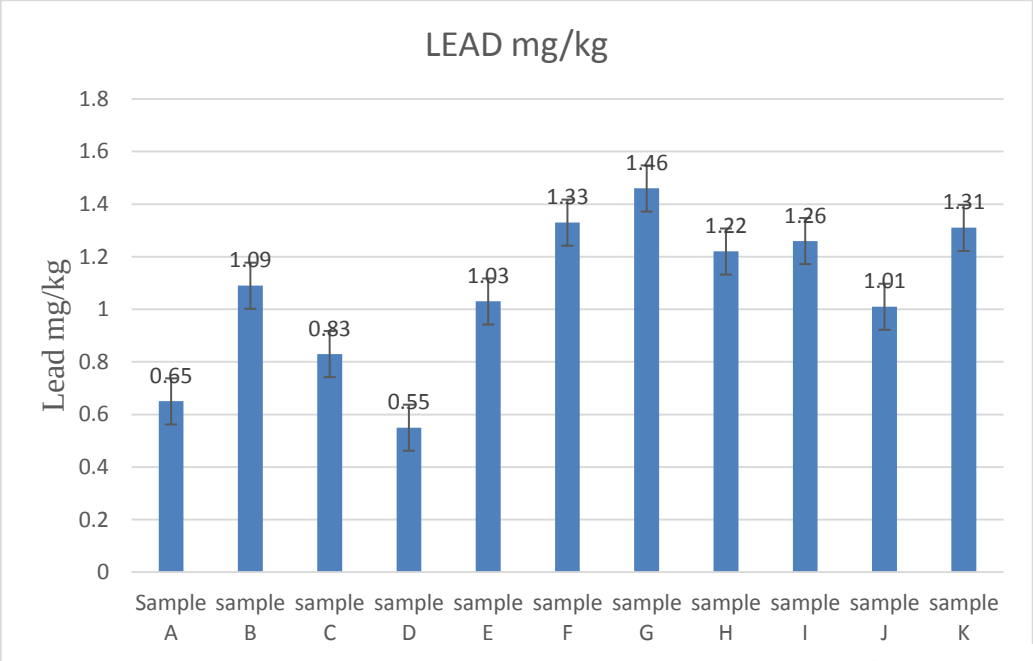


WHO PTWI 0.050 mg/kg BW

Concentration of Lead (Pb) in noodles

The concentrations of lead (Pb) in the eleven brands of noodle samples analysed are presented in figure 4.4 below. They ranged from 0.55 ± 0.08 to 1.46 ± 0.17 mg/kg with highest and lowest average (mean ± SD) concentration observed in samples G (1.46 ± 0.17mg/kg) and D (0.55 ± 0.08mg/kg) respectively. The concentration of lead in sample G is significantly higher ($P < 0.05$) than those in samples A (0.65 ± 0.12 mg/kg), C (0.83 ± 0.11mg/kg) and D (0.55 ± 0.08mg/kg) but not significant in other samples.

Figure 4: levels of lead concentration in different brands of noodles



WHO PTWI 0.025 mg/kg BW

Potential health risk assessment

The potential health risk associated with consumption of heavy metal contaminated food is presented in table 4. For a target hazard quotient less than one it is expected that no adverse health effect occurs but the hazard quotient greater than one, then adverse health effects are possible.

Table 4: Estimated average daily intake and target hazard quotient of heavy metals through consumption of noodles sold in Nigeria

Samples		Arsenic	Cadmium	Chromium	Lead
A	ADI_e	6.71E-4	2.84E-3	1.09E-3	3.36E-3
	THQ	2.24	2.84	7.23E-4	0.95
B	ADI_e	9.3E-4	3.36E-3	9.3E-4	5.63E-3
	THQ	3.27	3.36	6.2E-4	1.61
C	ADI_e	9.82E-4	3.15E-3	1.76E-3	4.29E-3
	THQ	3.27	3.15	1.17E-3	1.23
D	ADI_e	1.71E-3	3.31E-3	2.37E-3	2.82E-3
	THQ	5.68	3.31	1.58E-3	0.81
E	ADI_e	8.78E-4	3.05E-3	1.65E-3	5.32E-3
	THQ	2.93	3.05	1.10E-3	1.52

F	ADI_e	1.76E-3	3.98E-3	1.29E-3	6.87E-3
	THQ	5.85	3.98	8.61E-4	1.96
G	ADI_e	1.14E-3	3.05E-3	1.13E-3	7.54E-3
	THQ	3.78	3.05	7.5E-4	2.15
H	ADI_e	1.76E-3	3.46E-3	1.24E-3	6.30E-3
	THQ	5.85	3.46	8.27E-4	1.80
I	ADI_e	1.71E-3	3.82E-3	1.49E-3	6.51E-3
	THQ	5.68	3.82	9.99E-4	1.86
J	ADI_e	1.39E-3	3.62E-3	1.18E-3	5.21E-3
	THQ	4.65	3.62	7.92E-4	1.49
K	ADI_e	1.24E-3	3.82E-3	1.49E-3	6.77E-3
	THQ	4.13	3.82	9.99E4	1.93

Potential health risk (THQ ≥ 1)

Discussion

Instant noodle is a common household food usually consumed by children and young adults (especially students) in Nigeria. Its consumption rate is very high and this is because of its convenient method of preparation (Iniobong, Atieme, & Inimfon, 2017). Due to its high consumption rate there is need to determine the safety of its consumption. Heavy metals are the most common food contaminant this is because they can contaminate food through the raw materials or the equipment used in the production process (Li, Ma, Vander, Yuan, & Huang, 2014). This study demonstrates that heavy metals are present in varying concentrations in noodles sold in Nigerian market.

The assessment of heavy metals in the samples indicated the presence of Pb, Cr, Cd and As. The levels of As in all the samples are above the World Health Organization (WHO, 2011) tolerable limit (0.015mg/kg) and this can have adverse health effect on human health. Comparing the results of the analysis of arsenic carried out in this work to that of Jakia & Burhan (2014) on heavy metals in commercial brand of noodles, it showed that the mean arsenic content of their study was 0.36mg/kg and is higher than the mean arsenic content of this study. Surprisingly, As was not detected in the study conducted by Iniobong *et al.*, (2017) on health risk assessment of instant noodles commonly consumed in Port Harcourt, Nigeria. This may be due to the difference in samples used, raw materials, concentration of heavy metal in the soil and the equipment used in processing the noodles.

Also, the levels of Cd in all noodle samples are all above the WHO tolerable limit (0.007mg/kg) (WHO, 2011). According to Jakia & Burhan (2014), cadmium is present as a pollutant in phosphate fertilizers that are used in cereals or grains like wheat which is a major raw material for noodles. This study agrees to that of Chukwuebuka, Uche, Augustina,

Odinma, & Chinweotito (2014), on quality assessment of noodles sold in Nigerian markets. It shows that there is presence of Cd in noodles but their mean Cd level (0.004mg/kg) is lower than the mean Cd level (0.65mg/kg) in this study. Cd was also not detected in the study conducted by Iniobong *et al.*, (2017).

The levels of Cr in all the samples are all above the tolerable limit (0.050mg/kg) set by WHO (WHO, 2011), Chromium (as Cr^{3+}) is an essential dietary element and occurs naturally in many vegetables, fruits, meats, and grain fruits; thus, it is of great benefit to health in that form; however, Cr^{6+} at high concentrations can cause gastrointestinal haemorrhage, haemolysis, acute renal failure, reduced sperm count, pulmonary fibrosis and lung cancer (Inoue 2013; Suzuki *et al.*, 2017). Although as Cr^{3+} is beneficial to health, in vitro studies indicated that high concentrations of it can lead to DNA damage (Eastmond, MacGregor, & RS, 2008 in Iniobong *et al.*, 2017). Cr contamination in the noodles can be as a result of unsafe agricultural practices and industrial processes (Iniobong *et al.*, 2017). Similar to a study carried out by Iniobong *et al.*, (2017), indicated the presence of chromium in noodles in varying concentrations though their mean Cr content (0.78mg/kg) is slightly higher than the mean Cr content (0.27mg/kg) in this study. Also, a study carried out by Chukwuebuka *et al.*, (2014), indicated the presence of chromium in noodles though their mean Cr content (0.08mg/kg) is lower than those in this study though all are above the tolerable limit set by WHO.

The levels of Pb in all the samples are above the WHO permissible limit (0.025mg/kg) and thus could have adverse health effects on health especially the central nervous system, the cardiovascular system, the kidney and the immune system (Bergeson, 2008 in Iniobong *et al.*, 2017). The contamination may be from raw materials such as wheat flour used in noodle production (Iniobong *et al.*, 2017). Maleki & Zarasvand (2008), opined that industrial activities could be a major source of lead in the environment. Also, Pb contamination could arise from irrigation of wheat farmland with contaminated water, application of fertilizer and metal based pesticides, industrial emmissions and transportation as well as the method of harvesting and storage. Similar work on instant noodles by Iniobong *et al.*, (2017), Jakia & Burhan (2014) and Chukwuebuka *et al.*, (2014) indicates the presence of lead in noodles in varying concentrations. Their mean lead content are 1.13mg/kg, 1.40mg/kg, 0.05mg/kg respectively. The mean lead content of Iniobong *et al.*, (2017) (1.13mg/kg), Jakia & Burhan (2014) (1.40mg/kg) is higher than the mean lead content of this study (1.06mg/kg) while that of Chukwuebuka *et al.*, (2014) (0.05mg/kg) is lower though all are above the limit set by WHO.

Mercury was not detected in any of the samples that is to say there is absence of mercury in noodle samples and this agreed to the study by Iniobong *et al.*, (2017). Heavy metal

contamination of foods and their corresponding intake through the contaminated food is a major concern to Nutritionists and other health researchers. Consumption of such foods over a long period of time can lead to serious health implications such as cardiovascular diseases and cancers. They also contribute to other diseases such as Alzheimier's disease, Arthritis, Diabetes, Fatique and memory loss (Otitoju O, Otitoju GTO, Iyeghe, & Onwurah, 2014).

Conclusion

Heavy metals are environmental hazards and many developed and developing countries have continued to monitor its level of concentration in foods nevertheless they are still abundant in foods because various studies have shown varying concentration of heavy metals in foods. This study has shown that there are varying concentrations of heavy metals in noodles and suprisingly they are all above the tolerable limit set by WHO. Consumption of these heavy metal contaminated noodles will lead to bioaccumulation of heavy metals in the human body and further lead to health effects. It is essential for agricultural activities and other human activities that increase heavy metal contamination of food stuffs should be controlled (Otitoju O, Otitoju GTO, Iyeghe, & Onwurah, 2014).

Recommendation

It is strongly recommended that manufacturers of these noodles should review the sources of these heavy metals and regulatory agencies such as the National Agency for Food, Drug Administration and Control, Standards Organization of Nigeria, and Consumer Protection Council should strictly monitor the activities of food manufacturers to ensure only wholesome noodles are supplied to consumers. Similarly, nutrition awareness program should be organised in order to inform the consumers of possible health implications of these metals.

References

Arora, M., Bala, K., Shweta, R., Anchal, R., Barinder, K., & Neeraj, M. (2008). Heavy metal accumulation in vegetables irrigated with water from different sources. *Food Chemistry, 111*, 811-815.

Bergeson, L. (2008). The proposed Lead NAAQS: is consideration of cost in the clean air act's future? . *Journal of Environmental Quality and Management, 18*, 79-84.

Bradl, H. (2002). *Heavy Metals in the Environment: Origin, interaction and remediation* (Vol. 6). London: Academic Press.

Chen, Y., Wang, C., & Wang, Z. (2005). Residues and source identification of persistent organic pollutants in farmland soils irrigated by effluents from biological treatment plants.

Chukwuebuka, O., Uche, E., Augustina, E., Odinma, S., & Chinweotito, S. (2014). Quality Assessment of Common Instant Noodles Sold in Nigerian Markets. *American Journal of Analytical Chemistry, 5*, 1174-1177.

Eastmond, D., MacGregor, J., & RS, S. (2008). Tvalent Chromium: assessing the genotoxic risk of an essential trace

element and widely used human and animal nutritional supplement. *Journal of Critical Review and Toxicology, 38*(3), 173-190.

Iniobong, C., Atieme, O., & Inimfon, A. (2017). Health risk assessment of instant noodles commonly consumed in Port Harcourt, Nigeria. *Journal of Environmental Science and Pollution Research, 25*, 2580-2587.

Jakia, S. J., & Burhan, U. (2014). Detection of heavy metals in some commercial brands of noodles. *European Academic Journal, 2*(8), 10667-10679.

Li, Z., Ma, Z., Vander, K. T., Yuan, Z., & Huang, L. (2014). A review of soil heavy metal pollution from mines in china: pollution and health risk assessment. *Journal of Science and Total Environment*, 843-853.

Marketing Edge. (2017, January 01). *battle of noodle brands over market share.* Retrieved January 06, 2018, from www.marketingedge.com.ng: http://www.marketingedge.com.ng

Maleki, & Zarasvand. (2008). Heavy metals in selected edible vegetables and estimation of their daily intake in Sanandaj, Iran.

Otitoju, O., Akpanabiatu, M. I., Otitoju GTO, O., Ndem, J. I., & Uwah, A. F. (2012). Heavy Metal Contamination of Green Leafy Vegetable Gardens in Itam Road Construction Site in Uyo, Nigeria. *Research Journal of Environment and Earth Sciences, 4(4)*, 371-374.

Otitoju, G. T., Otitoju, O., & Igwe, C. J. (2014). Quantification of Heavy Metal Levels in Imported Rice Consumed in the Northern Parts of Nigeria. *Journal of Biodiversity and Environmental Sciences, 4*, 202-207.

Otitoju, O., Otitoju GTO, Iyeghe, L., & Onwurah, I. (2014). Quantification of Heavy Metals in some Locally Produced Rice from the Northern Region of Nigeria. *Journal of Environmental and Earth Science, 4*, 1-5.

Paul, B. T., Clement, G. Y., Anita, K. P., & Dwayne, J. S. (2012). Heavy metals Toxicity and the environment. *Journal of National Institute of Health, 101*, 133-164.

Sousa, C. P. (2008). The impact of food manufacturing practices on food borne diseases. *Braz Arch Biol Technol, 51(4)*, 615-629.

Suzuki, M., Takeda, S., Teraoka-Nishitani, N., Yamagata, A., Tanaka, T., Sasaki, M., et al. (2017). Cadmium-induced malignant transformation of rat liver cells: potential key role and regulatory mechanism of altered apolipoprotein E expression in enhanced invasiveness. *Journal of Toxicology*, 16-23.

Waalkes, M. P. (2000). Cadmium carcinogenesis in review. *Journal of Inorganic biochemistry*, 241-244.

WHO/FAO/IAEA. (1996). *Trace Elements in Human Nutrition and Health.* Switzerland : Geneva.

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Influence of Economic Recession on the Extended Family System in Abia State, Nigeria

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Abstract

The study focused on the influence of economic recession on the extended family system in Ohafia local government area of Abia State, Nigeria. The specific purpose of the study were: to determine; ways economic recession has influenced extended family systems norms in Abia State, other challenges of economic recession on extended family system. It was a survey design. The population for the study was 350 women who were registered members of Ohafia Improvement Union (OIU) women wing. Questionnaire and FGD were used for data collection. A random sample of 187 women who was drawn for the study. Data were analyzed using mean and standard deviation. The findings of the study include 10 functions of the extended family to its members for example inculcates family values to the young ones; collective economic survival, level equality among others, 12 ways economic recession has influenced the EFS, for instance; Being each other's brother's keeper is rarely practiced, care of the elderly has been shifted to the government, and other types of influence not related to the FFS are. It has led to increase in insurgency, armed robbery, increased youth unemployment among others. Recommendations were based on the findings of the study thus; families must make drastic changes to their pre-recession lifestyles which will include adjustment among others.

Keywords: Economic, Recession Extended, Family, System.

Introduction

Families in Nigeria, including those in Abia State have experienced various economic hardships as a result of economic recession. Ikot (2017) reported that there is still an outcry of hardship everywhere in the land which means that the country's economy is still neck-deep in recession. Also, Ologbon-Ori (2016) observed that the effect of no source of income to meet basic family needs and obligations causes frictions among family members which may lead to long lasting damage to extended family relationships. This is because the affluent members of the extended families can no longer help the less privileged members as usual. Other reports also indicate various challenges for families. For instance, Kolawole

(2016), reported that the recession has caused family members not to spend quality time with each other not to talk more of meeting their financial needs. Furthermore, Nigerian Capital News Online (2016) stated that during recession, economic hardship, knows no limits and boundaries, it affects livelihood of everybody in one-way or the other. It also observed that in a recession, families with little or no buffers to resist the effect of economic recession are most likely to be hit severely. In another report, it was found that the combined effect of hunger, inflation, very high exchange rates and debt burden on the wellbeing and lifestyle of members of any family should be imagined than experienced. The psychological, physiological, social and economic disposition of people are affected and these may have serious effects on the wellbeing of the extended families members.

In the same vein, Amadi (2016) reported that to finance Children's education usually becomes tougher on families during recession as schools would adjust tuition fees upwards due to high operating cost, so parents with three or four Children in schools are at the cross-roads at the moment and so cannot be of help to the extended family members. This raises the critical question of how effective the families are discharging their natural roles especially with regard to extended family members who are vulnerable. Recession is a period of reduced economic activities in a country (Anyanwu, 2001). However, in a recession, business ceases to expand and the rate of unemployment rises. Recession in a country also leads to inflation. Meanwhile, inflation is a sustained increase in the general level of prices of goods and services However, the prolonged economic recession occasioned by the collapse of the world oil market has become emerging issue that is threatening families survival because it has resulted in fallen incomes and all these have affected the extended families lifestyle.

The family has been part of the history from the earliest days until now. It is a universal reality because everyone has a family but everyone does not necessarily have a spouse, a child or siblings but everyone belongs to a family with father and a mother who in turn had a father and a mother (Hawkins and Motherbaugh, 2010). Therefore, the extended family is such a common denominator for the human race. Anyakoha (2015), stated that there are three types of families; nuclear, polygamous and extended families. The extended is the oldest and most common type of family in Nigeria. The extended family is defined as a grouping broader than the nuclear family which is related by descent, marriage or adoption. It existed as a structure of collective responsibility for its members even if they do not all live together in the same household (Brown, 2011). Extended family is one that extends beyond the nuclear family, consisting of parents, aunts, uncles, cousins and all living nearby or in the same household (Ruggles, 2010). The extended family is an institution that plays an important role in influencing

individual and household choices in developing countries and through this their well-being is secured (Maide, 2014). He also observed that the oldest member of the family becomes the head of the extended family. He equally opined that the head of the family makes resources available to all other family members, apart from making resources available, there are other functions performed by the extended family such as; an extensive system of exchange of goods, collective economic survival, level in equality and build community life, picks up pieces of a broken marriages, acts as a reserviour of healing and strength for survivors, care of the elderly and children, teaching/training the younger ones among others (Kazianga and Wahhaj, 2013). Nwokolo (2011), observed that in Nigeria care of the elderly has always been taken to be the responsibility of the extended family members with little or no government support. In another development, William and Mcilwaine (2014), stated differently that elderly care in Nigeria has been within the extended family system, while some parents also send their children to the villages to live with their grandparents and run errands for them, while in return the grandparents teach them cultural and moral values (Dasgupta and Malashri, 2007).

Consequently, all these practices are declining and changing gradually due to urbanization and economic recession. Many studies in agreement to the above statement maintains that there is an erosion of the extended family system due to globalization, technological development and economic recession which has contributed to accelerate this disintegration of traditional African family structure (Cheng and Siankam, 2009, Abebe and Aage, 2007 and Dahl, 2009). Also Hoff (2007) posited that the decline of the care in the extended family are caused by the decline in the economy, disintegration of the extended family system, unemployment and female paid employment to augment the family income, all these have affected the extended family lifestyle. However, MayerLoff (2012), observed that the extended family system faded away by the industrialization process and that the social welfare has taken over the responsibility for the care of the ill, the aged and the unemployed in some countries.

Meanwhile, lifestyle is a way of living of individuals, families (households and societies which they manifest in coping with their physical, psychological, social and economic environment on a day to day basis. It is expressed in both work and leisure behavior patterns and in activity, attitudes, interests, opinions, values and allocation of income. (Anyakoha, 2011). Also, it reflects people's image or self-concept the way they see themselves and believe they are seen by others. Kembe and Ifejiaka (2013), stated that lifestyle is a habit, attitude, tastes, moral standards and economic level that constitute the mode of living of the family or individual. In a similar vein, Okoye (2014) opined that lifestyles are the different ways people live their lives, which include those that they do, with whom they do the things as well as

where, how, and what they use to do their things. In the same vein. It has also been observed that lifestyle manifest in the families daily life which involves what the family does and how the individual members does those things, families develop lifestyle in order to meet their needs. This infers that the recession has caused families to change the way they do most of the things.

However, Collins (2012), had observed differently that the ongoing economic recession in the country has changed the idealized image of a traditional extended family as couples live separately from other family members with many consequences on family cohesion. Rivera, Guarnaccia, Mulvaney, Lin, Torres and Algeria (2009), defined cohesion as emotional bonding and level of support and commitment that family members have towards each other. They narrated that as people work more hours away from the family it affects cohesion and weakens the extended family system because most people are no longer ready to bear one another's burden which is the hallmark of the extended family. The extended family system in Ohafia is a means of collective economic survival. The Ohafia people believes in being their brothers' keeper. The extended family system is the strong bond which is mostly described by the saying that blood is thicker than water and the anger of the brother does not get to the bones (Eme, 2016). He further stated that despite the economic recession, slowly sipping into the community, the issue of marriage, burial, retirement ceremonies are not private affairs, this ceremonies are rarely contracted without the interference of the extended family members. Today, it is no longer the same, because there is noticeable decline in the level of care provided by the extended families to its members. The family structure in Ohafia has been distorted as a result of a storm of economic recession and social factors. People today are becoming individualistic and the old sense of brotherhood which held society together is vanishing (Jona, 2017). If the emerging trend in the contemporary Ohafia society is anything to go by then the good old extended family system might as well be falling into the dustbin of history (Jona, 2017) This formed the problem of the study; influence of economic recession on the extended family system in Abia State.

Purpose of the Study: The purpose of the study was to explore the influence of economic recession on the extended family lifestyle in Abia State Nigeria. Specifically, the study determined:

1. Ways economic recession has influenced extended family system norms in Abia State.
2. Other challenges of economic recession on members of EFS.

Research Questions: The study answered these research questions:

1. In what ways do economic recession influence the extended family system?
2. What are other challenges of economic recession on members of EFS?

Methodology

***Design of the Study*:** The study adopted a descriptive survey research design. Descriptive survey design helps to study people's attitudes, activities, opinions, motivations and other characteristics. It is therefore suitable for this study which focused on the influence of economic recession on the extended family system in Abia State.

***Population for the Study*:** The population for the study consisted of 350 registered members of Ohafia Improvement Union (O.I.U) women wing. The Ohafia Improvement Union is an association binding all Ohafia people together. The union has male and female sections separate and they have separate meeting days. Ohafia people believes in being their brother's keepers as a well of life (Eme, 2016). These women are matured adults and married with children. They are registered members of the association who know the culture and tradition and have a common goal of up-holding the culture.

***Sample for the Study*:** A sample of 187 women was drawn from Ohafia Improvement Union association. The women studied were selected using purposive sampling technique because the women are registered members of the association and being registered members they know the culture and tradition more than any other group. So they are relevent for the study

***Area of the Study*:** This study was carried out in Ohafia, Abia State. Ohafia is one of the local government areas in Abia State. Ohafia has 25 villages on the whole. Some of the villages are classified as urban and rural areas (Independent Electoral Commission, INEC, 2006). Some of these people are registered members of an association called Ohafia Improvement Union (O.I.U). In the study area, there is prevalence of extended family system because the people believed in being their brother's keepers as a way of life (Eme, 2016). They also believed that EFS is the primary mechanism where cultural and subcultural values and behavior patterns are inculcated and handed over to the next generation (Eme, 2016; Hawkins and Motherbough, 2010). Also in the area, they believed in collective economic survival and care for the elderly among the family. The OIU has a motto that states *"onye ahala nwanne yaa , umunna bu ike"*.

***Instrument for Data Collection*:** Two sets of instruments were used for data collection for the study. These were; structured questionnaire developed through extensive review of literature and Focus Group Discussion (FGD) Guide. They were validated by three Home Economics Lecturers.

The reliability of the instrument was determined using test-retest reliability method. The questionnaire was administered to 30 women who responded to the question items. These women use for the test retest reliability were not part of the main sample of the study. To establish the reliability of the instrument, Pearson Product Moment Correlation was used. The mean responses were used to calculate the Pearson Moment Correlation Coefficient Cronbach's Alpha Reliability Index was used to determine the

internal consistency of the instrument on the data obtained: The analyzed data yielded a co-efficient of 0.98 which showed that the instrument was reliable and consistent.

***Data Collection and Analysis Techniques*:** A total of 187 copies of the questionnaire were administered to the respondents. All of them were collected on the spot because it was the meeting day and they were pre-informed. One, Focus Group Discussion (FGD) session was organized and used to answer questions on the functions of the EFS to its member's influence of the economic recession on the EFS not related to the functions of the EFS. They were 15 participants. A Focus Group Guide developed by the researcher, based on the purpose of the study was used. The FGD was organized in Ebem Ohafia in Nkwo market day by 5pm. The timing was to be sure they will be available and they were not part of the study group. Data collected were analyzed using means and standard deviation.

Findings:

The following findings were made:

1. 12 ways economic recession has influenced economic system norms in Abia State.
2. 11 other challenges of economic recession on members of extended family system.

Table 1: Ways economic recession has influenced extended family system norms. Mean Responses on the Influence of Economic Recession on the Extended Families.

S/N	Ways the EFS norms has been influenced by the economic recession	$\overline{X_1}$	SD_1	$\overline{X_2}$	SD_2
1.	Being each other's brother's keeper is rarely practiced	4.22	1.19	4.48	1.1
2.	Care for the elderly in the extended family system	4.15	1.13	4.02	1.1
3.	People do not believe in communal life of sharing again	3.84	1.24	4.53	1.13
4.	Children are no longer sent to the village to live with their grandparents	3.41	1.4	4.20	1.23
5.	Grandparents now rarely teach and train their children about the culture of their people	3.33	1.38	4.00	1.16
6.	Only few children are allowed to run errands for their grandparents because they are hardly seen.	3.62	1.38	3.90	1.08
7.	There is no more extensive system of sharing of goods among members of extended family system	3.62	1.35	4.50	1.23
8.	There is no more collective economic survival activities in the extended family	3.56	1.41	3.90	1.28
9.	EFS members hardly mediate in marital problems of couples in the extended family	3.86	1.26	4.02	1.28
10.	EFS rarely inculcates family values to the young members	3.91	1.21	4.20	1.12
11.	EFS rarely supports aged single parents within the system	3.77	1.37	4.50	1.25
12.	Labour needs of aged family members are no longer met	3.84	1.40	3.84	1.12

X_1 = Mean for urban; X_2 = Mean for rural; SD_1 = Standard Deviation for urban; SD_2 = Standard Deviation rural;

Table 1 shows that all the 12 items were accepted by the respondents as ways economic recession has influenced extended family system norms. The Focus Group Discussion (FGD) revealed that the economic recession has made people not to be their brother's keeper, do not care much for the elderly, do not build on communal life again, children no longer live with grandparents as they are sent into hawking to help the family among others.

Table 2: Other challenges of economic recession on members of EFS Mean Responses on other challenges of economic recession on members of EFS.

S/N	Other challenges of economic recession on members of EFS	$\overline{X_1}$	SD_1	$\overline{X_2}$	SD_2
1.	Families are no longer happy	3.60	0.78	3.65	0.82
2.	Insurgence (rebelling against authority) in the state	3.68	0.85	3,60	0.82
3.	Armed robbery by youths is on increase	3.42	0.79	3.44	0.80
4.	Youth employment has also increased	3.18	0.72	3.24	0.84
5.	Kidnapping for ransom to make ends meet is rampant	3.19	0.74	3.49	0.94
6.	Child labor is on the increase.	3.35	0.86	3.55	0.92
7.	Increase in prostitution by both married and single ladies.	3.51	0.87	3.09	0.89
8.	Killing for rituals is on the increase.	3.49	0.63	3.63	0.79
9.	More children are dropping out of school	3.35	0,65	3.47	0.86
10.	There is human trafficking	3.40	0.65	3.47	0,68
11.	Lifestyle has generally changed that what the society frowns at is rampant now.	3.33	0.68	3,60	0.85

X_1 = Mean for urban; X_2 = Mean for rural; SD_1 = Standard Deviation for urban; SD_2 = Standard Deviation rural;

Table 2 reveals that the eleven other challenges of economic recession were accepted as other challenges of economic recession on members of the extended family system directly. The Focus Group revealed that there are other challenges of economic recession on members of the EFS like insurgence, arm robbery, kidnapping for ransom to make ends meet are not rampant, child labour is also on the increase among others.

Discussion of Findings

The findings of the study showed that the EFS is peculiar to Abia society with its various norms. EFS in Ohafia is the strong bond which is mostly described blood is thicker than water and anger of the brother does not get to the bones (Eme, 2016). EFS in Ohafia are guided by the strict system of seniority (Jona, 2017). For instance, Anyakoha (2015), stated that extended family serves as an extensive system of exchange of human and non-human resources. She further

stated that everyone has something to offer and contribute to the sustenance of its members. This is in agreement with Kazianga & Wahhaj (2013), who opined that extended families provide other services that has the characteristic of public goods. Again, they stated that they care for the elderly members of the family. Also in agreement, Willis & Mcilwaine (2014) observed that the extended family provides welfare and training to members. This finding corroborates with Nwokolo (2011) who observed that in Nigeria care of the elderly has always been taken to be the responsibility of the extended family members without any government support. The finding is also in line with Hawkins and Mothersbuogh (2010) who opined that extended households are important not only for their direct role in the consumption process but also for the critical role they perform in socializing children. They further stated that the extended family is the primary mechanism whereby cultural and subcultural values and behaviors patterns are passed on to the next generation. Hawkins *et al.,* (2010) opined further that value-expression influence occurs when individuals have internalized the groups values and norms taught. These then guide the individual's behavior without any thought of reference group sanctions. They also observed that the individual behaves in a manner consistent with the group's values because his or her values are the same with the group. The findings infers that extended families do a good job for their members. The findings of the study is not in agreement with Kazianga & Wahhaj (2013) who opined that the cherished belief that the extended family and relatives will take care of Orphans as a safety net in Africa, whenever the situation arises is fallacious. Furthermore, Foster (2000), puts it in metaphorical language when he stated that "the extended family is not a social sponge with an infinite capacity to soak up Orphans". These findings infer that the extended families have important functions which it performs to the individual, family and wider society and it should be maintained sustainably. Also in agreement with the findings, Andrew (2002) observed that African society was organized in lineages and members of the lineage cooperated and shared resources with others and adult members of the family carefully controlled and monitored the sharing of the resources. In line with the findings, Meyerholf (2012) stated that extended family system connects members to their family traditions and give value to lineage.

The findings on Table 1 on ways the economic recession influences the extended family system shows that the respondents accepted the various ways economic recession influences the extended family system. The various ways are in line with the opinions of Anyanwu (2001) who observed that prolonged economic recession occasioned by the collapse of the world oil market have resulted in fallen incomes and devalued standards of living among the citizens and this has helped in weakening the ties of extended family relationship. The

findings on children sent to dwell with grandparents, grandparents teach and train the children on the culture of their people, children being allowed to run errands for their grandparent among others are also in line with the opinion of the American Psychological Association (APA, 2017) who observed that during the economic recession, children are particularly vulnerable as they undergo critical conditions for example, they may be forced into hawking, child trafficking, child labour inorder to generate income for the family instead of going to live with their grandparents for tutelage and errands.

The findings on table 2: on other types of challenges of economic recession on EFS are also in agreement with Anyanwu (2001) who narrated that economic recession has disastrous effects not only on the lives and dignity of persons but also on the health of members of the families and other dependent relations. He further stated that masses are no longer happy and many families lack peace within. In agreement with the findings, Andrew (2002) opined that the rise of the private family which is focused on individual emotional satisfaction has undercut the ability of the extended family to carry out its responsibilities to the other extended members. Also, Hoff (2007), stated that there is a noticeable decline in the level of care provided by the extended family and narrated further that the decline is as a result of economic recession in the country. Ajie and Wokekoro (2012) noted that recession has a dynamic impact which is felt more by poorer households. They further stated that the dynamic effect of recession has a long run negative impact on growth primarily through the reduction in human capital. However, Abebe and Aase (2007), Dahl (2009) Cheng and Siankein (2009) maintains that the erosion of the extended family is due to socioeconomic development in the country. Nonetheless, Foster (2000) also agreed that despite the weakening of the extended family, it remains predominant caring unit for the unfortunate members of the society and that this shows its resilience and strength. In another development, it has been observed that the extended family system's network still exist and although many members are physically spread all over a wide geographical area, communication occurs with the aid of internet, phones, whatsapps, cars among others (Anderson and Taylor, 2007). This also infers that the families are now after their immediate nuclear family members needs and if the recession is not checked by Federal Government, it may eventually collapse the extended family system in the society. The strong and frequent interaction of the extended family has been damaged by the recession in the country and this infers that the economic recession affects the extended family negatively. This also is in line with Mayerhoff (2012) who observed that the extended family system faded away by industrialization process and that social welfare has taken over their responsibilities for the sick, aged and the unemployed. FGD findings also revealed that recession has led to insurgency, armed robbery,

kidnapping, youth unemployment, increased prostitution, ritual killings, school dropout, human trafficking, change in life style of people, creates dual families, married women has gone in to adultery, it has caused a lot of health related challenges like HIV/AIDS among others.

In agreement with the findings on insurgency, youth unemployment, kidnapping among others, the National Bureau of statistics (2016) reported that the unemployment rate as at March first quarter of 2016 stood at 12.1 percent up from 10.4 percent in the fourth quarter of 2015 and the number of unemployed person rose by 18 percent. It affirmed also that the youth unemployment increased to 21.5 percent form 19 percent. It further observed that the youth restiveness, insurgency, armed robbery, kidnapping, raping and numerous other vices have being attributed largely to unemployment as a result of recession. In the same vein, Goldin (2016) affirmed that unemployment impact matters beyond economic measures such as identity and social cohesion are also affected and these activities detract so much from what is expected from well- adjusted individuals.

In another development, Lawal (2016) observed that modern day slavery is one evil practice of economic recession which many may have been underestimating its impact on human and social development. He characterized modern day slavery as human trafficking, forced labour, forced or servile marriage, commercial sex exploitation and kidnapping. Meanwhile, Goldin (2016) noted that unemployment presents a big threat to family's well-being and this has direct bearing on youth restiveness. This infers that recession influences all round development of the individual which invariably affect the extended family system (EFS) in Abia State. The point still remains that better results will be achieved when family members work together as their "brother's keepers" than when the individual members work in isolation of each other.

The family structure in Ohafia has been distorted as a result of a storm of economic recession and social factors. People today are becoming individualistic and the old sense of brotherhood which held society together is vanishing (Jona, 2017).

Recommendations

The extended families should adopt the following recommendations to overcome the Influence of economic recession.

- Families must make drastic changes to their pre-recession lifestyle which will include adjustment.
- Extended family members must cut back on extras during the recession period so as to be their brothers' keeper.
- They must change plans to suit the situation at hand and also maintain brotherhood.
- Extended family members should prioritize expenses and pay bills in order of importance; that is focusing on the necessities of life in order to maintain happiness and peace in the EFS.

- They must understand the difference between needs and wants in order to overcome other challenges of economic recession
- They should put investment accounts on hold and play catch-up at a later time when the recession must have been checked.

Conclusion

The study revealed the functions of the extended family to include collective economic survival, level inequality among others. It also found that recession has many challenges on the extended families. The recession has affected the system negatively that members are no longer their brother's keeper. It was also revealed that the extended families are important not only for their direct role in the consumption process but also for the critical role they perform in socializing children and it is the primary mechanism whereby cultural and subcultural values and behavior patterns are passed on to the next generation. Therefore the recession should not be allowed to disintegrate the EFS in Abia State. It also gave recommendations on ways to make sure that the recession does not collapse the extended family system.

References

Abebe, T. and Aase, A. (2007). Children, AIDS and the politics of Orphans care in Ethiopia: The Extended Family revisited. *Social Science Medicine 64*:2058-2069.

Ajie, H. A. and Wokekoro, O. E. (2012). "The impact of corruption on sustainable economic growth and development in Nigeria". *International Journal of Economic Development Research and Investment* 3(1).

Amadi, S. (2016). Managing through a recession. *The Guardian Newspaper*, September 9, 2016 (24).

Amadi, S. (2016). The mindset that win in a recession the Guardian Newspaper September 23 (26).

American Psychological Association (2017) 750 First St. NE. Washington DC 2002 – 4242 Contact support, USA.

Andersen, M. L. and Taylor, H. F. (2007). *The Extended family may live together for many reasons. Sociology: understanding a diverse society* P.396 ISBN 0 - 495 – 00742 – 0

Andrew, J. C. (2002). *Public & Private families. An introduction*. McGraw Hill Higher Education.

Anyakoha, E. U. (2015). *Home economics for junior secondary school*, Onitsha: African Feb. Publishers, Onitsha.

Anyanwu, C. M. (2001). Productivity in the Nigerian Manufacturing Industry. A paper presented to Central Bank of Nigeria. *Monetary Policy Communique No. 105* of January 25-26 2016 The Research department of Central Bank of Nigeria.

Brown, K. (2011). Introduction to Sociology. P. 107. **Error! Hyperlink reference not valid.**.

Cheng, S. and Siankam, B. (2009). The impact of the HIV/AIDS pandemic and socio economic development on the living arrangements of older people in sub-Sahara Africa; A country level analyst. *American Journal of community Psychology 44:136-147*

Collins, L. M. (2012). Commuter Couples tackle Influence of Long distance marriage, Deseret News National Edition.

Dahl, B. (2009). The "Failures of Culture" – Christianity, kinship and moral discourses about orphans during

Botswana's AIDS Crisis, *African Today* 56:23-43

Dasgupta, S. and Malashri, L. (eds) (2007). The Indian Family in Transition: Sage Publications India.

Eme, I. (2016). *The Founding Fathers. When the light comes, darkness gives way*. Published by Emiro and Sons 44 Academia Street Calabar, Cross Rivers State.

Foster, G. (2000). The Capacity of the Extended Family safety net for orphans in Africa. Psychology Health and Medicine 5:55-62.

Gerstel, N. (2011). Rethinking Families and Community: The colour, class and centrality of extended kinties, sociological forum 26 (1), 1-20 doi IIII 1573 – 7861, 2010, 01222.

Goldin, N. (2016). Youth Paving the Road to 2030: The Challenge Solutions for Youth Empowerment. Retrieval on 6 July, 2018. From http://www.4ye.org/challenge.

Greenwald, D. (ed) 2000: The McGraw-Hill Encyclopedia of Economics, McGraw-Hill, Inc. New York, Second Edition.

Greig, A. Peacock D. Jewkes, R. Msimango, S. (2008). Gender and AIDS: Time to act, AIDS 22:534-543.

Hawkins, D. I. and Motherbaugh, D. L. (2010). Consumer Behaviour Building Marketing Strategy. 11th edition. U.S.A. Published by McGraw-Hill Irwin Companies Inc.

Hoff, A. (2007). Summer Newsletter 2007 of the research committee on the sociological association. Oxford: Oxford Institute of Aging: 15-20.

Holmes, M. (2006). Long Distance Living: Dual location households: Bristol, England the Policy Press, University of Bristol.

Ikot, A. (2016). Recession for well-being and economic exports, the *Vanguard* November 21, 2017 (29).

Independent Electoral Commission (INEC, 2006). Federal Republic of Nigeria. Diary of Population of States by Local Government Areas.

Jona, N. (2017). Nigeria: Is it sunset for the extended family. The Daily Trust Newspaper. 2016.

Kazianga, H. & Wahhaj, Z. (2013). Norms of Allocation within Nuclear and Extended Family Households in Burkina Faso, Economic Development and Cultural Change, 61(3) 539 – 576.

Kembe, E. M. and Ifejiaka L. I. (2013). Strategies for promoting lifestyles in families. Journal of Home Economics Research 18:179-188.

Kolawole, Y. (2016). Tips for surviving economic recession the Vanguard Newspaper July 28, 2016 (25).

Maide, B. (2014). Social Norms & the Role of the Extended Family. Published by the institute for Fiscal Studies Ricogmount Street London WCIE 2AE. http://www.ifs.org.uk/publications /7834.

Mankiw, N. G. (2003). Macroeconomics, worth publishers, New York, Fifth Edition.

Mayerhoff, M. (2012). Understanding Family Structure and Dynamics. The Extended Family. Discovery Communications Publisher, USA.

National Bureau of Economic Research (NBER, 2016). Federal Republic of Nigeria.

National Bureau of Statistics Plot 762 Independence Avenue Central Business District. Abuja www.nigerianstat.gov.ng

Nwokolo, C. K. C. (2011). Perceptions of problems experienced by inmates in old People's Homes in Nigeria, *Nigerian Journal of Home Economics 2(2) Benin, City: Home Economics Council of Nigeria (HECON).*

Ohafia Women Improvement Union, Umuahia Branch Office of the President register 2017.

Okoye, U. O. (2014). Strategies for promoting Lifestyles in families and communities. Journal of Home Economics Research 20:114-118.

Ologbon-Ori, T. (2016). The Nigerian Capital Market Report; The Analysist Proshare Intelligent Investing Abuja.

Population Reference Bureau, (2009).1875 Conneeticut Ave, Nw Suite 520, Washington DC 2009, U.S.A.

Rievera, F. I., Guarneccia, P. I., Mulvaney-Day, N. Lin, J. Y., Torres, M. and Alegria M. (2009). Family cohension and its relationship to psychological distress among Latino groups, *Hispanic Journal of Behavioural Science 30 (3): 357 – 378. Doi: 10.17/073998630831873.*

Ruggles, S. (2010). Stem families and Joint families in Comparative Historical Perspective Population and Development Review 36 (3) 563-577. PMC 3057610

Stebbin, R. A. (2009). Personal decision in public square beyond problem solving into a positive sociology. Retrieved from http:/en.wikipedia.org/milla lifestyles. Retrieved 20th March 2015.

Tango, P. T. (2013). The impact of the declining extended family support system on the education of Orphans in Lesotho, *African Journal of AIDS Research 123, 173 – 183, Doi:10.2989/16085906:2013.863217.*

Uzoagulu, A. E. (2011). Practical Guide to Writing, Research Project Reports in Tertiary Institution.

Willis, K. & Mcilwaine, C. (2014). Challenges and change in middle America; Perspectives on Development in Mexico, Central America and the Carribbeans, Rouledge Publishers.

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Challenges of Teaching and Learning Clothing and Textiles for Entrepreneurship: Case Study of Ebonyi State University, Abakaliki

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Abstract

The study focused on the challenges related to teaching and learning Clothing and Textiles for entrepreneurship in Ebonyi State University Abakaliki. The purpose of the study sought to determine challenges related to students, lecturers and physical/instructional facilities in teaching and learning clothing and textiles. The study adopted descriptive survey design. Three (3) research questions guided the study. The population of the study comprised all the six (6) lecturers and all the forty two clothing and textiles students in the Home Economies department of Ebonyi State University There was no sampling because of small population size. Questionnaire was used to collect data. Data were analyzed with mean statistic. Nine students challenges were identified to include poor and irregular attendance to lecture among others. Six (6) lecturers related challenges were identified to include lack of clothing and textiles lecturers, using lecturers who are not professionals to lecturer the course among others. Ten physical/instructional facilities were identified to include; lack of labouratories computer software among others. Recommendations include that students should be re-directed to develop interest on clothing and textiles for entrepreneurship trades, university management should employ more professional lecturers in clothing and textiles among others.

Keywords: Challenges, Clothing and Textiles, Entrepreneurship, Students, Teaching and Learning.

Introduction

Entrepreneurship is the ability of an individual or group of persons to establish and manage a business venture with the aim to make profit. Entrepreneurship according Aminu (2010) is the process of creating something new with value by devoting the adequate time and effort assuming financial and social risk receiving monetary reward and personal satisfaction. Entrepreneurship also takes place when an entrepreneur creates products from already existing goods and services using new procedure and idea bearing the financial risks and hoping for profit. Entreprene-

urship education is therefore the type of education that prepares individual for entrepreneurship endeavours. Hence, Ryan (2016) noted that entrepreneurship education prepares and equips students with entrepreneurial knowledge, skill and competencies needed to be self-employed and employer.

Entrepreneurship is dynamic and exciting because it makes one to believe in what he does at a particular time. It improves once life through acquisition of self-employed skills. Ryan (2016) stated that entrepreneurship opens opportunity to gain new skills, knowledge and grow confidence for self-employment in a trade. Entrepreneurship education in the content of this study concerns acquisition of skills, knowledge and creativity clothing and textiles to generate wealth for self-sustenance.

Clothing include all the materials worn by human beings. Clothing is any article or item placed on the body (Igbo and Iloeje 2012). Clothing appears in many varieties and in various types. It includes trousers, shirts, skirts, among others. Clothing also include accessories and body extensions like shoes, bangles, hair-do, ear-rings, working stick, and so on, (Anyakoha 2015). Clothing are made from textiles of various kinds. In other words, textiles are used in the production of various kinds of clothing and their accessories. Textiles are also used in various areas apart from body protection and adornment (Igbo and Iloeje 2012). Other uses of textiles include; hospital textiles, transportation textiles, industrial textiles among other. Clothing and textiles is one of the areas of home economics. Many entrepreneurship trades are available in area. Hence entrepreneurship education in clothing and textiles is essential and helpful to students if acquired by students through effective teaching and learning of entrepreneurial venture in clothing and textiles.

Entrepreneurship ventures in clothing and textile according to Anyakoha (2015) include, pattern design, interior and external decoration, dress construction, laundry wardrobe planning among others. Pattern design is the point of pattern marks and symbols on paper which provides information and instructional to dressmakers. Pattern design according to Darling (1996) has three main parts as the envelop, the instruction sheet and pattern tissue. The envelop is printed with a photograph of the garments and information that are required to select the correct amount of fabric to construct a dress/garment. The instruction sheet explains how to use the pattern and the meaning of different marking patterns.

Wardrobe is the lot of someone dresses and accessories. It is the

container which may be fixed or movable in a room where clothing and other important items of the family members are stored and protected. Wardrobe planning according to Ryan (2016) is the arrangement of clothing and other items in a wardrobe considering some factors such as family size and income, weather condition, utilization of clothing etc. Clothes stored in a wardrobe must be clean and well laundered.

Laundry involves removal of stains and dirts with soap, chemical and water on clothes and other household articles. It includes drying, ironing/pressing and folding of clothes, household items and cloths for interior and external decoration Osei, Dedum, and Dugbey, (2015).

Internal and external decoration involves, beautification of rooms, offices, hospitals, church, halls, open places and environment with cloths, flower etc to make the place attractive, conducive and comfortable to stay. External decoration is done mostly during marriage ceremony, burial ceremony and other social parties. Interior and external decoration need high cloth manipulation skill to produce nice environment for occasions. The teaching and learning of this trade need specialists in the field.

Teaching is an endeavour geared towards the transmission of knowledge from one person to another, it is activity which help individual to acquire an identified skills and knowledge desired at a particular time (Abbatt and Mcmahon 2015). It is the presentation of learning experiences and guidance activities from a teacher that enhance the opportunity of learning by the learner.

Learning on the other hand, involves all the activities which result to positive changes in peoples' characters and behaviours. Barbars and Terrence (2016) defined learning as the act of new and enforcing existing knowledge, skills, value and behaviour which leads to potential changes in synthesizing information, depth of knowledge and behaviour relative to the type and range of experience of the learner. Ruth and Rechard (2015) noted that learning is acquiring knowledge and skills to solve present and future problems and opportunities.

Teaching and learning of clothing and textiles for entrepreneurship trades involves both theory and practical experiences which if well inculcated will to a great extent help students in Ebonyi State University to be self-reliant when they graduate. Acquisition of skills in practical oriented courses such as clothing and textiles is very important especially in this period of economic recession in Nigeria because it will be a sources of revenue generation for the unemployment graduates.

In Ebonyi State University under, Home Economic department, clothing and textiles course taught include; Basic clothing constructions, HEC 118, textile science education, HEC 213, Basic clothing and care of fabrics, HEC 219, pattern drafting and adaptation I, HEC 226, interior decoration and allied crafts HEC 228, pattern drafting and adaptation II HEC 346, advanced clothing techniques education, HEC 441. (Department of Home Economics and Academic Programme Hand book 2017. The courses have various objectives structured to help students improve on both theory and practice. Students are expected to acquire skills and expertise in clothing constructions and design.

The students are also enabled to acquire basic hand stitches, understand and practice usage of sewing machines understand various textile and their classes, properties, care of fabrics, different pattern drafting techniques, drafting of basic black and front bodice, skirts, sleeves patterns etc. Students are also equipped with skills in decoration in allied craft, application of principles of colours in designs, lines, styles etc. The students learn how to sew garments of various styles and exhibitions, articles.

The clothing and textiles courses are offered at different levels of the undergraduate programme from 100 level to 400 level, arranged in two semesters per academic session. The courses are evaluated through the use of theoretical and practical exercises, both are weighted over one hundred percent. The objectives of clothing and textiles causes include to train students who will specialize in clothing and textiles. It also aimed at producing entrepreneurs in clothing and textiles trades such as pattern drafting, laundry work, construction of garments and so on. The students should be able to identify uses and properties of natural and artificial fibres. It is pathetic to observe that some of the students of Ebonyi State University can neither draft simple dress pattern nor sew their personal wears. Most of the students cannot perform decoration of external environment. It is pertinent to observe from class assignment to the students that they cannot launder their dresses appropriately. The Table below which is an extract from 3-year students' academic performance shows the percentage failure of the students in each of the graded courses in the area of study.

Course code	2014/15 Percentage Failure (%)	2015/16 Percentage Failure (%)	2016/17 Percentage Failure (%)	Percentage failure (Average) (%)
HEC 118	40	46	48	45
HEC 213	62	58	61	60
HEC 219	56	56	54	55
HEC 226	40	43	45	45
HEC 228	40	48	58	49
HEC 236	52	57	54	54
HEC 441	51	58	62	57

Home Economics Departmental Examination Record (2015-2017) Academic Sessions.

It is therefore, necessary to carry out study on the problems of teaching and learning clothing and textile for entrepreneurship in Ebonyi State University Abakaliki.

***Purpose of the Study*:** The purpose of the study was to investigate the challenges of teaching clothing and textiles for entrepreneurship: Case Study of Ebonyi State University, specifically, the study identified;

(1) Student-related challenges militating against teaching and learning clothing and textiles for entrepreneurship.
(2) Lecturer-related challenges militating against teaching and learning clothing and textile for entrepreneurship.
(3) Physical/instructional facilities related challenges militating against in teaching and learning clothing and textiles for entrepreneurship.

Research Questions

1. What are the students-related challenges militating against teaching and learning clothing and textile for entrepreneurship?
2. What are the lecturer-related challenges militating against teaching and learning clothing and textiles for entrepreneurship?
3. What are the physical/instructional facilities related challenges militating against teaching and learning clothing and textiles for entrepreneurship?

Methodology

***Area of the study*:** It was a case study. The area of study was in Ebonyi State University, Abakaliki. The University has four campuses, Ishieke campus, College of Agricultural Science, Permanent Site and Presco campus. Ishieke campus was used for the study because it is there that Home economics education is studied. Research Design: Survey research

design was adopted in this study. It is a case because students failed courses in clothing and textiles more than other courses in Home Economics Department in the Area of Study. The failure has been persistently continuous despite the application of various strategies for improvement.

***Population of the Study*:** The population of the study was made of six (6) lecturers and 42 students of clothing and textiles in the area of study (General Office Home Economics Department 2016/2017 academic session). The population size was thus 48 (6 lecturers and 42 students).

***Sample for the Study*:** There is no sampling because the population is small and therefore manageable.

***Instrument for Data Collection*:** The instrument for data collection was structured questionnaire developed by the researchers which carried 4-point scale. The response mode Agree, Strongly Agree, Disagree and Strongly Disagree, rating 4,3,2, and 1 respectively was used for the research question.

The questionnaire was validated by three experts in department of Home Economics. The correction and the input of the experts were used to draft the final copies of the questionnaire for the study.

***Data Collection and Analysis Technique*:** A total of 48 copies of questionnaire were distributed by the researchers and one trained research assistants. All the 48 copies of questionnaire were retrieved. Data were analyzed using mean. Any item with mean value of 2.50 and above was regarded as agreed while those items with mean scores below 2.50 cut-off point set for the study were regarded as disagreed.

Findings of the Study

The following findings were made;

(1) Nine students-related challenges were identified as problems in teaching and learning clothing and textiles for entrepreneurship in Ebonyi State University.

(2) Six lecturers-related challenges were identified as problems in teaching and learning clothing and textiles for entrepreneurship in the area of study.

(3) Ten physical/instructional facilities related challenges were identified which include; laboratory, sewing machines, computer software among others in the area of study.

Table 1: Mean Responses on the students-related challenges in the teaching and learning of clothing and textiles for entrepreneurship in Ebonyi State University (N -48)

S/N	Students Related Factors	Mean ($\overline{X_S}$)	Mean ($\overline{X_L}$)	Grand Mean	Rmarks
1	Students do not attend lecturers regularly	2.40	2.70	2.55	Agreed
2	Some students do not attend lectures on time.	2.80	2.40	2.60	Agreed
3	Most students do not carry out assignment on the course	2.80	2.46	2.63	Agreed
4	Students rarely embark on field work such as visiting industrial training for clothing construction, textiles manufacturing industries etc.	2.50	2.66	2.58	Agreed
5	Some students show no interest on practical work on clothing and textiles	2.50	2.70	2.60	Agreed
6	Students do not participate in planning what to learn.	2.60	2.55	2.58	Agreed
7	Students have the notion that clothing and textile is difficult to study.	2.60	2.50	2.55	Agreed
8	Peer group influence the students by distracting them through jesting.	2.50	2.55	2.53	Agreed
9	Male students do not show interest in Home Economics.	2.50	2.56	2.53	Agreed
	Total Grand mean ($\overline{x_g}$)			**2.57**	Agreed

Table 1 reveals that all the items had grand mean above 2.50 cut-off point set for the study. This means that the respondents agreed that the nine items constitute students related challenges in the teaching and learning clothing and textiles entrepreneurship education in the area of study.

Table 2: Mean Responses on Lecturer-related challenges in teaching and learning clothing and textiles for entrepreneurship. (N -48)

S/N	Students Related Factors	Mean ($\overline{X_S}$)	Mean ($\overline{X_L}$)	Grand Mean	Remarks
1	Clothing and textiles lecturers attend lectures regularly.	2.30	2.78	2.54	Agree
2	There are enough lecturers who teach clothing and textiles entrepreneurship education.	0.90	2.20	1.55	Disagree
3	Lecturers who teach clothing and textiles entrepreneurship education are specialists in the clothing and textile education.	0.90	2.30	1.60	Disagree
4	The lecturers rarely conduct practical for the student on clothing and textiles	1.80	1.25	1.53	Disagree
5	Lecturers gives practical assignment after every topic of study.	1.80	1.40	1.60	Disagree
6	Lecturers use information technology eg computer in teaching and learning entrepreneurship education.	1.20	2.53	1.87	Disagree
7	Lecturers mark student's assignment regularly.	2.30	2.77	2.54	Agree
8	Lecturers and students interact very well.	1.80	1.77	1.79	Disagree
	Total Grand Mean ($\overline{x_g}$)			**1.04**	Disagree

Table 2 reveals that six out of eight items scored grand mean value below 2.50 cut-off point set for the study. This indicated that most respondents agreed that lecturers in clothing and textiles in Ebonyi State University do not perform some of the identified duties of lecturers.

Table 3: Mean Responses on the physical/instructional facilities for teaching and learning clothing and textiles for entrepreneurship.

(N -48)

S/N	Physical/instructional facilities	Mean ($\overline{X_S}$)	Mean ($\overline{X_L}$)	Grand Mean	Rmks
1	There are well equipped clothing and textiles laboratories in the school.	1.05	1.07	1.06	Disagree
2	Electricity/standby generators are always available for clothing and textiles lectures.	0.96	1.74	1.35	Disagree
3	Clothing and textiles show/fitting rooms are available to exhibit and store made products.	0.96	1.90	1.43	Disagree
4	Sewing machines are enough for teaching and learning	0.88	1.67	1.28	Disagree
5	Information and communication technology such as computer software are used in teaching and learning clothing textile.	0.96	1.77	1.37	Disagree
6	Assorted measuring tools are enough for the study.	0.96	2.10	1.53	Disagree
7	Storage facilities for sewing items are enough.	0.88	2.10	1.45	Disagree
8	Cutting tools and equipment are enough for the study.	0.88	2.00	1.44	Disagree
9	Marking tools are enough in the laboratory.	0.88	1.95	1.42	Disagree
10	Other construction aids such as sewing needles, stitching needles, shuttle and so on are enough for the teaching and learning clothing and textiles entrepreneurship education.	0.85	1.25	2.1	Disagree
	Total Grand Mean ($\overline{x_g}$)			**1.60**	Disagree

Table 3 reveals that all the ten items on physical/instructional facilities related challenges for teaching and learning clothing and textiles for entrepreneurship in the area of study scored grand mean value below 2.50. This implies that lack of physical/instructional facilities are challenges in teaching and learning clothing and textiles for entrepreneurship in Ebonyi State University.

Discussion of Findings

The result of the finding revealed that some of the students neither

attend lectures regularly nor are in class on time. The students refused to go for field work and excursion, participate in practical activities, have no passion for clothing and textiles and that gender assumptions influences students in teaching and learning of clothing and textile entrepreneurship education in the area of study. Ennis (2015) noted that when some students refuse to participate in lession, the teaching and learning enterprise become substantially more challenging. Some students are often more vocal, dominant and skillful than others. Maryellen (2012) noted that some students do not develop sophisticated technical skills because they do not participate in practical activities in teaching and learning. Learning skills especially on practical oriented courses develop faster if they are taught explicitly along with the students' involvement in planning learning activities.

The study also showed that clothing and textile lecturers are few, some of the lecturers are not professionals in clothing and textiles, they do not conduct practical on clothing and textiles lectures regularly and that the lecturers do not use digital information communication technology in teaching and learning clothing and textiles for entrepreneurship. It is universally recognized that teachers are the key persons in education system and when teachers are lacking in number and knowledge, education system has great challenges (Stacy 2014). Teachers/lecturers set the tone of their classrooms, build warm environment, mentor and nurture students and become role model to students. Lack of professional competences among teachers remains one of the major challenges in teaching and learning practical oriented courses in schools (Chang, 2010). He also noted that students of clothing and textiles are not equipped with saleable skills required to enhance self-reliance and good quality life. Muzenda (2013) maintained that lecturers have refused to review their teaching competences in respect to subject knowledge, practical skills, attendance and general attitude to align to the clothing and textiles content and specific outcome in order to effectively enhance transmission of required knowledge and information to the students.

The study also revealed that lack of physical-facilities are challenges in teaching and learning clothing and textiles for entrepreneurship in the area of study. Physical facilities identified lacking include, classroom, seats, laboratories, clothing and textiles textbooks electricity supply and generator. Tanner (2009) noted that lack of adequate facilities such as classroom; workshops and libraries are among the probable causes of

students' poor performance in examination. Tanner maintained that the quality of education students receive is affected by the availability and non-availability of physical facilities in the school. Provision of necessary physical facilities in schools introduce challenging environment for effective teaching and learning. Bijaya and Ramkrishna (2015) stated that physical conditions in schools have direct positive and negative effect on lecturers' confidence, personal security and feeling of efficiency in the classroom. Bijaya et al noted that poor condition of educational building impede students' performance and outcome.

The study revealed that poor provision of instructional materials are problems in teaching and learning of clothing and textiles entrepreneurship education in Ebonyi State University. The lacking instructional materials include; sewing machines, sergers, storage facilities, measuring equipment, marking tools, information and communication technologies such as computer, projectors etc. James and Sanusi (2014) maintained that teaching and learning of all practical courses would be counterproductive if suitable instructional materials are not adequately provided Uwameiye (2015) opined that the use of Information and Communication Technology (ICT) in teaching and learning of clothing and textiles is not yet practiced in Nigeria schools. Uwameiye also noted that neither computer software nor projectors is used to mix colours and draft patterns in clothing and textiles lectures. Cynthia (2013) noted that digital ways of body measurement using information and communication technology such as iphone, ipad, youtube among others to teach practical in clothing and textiles is yet to be applied in Nigeria institutions.

Recommendations

- Students should be encouraged by parents and guardians to be self-directing in terms of goal-setting in trades in clothing and textiles entrepreneurship education.
- University management should plan extensive lecturers' development training program to acquaint lecturers with the new technologies that are in line with new global trends in clothing and textiles.
- The university management should employ lecturers and professionals in clothing and textiles and also strengthen them with current technology in line with global trend in clothing and textiles for entrepreneurship.

Conclusion

The study has identified challenges in teaching and learning clothing and textiles for entrepreneurship in Ebonyi State University Abakaliki with particular references to challenges related to students, lecturers, physical facilities and instructional materials. The challenges associated with students include poor and irregular attendance to lectures, lack of interest in clothing and textiles as a course among others. Challenges related to lecturers include lack of number and quality of lecturers teaching clothing and textiles, non availability of information and communication technology and so on. Physical facilities and instructional materials also constitute problems in teaching and learning clothing and textiles for entrepreneurship. The challenges include lack of enough classroom, laboratory, lack of sewing machines, measuring tools among others. There is need to provide lasting solutions to these challenges so that students in Ebonyi State University will be self-employed in trades in clothing and textiles for entrepreneurship ventures.

References

Abbatt, & Mcmahon, R. (2015). London Macmiller Teaching health care workers. (15-21). *Articles from Community Eye Health are provided Here.* Courtesy of International centre for Eye Health.

Amina, N.A. (2010). Entrepreneurial Development in Nigeria. A reading manual: *Development of Management*. Federal University of Technology. Yola.

Anyakoha, E.U. (2015). Home Management for schools and Colleges. Onitsha, *Nigeria African First Publishers Plc.*

Barbara, O. & Terrence, S. (2016). Learning how to learn: *Powerful tools to help you master tough subjects, University of California San Diego.* Retrieved from https://www.coursea.org.

Bijaya, N. & Ramkrishna, M. (2015). Effect of school physical facilities on learning and outcome of students in Nepal. *Journal for studies in management and planning. 10(6)* available at http://internationaljournalofresearch.org/indexphd/jsmap.

Chang, Y. (2010). *Students' perception of teaching styles and use of learning strategies.* Retrieved from http://traceternesseeudu.utlegrates782.

Cynthia, A. (2013). Body measurement. *Sem. Blue Enterprise.* Pot Ltd.

Dorling, K. (1996). The complete Book of sewing-A practical step-by-step guide to sewing techniques. *Great Britain Dorling Kindersley Limited.*

Department of Home Economics, Academic Programme, (2017) Handbook.

Ennis, C.D. (2015). *The role of students and content teacher effectiveness, National Centre for Biotechnology information, U.S. National library of*

medicine. 8600 Rockville pike Batheasda MD, 20894. U.S.A.

Eurydice, F. (2012). *Entrepreneurship Education at school in Europe National Strategies, Curricula and learning.* http//eacea.eceuropa.Ett/education/eurgdice/documents/the:matic reports//35En.pott.

Igbo, C.A. & Iloeje, C.I. (2012). *The basic of class pattern drafting.* Nigeria: Inselberg (Nigeria) Ltd.

James, U. & Sanusi, U.J. (2014). The effect of school physical facilities on the processes of education. A qualitative study of Nigeria primary school. *International Journal of Education Development. 11(1)*19-29.

Maryellen, W. (2012). *Five characteristics of learner-centered Teaching.* Retrieved from www.facultyfocus.com.

Ministry of Education (2016/2017) *Academic session, Ebonyi State.*

Muzenda, A. (2013). Lecturers competences and student's academic performance. *International journal of humanities and social science invention. 3(1)*06-13.

Osei, J., Dedum, V. & Dugbey, R. (2015). The tutune of clothing and textile is senior High schools and its impact on employment opportunity. *International Journal of Fiber and textiles Research. 5(3)* 26-29.

Ruth, C.C. & Richard, E.M. (2015). *Learning and Science of Institution.* Retrieved from theelearningcoah.com.

Stacy, Z. (2014). *What is the role of teachers in education*. Retrieved from www.education.gov.gy.

Tanner, C.K. (2009). Effect of school design on students' outcomes. *Journal of Educational Administration. 47(3)* 381-399.

Uwameiye, B.E. (2015). Application of information and communication technology in the effective teaching and learning of Home Economics in secondary schools in Nigeria. *European Scientific Journal 11(7).*

Warner, U. (2010). Enhance Entrepreneurship through information and communication technology and training for Entrepreneurship initiative. *Journal of sociology of Education.26(4215-225).*

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Secondary School Female Teachers and Participation in Agricultural Production Enterprises

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Abstract

The major purpose of the study focused on issues relating to female teachers' participation in agricultural entrepreneurship activities. Specifically the study determined information needs of female teachers for participation in agricultural entrepreneurship opportunities; challenges female teachers could encounter in participating in agricultural production enterprises and ways female teachers could be encouraged to participate in agricultural production enterprises. Design of the study was descriptive survey. Population of the study was 120 secondary school female teachers in Nsukka. In each 2 secondary school there was purposive sampling of only female teachers. Instrument for data collection was questionnaire. One hundred and two copies of questionnaire were administered to respondents by hand and 120 copies were retrieved. Data were analyzed using mean and standard deviation. The study found that enough startup capital is needed, adequate preparation; method of harvesting each crop varies were some information female teachers needed for agricultural entrepreneurship opportunities. The study found that lack of loan facilities for startup capital, limited knowledge on method for crop storage were some challenges female teachers encounter. The study also found that educating female teachers through extension workers on new varieties of seeds, making market information available to female teachers for easy sales of crop were some ways of encouraging female teachers' participation in agricultural production enterprises.

Key Words: Secondary School, Female Teachers, Agricultural Production, Enterprise

Introduction

For any nation to strive and achieve its economic goals, it has to recognize and encourage its citizens to acquire right information for agricultural production and skills needed if they must contribute meaningfully to the economic development of their country. Oyinbo and Rekwot (2014) posit that agricultural production has contributed immensely to the economic development of the nation in terms of food production, employment creation, poverty reduction and environmental

sustainability. Agricultural production according Alonge (2016) is a series of activities and production process that result in a product that will ultimately be sold at wholesale or retail outlets to create wealth. Participation in agricultural production is now seen as an alternative means of income to ensure food security and meet up with ones' responsibilities. To support the above assertion, a study conducted by Olawepo and Bola (2012) posit it that many people including teachers participate in agricultural production as a means of alternative income to curb poverty, service debt and provide food for household. To provide for the needs of the family and contribute to the economic development of the nation, many secondary school teachers are eager to participate in agricultural production enterprises.

Secondary school is an educational level between primary education and tertiary education for young individuals between the ages of 11-16 to enable them acquire necessary skills to make a realistic career choice (Ogbonaya, 2005). Secondary education is divided into the junior and senior secondary education with different caliber of teachers to meet their educational needs. Secondary school teachers possess National Certificate in Education or degree certificates in education. A teacher is an experience person who is saddled with the responsibility of imparting skills, knowledge, attitudes, values and competences to another person who is less knowledgeable (Chukwurah, 2013). Chukwurah further stated that despite the commitments of teachers, they are poorly remunerated. With the meager salaries teachers receive, they find it difficult to meet their needs and as well contribute to economic development of the nation, especially teachers with families. Salami (2013) is of the opinion that poor state of economy in the country turns out to be a driving force to many female teachers that provoked them to engage in business enterprises. Enterprise is a business and describes the actions of someone who shows some initiative by taking a risk by setting up, investing in and running a business. It implies not only running of a business, but also shouldering the loss, if any. The person who undertakes all this work is called an entrepreneur. Entrepreneurs participate in activities that create incremental wealth through micro food processing, textile and clothing, agricultural production among others (Okoro and Ofishe, 2011).

Agricultural entrepreneur is one who cultivates the land to produce crops for the market with a profit target. For a farmer-entrepreneur to be able to compete favourably in the changing environment and to take advantage of new market demand he must be able to identify agricultural opportunities available in his environment. Agullar (2009) identified such agricultural entrepreneurship opportunities in crop production as: cereals, root crops, legumes, fruits, vegetables and tree crops. Mojisola (2016) and Bikisu (2011) stated that these agricultural entrepreneurship opportunities are also called agribusiness. Agribusiness

includes all activities involving but not limited to production, processing and distribution of agricultural goods and services to meet the needs of the society (Olokundun, Falola and Ibidunni, 2014). In area of cereals, Fabiyi and Akande (2015) believed that women can embark on maize, rice or corn production, processing and marketing them; in root crops they can engage in cassava and potato production; legumes they can engage in soya beans and groundnuts production or processing; fruits women can embark on mango, banana, oranges, guava, pawpaw and pineapple production or marketing them; vegetables they can engage in cabbage, green pepper, carrots, onions and melons production or marketing them while in tree crops women can engage in oil palm, coconut and cashew nut production, processing and marketing them. To be able to identify these opportunities Ansari and Sunetha (2014) and Adams (2017) posits it that it will require the ability to have access to reliable and current information on the latest agricultural practices such as: times and seasons, land preparation method, seed varieties, method of sowing/planting, implements to used, right spacing, and time for harvesting among others. Information on various entrepreneurial skills that would be helpful was also needed.

However, no matter how entrepreneurial skillful one may be, challenges are abound for female teachers and women generally who wish to participate in agricultural production enterprises. Some according to Sobechi and Thomas-Odia (2018) include lack of access to loan and after planting and harvesting, selling become a problem especially when the produce is in season and excess. To corroborate the above assertion, Kantor (2001) identified limited access to market information, limited access to credit facilities, psychological barriers, initial capital, fear of taking risks and inadequate infrastructure as constraints to female teachers' participation in agricultural production enterprises. In support of the above, other researches has identified several factors as constraints to women participation in agricultural production which include: land tenure problem, inadequate access to extension services, inadequate finances, poor access to information and training, inadequate inputs, poor market access, lack of government support among others (Oladejo, Olawuyi and Anjorin, 2011; Nuhu, Donye and Bawa, 2014; Yemisi, and Idisi, 2014; Gideon and Yager, 2016; Adams, 2017)

Therefore, encouraging female teachers to engage in agricultural production entails empowering them with information and removing any barrier affecting their active participation in agricultural production. To validate the above statement, Adams (2017) posit that easy access to credit, easy access to land, and awareness creation through extension agents on best agricultural practices among others are ways of encouraging female participation in agricultural production. Whitmell (2012) asserts that improved

careers education, awareness campaign and initiatives among others are strategies for encouraging female teachers' participation in agricultural production enterprises. While Stevenson and Stone (2006) is of the opinion that women must be taught how to be adequately prepared before engaging in the agricultural production enterprises.

Purpose of the Study

This study focused on issues relating to female teachers' participation in agricultural entrepreneurship activities. Specifically the study determined:

1. Information needs of female teachers for participation in agricultural entrepreneurship opportunities for female teachers in Nsukka L.G.A.
2. Challenges female teachers could encounter in participating in agricultural production enterprises.
3. Ways female teachers could be encouraged to participate in agricultural production enterprises.

Research Questions

The following research questions guided the study:

1. What are the information needs of female teachers for participation in agricultural entrepreneurship opportunities in Nsukka L.G.A?
2. What are the challenges that female teachers could encounter in participating in agricultural production enterprises in Nsukka L.G.A?
3. What are the ways that could encourage female teachers' participation in crop production enterprises in Nsukka L.G.A?

Methodology

Design of the study: The study adopted descriptive survey design. A descriptive survey research design is one in which a group of people or items is studied by collecting and analyzing data from only a few people or items considered to be representative of the entire group. Descriptive survey design is appropriate for this study data was collected from a group as a representative of a larger group.

Area of the Study: Area of the study was Nsukka and St. Cyprian's Girls' Secondary School, Nsukka and St. Cyprian's Special Science School, Nsukka were used. The two schools are jointly owned by Enugu State Government and Nsukka Diocese (Anglican Communion)(Post Primary School management Board, PPSMB, Nsukka.)

Population of the Study: The population for the study comprised 120 secondary school female teachers in the secondary schools in Nsukka. Thirty state teachers and 40 Diocesan Education Board (DEB) teachers were from St. Cyprian's Girls' Secondary School and 20 state teachers and 30 DEB teachers were from St. Cyprian's Special Science School. Diocesean Education Board (DEB) teachers are teachers employed by the Nsukka Diocese (Anglican Communion) while state teachers are teachers employed by Enugu State Government.

Sample for the Study: In each of the two secondary schools, there was purposive sampling of only female teachers.

Instrument for Data Collection: The instrument used for data collection was structured questionnaire. It was developed based on the research questions and literature review. The instrument was sub-divided into two parts. Part I is on general information about the respondents. Part II was further divided into sections A, B, C. Section A has 7-item statements that sought data on information needs of female teachers on the agricultural entrepreneurship opportunities. Section B has 12-item statements that sought information on the challenges to female teachers' participation in crop production enterprises while Section C has 11-item statements that sought information on the ways of encouraging female teachers' participation in crop production enterprises.. The response categories for the sections was a 4-point rating scale which ranges from 4 – 1 (Strongly Agree = 4; Agree = 3; Disagree = 2; Strongly Disagree = 1).The questionnaire was validated by three lecturers from Faculty of Vocational and Technical Education, University of Nigeria, Nsukka. Reliability of the instrument was ascertained through Cronbach Alpha method which yielded 0.82% reliability co-efficient.

Method of Data Collection: One hundred and twenty copies of questionnaire were administered to respondents by hand and 120 copies were retrieved showing 100% return rate.

Method of Data Analysis: The research questions were answered using means and standard deviation. Mean scores of 2.50 and above were regarded as "agreed" while mean scores below 2.50 were regarded as not "disagreed".

Findings of the Study

Table 1: Mean responses on the Information Needs of Agricultural Entrepreneurship Opportunities for Female Teachers in Nsukka L.G.A.

S/N	Information needs for entrepreneurial opportunities	$\bar{X}se$	SDse	$\bar{X}de$	SDde	$\bar{X}g$	SDg	Remark
1.	Enough startup capital is needed	3.4	.54	3.5	.52	3.5	.53	Agree
2.	Some crops to be sown/plant include (cereals, legumes, fruits, vegetables or tree crops)	2.2	.86	2.4	.80	2.3	.83	Disagree
3.	Enough Land space is required	2.7	.72	2.9	.68	2.8	.70	Agree
4.	Crops Varieties: HYV	3.5	.52	3.3	.54	3.4	.53	Agree
5.	Adequate preparation for one to engage in such crop production.	2.9	.68	3.5	.52	3.2	.60	Agree
6.	Farm implements or equipment used for the crops vary	2.1	.88	2.0	.89	2.1	.89	Disagree
7.	Sowing or planting the crops must be timely	3.2	.55	3.7	.50	3.5	.53	Agree
8.	Sowing methods required are based on the type of crop	3.6	.51	3.9	.50	3.8	.51	Agree
9.	There must be right spacing for each crop	2.8	.70	3.5	.52	3.2	.61	Agree
10.	Weed control/management is based on the type of crop	3.7	.50	3.4	.54	3.6	.52	Agree
11.	Watering requirement for each crop varies	3.2	.52	3.6	.51	3.4	.52	Agree
12.	Fertilizer requirement & application for each crop varies	2.9	.68	3.1	.59	3.0	.64	Agree
13.	Disease control/management depend on the type of crop	3.6	.51	3.5	.52	3.6	.52	Agree
14.	Harvesting time depends on the type of crop	3.2	.55	3.7	.50	3.5	.53	Agree
15.	Method of harvesting each crop varies	2.8	.70	3.0	.62	2.9	.67	Agree
16.	Processing Techniques required for each crop varies	3.5	.52	3.2	.55	3.4	.54	Agree
17	Storage pattern needed for each crop varies	3.3	.54	3.6	.51	3.5	.53	Agree
	Grand mean/stand deviation					**3.2**	**.60**	**Agree**

No of State employees = 50; No of Diocesan Education employees = 70; Xse = Means of state employees; Xde = Means of Diocesan employees; Xg = Grand mean

Table 1 shows grand mean of 3.2. This implied that the respondents agreed that the item statements were information female teachers needed for agricultural entrepreneurship opportunities. The grand standard deviation of item 1 – 17 in table 1 was .60. This implies that the opinions of the respondents were close to each other.

Table 2: Mean Responses on Challenges Female Teachers could Encounter in Participating in Crop Production Enterprises

S/N	Challenges female teachers encounter	Xse	SDse	Dde	SDde	Xg	SDg	Rmk
1.	Lack of loan facilities for startup capital	3.6	.51	3.7	.50	3.7	.74	Agree
2.	Inadequate infrastructure	2.5	.78	2.8	.70	3.7	.74	Agree
3.	Lack of access to crop varieties	3.7	.50	3.3	.54	3.5	.52	Agree
4.	Fear of taking risks	2.2	.86	2.0	.89	2.1	.88	Disagree
5.	Psychological barriers	3.0	.62	3.1	.59	3.1	.61	Agree
6.	Limited knowledge on spacing requirement for each crop	3.4	.54	3.2	.55	3.3	.55	Agree
7.	Limited access to market information	3.5	.52	3.1	.59	3.3	.56	Agree
8.	Lack of market for harvested produce	3.3	.54	3.5	.52	3.4	.53	Agree
9.	Limited knowledge of method for harvesting	2.5	.78	2.8	.70	2.6	.74	Agree
10.	Limited access to market information	3.4	.54	3.7	.50	3.6	.52	Agree
11.	Lack of knowledge on appropriate processing techniques for each crop	3.2	.55	3.6	.51	3.4	.53	Agree
12.	Limited knowledge on method for crop storage	3.1	.59	3.5	.52	3.3	.56	Agree
	Grand mean/standard deviation					**3.2**	**.62**	Agree

No. of State employees = 50; No of Diocesan Education Board employees = 70
Xse = Means of state employees; Xde = Means of Diocesan Board employees; Xg = Grand mean.

Table 2 shows grand mean of 3.2 and this implies that item statements were the challenges that female teachers could encounter when they participate in agricultural production enterprises. The grand standard deviation of all item

statements was .62. This implied that the range in the responses of respondents was not far from the mean.

Table 3: Mean Responses on ways of encouraging Female Teachers' Participation in Crop Production Enterprises.

S/N	Ways to encourage Female teachers	Xse	SDse	Xde	SDde	Xg	SDg	Remark
		$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	
1.	Providing information on available sources of startup capital	3.3	.54	3.5		3.4	.53	Agree
2	Enlightening women on alternative use of available land for crop production	2.7	.72	3.1	.59	2.9	.66	Agree
3	Educating women through extension workers on the new varieties of seeds	3.2	.55	3.6	.51	3.4	.53	Agree
4	Exposing women to farm implements used for different crop production	2.4	.80	2.0	.89	2.2	.85	Disagree
5	Educating women through extension workers on the right sowing/planting methods and spacing for different crops	2.6	.75	2.9	.68	2.8	.72	Agree
6	Exposing women to weed control techniques	3.0	.62	3.4	.53	3.2	.58	Agree
7	Enlightening women on the right manure required for different crops	2.8	.70	3.1	.59	2.9	.65	Agree
8	Teaching women on the right time and way of harvesting crops	2.6	.75	2.8	.70	2.7	.73	Agree
9	Making market information available to women for easy sales of crops	3.5	52	3.7	.50	3.6	.51	Agree
10	Educating women on how to process some crops for better profit margin	3.7	.50	3.4	.54	3.6	.52	Agree
11	Teaching women how to store crops	3.2	.55	3.5	.53	3.4	.54	Agree
	Grand mean/standard deviation					**3.1**	**.62**	**Agree**

No of State employees = 50. No of Diocesan Education Board Employees = 70
Xse = Means of State employees; Xde = Means of Diocesan Education Board employees; Xg = Grand mean.

Table 3 reveals that grand mean for items 1- 11 was 3.1 which was within boundary limit of 2.50 – 4.00. This implied that item statements were the ways female teachers could be encouraged to participate in agricultural

production enterprises. The grand standard deviation of items 1 – 11 in Table 3 was .62. This implied that the opinions of the respondents were close to each other.

Discussion of Findings

The study revealed that enough startup, enough land space, variety of crops, plant or sow at right time or season, knowledge of control/management of weed for crops, know the best time for harvesting for each crop type, method of harvesting each crop, processing techniques required for each crop and storage pattern needed for each crop were information needed by female teachers for agricultural entrepreneurship opportunities. This study is in line with the findings of Agullar (2009) who listed variety of crops needed in any agricultural production enterprise. The findings also agreed with the statement of Ansari and Sunetha (2014) that women need information on agricultural practices in crop production especially modern farming practices. This therefore implies that for women to be able to choose agriculture as an alternative source of income, they need to be informed on different agricultural practices needed for efficient farming.

The study revealed that lack of market for harvested produce, limited access to market information and inadequate infrastructure were the challenges female teachers could encounter in participating in agricultural production enterprises. This is line with the view of Sobechi and Thomas-Odia (2018) that after planting and harvesting, sales become a problem especially when the produce is in season and excess. The study revealed too that lack of knowledge on sowing/planting methods of crops, limited knowledge on spacing requirement for each crop, limited access to weed control/management techniques for each crop, lack of knowledge in choosing the right manure to apply on crop, limited knowledge of method for harvesting, limited access to market information, lack of knowledge for appropriate processing techniques for each crop and limited knowledge on method for crop storage were challenges that female teachers could encounter in participating in crop production enterprises. The finding is in agreement with the view of Mojisola (2016) that farmers are restricted to farm inputs within their reach which has affected their level of production. The finding is also confirmed by Fabiyi and Akande (2015) that rural farmers are faced with numerous challenges in their farm operations. Bikisu (2011) also identified lack of access to capital, fertilizer, improved seedling, and extension services as among the challenges being faced by women farmers.

The study also revealed that enlightening women on alternative use of available land for crop production, Educating women through extension workers on the new varieties of seeds, women through extension workers on the right sowing methods and spacing for different crops, exposing women to weed control techniques, enlightening

women on the right manure required for different crops, teaching women on the right time and way of harvesting crops, making market information available to women for easy sales of crops, educate women on how to process some crops for better profit margin instead of selling at raw stage and teaching women on how to store crops were the ways that should encourage female teachers to participate in crop production enterprises. The findings are in line with the views of Steven and Stone (2006) and Whitmell (2012) that women be exposed for career education on agricultural production. The findings also agreed with Adams (2017) who saw easy access to credit, easy access to land, creation of awareness to rural women on agricultural practices as ways of encouraging rural women to participate in agricultural production or agricultural activities.

Conclusion

The paper sought to investigate secondary school teachers and participation in agricultural production enterprises. The study revealed that enough startup capital, enough land space, time for harvesting different crops varies, sowing method is based on the type of crop and awareness of some crops to be sown were information female teachers needed for agricultural entrepreneurship opportunities.

The study revealed that lack of market for harvested produce, limited access to market information, fear of taking risks, inadequate infrastructure, lack of capital and lack of access to crop varieties were challenges that female teachers could encounter when they participate in agricultural production enterprises.

The study also revealed providing information on available sources startup capital, educating women through extension workers on the new varieties of seeds, making market information available to them for easy sales of crops and exposing on various initiatives on how to process and store crops were the ways female teachers could be encouraged to participate in agricultural production enterprises.

Recommendation

Based on the findings and conclusion of this study, the following recommendations were made:

- Agricultural extension workers should help in exposing women in career education in agricultural production.
- Awareness should be created to enable female teachers to be aware of agricultural entrepreneurship opportunities and adequately prepare for them before embarking on agricultural production enterprises.
- Government should create good condition for easy access to loan and market for women

References

Adams O. K. (2017). Nigeria Women in Agriculture: Challenges and Way Foreword. *Journal of Humanities and Social Science. 22(1), 102-106*

Alonge, A.F. (2016). Food Processing Preservation and Storage for Economic Development in Nigeria, University of Uyo.

Ansari, M. A. & Sunetha, S. (2014) Agriculture information needs of farm women: A study in State of North India .*African Journal of Agricultural Research* 9 (19), 1454-1460

Agullar, L. (2009). Training Manual on Gender and Climate Change: Global Gender and Climate Alliance (online) available at **Error! Hyperlink reference not valid.** %20and%20climate %20 change.Pdf.

Bilkisu A M. (2011).Women Participation in Agriculture: The Role and Impact of Agricultural Development Project (ADP) in Kogi State. An Unpublished Thesis Submitted to the Postgraduate School, Ahmadu Bello University, Zaria

Chukwurah, C. C. (2013). Trends in Business Teacher Education in Nigeria. *Scholarly Journal of Education*. 2(5), 58-62

Fabiyi, E.F and Akande, K. (2015). Economic Empowerment for Rural Women in Nigeria: Poverty Alleviation through Agriculture. *Journal of Agricultural Science*. 7(9),1916-1960

Gideon, P. K. and Yager, G. O., (2016). Role of women farmers in agricultural development in Jalingo Local Government Area, of Taraba State, Nigeria, *Nigerian Journal of Agriculture, Food and Environment* 12(1),75-79.

Kahan, D (2013) Entrepreneurship in Farming. Farm Management Extension Guide, Food and Agriculture Organization of the United Nations.

Kantor, P. (2001). *Promoting Women Entrepreneurship Development based on good practice Programmes*: some experiences from the North to South Africa, SEED Working Paper No. 9.

Mojisola, F.O.(2016). Contribution of Indigenous Vegetable Production to the Income Generation of Rural Vegetable Farmers in Egbeda Local Government Area in Oyo State. *Journal of Home Economics Research,* 23(2), 175-182

Nuhu, H.S., Donye, A.O. and Bawa, D.B(2014). Barriers to women participation in agricultural development in Bauchi Local Government Area of Bauchi State, Nigeria, *Agriculture and Biology Journal of North America* 5(4),166-174

Ogbonnaya, N.O. (2005). *Foundations of education finance*. Enugu: Hallman Publishers.

Olawepo. R. A. and Bola F. (2012). Rural Women Farmers and Food Productivity in Nigeria: An Example from Ekiti, Kwara, Nigeria, *Asian Journal of Social Science* 8(10), 108-117.

Oladejo, J. A., Olawuyi, S.O., and Anjorin, T.D. (2011). Analysis of women participation in agricultural production in Egbedore Local Government Area of Osun State, Nigeria, *International Journal of Agricultural Economics and rural Development* 4(1),1-11.

Olokundun A.M., Falola B. H and Ibidunni A. S., (2014). Agro business as a remedy for youth unemployment towards the achievement of sustainable development in Nigeria: Comparative perspectives from the Kwara State Agro Business economy. *Journal of Economics and Sustainable Development* 5(3),46-57.

Okoro, F.N. and Ofishe, W.O. (2011). *Practical entrepreneurship*. Benin: Mindex Publishing company Limited.

Oyinbo O. and Rekwot G. Z. (2014). Agricultural production and economic growth in Nigeria: Implication for rural poverty alleviation, *Quarterly Journal of International Agriculture* 53(3), 207-223

Salami, C.G.E. (2013) Youth unemployment in Nigeria: A Time for Creative Intervention *International Journal of*

Business and Marketing manangement,1(2), 18-26.

Sobechi, L. and Thomas-Odia, I. (2018). Women Farmers Identified Challenges. Retrieved from https://www.agriculture journals.02/2018/10/24.

Span, T. (2018). Junior Secondary School Certificate. Retrieved from https//www.spantran.com/2018/10/24 /secondary school.

Stevenson L. and Stone, A. (2006). *Support for Growth-oriented Women Entrepreneurship in Uganda*. Rome: ILO.

Whitmell, C. (2012). How to Make Farming an Appealing Career Choice for New Generation. Retrieved from https//www.iheguardian.com/2018/10 /25/ sustainable-business/blog/make-farming-appeal.

Yemisi, G. M. and Idisi, P.D, (2014). Gender inequality and women participation in agricultural development in Nigeria, *Merit Research Journal of Education and Review* 2(11), 296-301.

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Youths and Acquisition of Entrepreneurial Skills Required for Self-Employment: A Case Study of Vocational and Technical Education Students in Enugu State

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Abstract

This study investigated youths' perception of their acquisition and application of entrepreneurial skills for self-employment: a case study of Vocational and Technical Education (VTE) students in Enugu State. Specifically, this study determined: the extent to which students have acquired entrepreneurial skills, the extent to which students can apply entrepreneurial skills acquired, challenges encountered by students in the acquisition of entrepreneurial skills, and the challenges encountered by students in the application of entrepreneurial skills. Four research questions guided the study. The population for the study was 102 students from UNN and 28 students from ESUT. Questionnaire was used for data collection, consisting of 83 items. Data collected were analyzed using mean and standard deviation. The findings revealed that: students have acquired entrepreneurial skills to a high extent, students can apply entrepreneurial skills to a high extent, students encounter challenges in the acquisition of entrepreneurial skills which includes: inadequate equipment, education and among others, students encounter challenges in the application of entrepreneurial skills which includes: productivity, entrepreneurial attitude and among others. Recommendations were made which includes: building in students the ability to withstand the challenges ahead, equipping students with the ability to apply all the knowledge and skills acquired and among others.

Key words: Youths, Vocational, Technical, Education, Entrepreneurial and Skills.

Introduction

In the nearest future, it is hoped that Vocational and Technical Education (VTE) will adequately equip students to be more effective in this era of science and technology, and to raise a generation of people who can think for themselves and respect the dignity of labour. VTE is an aspect of educational process that deals with the study of technologies and related sciences and the acquisition of practical skills, attitudes, understanding and knowledge related to occupation in various sectors of economic and social life (Federal Republic of Nigeria, 2013). Vocational and Technical Education can also be defined as an educational training which comprehends knowledge, skills, competencies, structural activities, abilities, capabilities and all other structural experiences acquired through formal, on-the-job or off-the job which is capable of enhancing recipients opportunity for securing jobs in various sector of the economy or even enabling the person to be self-dependent by being a job creator (Osalor, 2015). The major target of VTE is the development of skills, aptitudes, abilities and knowledge in the learner, be it Technical, Business, Agricultural, Home Economics Education or Computer Education. VTE play a crucial role in the social and economic development of a nation. Owing to their dynamic nature, they are continuously subject to the forces driving change in the schools, industry and society. The roles of Vocational and Technical Education as costive in the National Policy on Education (2013) are as follows: To provide trained manpower in the applied science and technology and business particularly at craft, advanced craft and technical level, To provide the technical knowledge and vocational skills necessary for agriculture, commercial and economic development, To give training and impact the necessary skills to individual who shall be self-reliant economically. It therefore follows that the nation must invest copiously in education especially in VTE in order to equip students with entrepreneurial skills.

In other words, it is an "education designed to develop occupational skills." Vocational and technical education gives individuals the skills to "live, learn and work as a productive citizen in a global society." VTE has been an integral part of national development strategies in many societies because of its impact on productivity and economic development (Osalor, 2015). Despite its contributions, Nigeria leaders have not given this aspect of education the attention it deserves, and this is one of the reasons for the nation's underdevelopment. This article focuses on the dearth of skilled technical and vocational manpower in Nigeria and argues that technical and vocational education holds the key to national development. Every facet of the economy has been affected by lack of skilled technicians. The financial sector lacks technicians to regulate the banks and to develop financial software to

properly tackle the rising fraudulent activities in the banking sector (Awogbenle & Iwuamadu, 2010). Without security, development is impossible in a society; no nation can sustain its democracy if the citizens lack confidence in the police. The police violate the citizens' human and civil rights and lack forensic laboratory and fingerprint technicians to conduct criminal investigations. Due to poor training, military officers are known to beat up the citizens who challenge their powers and go scot free for their inhumane actions (Abiogu, 2016). The danger posed by environmental pollution and fake drugs is alarming. The less educated in the society lack the skill to manage AIDS, cancer and diabetes among other serious health problems (Gana, 2010). One wonders what the nation's health minister and the 36 state health commissioners are doing to tackle these issues. Every good citizen is aware that the neglect of technical and vocational education is socially and economically injurious, because it is robbing the nation of the contributions the graduates would make on national development. For that reason, Nigeria is today wearing the toga of a poor state.

Entrepreneurial skills involve the acquisition of abilities, knowledge and competencies that will enable people make use of existing resources to produce goods and services (Edafe, 2008). Generally, entrepreneurial skills consist of effective utilization of ideas, information and facts that can help a learner develop competencies needed for firm career commitments such as setting up business in computer hardware and software development, maintenance and sales, clothing and textiles, marketing services, or being productive employees of organizations (Awogbenle, & Iwuamadu, 2010). These skills includes: ingenuity, originality, cleverness, creativity, initiative, inventiveness, innovativeness, resource-fulness, endurance, risk taking, honesty and among others (Lemchi, 2012). Experiences and researches have shown that businesses have failed where entrepreneur have little or no knowledge of the business type or lack entrepreneurial skills. According to Lemchi, (2012), youths of today find it difficult to get a job or be self-employed after graduation. According to Ezeobele, (2006), for one to establish and run a successful business in a recessed economy, the following entrepreneurial skills must be acquired and applied: Personal skill, Communication skill, Negotiation skill, Leadership skill, and Sales skill.

The first skill according to Ezeobele, (2006), to be developed as an entrepreneur is personal skill; personal skills are simply those skills that are attached to personality; more like habits. They are the characters possessed by successful entrepreneurs. For instance, it is important for a professional proof reader, to develop a keen eye for spotting errors. The next important entrepreneurial skill to be developed is communication skill. To be a successful business owner, the person must be a powerful communicator. In

the course of building a business, an entrepreneur is bound to negotiate deals. Negotiation can be made with customers and suppliers over goods and services offered (Egbule, 2012). It can be done with bankers over bank loan terms and conditions, just as investors negotiate over equity and stakes. Inability to negotiate, leads to getting goods deal at exorbitant prices or worse still, getting nothing in business. Leadership skill is not an option, it is a necessity. Business is all about relationship with people. It entails uniting people with different backgrounds, beliefs and skills to a common cause. It entails forging people with different skills and ideologies into a business team (Onuka, 2007). There is no great business without a great leader at the helm of affairs. Building a successful business therefore requires an excellent business leader. This is perhaps, the most important entrepreneurial skill. The reason this skill is regarded as the most important is because they is no business that does not sell one thing or the other (Wapmuk, 2011). It is either tangible or intangible items are being sold such as services. "A man's success in business today turns upon his power of getting people to believe he has something they want" (Soba, 2006). According to Obioma, (2011), sales skill is regarded as the most important because, life is all about selling. To get a good job, one must sell him/herself to the employers. Even before getting married, one must sell him/herself to the spouse, convincing him/her to accept his/her marriage proposal. Success in business is also all about selling; one must first sell him/herself to the investors, next to the suppliers, business team and employees, and then to customers. A successful entrepreneur must have and apply the following skills: resilience, focus, invest for a long-term, find and manage people, selling, learning, self-reflection, and self-reliance (Edafe, 2008). An entrepreneur should also posses the following skills and qualities: ability to manage money, ability to raise money, ability to relieve stress, ability to be productive, ability to make entrepreneur friends, ability to identify strengths and weaknesses, ability to hire effective people, ability to train new staff, ability to manage staff, ability to connect via social networking, ability to focus on customers, ability to close a sale, ability to spot new trends, ability to deal with failure, the desire to improve the world and among others (Edafe, 2008). It is very important to determine the extent to which entrepreneurial skills are being acquired and applied by youths for economic development and sustainability.

The Nigerian National Youth Policy (2009) defines youth as between 18-35 years. Youth refers to the time when somebody is young; the period of human life between childhood and maturity; the state of being young; a boy or young man in his teens or early twenties; an early stage of something (Oyedokun, 2013). Youths and entrepreneurial skills acquisition required for self-employment in a recessed economy, and the ability to

establish an interaction between technological innovation and human values, partly determine development and globalization (Oyedokun, 2013). Acquisition and application of entrepreneurial skills can help youths survive in a recessed economy.

The National Youth Policy (2009) aims to, promote the enjoyment of fundamental human rights and protect the health, social, economic and political well being of all young men and women in order to enhance their participation in the overall development process and improve their quality of life. It focuses on 18 priority areas, including education, health, agriculture, women & girls, peace-building, HIV/AIDS, migration & human trafficking, poverty and participation and among others. The Federal Ministry of Youth Development is responsible for youth affairs with the vision "to empower Nigerian youth to become self-reliant and socially responsible." It was established in 2007 and has departments focusing on enterprise development, vocational skills & training, youth voice, employment, and education. The ministry is responsible for the national youth policy, youth development programmes, funding youth activities, youth participation, and to manage the National Youth Service Corps and the Citizenship and Leadership Training Centre.

The Labour statistics report of Nigeria in 2017 has shown that there is 7.9 million Nigerian youth (61.6%) aged 15-34 that are currently unemployed. The report, which was released on Monday, June 5, 2017, by the National Bureau of Statistics (N.B.S), also revealed that 58.1% of youth within this age bracket who are currently working are underemployed. Though, the active population in the country increased by 0.5% within the period, over 2.9 million graduates and another 5 million semi-skilled workers also lose their jobs within this period. It would be recalled that recently the President Muhammadu Buhari's administration gave its midterm performance with only N-power being noted as a major job creation initiative by the current government. On the gender spread of unemployment in Nigeria, the country has a 5.086 million of unemployed male and 6.46 million of the unemployed female. Also, the figure indicates that 24.2% of employed female gender is underemployed. Noting the importance of education, about 3.4 million of uneducated Nigerians find it hard to get a job, as the unemployment rate in the rural areas is also on the increase.

According to the result of the research conducted by Onuka, (2004), on Entrepreneurship Skills Required for Economic Empowerment of Youths in Broiler Production, certain entrepreneurship skills were required for economic empowerment of youths in broiler production such as planning, organizing, marketing skills and among others. This study differs from the current study as it dwelt on the entrepreneurship skills required for economic empowerment of youths in broiler production, while, the current study dealt with youths and acquisition

of entrepreneurial skills required for self-employment. This study is related to the present study as both studies have interest in entrepreneurship skills acquisition for economic empowerment. The study reviewed above, showed that no research work has been done on youths and acquisition of entrepreneurial skills required for self-employment in Enugu State, and this is the gap this study will fill.

Purpose of the Study

The general purpose of this study was to investigate views of VTE final year students' perception of their acquisition and ability to apply entrepreneurial skills for self-employment. Specifically, the study determined the students' perceptions of:

1. entrepreneurial skills they acquired.
2. acquired entrepreneurial skills they can apply to their entrepreneurial activities.
3. challenges they encountered in the acquisition of entrepreneurial skills.
4. challenges they could encounter in the application of entrepreneurial skills.

Research Questions

1. To what extent have students acquired entrepreneurial skills?
2. To what extent have students applied entrepreneurial skills acquired?
3. What are the challenges encountered by students in the acquisition of entrepreneurial skills?
4. What are the challenges students could encounter in the application of entrepreneurial skills?

Methodology

Area and Design of the Study: The area of the study was Enugu State. It was carried out in two universities in the state, namely: University of Nigeria, Nsukka (UNN) and Enugu State University of Science and Technology (ESUT). These two universities were chosen because they offer VTE subjects and are involved in youth entrepreneurial skills acquisition and application. A descriptive survey research design was used in this study. This research design is one in which a group of people or items is studied by collecting and analyzing data from only a few people or items considered to be representative sample of the group or population using questionnaire (Nworgu, 2006). This research design suited this study since the study sought to ascertain the opinions of respondents on youths and acquisition of entrepreneurial skills required for self-employment in Enugu State.

Population for the Study: The population for the study was 102 final year students of Faculty of Vocational and Technical Education (VTE), University of Nigeria, Nsukka, comprising of 17 students from Computer Education Department, 46 students from Agricultural Education Department, 22 students from Business Education Department, 7 students from Industrial and Technical Education Department, 10 students from Home Economics Education Department, and 28 final year students of Computer Science Department from Enugu State University of Science and Technology,

Enugu State, making a total of 130 students.

Sample and Sampling Techniques: Due to the small size of the population, all were used for the study. Thus, there was no sampling.

Instrument for Data Collection: A structured questionnaire was developed and used to collect data for the study. The questionnaire was containing 83 items and was structured in line with the four research questions. The instrument was presented in five sections. Section 'A' sought respondents' personal data, while sections 'B-E' sought responses on the four research questions to elicit information from the respondents. The questionnaire was on a five points scale: Very High Extent (VHE), High Extent (HE), Moderate Extent (ME), Low Extent (LE) and Very Low Extent (VLE) with assigned weight of 5, 4, 3, 2, and 1 respectively.

The instrument was subjected to face-validity by three experts, one from the Department of Industrial Technical Education, one from Computer Education Department, and one from Measurement and Evaluation Department, University of Nigeria, Nsukka, Enugu State. The advice and criticism of these experts were used to modify the instrument.

The reliability of the instrument was established by trial testing using 10 final year Computer Science students from Ebonyi State University; that did not form part of the sample. Cronbach's Alpha reliability test was used to determine the internal consistency of the instrument on the data obtained. The analyzed data yielded a reliability coefficient of 0.84, which showed that the instrument was reliable.

Method of Data Collection: One hundred and thirty (130) copies of the instrument were distributed to respondents by hand. All the copies were completed properly and retrieved within two weeks. One hundred and thirty (130) copies distributed were completed correctly and returned, showing a 100% return rate.

Method of Data Analysis: The data collected were analyzed using mean and standard deviation. Since the items were based on 5 points scale, the acceptable mean score was 3.00. Thus, mean rating of 3.00 and above were considered as very high extent, high extent and moderate extent, while any item with a mean score of 3.0 and below was rated as moderate extent, low extent and very low extent. Respondent opinions were interpreted using real limit of numbers as follows: Very High Extent (4.50 – 5.00), High Extent (3.50 – 4.49), Moderate Extent (2.50 – 3.49), Low Extent (1.50 – 2.49) and Very Low Extent (0.50 – 1.49).

Findings

The following findings were made:

Research Question 1: To what extent have students acquired entrepreneurial skills?

Table 1: The mean rating and standard deviation of respondents on the extent to which students have acquired entrepreneurial skills

S/N	Entrepreneurial Skills	Perception $\bar{X}ac$	SDac	Responses $\bar{X}ap$	SDap	Remark
1.	Students acquire and apply the following skills: creativity skill	3.60	1.72	3.60	1.27	high extent
2	communication skill	3.98	1.74	3.80	1.21	high extent
3	negotiation skills	3.86	1.75	3.86	1.33	high extent
4	leadership skill	3.53	1.71	3.54	1.45	high extent
5	managerial skill	3.66	1.73	3.66	1.64	high extent
6	innovative skill	3.64	1.77	3.64	1.60	high extent
7	planning skill	3.57	0.86	3.57	0.86	high extent
8	marketing skill	3.59	1.61	3.59	1.61	high extent
9	evaluation skill	3.50	1.55	3.53	0.75	high extent
10	productivity skill	3.59	0.87	3.59	0.87	high extent
11	organizing skill	3.60	1.50	3.60	1.50	high extent
12	ingenuity skill	3.65	1.45	3.58	0.79	high extent
13	originality skill	3.51	1.55	3.65	1.55	high extent
14	cleverness skill	3.54	1.65	3.76	1.44	high extent
15	initiative skill	3.66	1.67	3.63	1.27	high extent
16	inventiveness skill	3.72	1.33	3.67	1.34	high extent
17	resourcefulness skill	3.67	1.23	3.66	1.28	high extent
18	endurance skill	3.76	1.43	3.58	0.88	high extent
19	risk taking skill	3.75	1.51	3.82	1.62	high extent
20	honesty skill	3.57	0.98	3.76	1.56	high extent
21	Personal skill	3.87	1.72	3.81	1.42	high extent
22	resilience skill	3.78	1.58	3.64	1.53	high extent
23	focus skill	3.58	0.84	3.59	0.84	high extent
24	long-term investment skill	3.62	0.96	3.73	1.61	high extent
25	learning skill	3.69	0.91	3.77	1.50	high extent
26	self-reflection skill	3.76	1.33	3.68	1.37	high extent
27	self-reliance skill	3.84	1.79	3.63	0.98	high extent
28	recognition skill	3.73	1.66	3.72	1.49	high extent

Table 1 reveals that 28 items on the extent to which VTE final year students have acquired entrepreneurial skills had their mean values ranging from 3.50 to 3.98. This showed that the mean of each of the twenty-eight items was above the real limit of 3.00, indicating that VTE students have acquired entrepreneurial skills to a high extent. The table further showed that the standard deviation

(SD) of the items were within the range of 0.84 to 1.79 in the twenty-eight items indicating that the opinions of the respondents were not far from each other in their responses to the twenty-eight items.

Research Question 2: To what extent have students applied entrepreneurial skills acquired?

Table 1: The mean rating and standard deviation of respondents on the extent to which students have applied entrepreneurial skills acquired.

Table 1 reveals that 28 items on the extent to which VTE final year students apply entrepreneurial skills acquired had their mean values ranging from 3.53 to 3.86. This showed that the mean of each of the twenty-eight items was above the real limit of 3.00, indicating that VTE students can apply entrepreneurial skills acquired to a high extent. The table further showed that the standard deviation (SD) of the items were within the range of 0.75 to 1.64 in the twenty-eight items indicating that the opinions of the respondents were not far from each other in their responses to the twenty-eight items.

Research Question 3: What are the challenges encountered by students in the acquisition of entrepreneurial skills?

Table 3: The mean rating and standard deviation of respondents on the challenges encountered by students in the acquisition of entrepreneurial skills

S/N	Challenges in Skills Acquisition	$\overline{X}$	SD	Remark
	VTE students encounter the following challenges:			
1	economic pressure from parents	3.55	1.40	high extent
2	ability to raise money	3.53	1.22	high extent
3	inadequate equipment and technology	3.51	1.06	high extent
4	education	3.57	0.91	high extent
5	ability to make entrepreneur friends	3.52	0.89	high extent
6	ability to identify strengths and weaknesses	3.57	1.54	high extent
7	ability to connect via social networking	3.55	0.98	high extent
8	ability to spot new trends	3.54	1.60	high extent
9	ability to deal with failure	3.56	1.47	high extent
10	ability to improve their world	3.59	1.42	high extent
11	Research and Linkages	3.56	1.41	high extent

Table 2 reveals that 11 items on the challenges encountered by VTE final year students in the acquisition of entrepreneurial skills had their mean values ranging from 3.51 to 3.59. This showed that the mean of each of the eleven items was above the real limit of 3.00, indicating that VTE students encounter challenges in the acquisition of entrepreneurial skills to a high extent.

The table further showed that the standard deviation (SD) of the items were within the range of 0.89 to 1.60 in eleven items, indicating that the opinions of the respondents were not far from each other in their responses to the eleven items.

Research Question 4: What are the challenges students could encounter in the application of entrepreneurial skills?

Table 4: The mean rating and standard deviation of respondents on the challenges students could encounter in the application of entrepreneurial skills

S/N	Challenges in Skills Application	$\overline{X}$	SD	Remark
	VTE students encounter the following challenges:			
1	ability to manage money	3.55	1.48	high extent
2	Finance	3.53	1.22	high extent
3	ability to relieve stress	3.55	1.06	high extent
4	ability to be productive	3.52	0.91	high extent
5	entrepreneurial attitude	3.53	0.80	high extent
6	inadequate infrastructural facilities	3.57	1.54	high extent
7	cultural barriers	3.51	0.98	high extent
8	enabling environment	3.54	1.66	high extent
9	ability to create and build something from nothing	3.56	1.47	high extent
10	ability of having a vision matched with focus and determination of building an enterprise	3.54	1.42	high extent
11	skill for seeing an opportunity where others failed	3.54	1.21	high extent
12	ability to build a working team to complement your own talents and efforts	3.57	1.53	high extent
13	ability to aggregate, marshal and control resources judiciously	3.53	1.37	high extent
14	willingness and ability of innovativeness and creativity	3.54	1.48	high extent
15	willingness to undertake personal and financial risks	3.52	1.15	high extent
16	ability to engage in activities despite all odds	3.55	1.27	high extent

Table 3 reveals that 16 items on the challenges encountered by VTE final year students in the application of entrepreneurial skills had their mean values ranging from 3.51 to 3.57. This showed that the mean of each of the sixteen items was above the real limit of 3.00, indicating that VTE students encounter challenges in the application of entrepreneurial skills to a high extent. The table further showed that the standard deviation (SD) of the items were within the range of 0.80 to 1.66 in sixteen items, indicating that the opinions of the respondents were not far from each other in their responses to the sixteen items.

Discussion of the Findings

This study sought to investigate the views of VTE final year students on their acquisition and application of entrepreneurial skills for Self-Employment: a case study of Vocational and Technical Education students in Enugu State. The findings of the study revealed that VTE students have acquired entrepreneurial skills to a high extent. The findings are as follows: VTE students possess the following skills: creativity skill, communication skill, negotiation skills, leadership skill, managerial skill, innovative skill, planning skill, marketing skill, evaluation skill, productivity skill, organizing skill, ingenuity skill, originality skill, cleverness skill, initiative skill, inventiveness skill, resourcefulness skill, endurance skill, risk taking skill, honesty skill, Personal skill, resilience skill, focus skill, long-term investment skill, learning skill, self-reflection skill, self-reliance skill and recognition skill. These findings are in line with Abiogu, (2016), who was of the opinion that Vocational and Technical Education students have acquired entrepreneurial skills required for self-employment and youth empowerment. Those students whose families are financially handicapped and those that are financially buoyant are able to start and run an enterprise because they possess the required skills (Ezeobele, 2006). With the possession of these skills, families can survive in a country that is passing through economic recession. Entrepreneurial skills must be acquired irrespective of their financial status else, they may not be able to manage the money well. Those that possess these skills can manage any amount of money they have and be successful (Awogbenle & Iwuamadu, 2010). Nigeria is currently experiencing problems of unemployment and rural urban migration. These have been compounded by high turnout of school leavers and university graduates every year without employment (Akpa, 2007). This situation made it necessary and important that everyone should make efforts towards the acquisition of entrepreneurial skills in order to be self-employed or be gainfully employed.

This study further discovered that VTE students can apply entrepreneurial skills acquired to a high extent. The following discoveries were also made: VTE students can apply the following skills: creativity skill, communication skill, negotiation skills, leadership skill, managerial skill, innovative skill, planning skill, marketing skill, evaluation skill, productivity skill, organizing skill, ingenuity skill, originality skill, cleverness skill, initiative skill, inventiveness skill, resourcefulness skill, endurance skill, risk taking skill, honesty skill, Personal skill, resilience skill, focus skill, long-term investment skill, learning skill, self-reflection skill, self-reliance skill and recognition skill. This is in line with (UNESCO, 2012), that from a global perspective, social and economic developments are increasingly driven by the advancement and application of knowledge and skills acquired. The

knowledge and skills can only be acquired through quality vocational and technical education programmes (Egbule, 2012). The youths should be trained to acquire and apply knowledge, skills, and aptitudes necessary for preserving and defending the basic institutions and values of the society for sustainable development (Obioma, 2011). It also involves the more effective use of knowledge, skills and creativity in all manner of economic activity (Obioma, 2011).

This study also revealed that VTE students encounter challenges in the acquisition of entrepreneurial skills to a high extent. These challenges are as listed below: economic pressure from parents, ability to raise money, inadequate equipment and technology, education, ability to make entrepreneur friends, ability to identify strengths and weaknesses, ability to connect via social networking, ability to spot new trends, ability to deal with failure, ability to improve their world, research and linkages. These findings are in line with Sanusi, (2012), who pointed out that the task of providing an effective education for children and youths which will prepare them for participation in the workplace and for community development has remained a challenge for school systems, especially for developing countries. The world economic recession, as evidenced in job losses, unemployment, decreasing industrial capacity utilization, poverty, dilapidating infrastructure, low productivity at work places and pervading threats of social insecurity, makes it mandatory that nations should re-tool their development strategies for sustainable development (Ezeobele, 2006). In Nigeria today, the large army of unemployed youths, mainly due to lack of vocational and technical skills, has resulted in frightening state of national and community insecurity (Egbule, 2012).

This study further revealed that VTE students encounter challenges in the application of entrepreneurial skills to a high extent. These challenges are as listed below: ability to manage money, finance, ability to relieve stress, ability to be productive, entrepreneurial attitude, inadequate infrastructural facilities, cultural barriers, enabling environment, ability to create and build something from nothing, ability of having a vision matched with focus and determination of building an enterprise, skill for seeing an opportunity where others failed, ability to build a working team to complement your own talents and efforts, ability to aggregate, marshal and control resources judiciously, willingness and ability of innovativeness and creativity, willingness to undertake personal and financial risks and ability to engage in activities despite all odds. These findings are in line with Akpa, (2007), who pointed out that entrepreneurship is critical to the development of societies. Entrepreneurs however, cannot work in isolation; they need the right environment to thrive. The judicial system, the educational system, the financial system and general government policies should be such that

encourage and promote entrepreneurship (Gana, 2010). Basic infrastructures such as power, water, and transport systems are necessary to boost entrepreneurship. The cost of equipment is quite high and not affordable by most Nigerians especially young graduates (Lemchi, 2012). This makes for difficulty in development of entrepreneurship as technology is closely related to entrepreneurship. It therefore calls for a need for the provision of affordable technologies (Nwangwu, 2006).

Conclusion

On the basis of the findings, the following conclusions were made: VTE students have acquired entrepreneurial skills to a high extent. VTE students can apply entrepreneurial skills acquired to a high extent. VTE students encounter challenges in the acquisition of entrepreneurial skills such as economic pressure from parents, ability to raise money, inadequate equipment and technology, education, ability to make entrepreneur friends, ability to identify strengths and weaknesses and among others. VTE students also encounter challenges in the application of entrepreneurial skills such as ability to manage money, finance, ability to relieve stress, ability to be productive, entrepreneurial attitude, inadequate infrastructural facilities, cultural barriers, enabling environment, ability to create and build something from nothing, and among others. In other words, Vocational and Technical Education students' are able to acquire and apply entrepreneurial skills required for self-employment to a high extent in Enugu State, in spite of the challenges facing them.

Recommendations

Based on the findings, the following recommendations were made:

- The Federal Ministry of Youth Development should create a conducive and enabling environment to encourage the youths by providing basic infrastructures/facilities that will enable one, irrespective of his/her financial status, acquire and apply entrepreneurial knowledge and skills.
- Vocational and Technical Education should be able to build in students the ability to withstand the challenges ahead.
- Vocational and Technical Education students should be equipped with the ability to apply all the knowledge and skills acquired for economic sustainability and growth.

References

Abiogu, G. C. (2016). Entrepreneurship education and employment creation in Nigeria: A philosophical analysis. *Journal of Home Economics Research Association*. 9, 19-26

Akpa, A. (2007), "Challenges of the Nigerian entrepreneur in the twenty first century". *A paper presented at the maiden Annual College of Management Sciences Seminar, University of Mkar. 4(2), 13-19*

Awogbenle, A. C. & Iwuamadu, K. C. (2010). *Youth Unemployment: Entrepreneurship Development Programme as an Intervention Mechanism.* Ogun

State: Africa Leaership Forum (ALF) Pub

Egbule, P. E. (2012). The Centrality of Vocational and Technical Education in a Poor and Skills-Short Economy. *NVAJ, 17(2), 2*

Edafe, F. N. U. (2008). Business Needed for Improved Entrepreneurship. *Journal of Vocational Education (JOVE) 3, 2*

Ezeobele, C. C. (2006). Appropriate Skills Needed for Improved Entrepreneurship. *Journal of Home Economics Research, 7, 3,* (special edition) HERAN

Federal Republic of Nigeria (2004). *National Policy on Education (4th ed.).* Lagos: Federal Government Press.

Federal Republic of Nigeria (2013). *National Policy on Education (4th ed.)* Lagos. NERDC Press

Gana, J. S. S. (2010). *Entrepreneurship.* Kaduna: Jofegan Associates

Government of Nigeria. (2009). *Second National Youth Policy Document of the Federal Republic of Nigeria 2009.* Retrieved from http://www.youthpolicy.org/ national/Nigeria_2009_National_Youth _Policy.pdf

Lemchi, S. N. (2012). Home Economics, entrepreneurial development and poverty alleviation in Nigeria. In Anyakoha, E. U. (ed), *Research Issues in Home Economics, 5, 215-221.*

Nwangwu I. O. (2006) *Fundamentals of entrepreneurship in educational management.* Enugu: Cheston Agency Ltd.

Nworgu, B. G. (2006). *Educational Research, basic issues and methodology*. Enugu: University Trust Publishers

Obioma, G. (2011). "IT Deployment as a Tool for Rapid Transformation of Education and Capacity Building". *A Paper Presented at the Interactive Session on Education and Capacity Building at the 2011 Professional Assembly*. June, 30th

Onuka, A. U. (2007). Entrepreneurship Skills Required for Economic Empowerment of Youths in Broiler Production. *Home Economics Research Journal, 8(25), 3-7*

Osalor, P. (2015). *Vocation & Technical Education – Key to improving Nigeria's development.* Nsukka: University Trust Publishers

Oyedokun, T. (2013). *Entrepreneurship Structure and Practice*. Ibadan: Aseda Publishers

Sanusi, L. (2012). *Why Unemployment will increase*. The Vanguard, p.12

Soba, B. M. (2006). Economic Development and the Challenges of Industrialization in Nigeria. *International Journal of Economic and Development Issues. 5(1&2), 10-16*

UNESCO (2012). *Technical and Vocational Education and Training for the Twenty-First Century*: UNESCO and ILO Recommendations.

Wapmuk, L. S. (2011). "*Education and Self-Reliance in 21st Century Nigeria*". A Keynote Address at the Conference Organized by Academic Forum of the Federal College of Education, Pankshin, 8th June.

Yusuf, M.O. (2005). Information and communication education: Analyzing the Nigerian national policy for information technology. *International Education Journal 6(3), 316-321.*

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Environmental Conditions Necessary for Effective Peer Tutoring among Clothing and Textiles Students in Senior Secondary Schools in Onitsha Education Zone of Anambra State of Nigeria

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Abstract

This study focused on environmental conditions necessary for effective peer tutoring among clothing and textiles students in senior secondary schools in Anambra state. The study was guided by four research questions. The study was a correlational research design. The population of the study is two hundred and forty (240) respondents. There was no sample for the study because of manageable number was used. Structured questionnaire was used to collect data. The findings indicated that laboratory facilities, conducive classroom, among others are space related conditions that can influence peer tutoring. The study also has facilities related conditions like ICT and library, adequate electricity, adequate cutting tables and others. Based on these findings, it was recommended that Federal Ministry of Education should provide clothing and textiles materials at senior secondary school for better performance. Text books and other learning materials should be made available for improved learning.

Key words: Environmental conditions, peer tutoring, Academic performance, Clothing and textiles.

Introduction

Clothing and Textiles is an aspect of Home Economics which students are expected to study at the senior secondary school level of education. It deals with relevance and construction of clothing and textiles in the contemporary society as well as managing human clothing resources for the benefit of individuals and families (Duku, 2014; Osei, 2015). Clothing and textiles in school curriculum provided students with an apprenticeship in clothing, textiles and fashion, which it properly carried out will ensure provision of skills for self-employment and income earnings by graduates. This is an advantage to the gross domestic earnings of the Nigeria nation. To reap the benefits of clothing and textiles in school curriculum, the students are expected to learn in a conducive school environment. The school environment refers to factors within the school that

influence the teaching learning process. It includes classroom, library, technical workshop, teachers quality, teaching methods and peers (Annt & Nyhus, 2016).

Peer refers to one that is of equal standing with other, one belonging to the same societal group especially based on age, grade or status. Rubin (2008) described a peer as a friend, cohort, contemporary or one who is equal with, another in some other aspects. In the same vein, Rubin (2008) also described tutoring as an attempt to assist a person in changing some skills, knowledge, ideals and altitudes. Maheady, Mattette and Harper (2006), described tutoring as an informational activity which affords recipients access to information and knowledge from a more knowledgeable person. Peer tutoring is an information or instructional activity which affords recipients access to information and knowledge from a more knowledgeable person. It is an interactive classmates/friends, contemporaries or colleagues. This is beneficial because it enables students to gain from both the preparation and the instruction in which peers engage in and from the instructions that tutee receive (Egbochukwu & Obinnu, 2006). Peer tutoring is both proactive and collaborative, helping students acquire the attitudes necessary for successful mastery of normal development tasks (Salintrini 2005; & Rubin, 2008). Students in a group are paired for peer tutoring. They take turns to teach in their group. It can lead to social and academic development. Positive outcomes are increased and social growth. According to Sluijsmans and Prins (2006) peer tutoring is a supportive service that helps the individuals to clear away the entangling and hampering tentacles so that he can be what he really is and contribute more both to self and his fellows. The interactions transform tutoring from a private to a social activity by involving the tutee in the responsibility for their own learning development and that of others. Obunadike, (2012) stated that peer tutoring is effective at increasing students achievement at various educational levels. Peer tutoring has been used to improve children's word recognition and written capitalization. Peer tutoring promotes metacognition in which students achieve higher levels of thinking at a quicker rate than they might if they worked independently (Nazzal, 2002).

There is improved use of instructional time among students. Students make friends among themselves. In peer tutoring, students depend on each other to learn academic material while enhancing their social skills. Egbochuku and Obmnli (2006) noted that students when they work in team accompanying the academic goal, and it produces a cooperative spirit. Cooperative reward structures are used as incentives to encourage the students to learn the materials.

The students of peer tutoring can be traced back to parental educational background and age on a variety of academic, social and labor market outcomes (Zapala, 2002). Chang (2005) pointed out that the peer influences suggest that most male peers act as important role models, who are seen as

powerful means of transmitting attitudes, values, norms and patterns of thought and behavior. Egbochuku and Obiunu (2006) indicated that male and female peers are important in determining students' behaviors particularly those related to school achievement. Zimmer and Toma (2000) reported that positive influences of peers from high socio-economic status are at least for some students. The most common perspective according to them is that peers, from families with high socio-economic status, are sources of motivation, aspirations and direct interactions for those with low socio-economic status in learning.

In peer tutoring, children reconstruct their understanding of the world in a social manner through collaboration process with their peers. The equality of the relationship between the children when in a collective group, and the motivation of children to collaborate based on their shared understandings. (Obunadike, 2011). Peer tutoring provides instruction, evaluation and reinforcement to one another, thus, creating mutual assistance and social support among students. In tutoring procedure, students assembled in groups of two or more are trained to teach one another. Students work together to prompt, monitor and evaluate each other, while working towards group goals. Students alternate between the roles of tutors and tutees in groups of two or not more than six. Students work together in their groups to achieve established goals or rewards that are contingent upon group performance. In this process, students function as both tutor and tutee. Students engage in three aspects of interaction *taking responsibility for actions; reflecting on knowledge; developing structured knowledge.* Rubin (2008) elaborated knowledge by stating that when students prepare to be peer tutors, they take responsibility for knowledge because they will soon be communicating it one another.

Students must monitor their tutee's attitudes and behaviors, becoming more aware of problems skills and identifying gaps in their own altitudes and behavior. In peer tutoring, students ask questions and receive explanations heading them to better structure their knowledge, attitude and behavior. Research has it that peer tutoring indicates its effectiveness in improving both tutees' and tutors' academic and social development. It lowers the incidence of misbehavior in classrooms. It is being used increasingly across various disciplines to help engage students in their own learning process. Class-wide peer tutoring for example provides an individual instruction simultaneously regardless of the group size which will save a great amount of valuables classroom time. Ololube (2006) conclude that teacher management of homework and assignment given to students have an impact on student achievement, especially when it is well explained, motivated, corrected and reviewed during class time and used as an occasion for feedback to students.

In the face of this apparent gap, there is need to investigate Environmental conditions necessary for effective peer tutoring in teaching

clothing and textiles in senior secondary school in Onitsha zone.

Purpose of the study: The purpose of this study was to explore environmental conditions necessary for effective peer tutoring among clothing and textiles students in senior secondary schools in Onitsha Zone. Specifically, the study determined:

(a) space related conditions necessary for peer tutoring.
(b) facilities related conditions necessary for effective peer tutoring
(c) student-student relationship related conditions necessary for effective peer tutoring
(d) teacher-student relationship related conditions necessary for effective peer tutoring

Research Questions

Four research questions are raised for the study:

(a) What are the space related conditions necessary for peer tutoring
(b) How do facilities related conditions necessary for peer tutoring
(c) To what extent does student-student relationship related conditions necessary for peer tutoring
(d) How does the teacher-student relationship related conditions necessary for peer tutoring.

Methodology

***Design of the study*:** The study used a correlated research design. Correlational research design attempts to determine whether and to what degree, a relationship exists between two or more quantifiable variables (Waters, 2009).

***Area of the study*:** The area of the study was Onitsha Zone, Anambra state. It is made up of three L.G.A namely Onitsha North LGA, Onitsha South LGA and Ogbaru LGA**.** In Onitsha Education Zone, there are urban schools, semi urban school and rural schools. There are communities in nine local government areas of Anambra state (Federal Office of Statistics, 2014).

***Population of the study*:** The target population of the study comprised clothing and textiles students and teachers teaching in the selected schools. There were 222 SS 2 students and 18 teachers making a total population of 240. Students: Onitsha zone 82, Onitsha south 74 and Ogbaru 66. Teachers: Onitsha North 8, Onitsha south 6 and Ogbaru 4. Clothing and textiles students of SS 2 were used for the study. They have both maturity level and experience at school and home. As a consequence, this group of students were in a better position to provide valuable information concerning the topic under investigation.

***Sample and sampling techniques*:** The sample that was used for the study comprised 222 clothing and textiles students and 18 clothing and textiles teachers which amounted to a total sample of 240 students and teachers. Because of the manageable number, there was no sampling. They were purposively selected because only those with adequate clothing and textiles background were used.

***Instrument for data collection*:** The study used questionnaire as a tool for collection of data. The questionnaire was peer tutoring titled "Environmental conditions necessary for peer tutoring among clothing and textiles students" (ECNFPTCTS) was used by the researcher. It is divided into two sections. Section A is on personal ground of the respondents while section B is in clusters A, B, C and D. Cluster A is on space related conditions while cluster B is on facilities related conditions. The cluster C is on student-student relationship related conditions while cluster D is on teacher-student relationship related conditions necessary for peer tutoring. The response pattern is a four point scale. The face validity of the instrument was done by two experts in Home Economics and one in Measurement and Evaluation all in MOUAU. The reliability of the instrument was estimated using the Pearson Product Moment Correlation. The instrument yielded reliability index of 0.76 which is reliable.

Method of data collection: The copies of the instrument were distributed by the researcher and two research assistants to the respondents. A total of 240 copies of the questionnaire were distributed but 238 copies were retrieved.

***Method of Data Analysis*:** Data were analyzed using mean and standard Deviation. A mean of 2.50 was used as a cut-off point for decision making for each item. Thus, any item with a mean of 2.50 and above was considered as accepted response while any with a mean below 2.50 was considered an unacceptable response.

Results and discussion

Research Question 1: What are space related condition necessary for peer tutoring?

Table 1: Mean rating of space related condition necessary for peer tutoring.

S/N	Space related conditions	Mean	SD	Decision
1.	Laboratory space should be adequate	3.26	0.72	Agree
2.	Adequate classroom space	2.80	9.84	Agree
3.	Conducive classroom for peer tutoring	3.41	0.76	Agree
4.	Classroom should be airy and ventilated	3.34	0.80	Agree
5.	Adequate facilities for practicals	3.38	0.75	Agree
6.	Adequate classroom space	2.85	0.98	Agree

Table 1 revealed that items 1-6 were agreed upon by respondents as space related conditions necessary for peer tutoring.

Research Questions 2: How does the facilities related conditions necessary for peer tutoring?

Table 2: Mean rating of the respondents of facilities related conditions necessary for peer tutoring

S/N	Facilities related conditions	Mean	SD	Decision
1.	ICT and library facilities	3.30	0.80	Agree
2.	Instructional materials	3.14	0.90	Agree
3.	Height of working tables should be adequate	3.02	1.18	Agree
4.	Height of ironing board should be adequate	3.13	0.79	Agree
5.	Adequate cutting tables	2.85	0.98	Agree
6.	Adequate ironing content	3.29	0.99	Agree
7.	Adequate ironing board	3.38	0.75	Agree
8	Adequate electricity (Light)	3.34	0.80	Agree
9.	Socket being properly fixed	1.85	0.56	Disagree
10.	Centre for tie and dye	3.03	1.19	Agree

Table 2 revealed ten items for facilities related conditions necessary for peer tutoring. Among the ten items only item nine was considered void. Items 1,2,3,4,5,6,8 and ten were agreed upon.

Research Question 3: To what extent does student-student relationship related conditions necessary for peer tutoring?

Table 3: Mean rating of related conditions necessary for peer tutoring.

S/N	Student-student related conditions	Mean	SD	Decision
1.	Students previous knowledge in clothing and textiles	3.02	0.98	Agree
2.	Their interest in clothing and textiles	3.26	0.72	Agree
3.	Students patience	3.29	0.99	Agree
4.	Self-motivation	3.14	0.90	Agree
5.	Hard work	3.30	0.80	Agree
6.	Sharing of experiences	3.34	0.80	Agree
7.	Cooperative spirit among peers	3.34	0.80	Agree
7.	Social skills	2.28	.073	Agree
8.	Creativity	3.01	0.9y6	Agree
9.	Carefulness	2.80	0.83	Agree

The nine items presented in table 3 in students related conditions necessary for peer tutoring were agreed upon.

Research Question 4: How does teacher-student relationship related conditions necessary for peer tutoring?

Table 4: Mean rating for teacher-student relationship necessary for peer tutoring

S/N	Teacher students relationship necessary for peer tutoring	Mean	SD	Decision
1.	Teachers guidance	3.36	0.72	Agree
2.	Helping students	2.80	0.84	Agree
3.	Monitoring students	3.34	0.81	Agree
4.	Encouraging them	3.38	0.75	Agree
5.	Giving and marking assignments	3.06	0.96	Agree
6.	Proper grouping of students for peer teaching	3.15	0.88	Agree
7.	Provision of facilities	2.28	0.73	Agree
8.	Reinforcement for good performance	3.26	0.82	Agree
9.	Detecting anomalies	3.17	0.86	Agree
10.	Financial support from administration	2.28	0.73	Agree
11.	Students having genuine interest	3.15	0.80	Agree

Table 4 revealed eleven items as Teacher-students relationship necessary for peer tutoring. None of the eleven items were disagreed upon. The students and teachers were in support of the idea listed above.

Discussion of Results

The findings of the study in table 1 showed the level of agreement with the space related conditions necessary for peer tutoring. All the six items were recorded to be significant. These findings support the earlier findings of Onasanya (2010) on the need to allow space related conditions for example ICT and library facilities and other instructional facilities that necessitate peer tutoring. This is in agreement with Adewale (2013) who said that provision of facilities for practical work can enhance students academic achievement. This study also investigated if students have adequate classroom space. It is expected that students who were given required and adequate classroom and airy space have a high academic performance.

The results as shown 2 showed the facilities related conditions and how it is necessary for peer tutoring. The question was posed to examine how adequate instructional materials affects the academic performance of students of clothing and textiles. Items 1-10 of the questionnaire for clothing and textiles students were developed to answer this research question. Majority of the students were of the view that the availability of ICT and library facilities could help to improve the academic performance of students of clothing and textiles. In support of this recent findings, Osei (2015) found that adequate and regular electricity correlate with students performance. With the presence of such facilities, the students can resort to them in order to make further research on clothing and textiles.

Table 3 showed the level of agreement with the factors that could make clothing and textiles teachers and

students effective in the classroom. All the 10 items were recorded significant. School environment is focused on student-student related conditions necessary for peer tutoring.

The present study confirms the previous finding of earlier researchers (Cebulla, 2000; Yara, 2011) that the presence of students academic abilities, especially the previous knowledge, interest, creativity, co-operative spirit, social skills influence peer tutoring.

The result further reveal that teacher- student relationship related factors can influence environmental conditions necessary for peer tutoring. This is consistent with observations of Yara and Obunadike (2012) which implies that giving assignment, monitoring students, giving and marking assignment, dictating anomalies and others are accepted factors that explain for the level of students and teachers performance in clothing and textiles. Furthermore, this is in agreement with Adeyemi (2013) who advocates that provision of facilities, reward of good work, helping students, among others must have influence on the academic performance of students in clothing and textiles.

Recommendation

The following recommendations have been made regarding the results of the study and their pedagogical implications on teaching clothing and textiles at senior secondary school level.

- Federal ministry of Education should adequately provide all senior schools that offer clothing and textiles with necessary clothing and textiles equipment and other instructional materials.
- Learning materials such as recommended text books, chalkboards and its accessories, among others should be provided to schools to aid the efforts of both students and teachers in the teaching of clothing and textiles.
- To have a sustained improved academic performance among clothing and textiles students, the government, parent/guardian associations, school management committees should pool resources together in order to provide senior secondary schools with ultra modern residential facilities.

Conclusion

Environmental conditions have a very strong relationship with students academic performance. The teachers through their specific roles either have negative or positive influence on students academic performance. Therefore, the teachers should enhance an environment conducive learning in which the leaners are free to consult them when in need, provide adequate learning facilities and arouse interest in the learners to work hard.

The study established that home and school environment exert potent influence on students academic performance. These factors directly and indirectly pointed to areas that have to be addressed in order to promote good academic performance. Peer level

factors also have a relationship with peer tutoring. Students whose friends engage in negative activities such as sneaking out of school and being absent from school chronically are likely to have lower peer tutoring.

References

Adesoji, F.A. (2009). Student, teacher and school Environmental factors determinants achievement in senior secondary school chemistry in Oyo state, Nigeria, *Journal of International Social Research, 1(2)*, 13-34.

Adewale, J. O. (2004). Ensuring effective mathematics instruction for secondary students with learning difficulties at the states extend. In issues in measurement and Evaluation in Niger chapter 13,127-148.

Adeyemi, B (2010). Teacher related factors as correlates of pupil achievement in social studies in south west Nigeria. *Electronic journal of research in Educational psychology*, 8(1) 313-332.

Afe, J.O. (2001). Reflection on becoming a Teacher and the challenges of teacher Education. Inaugural lecture series 64 Benin city: University of Benin, Nigeria.

Akin, A. A. & Ugbomgbo, N. M. (2008). An Examination of genders influence on teachers productivity in secondary schools/ social science. 17(3): 185-191. International Journal of Education and Research, 1 (3), 11.

Arnt O. H. & Ole, H. N (2016).Learning environment and student effort. *International Journal of Educational Management, 30(2),* 271 -286.

Bali, V. (2013). Schools and Educational outcomes: what causes the race gap in student test scores? Social science quarterly, 84 (3), 485-508.

Barry, J. (2005). The effect of socio-economic status on academic achievement: spring, Wichita, K.S.:Wichita state university.

Cebula, O. O. (2000). The middle years numeracy research project. 5.4 final Report Bundora Vic: RMIT university.

Crosnoe, R. (2014). School size and interpersonal side of education: an examination of race ethnicity and organizational context. Social science Quarterly, 8 (5), 1259 -1274.

Eamon, M.K. (2015). Socio-demographic, school neighborhood, and parenting influence on academic achievement of latino young achelescent, 34 (20), 163-175.

Egbo, H. (2008). *Effects of Lecture versus demonstration method of teaching on students' clothing skill in colleges of education, Delta state.* Unpublished master's degree thesis, Delta State University Abraka.

Hoy, W.R. & Tarter, C. J. (2000). Open schools/healthy schools. Measuring organizational climate. Beverly Hilla, C.A. Corwin press.

Masden, K. C. (2015). The effective teaching of chemistry. A review of research school leadership and management 6(3), 273-288.

Obunadike, J.C. (2012). Effects of reciprocal peer tutoring approach and lecture method on students acquisition of clothing and textiles competencies. International Journal of Educational Research and Development (IJERD) 4(1) 219-225.

Osei, P. C. (2015). Principles and standards for school mathematics. Reston, Virginia: NCTM.

Patrick, C.I. (2015). Mathematics for Recognition and Relevance: 20015 inaugural lecture.

Rubin, J. (2008). Peer Mentoring in a Freshman Developmental

Learning Strategies Classroom. *Ed.D dissertation,* Tennessee State University, Nashville, TN.

Sanders, O.A. (2017). Organizational Behaviour in Education. Adaptive leadership and school Reform, (8th Ed) Boston: Pearson Education.

Thomas, V. (2014). Gender and environmental education in Nigerian http://www.ccscnet.org/ass secondary school presented at STAN National workshop, Zamfara June 2015.

Yala, P.O. (2011). School facilities and academic achievement of secondary school Agricultural science in Ekiti state, Nigeria. Retrieved Dec. 5 from www.ccscnet.org/ass.

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Challenges of Retirees in Aboh Mbaise Local Government Area of Imo State

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Abstract

This study investigated the challenges of retirement on parents in Aboh Mbaise L.G.A. of Imo State. Specifically it identified challenges retirees face and strategies for coping with those challenges. The population of the study was 1,121 registered retirees as the sample of the study was 375 retirees which comprised 200 male retirees and 175 female retirees from Fifteen (15) communities selected out of the thirty (33) communities. The instrument for data collection was a questionnaire. Data was analysed using the mean. Findings reveal 25 challenges confronting the retirees including; insufficient financial, resources, problem of securing residential accommodation, poor social-economic status, difficult health and challenges of declining health and domestic violence. Other findings are 15 coping strategies which include learning a moderate life style, involvement in religious activities and socialization. Based on the findings the study concludes that Government should ensure that retirees are incorporated in the health insurances, pensions and gratuity should always be paid as and when due and that adequate housing scheme are provided for the workers while they are still in active service.

Keywords: Challenges, Retirees, Retirement

Introduction

The sustainability of economic development of any nation could be dependent on that nation's labour force. Labour force is that group of able bodied men and women who are in the age range of those who are qualified to work and can contribute significantly on the nations economic development of the nation. To this extent Ola(2017), defined labor force simply as the people who are willing and able to work. However in studying labour force, it is of importance to identify the labor force participation rate. Labour force participation rate is defined as the

section of working population in the age group of 16-65 in the economy currently employed or seeking employment. Thus labour force as the percentage of the total population over the minimum working age is called labor force participation rate (Yunusa, 2010).

To this extent, the age an individual is capable of been employed in the Nigeria workforce at the first instance is the age of 16 and probably retire at the age of 65 or having attained the required maximum 35 years of service(Yunusa). In Nigeria, statutory retirement age in the public service is fixed at sixty (60) years or thirty five (35) years of unbroken active working service before retirement. However, the retirement age harmonization act of 2012 puts the retirement age of judicial officers and academic staff of tertiary institutions at 70 and 65 years respectively because of the belief that the "older , the wiser " in those sectors. Thus to every beginning there is always an end and the end in the workforce is retirement from service.

Retirement has been defined as a state of being withdrawn from business, public life or active service. Retirement according to Abubakar (2013) is the point where an individual ceases from being employed completely. Mboto (2004), viewed retirement as ending participation in workforce, usually due to age. Selnow (2003) defined retirement as the act of retiring from ones job. Thus, it can be said to be the concluding stage of the occupational cycle which is experienced by individuals who are employed. Retirement is a transition from active working life to non-active working life of the individual. According to the industrial training fund, centre for excellence (2004), retirement is a real transition. In Nigeria, retirement exists in three forms which are the voluntary retirement, compulsory retirement and mandatory retirement (Ogunbameru, 2004). These three forms of retirement involve emotional, psychological, as well as financial challenges. Thus, workers have to prepare well ahead of time. hence it is one of the greatest challenges that face typical employees in Nigeria throughout their working life is life after retirement. This is because retirement often comes with the reduced income and sometimes at a time when one's monthly expenditure is far in excess of what is received in wages (Kwesi & Aggrey, 2012).

Retirement is typically associated with attendant stress for the average employee especially in a country like Nigeria with austere economic policies, as this is one of the challenges confronting the retirees. The other challenges the retirees do face in Nigeria include; (i) insufficient financial resources; (ii) problem of securing residential accommodation; (iii) the challenge of a new and low social status; (iv) difficult health and challenges of declining health (v) Domestic Violence(Kolawole & Mullum, 2004).

However, these challenges faced by retirees if not properly addressed will pose a threat to the post work experience of retirees. To this extent,

some management strategies that could be adopted in coping with the challenges do include learning a moderate life style, involvement in religious activities and socialization (Abubakar, 2013). Learning a moderate life style is one of the strategies that have been advocated to help the Nigerian workers cope with the post life working experience. This entails adjusting their way of living to the post working era which is line with their present financial status.Involvement in religious activities is another factor that can aid the retirees in coping with the challenges of the post work era, thus the retirees dedicating more time to religious activities will help them to be engaged in meaningful venture which will help them to adjust to the post work era(Oparanma,2011).

Socialization, a long term process through which an individual learns through interaction, norms, values and adjustment patterns, is life time. This is achieved through the process of meaningful interaction among social beings, through which the psychological and social needs are met. Retirees, who participated in this study, identified socializing with others, as measures for the management of stress occasioned by disengagement from work (Abubakar, 2013).

During retirement, a worker is expected to quit from doing a particular work for which he/she has been known over 30 years which implies that the service of the individual is no longer requires and as such is expected to rest after putting so much number of years in the service. The compensation of this is usually the monthly pension in which the retirees is placed on. However, in most of the sub-saharan African Countries like Nigeria, where retirees are not getting satisfied with life of the post work era and always wish never to have retiree from service and always create anxiety of improvished life style of those preparing to retiree from services.

This resultant effect of this has made those in active service to be scared of retiring, thus making some of them to falsify their age or elongate their service years. Consequently, most workers close to age of retirement exercise a lot of fears of the unknown after retirement. Real life experiences have shown that pensioners often face some challenges after retirement that have consequential effects on the socio-economic and physiological well-being. It is against this background that the present investigated the challenges faced by the retirees in Aboh Mbaise L.G.A, Imo State and the coping strategies to the challenges faced by retirees in Aboh Mbaise L.G.A Imo State.

Objectives of the Study

The major purpose of this study was to examine the challenges faced by retirees who are parents in Aboh Mbaise L.G.A of Imo State. Specifically the study;

1. Identified challenges retirees face in Aboh Mbaise L.G.A of Imo State.
2. Determined the strategies the retirees require for coping with their challenges.

Research Questions

The following research questions were posed for the study.

1. What are the challenges retirees face in Aboh Mbaise L.G.A of Imo State?
2. What are the strategies the retirees require for coping with their challenges in Aboh Mbaise L.G.A of Imo State?

Methodology

***Design of the Study*:** The study adopted a descriptive survey design The descriptive research design is aimed at collecting data on, and describing, in a systematic manner, the characteristics, features or facts about a given population (Nworgu, 2006). The survey design was used because; the data was collected from the sample to show retired parents perception on challenges of retirement in Aboh Mbaise L.G.A of Imo State.

***Area of the Study*:** The area of the study was Aboh Mbaise WA of Imo State in Nigeria. It is one of the twenty-seven (27) LGA that made up the state. The indigenes are predominantly farmers and civil servants. Aboh-mbaise L.G.A. is made up of thirty (33) autonomous communities. It has a population of 194,779 comprising of 98,230 males and 96,299 females (Federal Republic of Nigeria Official Gazette, 2009). ,

***Population for the Study*:** The population of the study was 1121 retirees spread across thirty (30) autonomous communities that made up the L.GA. The retirees comprised 687 male retirees and 578 female retirees. These retirees are male and female workers whose age ranged from 55 and above. They were former employees of the Federal Government, state government or local government who were registered with Aboh Mbaise Welfare Association in Aboh Mbaise Local Government. Area.(June, 2017).

Sample for the Study: The sample of the study was 375 retirees. These comprised 200 male retirees and 175 female retirees from a sample of 15 communities out of the thirty (33) communities. A multistage sampling technique was adopted for the study. The first stage involved the selection of 15 communities from the thirty communities using the simple random sampling techniques. The second stage sampling technique involved the sampling of all the female and male retires in the 15 communities selected for the study using the simple randam sampling technique.

***Instrument for Data Collection*:** A structured questionnaire was developed tagged "Challenges Faced by Retirees Questionnaire (CFRQ)". The questionnaire consisted of 40 (forty) items which comprised 25 items addressing objective one and 15 items addressing objective two. The instrument was structured on a four (4) point rating scale of Strongly Agree (SA)=4, Agree (A)=3, Disagree (D)=2 and Strongly Disagree (SD)=1. After the construction of the instrument, it was face validated by three lecturers from Michael Okpara University of Agriculture Umudike (MOUAU), Abia State. Two lecturers coming from the Department of Home Science Education

and one from Educational Measurement and Evaluation respectively. Based on their comments some corrections were made on the instrument for the final draft copy. The reliability of the instrument was trial tested on 20 retirees who were not involved in the main study. the result was used to determine the reliability of the instrument using cronbach alpha technique. A reliability index of 0.78 was established. These values were considered high enough, thus indicating that the instrument was adequate and reliable for the study.

***Data Collection and Analysis Techniques*:** A total of 375 copies of instrument were administered by hand to the respondents. All was collected two days after administration of the questionnaire resulting to 100 percent. The data collected for the study was analyzed using mean. Any mean score of 2.5 and above was regarded as "Agree", while any mean score below 2.5 was regarded as "Disagree".

Findings of the Study

Table 1: Mean Responses on Challenges Retirees Face in Aboh Mbaise L.G.A of Imo State.

S/N	Challenges of Retirees	Mean Responses $\overline{X}m$	$\overline{X}f$	$\overline{X}g$	Decision
	Financial Challenges				
1	Irregular payment of pensions	3.93	3.81	3.87	Agreed
2	Delay of payment of gratuity	2.72	2.76	2.74	Agreed
3	Owing of pension arrears	2.70	2.68	2.69	Agreed
4	Lack of savings before retirement	3.20	3.14	3.17	Agreed
5	Lack of social interventions for retirees	3.66	3.58	3.62	Agreed
	Accommodation challenges				
6.	Lack of good accommodation	3.29	3.21	3.25	Agreed
7.	Poorly furnished homes	2.94	2.98	2.96	Agreed
8.	Lack of personal incomes	2.80	2.94	2.87	Agreed
9.	Eviction from staff quarters	2.97	3.05	3.01	Agreed
10.	Fear of relocating to the villages	2.73	2.79	2.76	Agreed
	Socio emotional and cultural challenges				
11.	Stigmatization of been addressed as retiree	3.12	3.18	3.15	Agreed
12.	fear of becoming irrelevant in social gathering	3.18	3.24	3.21	Agreed
13.	Fear of losing their position to those in service in social gathering	2.95	3.01	2.98	Agreed
14.	Fear of not attending societal functions	3.05	3.09	3.07	Agreed
15.	Fear of not involving in cultural activities such as new yam festival	2.85	2.97	2.91	Agreed
	Health Challenges				
16.	Experience high blood pressure	3.16	3.26	3.21	Agreed
17.	They may begin to experience visual	2.60	3.00	2.65	Agreed
18.	impairment	2.73	2.81	2.77	Agreed

19.	Inability to get quality health care services	2.88	3.20	3.00	Agreed
20.	Lack of health insurance scheme during the post work era	2.87	2.79	2.83	Agreed
	Sudden death of retirees.				
21.	**Challenges of Domestic Violence**	2.69	2.73	2.71	Agreed
22.	Frequent quarrels with spouse	2.85	2.89	2.87	Agreed
23.	Frequent fight with family members	2.69	2.77	2.73	Agreed
24.	Frequent agitation with neighbours	2. 65	2.63	2.64	Agreed
25	Fight and quarrels with children	2.70	2.74	2.72	Agreed
	Always in disagreement with people in the society				

NOTE: *Xm* = Mean male,*Xf*,= Mean female , *Xg* = Grand Mean, N1= Number of male retirees Secondary(200), N2= Number of female retirees(175).

Table 2 shows each of the 25 problems associated with parents' retirement in Aboh Mbaise of Imo State has mean scores of 2.50 and above. This means that retired parents agreed in all the problems.

Table 2: Mean responses of retirees on strategies required for coping with retirement challenges.

S/N	Coping Strategies	Mean Responses $\overline{Xm}$	$\overline{Xf}$	$\overline{Xg}$	Decision
	Socialisation				
1	Engaging in social activities in age grade, august meeting	3.12	3.22	3.17	Agreed
2	Getting involved in charity works	2.84	2.92	2.88	Agreed
3	Making friends with the less privilege	2.88	2.94	2.91	Agreed
4	Taking active positions in social organisation	3.03	3.07	3.05	Agreed
5	Organising seminar outreach for the aging in the society	3.17	3.25	3.21	Agreed
	Life style related strategies				
6.	Learning a skill before retirement	3.09	3.13	3.11	Agreed
7.	Engaging in post retirement contract	2.72	2.76	2.74	Agreed
8.	appointment	2.73	2.79	2.76	Agreed
9.	Engaging themselves in small scale business	3.16	3.20	3.18	Agreed
10.	Reducing in amount of money spent on clothes and new cars and dependent relatives.	2.66	2.12	2.69	Agreed
	Avoiding flamboyant lifestyle				
11.	**Religious activities related strategies**	2.87	3.33	3.00	Agreed
12.	Taking active position in the church	2.17	3.25	3.21	Agreed
13.	Participating in the church activities	2.95	3.21	2.98	Agreed
14.	Involving in evangelism or spread of the word of God to different outreach	2.88	2.86	2.87	Agreed
15.	Taking part in teaching Sunday school children	2.77	2.71	2.74	Agreed
	Visiting the orphanage homes				

NOTE: *Xm* = Mean male,*Xf*,= Mean female , *Xg* = Grand Mean, N1= Number of male retirees Secondary(200), N2= Number of female retirees(175).

Table 2 shows the strategies the retirees require for coping with their challenges in Aboh Mbaise L.G.A of Imo State. All strategy items in the table obtained mean scores of 2.5 and above. This implies that retired parents agreed in all of the 15 items are coping.

Discussion of Findings

The findings of research question one revealed that the respondents agreed that Financial Challenges facing the retirees were irregular payment of pensions, Delay of payment of gratuity, Owing of pension arrears, Lack of savings before retirement and Lack of social interventions for retirees. These findings are in agreement with the separate findings of (Yunusa, 2010) and (Kolawole and Mullum 2004) whose findings revealed that irregular payment of pensions, delay of payment of gratuity, owing of pension arrears, lack of savings before retirement and lack of social interventions were some of the financial challenges facing retirees. The findings also revealed that the respondents agreed that accommodation challenges that retirees face were lack of good accommodation, poorly furnished homes, lack of personal incomes, eviction from staff quarters and fear of relocating from the villages. These findings are in agreement with the findings of Oparakum, (2015) whose findings revealed accommodation challenges that retirees face were lack of good accommodation, poorly furnished homes. The findings also revealed that the respondents agreed that Socio economic and cultural challenges facing retirees do include stigmatization of been addressed as retiree, fear of becoming irrelevant in social gathering, Fear of losing their position to those in service in social gathering, Fear of not attending societal functions, Fear of not involving in cultural activities such as new yam festival. These findings are in agreement with the findings of Udo (2012) whose findings revealed that stigmatization of been addressed as retiree, fear of becoming irrelevant in social gathering, fear of losing their position to those in service in social gathering, fear of not attending societal functions were some of the socio economic challenges confronting the retirees. The findings from table one also showed that respondents agreed that the health challenges the retiree faces are that they experience high blood pressure, visual impairment, inability to get quality health care services, lack of health insurance scheme during the post work era and sudden death of retirees. These findings are in agreement with the findings of Abubakar, (2013) whose findings revealed that retirees experience high blood pressure, visual impairment, inability to get quality health care services, lack of health insurance and sudden death of retirees scheme during the post work era. Findings from analyses of research question also revealed that the retirees always

involve in frequent quarrels with spouse, frequent fight with family members, frequent agitation with neighbours, fight and quarrels with children, fight and quarrels with children and always in disagreement with people in the society. These findings corroborate with the findings of Garba and Mamman(2014) whose findings revealed that frequent quarrels with spouse, frequent fight with family members, frequent agitation with neighbours, fight and quarrels with children, fight and quarrels with children and always in disagreement with people in the society are the domestic violence the retirees get involved. This sometimes could be attributed to frustration arousing from financial instability of the retirees.

The analysis of research question two revealed that respondents agreed that engaging in Socialisation through engaging in social activities, getting involved in charity works, making friends with the less privilege, taking active positions in social organization, organising seminar outreach for the aging in the society are one the several ways retirees can adjust to the post work era. This findings agrees with the findings of Adejumo(2010)whose findings agree that socialization is one of the ways the retirees will cope with the post work era, this is because socialisation will keep them very busy during the post work era. Findings from analysis of research question two also revealed that learning a moderate life style through learning a skill before retirement, engaging themselves in contract appointment, engaging themselves in activities that match new economic orientation and purchasing ability, reduction in the amount of money spent on clothes and new cars and dependent relatives and avoiding flamboyant lifestyle. This findings are in agreement with the findings of Abubakar, (2013) whose findings revealed that learning a skill before retirement, engaging themselves in contract appointment, engaging themselves in activities that match new economic orientation and purchasing ability, reduction in the amount of money spent on clothes and new cars would help the retirees cope with challenges that confronts retirees. Also the analysis of research question two revealed that respondents agreed that Involvement in religious activities through taking active position in the church, participating in the church activities, evangelism of the word of God to different outreach, taking part in teaching Sunday school children and visiting the orphanage homes are some of the coping strategies against the challenges that confronts retirees in the post work era. This findings agrees with the findings of Oparama(2011) whose findings revealed that engaging in religious activities by taking active position in the church and participating in the church activities are adequate in coping with challenges confronting retirees.

Recommendations

- Every parent should take retirement planning very serious whether

government employed, non-government organization employed or self-reliance by queuing in on time for an adage said, early to bed early to rise makes a man healthy, wealthy and wise.

- Government should ensure that retirees are incorporated in the health insurances to help them address the good quality health delivery.
- Retired parents should try as much as possible take up active role in religious organization to make their post work era a memorable experience
- Government should train prospective retirees on skill acquisition or micro scale business that will provide them additional income to supplement their pensions.
- Government should ensure that pensions and gratuity should always be paid as and when due.

Government should ensure that adequate housing scheme are provided for the workers while they are still in active service to so as to solve the problem of housing when they retire.

Conclusion

Retirement from service in an stage in working life which every civil servant must experience irrespective of whether the civil servant is prepared or not to adjust to the post work era. Thus the post work era is usually meant for the workers to rest with good financial benefits to them so as to overcome the challenges that may arise from the post work era. Thus the challenges of the post work era confronting the retirees in Aboh Mbaise do include insufficient financial, resources, problem of securing residential accommodation, the challenge of social economic status, difficult health and challenges of declining health and domestic Violence. However in other to cope with these challenges confronting the retirees, some management strategies could be adopted in coping which includes learning a moderate life style, involvement in religious activities and socialization.

References

Abubakar, Y .I(2013) Retirement challenges and management strategies among retiredcivil servants in kogi state. *International Journal of Social Sciences and Humanities Reviews 4,*(1),53 – 66

Adebayo, A. (2010). Influence of social support, self efficacy and personality on Retirees in Lagos. *Educational Genecology.36,* (10),907- 918.

Ali, M. (2014), Managing Post Retirement Conditions in Nigeria, *Journal of Good Governance and Sustainable development in Africa,2*(2), 23-32

Billings, G. (2004): Seven steps for creating a satisfying retirement. Retrieved August 7, 2004 from http//www.retireplanabout.com.

Kolawole S.A. & Mallum, A.Y. (2004): Retirement counseling: Challenges, opportunities and coping strategies. Paper presented at the Annual Conference of the Counseling Association of Nigeria (CASSON), Maiduguri, Nigeria.

Kwesi, N.W., &Aggrey, E. A.,(2012). Retirement Planning and Counseling: Issues and Challenges for Teachers in

Public Schools in the Sekondi Circuit. Retrieved on 5th August 2016, from http//www.ED536451.pdf.

Mboto, A.A. (2004) *Pension administration in Nigeria scheme formation and management.* Calabar. Clear Line Publishers.

Nwaogu, P. C. (2008). Work-role attachment and retirement intentions of public school teachers in Imo State, Nigeria. *Asia Pacific Journal of Education, Arts and Sciences. 71,*(1) 100-111.

Ogunbameru O. (2004). "*Attitudes towards Retirement and Pre-retirement Education among Nigerian Bank Workers*". *Educational Gerontology 30,*(5),391-401.

Oparanma, A.O. (2011), Challenges of Nigerian Civil Servants Retirees, Journal of Management and Soceity.*1,*(3),44-43.

Selnow, G. W. (2003). *Motivating retirement planning: Problems and solutions*. Philadelphia: The Wharton School, University of Pennsylvania.

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Solid Waste Disposal Practices of Households in Housing Estates in Awka Anambra State

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Abstract

The study investigated solid waste disposal practices of households in Awka.Specifically, itdetermined types of solid waste generated by households; methods of household solid waste disposal practices, problems households encounter in their solid waste disposal practices and ways of solving the problems households encounter in their solid waste disposal practices. The population was made up of 287 homemakers. The sample of the study was 211 homemakers consisting of 98 from Iyiagu Housing Estate and 113 from real Estate Housing Estate both in Awka. Questionnaire was used for data collection. The data was analysed using mean and standard deviation. The major findings were that putrescible matter was the commonest waste generated by households. Household do not sort their solid waste before disposal. The result also revealed that some of the problems encountered by households includes: irregular waste collection by ANCEPA, inadequate facilities and equipments for waste collection. It was concluded that environmental education should be given to household on proper waste collection and disposal practices. The government should provide resources so that regular house to house collection of solid waste should be done by ANCEPA.

Keywords: Solid, Waste Generation, Disposal, Practice, Households.

Introduction

Waste disposal practice is one of the major challenges facing households in Nigeria. This challenge has occupied the attention of the federal, state and local government authorities for many years (Nunwbia, 2014). Advocates of environmental protection have called for appropriate legislation and regulation to control and protect Nigeria environment from further deterioration particularly in connection with waste management in cities and urban areas (Oleyoyegbe, 1995).

The volumes of waste being generated in urban areas of Nigeria are parallel to its economic dimension and population growth (Olarlere, Mathew&Dkehinde 2015). Egum (2012) opined that waste characteristics vary according to season, income level, population, industrial production. Thus, waste can either be in liquid or solid form. Liquid wastes include all dirty water from bathroom, toilet (water

closet), kitchen and some rain water collected by gutters, while solid wastes include all other rubbish household members accumulate such as waste foods, pieces of papers, broken bottles, ashes from firewood, cloths, cellphone bags, empty cans and tins and even broke plates. These wastes need to be properly disposed to ensure good health of household members. The quality of health of household members depends to a large extent on the hygienic condition of the home and the environment.

Households are group of people living together in common residence or apartment as consuming units in a physical environment. The daily household activities and consumption practices are bases of waste generation. Solid wastes practices are bases of waste generation which is the primary focus of this study. Solid waste is consequences of human activities which involves the production of goods and services and the consumption of natural resources (Ukwe, 2004). The major types of wastes generated in Nigerian households include decayed organic waste (food ruminants, leaves, and animal) and non-decayable inorganic waste (tins, can, synthetic wrappers, plastic containers, glass, cellophane bags etc). Modebe, Ezeama, Ogbuagu&Agam (2011) reported that solid waste generated by households in Awka includes putrescible matter, cellophane bags, paper and cartons and bottles/glasses/plastics and faulty appliances.

There are various methods of waste disposal practices which includes land filing which involves burying the waste in abandoned or unused quarries, mining or burrow pits and covering it with layers of soil; incineration involves subjection of solid organic wastes to combustion at a very high temperature of about 10,0000^{C} so as to convert them into residue or gaseous products; open dumping; whereby dumping can be done on open land or sea; composting; this is an aerobic, biological process of degradation of biodegradable organic matter; hog feeding; this involves feeding animals like pigs with left over materials of waste; mechanical destructor; this involves the use of mechanics to destroy waste materials and recycling of waste which means ducking waste materials and transforming them into raw products, results in saving natural resources, saving energy, reducing disposal cost, reducing harmful emission to air and water, saving money and creating job (Adogu, Uwalewe, Egenti, Okwuoha&Nkwocha, 2015).

Furthermore, poor waste disposal practice could lead to various diseases, infections and infestation. Another problem is the issue of absence of storage facilities (waste bins with tight fitted cover), irregular visitation of refuse collectors, use open trucks for refuse collection and dumping refuse in gutters and unapproved dump site. (Modebe et al 2011; Stanley &Owhor, 2018).

Globally about 1.3 billion tons of waste are generated while in Nigeria

about 0.035% are generated by households (Izugbara&Umoh, 2004) Nigerians in urban and rural areas generates about 0.49kg of solid waste per day with households and commercial centers contributing about 10% of total urban waste burden of which about two third of the wastes are dumped indiscriminately on the streets and in the drains thus posing serious environmental health hazards (Lawal, 2004)

A south African study found that out of the 5million tons of waste produced every year, only 5% is disposed of at designated sites, which implies that most of the waste in that country is deposited in environmentally unsafe site (Ogbola, Chimuka&Tshivhase, 2011). In Nigeria the case is not different as Adogu et al (2015) reported that in Lagos Nigeria that some of the open pits used for refuse disposal are located near residential areas and poses a threat to human health and the environment. According to Okoye, Ogwuejiofo& Okoye (2008) many urban centers in Nigeria are suffering from the menace of improper waste disposal practice which has resulted in health problems, high level of pollution, traffic problems, poor aesthetics and flooding.

In urban centers like Awka, residents are known to dump their waste on the streets during rain which usually block drainage channels causing erosion problems (Okoye, 2004). Awka town is an urban area and the capital of Anambra State with rapid growth in population and infrastructural development. The population keeps increasing due to the presence of both federal and state establishments and increased commercial activities. According to Onu& Obi, (2016), the agricultural waste alone generated in Awka is about 17,825 tonnage/month. Most of the solid wastes generated by various households in Awka are indiscriminately disposed along the streets, in drainages at night or during the rain and in empty plots around homes thereby littering the streets and major roads, thus living the environment in a dirty state.

Purpose of the Study

The main purpose of this study was to investigate the solid waste disposal practices of households in housing estates Awka. Specifically, the study determined:

1. types of solid wastes generated by households.
2. methods of household solid waste disposal practices.
3. Problems households encounter in their solid waste disposal practices

Methodology

***Area and design of the study*:**The design used for the study is a survey research design. The area of the study was Awka. The study was carried out in the government owned housing estates in Awka. The housing estate were bungalows built by government and given to public servants on owner occupier basis. The estates (Iyi-agu housing estate and Real estate) have some dump sites which were

overflooded with solid wastes.The wastes were not cleared regularly.

***Population for the Study*:** The population of the study consists of 287 homemakers drawn from 287 households that make up the estates. One hundred and twenty-nine (129) homemakers from Iyi-Agu Housing Estate and Onehundred and fifty-eight (158) homemakers from Real Estate Housing Estate. The age range of the homemakers were between 25-70 years. The homemakers were literate as about 70% had tertiary education while 25% had secondary education and 5% had primary education.

Sample for the study: The sample of the study was 211 homemakers consisting of 98 from Iyi-Agu Housing estate and 113 from Real Estate Housing Estate in Awka. They were randomly selected.

***Instrument for Data Collection*:** Instrument used for data collection was a structured questionnaire titled solid waste disposal practices of households (SWDPH). It was divided into two sections. Section A sought for demographic data while section B contained information based on the purposes of the study. The scoring of the items was based on a 4-point scale as follows: Strongly Agreed (SA), Agreed (A), Disagreed (D), and Strongly Disagreed (SD) with the value of 4, 3, 2 and 1 respectively. The instrument was validated by three Home Evonomics lectures in tertiary institutions. The reliability of the instrument was determined using Crobatch Alpha which yielded 0.86 reliability co-efficient.

***Data Collection method*:** The data collected was through the help of three research assistants selected and briefed on how to administer and collect data from the respondents. All the 211 questionnaires were administered but only 168 was returned.

***Data Analysis techniques*:** The data collected was analyzed using mean and standard deviation.Mean of 2.50 was used as basis for decision making for the specific purposes. Any item with mean value of 2.50 and above regarded any of the following: "solid waste generated" "method of disposal"; "problem encountered by households" or "way of solving problem".

Results

Table 1: Mean Responses on Types of Solid waste generated by Household in Awka.

S/No	Types of solid waste generated by households	Mean	SD	Remark
1.	Woods	2.82	0.92	GEN
2.	Sweeping/Ash residues	2.34	1.01	NGEN
3.	Bottles/glasses/plastics	2.55	0.98	GEN
4.	Papers and cartons	2.56	1.02	GEN
5.	Cellophane bags/ Wrappings	2.87	0.94	GEN
6.	Faulty appliances	2.40	1.30	NGEN
7.	Putrescible matters (Biodegradables)	3.96	0.08	GEN

GEN = Generated; NGEN= Not generated.

Table 1 reveal that out of the seven items listed as types of solid waste generated by households in Awka, only five of the items are types of solid waste generated by households. Two of the items are not generated. Item number 1 on the Table had the highest mean score of (3.96) while item number 2 had the lowest mean score of (2.34).

Table 2: Mean Responses on methods of households solid waste disposal

S/No	Households solid waste disposal practices	Mean	SD	Remark
	Ways households' sort solid waste			
1.	Solid wastes are sorted	1.92	0.75	NM
2.	Solid wastes are sorted according to types before disposal.	1.76	0.59	NM
	Facilities used for Waste Collection			
3.	Containers with cover	2.52	0.95	M
4.	Containers without cover	2.78	0.82	M
5.	Cellophane bags	2.74	0.92	M
	Households Solid Waste Collection and Disposal Practices			
6.	Door-to-door collection by government agency	2.68	0.94	M
7.	Tipper and trucks used for collection	2.52	0.95	M
8.	Open dumping	1.98	0.89	NM
9.	Incineration in front or back of homes	2.78	0.82	M
10.	Community dump site	2.82	0.85	M
11.	Gutters used as dump site	2.08	0.97	NM
12.	Land fills	3.14	0.86	M
	Frequency of Waste Disposal			
13.	Everyday	2.52	0.95	M
14.	Every other day	2.88	0.72	M
14.	Once in two weeks	3.14	0.86	M
15.	Once a week	3.93	0.07	M
16.	Once a month	1.96	0.70	NM

M=Method of solid waste disposal; NM=Not method of solid waste disposal

Table 2 shows that households adopted twelve items out of seventeen items as households solid waste disposal practices in Awka as these items met the cut-off point of 2.5 and above while five items were not adopted as household solid waste disposal practices in Awka with a cut-off point less than 2.5. The table revealed that number 23 had the highest mean value of 3.93 while item number 9 had the lowest mean value of 1.76.

Table 3: Mean Responses on problems households encounter in their solid waste disposal practices

S/No	Problems Households encounter in the solid waste disposal practices	Mean ($\bar{x}$)	SD	Remark
1.	Lack of planning at national and state level on how solid waste should be managed.	3.10	0.68	P
2.	Lack of training in SWM and availability of qualified waste management.	3.12	0.57	P
3.	High tax collection rates	2.51	0.8	P
4.	Unwillingness of user to pay for the service.	3.14	0.61	P
5.	Absence of effective waste management legal framework.	2.58	0.07	P
6.	Inadequate facilities and equipment for refuse collection.	3.10	0.54	P
7.	Lack of environmental education and public awareness and participation.	3.20	0.49	P
8.	Insufficient funding of by government to cover the costs associated with waste collection, storage, treatment and disposal.	3.16	0.05	P
9.	Irregular waste collection by ANSPA	3.10	0.54	P

P=Problem of solid waste disposal=Not problem of solid waste disposal

Table 3, reveals that all the 9 items were accepted as problems households encounter in their solid waste disposal practices. The result revealed that item number 31 had the highest mean value of 3.20 while item number 27 had the lowest mean value of 2.51.

Discussion of Findings

Finding in Table 1 reveals that 7 items were accepted as types of solid waste generated by households in Awka. The result revealed that the major type of solid waste generated by households is putrescible matters. This is in line with the finding of Modebe et al (2011) who reported that putrescible matters form the bulk of the household waste generated by the respondents. The result also revealed that cellophane bags, papers and cartons and bottles/glasses/plastics formed part of the major types of solid waste generated by household living in the two housing estates in Awka with a mean value of 2.87, 2.56 and 2.55 respectively. This is not in line with the finding of Modebe et al (2011) in Awka. They reported that these items formed the smallest portion. This is in line with the study carried out in two Ghanaian University were this type of waste were generated in the campuses (Denery, Kuusonana, & Owusu-Sekyere 2018).

The result in Table 2 revealed that eighteen items out of twenty-one items were accepted as households solid waste disposal practices in Awka.The result revealed that solid waste was not sorted before disposal in Awka. This is in line with the report of Adogu et al (2015) in Owerri municipal were 88.3%

of households do not separate their waste before disposal, sorting and sort according to types were rejected as ways of solid waste disposal practice in Awka and this is in line with the report of Niragude, Naik, Prasad & Magara (2014) in an urban slum area of south India were dust bin was present in (44.1%) of households but only (18.9%) were having separate dust bin for dry and wet refuse. The report shows that most of the households have no knowledge regarding segregation.

Another report by PuriAnnash et al in Nnrgude et al (2014) in Jalandhar city observed that solid waste is not segregated but were dumped indiscriminately by the families. This reflects the need to create awareness in Awka on the need for segregation or sorting waste and proper disposal of solid waste. Sorting of waste ensures that recycling materials are separated and reused. Resources like separate dust bins should be provided.

The result also revealed that facilities use by household for waste collection includes containers without cover, cellophane bags and containers with cover with a mean value of 2.78, 2.74 and 2.52 respectively. Containers with cover had lowest mean acceptance. This shows that majority of households use container with covers in their waste collection. This is in line with the report of Adogu et al (2015) were (51.4%) of their respondent collect their waste in container with cover. This is also in line with the outcome of the report of Modebe et al (2011) in Awka. This suggests that households should have refuse container with good lids to store their wastes (Nnwbia, 2014).

The study revealed that collection and disposal of solid waste by household is done by door-to-door collection by government agency while majority of the respondents also reported that they went out to the trucks and tippers to dump their refuse. This is in agreement with the finding of Modebe et al (2011) who reported that home collection service is given by environmental agency (ANCEPA) 4.5% while 68.5% were out to the tippers and trucks to dump their refuse when they are moving around their vicinity. The result also revealed that majority of the respondents dump their refuse in community dump site while some use gutters as dump site. This is in agreement with the finding of Modebe et al (2011) and also in line with the findings of Adogu et al (2015) in Owerri municipal. This shows that the households are not aware of propare waste disposal practices. This is in congruence with the report of Okoye (2004) who said that many urban centers like Awka, residents are known to dump their waste on streets during rain which usually block drainage channels causing erosion. Landfillshad the highest mean acceptance in this study and is not in line with the report of Stanley et al (2018) who said that 23.3% of their respondents thought that their refuse was disposed on a landfill. Adogu et al (20150 reported that (66.3%) resident in Owerri municipality preferred open dumping as a method of waste disposal while this is in variance

with the present study as open dumping did not met the cut-off point. Sanitary landfills which are well engineered facilities with liners, leachate collection and treatment system and gas collection system are currently used to safeguard human health and protect the environment (Stanley et al, 2018). Stanley et al (2018) also reported that in some part of Nigeria where landfills are available, they are usually the unsanitary type created from said mining activities into which waste could be deposited.

Majority of households in Awka dispose their refuse once a week with a mean value 3.93. This is in variance with the report of Stanley *et al* (2018) who reported that in their study area in Port Harcourt that a major part of the residents disposed their waste twice a week due to convenience, however accumulation of waste for a long time leads to susceptibility to infections and diseases (Stanley *et al*, 2018).

Table 3 shows the problems households encounter in their solid waste disposal practices. All the items in table 3 were accepted as problems households encounter. Item number 31 lacks of environmental education and public awareness and participation had the highest mean acceptance of 3.20 and is in line with the finding of Popoola, Ayangbile&Acheleye (2016) in Ibadan North who reported that education and awareness is need for citizen to put off the long-acquired habit of indiscriminate waste disposal habit which is eminent. Public health educators/environmentalists should mobilize to educate people on the need for proper waste disposal practices (Popoola et al (2016). The study also revealed absence of effective waste management legal/framework, irregular waste collection by (ANSEPA) and inadequate facilities and equipments for refuse collection as a problem. This is in line with other studies and this goes to suggest that there is need for payment of fines for indiscriminate disposal practices as this will help checkmate the culture and attitude of indiscriminate disposal of waste among households. Effective collection service by government agency is also important for propare waste disposal practice as this will go a long way in reducing nuisance along the streets and air pollution due to the bad odour that emanates from the dump site. There is need for co-operation among residents in the sameneigbourhood concerning their willingness to pay for services from ANSEPA.

Recommendations

Based on the findings, it was recommended that:

- Anambra State environmental protection agency should step up campaigns on proper waste disposal practices.
- Strict enforcement of sanitation laws on defaulters should be encourage by the government.
- Regular and effective waste collection and disposal practices should be done by government agency in-charge of sanitation.

- Environmental education should be given to the households on propare waste disposal practices.

Conclusion

Awka is the capital of Anambra State with high population density which increases on a daily basis with increasing corresponding waste generation rate. The problems of improper solid waste disposal practices of households can be reduced by educating the households, on propare methods of waste disposal practices and helping them to understand the danger of indiscriminate waste disposal practices. ANCEPA should always make sure that wastes generated by household are evacuated on a regular basis. Environmental education should be given to household on propare methods of household waste collection and disposal practices. There is need for adequate funding by the government tocover the cost associated with waste collection, storage, treatment and disposal. Resources should be provided so that regular house-to-house collection of solid waste should be done by ANSEPA.

References

Adogu, P.O.U, Uwakwe, K.A., Okwuoha, A.P., &Nkwocha, I.B. (2015). Assessment of Waste Management Practices among Residents of Owerri Municipal Imo State Nigeria. *Journal of Environmental Protection,* 2015, 6, 446-456. http://dx.doi.org/10.426/jep.2015.65043

Denery, F.A; Kuuswana, E.D. & Owusu-Sekyere, E. (2018). Solid Waste Characterisation and Recycling Potential for University Campuses in Ghana: Case Study of two Ghanaian Univeristy. *Journal of Waste Recycling* vol.3, No.13.

Douti, N.B; Abanyie, S.K. &Ampofo, S. (2017). Solid Waste Management Challenges in Urban Areas of Ghana: A Case Study of Bauku Municipality. *International Journal of Geosciences.* Pp.8:494-513 http//www.scip.org/journal/rig.ISSNonline:2156-8361

Egun, N.K. (2012). The Waste to Wealth Concept: Waste Market Operation in Delta State, Nigeria. *Journal of Social Sciences* 2(6) 206-212.

Izugbara, C.O. &Umoh, J.O. (2004). *Indigenous Waste Management Practices among the Ngwa of Southeastern Nigerian. The Environmentalist,* 24, 87-92. http://dx.doi.org/10:1007/sl066.9-004-4799-4

Lawal, A.S.D. (2004). *Composition and Special Distribution, Solid Waste Collection Points in Urban Katsina,* Northern Nigeria. The Environmentalist, 24, 62-64.

Modebe, I.A, Onyeonoro, U.U., Ezeani, N.N., Ogbuagu, N.E &Agam, N.A (2011). *Public Health Implication of Household Solid Waste Management Awka South*. Internet Scientific Publications. ispub.com>IJPH.

Nirgude, A.S., Naik, P.R., Prasad, V.G. & Nagaraj, K. (2014). Solid Waste Disposal Practices in an Urban Slum Area of South India. *Indian Journal of Applied Research* Vol. 41 Issue: 11/November2014/ISSN-2249-555x.

Nnubia, U.E. (2014). *Academic Journal of Interdisciplinary Studies.* MCSER Publishing, Rome-Italy Vol. 3 No.7.

Ogola, J.S., Chimuka, L. &Tshivhase, S. (2011). *Management of Municipal Solid Wastes: A Case Study in Lumpopo Province, South Africa, Integrated Waste Management,* Vol.1.

Okoye, C.O. (2004). *Household Solid Wastes Generation and Disposal in Nigeria,*

"Federal Ministry of Works and Housing", Maclaren International United Lagos.

Okoye, C.O., Ogomejiofo, & Okoye, A.C. (2008). *Urban Environmental Problems in Nigeria. Rex Charles & Patrick Limited Book Smith House, Harmony Place,* Anambra State Nigeria. ISBN. 978-978-48190-8-4.

Olajoyegbe, (1995). *Household Waste Management, A Must for Community Health and Sustained Development, Proceeding of a Seminar on Strategies on Household Waste,* Management Organized by Goethe Institute, Lagos.

Olalere, W.O., Matthew, O.I., & Kehinde, A.T. (2015). Assessment of the West Generation and Management Practices in Nigeria Food Industry: Towards a Policy for Sustainable Approaches. *Journal of Scientific and Industrial Research* 6(1) 12-22.

Onu, F.M & Obi, O.A., (2016). Waste Generation and Management Practices in Urban Agriculturally Oriented Business. *Journal of Home Economics Research.* JHER Vol.23, No.1, September 2016.

Popoola, A.A; Ayangbila, O.A &Adeleye, B.M. (2016). Assessment of Solid Waste Management Systems in Ibadan Noeth, Oyo State Using Geo-Spatial Techniques. Ethiopian *Journal of Environmental Studies & Management* 9(6):666-679 ISSN:1998-0607.doi:http://dx.org/10.4314/ejesn

Stanley, H.O. &Owhor, A.C. (2018). Assessment of Solid Waste Management Practices in Port Harcourt Metropolis, River State Nigeria. *Journal of Geography, Environment and Earth science International* 16(2):1-10. ISSN 2454-7352.

Ukwe, U.C. (2004). Effective Household Waste Disposal in Nigeria Homes. *Journal of Estate Management Research* Vol.5 No.3.

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Willingness and Compliance on the Use of Safety Protective Clothing by Road Cleaners in Samaru and Sabon-Gari Areas of Kaduna, North-Western Nigeria

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Abstract

The study investigated the willingness and compliance on the use of safety protective clothing by road cleaners in Samaru and Sabon-Gari areas of Kaduna, North-West Nigeria. Specifically, the study determined indicators of road cleaners' willingness to use protective clothing and indicators of road cleaners' willingness to comply with instructions of usage/wearing of protective clothing. Two research questions and one hypothesis was tested in this study. The study adopted the descriptive survey research design. The population for the study was two hundred and seven road cleaners assigned to the study area. Random-convenience sampling was used to select 80 road cleaners from the population. Data was collected using a questionnaire and was analysed using mean. The benchmark for acceptance was 2.50. The grand mean of the results in the Tables 1 and 2 were 2.54 and 2.56 respectively. The findings of the study revealed that majority of the road cleaners were willing to use the safety protective clothing but they were unwilling to comply with the usage/wearing instructions. The hypothesis test revealed that willingness to use had a negatively weak relationship with willingness to comply with usage instructions ($r = -0.311$, $P < 0.000$). The study therefore among others recommended that supervisors of road cleaners should not only be concerned about the quality of work done by the road cleaners but should also monitor their compliance to usage instructions of their protective clothing.

Keywords: Road Cleaners, Safety Protective Clothing, Willingness, Compliance, Use

Introduction

In Nigeria, the problem of environmental sanitation plagued every state leading to the launching of programmes and projects aimed at keeping the states clean. Every state in Nigeria including Kaduna state launched one programme or the other aimed at keeping their states clean. Residents of communities were tasked to keep their communities clean on pre-defined dates while the government take responsibility for the main roads. The government employed some group

of people to keep the roads clean on a daily basis. This group of people are popularly referred to as Road cleaners.

Road Cleaners are individuals employed and paid to sweep the streets and collect garbage for disposal in appropriate dumpsites. Their major responsibility is to keep the streets linking major roads free from dirt, dust and garbage. They clean the streets linked to roads where vehicles ply daily (Firdausi and Ahmad 2010).

The roads are majorly Trunk B (state constructed) and Trunk C (local government constructed) roads. They clean the roads and the drainages attached to them. Majority of these road cleaners usually start their work as early as 4:30am before most road users' start trooping into the roads and making the road cleaners' job more cumbersome. Their major tools are brooms (long and short), ricks, packers, spades wastebaskets for the collection of whatever has been gathered for onward disposal to the dumpsites. The also work on the removal of debris from streets, collecting solid waste, disposing and recycling waste material (Kabir, Farhana, Akter, Jesmin and Ali 2015).

Alega (2017) posits that road cleaning can lead to improvements in the environmental conditions of major roads by preventing pollutants deposited on streets from being littered around to the extent that they obstruct movement of people and goods. The main responsibility of road cleaners is to ensure that all major roads and their adjoining streets. The dirts on the roads are usually a result of indiscriminate and improper disposal of refuse by residents of the community. Many road users deliberately dispose wastes through the windows of their vehicles thereby creating a continuous need to clean the roads. This contributes to environmental pollution and creates various health problems (McKinley, 2017).

Road cleaners contracted to clean up the mess created by refuse on major roads. In the discharge of their duties road cleaners are exposed to germs due to the refuse or wastes they are exposed to daily. These wastes are hazardous to their health (Garrido, Bittner, Harth and Preisser 2015). Pintakham and Siriwong (2015) identified these hazards as physiological, chemical, biological, and psychological and ergronomical in nature.

Patil and Kamble (2017) discovered that these hazards could have short and long-term effect such as allergies, cold and cough, Asthma and bronchitis, hearing disorder, malaria, typhoid, fever, vomiting after completion of work. They further asserted that road cleaners during work could have problems such as musculoskeletal symptoms (low back pain, elbow and wrist pain), respiratory symptoms (cough, phlegm, asphyxiate and wheezing), dermatological symptoms (itching and rashes), headache and gastrointestinal symptoms (nausea and diarrhoea). The effect of these hazards can be reduced with safety protective clothing (Niu, 2010).

Safety protective clothing refers to clothing designed to protect the wearers

from workplace hazards such as heat, chemical and infection (University of Western Australia, 2018). They belong to a group of items called Personal Protective Equipment (PPE). Safety protective clothing can be categorised based on the type of protection afforded by the clothing. They are

i. Respiratory protection - air line, half or full face mask
ii. Eye protection – spectacles/goggles, shields, visors
iii. Hearing protection – ear muffs and plugs
iv. Hand protection – gloves and barrier creams
v. Foot protection – helmets, caps, hoods, hats
vi. Skin protection – hats, sunburn cream, long sleeved, coveralls, leather jackets, trousers and spats, thermal and cold protective clothing (Apparel Search Company, 2018: State Government of Victoria 2018).

According to Safety and Health for field operations, Handbook (2014) employees should be assigned PPE according to their job requirements. It is expected that PPE must be made using job hazard analysis to determine the hazards that are present or may be present during certain conditions and the protective controls that are to be used. Workers who work in very hazardous conditions are required according to industrial safety standards to wear overall, rain boats, gloves and mouth and noise protective gears against inhaling dust and other harmful substances (Smith & Brass 2015).

Unfortunately, the increase in the number of road cleaners has been accompanied by increased levels of high-risk behaviour of not complying with safety regulations of wearing the provided clothing and other gears before embarking on the daily job; as a result, they have come under heavy flak culminating in legislation regarding its use in some cities. (Oginni, Ugboko & Adewole, 2005).

Most of the road cleaners have no formal training in the art of industrial and safety standards. In some parts of Nigeria, road cleaners make their debut after a few hours of training session. The road cleaners has an eight-fold risk of dying, a four-fold risk of injury and a two-fold risk of being ran over by motorist who cannot identify the road cleaners and because of non-challant attitude of not wearing the uniform or right protective gears so as to be easily identified by other road users.

However, it is sad and worrisome that despite the high levels of accidents amongst road cleaners the use of safety protective clothing in Nigeria is way on the low side. Most of the road cleaners are aware and have the knowledge of the importance of wearing protective clothing but they always turn a blind eye towards making effective usage of such. Some perceive themselves as being naturally immune to the hazards of road cleaning thus fuelling their reluctance to use safety protective clothing.

Previous researches carried out by Auler, Nakashima and Cuman (2014); revealed that construction sites workers

and road cleaners alike have a rather cavalier attitude towards protective clothing, but even more worryingly, that little is being done in terms of training or educating them to rectify this situation. Some health and safety managers interviewed admitted to lack of knowledge about different safety protective clothing and product specification for their workers and working place, while they also had concerns about how to deal with unknown or unpredictable hazards (Ewis, Rahma, Mohamed, Hifnawy and Arafa 2013).

In the study area, many road cleaners are usually seen using some of their safety protective clothing while some do not use at all. A close interaction of the researcher with one of their supervisors revealed that the safety protective clothing are usually provided for the road cleaners but they do not enforce the usage or compliance with usage instructions. The study area is densely populated with high presence of refuse littered on the streets and roads. The heavy presence of dust during the dry-harmattan season also necessitate the need to use safety protective clothing by the road cleaners. This necessitates the need to investigate the willingness and compliance on the use of safety protective clothing by road cleaners in Samaru and Sabon-gari areas of Kaduna state, North-western Nigeria.

Purpose of the study

The general purpose of this study was to investigate willingness and compliance on the use of safety protective clothing by road cleaners in Samaru and Sabon-gari areas of Kaduna state, North-western Nigeria. Specifically this study determined:

i. indicators of road cleaners' willingness to use personal protective clothing in Samaru and Sabon-gari areas of Kaduna State, North-western Nigeria
ii. indicators of road cleaners' willingness to comply with instructions of usage/wearing of personal protective clothing in Samaru and Sabon-gari areas of Kaduna State, North-western Nigeria.

Research Questions

The following research questions were raised to give answers to the above objectives

i. What are the indicators of road cleaners' willingness to use protective clothing in Samaru and Sabon-gari areas of Kaduna state, North-western Nigeria?
ii. What are the indicators of road cleaners' willingness to comply with instructions of using safety and protective clothing in Samaru and Sabon-gari areas of Kaduna state, North-western Nigeria?

Research Hypothesis

This null hypothesis was formulated and tested in this study.

Ho1 There is no significant relationship between the road cleaners' willingness to use and willingness to comply with the usage instructions of safety

protective clothing in Samaru and Sabon-gari areas of Kaduna, North-western Nigeria.

Methodology

***Area of Study*:** Sabon-gari and Samaru are metropolitan cities of Kaduna state. Sabon-gari is the economic hub of Zaria metropolis as a whole, while Samaru is the seat of the Ahmadu Bello University. These areas have a good network of roads and educational institutions as well as health facilities that generate many wastes, which most times are not properly disposed, thus necessitating the services of road cleaners**.**

***Design*:** Descriptive survey research design was used for the study

Population of the Study: The total population for the study consisted of 207 road cleaners combined from Sabon-Gari and Samaru areas (Source: Sabon-gari Local government authority). The population consisted of men and women, within the age range of 25 – 50 years of age. Majority of the population were primary school, Quranic schools and secondary school certificate holders.

Sample: The study adopted the random convenience sampling technique, which was used to select respondents that were available when the researcher and their supervisors wanted to administer the instrument. The sample consisted of 30 men and 50 women.

Instrument for Data Collection: Questionnaire was used for data collection. The validity of the instrument was established by three experts, which included two Home Economics lecturers and one safety officer in a tertiary institution. The Cronbach's alpha was used to test the reliability. The reliability co-efficient of 0.72 and was considered high enough and reliable to be used for the study. The questionnaire was based on a 4-point scale and contained two sections. Section A contained the biodata; section B contained items on the willingness to use protective clothing while section C contained items on the willingness to comply with the instructions of usage of protective clothing. The instrument was adapted from Mitchual1, Donkoh and Bih (2015) questionnaire on Awareness and Willingness to Utilize Health and Safety Measures among Woodworkers of a Timber Processing Firm in Ghana

Data Collection Technique:Ninety copies of the questionnaire was administered to the respondents with the help of five supervisors that were responsible for monitoring the road cleaners in the area of study. Eighty-one copies were returned. The data was collected over a period of five days.

Data Analysis Method:Mean was used to analyze and answer the research questions. For section B and C, mean of 2.50 and above signified willing to use while mean of 2.49 and below shows unwilling to use. In section C, mean of 2.50 and above signified unwilling to comply while mean of 2.49 and below indicated willing to comply. Pearson product moment correlation (PPMC) was used to test the hypothesis at 0.05 level of significance.

Findings of the Study

Table 1: Mean Ratings on Willingness to wear Safety Protective Devices among Road cleaners

S/N	Items	Mean	Remark
1.	I am willing to use the safety protective clothing because of the recognition attached to the wears by my employers.	2.55	Willing to use
2	I am willing to use the safety protective clothing because they are useful in protecting me from work hazards.	2.64	Willing to use
3	I am willing to the safety protective clothing because of the recognition attached to the wears.	2.51	Willing to use
4	I am willing to use protective eyes goggle while on duty as part of my work requirements.	2.57	Willing to use
5	I am willing to use overall jacket while on duty	2.53	Willing to use
6.	I am willing to use mouth and nose protective cover while on duty	2.67	Willing to use
7.	I am willing to use gloves to handle liquid and solid wastes to protect myself from germs	2.50	Willing to use
8.	I am willing to use protective shoes while on duty	2.50	Willing to use
	Grand Mean	2.56	Willing to use

Source: Field Survey, 2018

The result in Table 1 indicated that majority of the respondents were willing to use safety protective clothing such as goggle, overall jacket, mouth and nose cover, hand gloves and protective shoes. The grand mean of 2.56 showed the overall willingness to use safety protective clothing by the road cleaners. The positive response to items 1, 2 and 3 showed that the respondents knew the function and importance attached to the safety protective clothing.

Table 2: Mean Ratings on willingness to comply with safety protective devices by Road Cleaners

S/N	Items	Mean Score	Remark
1	I avoid wearing the safety protective clothing because of the recognition attached to the wears	2.50	Unwilling to comply
2	I avoid wearing the safety protective clothing because of my religious beliefs.	2.52	Unwilling to comply
3	I avoid wearing safety protective clothing because it can affect my social acceptance.	2.52	Unwilling to comply
4	I avoid wearing protective eyes goggle because it makes me look like a clown	2.48	Willing to comply
5	I avoid wearing overall jacket while on duty because of the prevailing weather conditions	2.91	Unwilling to comply

6.	I avoid wearing mouth and nose protective cover while on duty because it is not comfortable.	2.24	Willing to comply
7.	I avoid wearing gloves only on the active hand to handle liquid and solid wastes because it affects my grip of objects.	2.61	Unwilling to comply
8	I avoid wearing protective shoes while on duty because they slows my mobility.	2.50	Unwilling to comply
	Grand Mean	2.54	Unwilling to comply

Source: Field Survey, 2018

The result in Table 2 indicated that majority of the respondents were unwilling to comply with the usage instructions of safety protective clothing such as shoes, hand gloves and overall jacket. While they showed willingness to comply with the use of safety protective clothing in items 4 and 6. Generally, the road cleaners were unwilling to comply with the usage instructions of the safety protective clothing as reflected in the grand mean of 2.54.

Test of Hypothesis

Ho1 There is no significant relationship between the road cleaners' willingness to use and willingness to comply with the usage instructions of safety protective clothing in Samaru and Sabon-gari areas of Kaduna, North-western Nigeria.

Table 3: Pearson Product Moment Correlation on the relationship between the road cleaners' willingness to use and willingness to comply with the usage instructions of safety protective clothing in Samaru and Sabon-gari areas of Kaduna, Northwestern Nigeria.

Variables	N	Mean	S. D	r	P-value
Willingness to use	80	2.56	.62	.-311**	.000
Willingness to comply	80	2.54	.50		

**Correlation is significant at the 0.05 level (2-tailed).

The result in Table 3 showed that the road cleaners willingness to use had a negatively weak relationship with willingness to comply with usage instructions of in Samaru and Sabon-gari areas of Kaduna, Northwestern Nigeria (r= 0.311, P<0.000). This implied that the safety protective clothing road cleaners' willingness to use does influence their willingness to comply with usage instructions of the safety protective clothing. Therefore, the hypothesis which states that there is no significant relationship between the road cleaners' willingness to use and willingness to comply with the usage instructions of safety protective clothing in Samaru and

Sabon-gari areas of Kaduna, North-western Nigeria is hereby rejected.

Discussion of Findings

The findings in table 1 showed the responses on the indicators of willingness to use protective devices. It was revealed that the majority of the road cleaners were willing to use items all the safety protective clothing. This was in not in agreement with the findings of Patil and Kamble (2017) who discovered that all street sweepers were provided with personal protective equipment but some of them were reluctant use it.

The result in Table 1 showed that road cleaners were willing to use safety protective clothing for identification during work hours. This was in agreement with the findings of Sultania and Tania (2016) who discovered that many road cleaners were willing to comply with wearing of safety and protective clothing to aid their identification when working as their uniforms were mostly made of colours like bright yellow, green.

The respondents also avoided using the shoes provided for them because they felt they affect mobility at work. Studies by Nku, Peters, Eshiet, Oku and Osim (2005); Salmah (2016) ascribed the unwillingness and non-usage of safety protective clothing by the road cleaners to the fact that the some clothing poses a physiological threat to the users because they are uncomfortable in them and they do not support mobility, which is very important in their work.

Although the road cleaners were aware of the function and importance attached to the use of safety protective clothing, many are unwilling to comply with usage instructions of the safety protective clothing. Similar studies by Oginni, Ugboko and Adewole (2005); Kabir, Farhana, Akter, Jesmin and Ali (2015); O'Hara, Yassi, Bryce, and. Van Rosenburg (2017) discovered that many road cleaners were unwilling to use safety protective clothing because they felt they have become immune to diseases that can result from their refusal to use the required clothing. Also in Table 2, it was shown that the respondents were unwilling to comply with usage instructions of overall jacket, hand gloves and protective shoes.

In Table 1, the responses to items 1, 2, 3 and 4 showed that many of the road cleaners knew the function and importance attached to the use of safety protective clothing, they still showed an overall unwillingness to comply with usage instructions as shown in the grand mean of 2.54 in Table 2. This was in agreement with studies by Bleck and Wettberg (2012); Masoud, Majid, and Jafar (2011); Walley and Wright (2010) who discovered that many road cleaners knew the importance of safety protective clothing but they lack in-depth understanding of the hazards with their job, else they would willingly comply with the usage instructions of the safety protective clothing provided for them.

In Table 3, it was shown that there is no significant relationship between the

road cleaners' willingness to use and willingness to comply with the usage instructions of safety protective clothing in Samaru and Sabon-gari areas of Kaduna, North-western Nigeria. This is because many of the road cleaners know that use of safety protective clothing is part of their work requirements but do not have an in-depth knowledge of what they benefit from complying with usage instructions, which is meant to protect them from work hazards.

Conclusion

The use of safety protective clothing is important for all types of jobs especially the ones that involve risks or poses a danger to the worker. Road cleaning is one of the jobs that involve hazards to the worker. Based on the findings of this study, it was established that majority of the Road cleaners were willing to use all the safety protective clothing but unwilling to comply with their usage instructions. The road cleaners know the function and importance of the safety protective clothing but lack in-depth understanding of the risks involved which ultimately results in their unwillingness to comply with usage instructions.

Recommendations

Based on the findings of this study, the following recommendations were made.

- Supervisors of Road cleaners should not only be concerned about the quality of work done by the road cleaners but should also monitor their full compliance to usage of safety protective instructions.
- Incentives should be provided to Road cleaners that fully comply with the usage instructions of their safety protective clothing.
- The safety protective clothing given to road cleaners should be designed in such a way that it will aid mobility, as this will make them willing to comply with usage instructions.
- Workshops and trainings should be organized to further educate road cleaners on the benefits of using safety protective clothing during work hours.

References

Alega, A. M. (2017). Effects of Occupational Health Hazards on Street Cleaners' Health in Eldoret Town, Uasin Gishu County, Kenya. *International Journal of Health and Pharmaceutical Research*. Vol. 3 No.4 2017

Apparel Search Company (2018). Definition of Protective Clothing. Retrieved on 22nd November 2018 from https://www.apparelsearch.com/protectiveclothing/index.html

Auler, F., Nakashima, A. T. & Cuman, R. K. (2014): Health conditions of recyclable waste pickers. *Journal of Community Health; Vol*. 39(1):pp.17-22.

Bleck, D. & Wettberg, W. (2012). Waste collection in developing countries--tackling occupational safety and health hazards at their source. *Journal of Waste Management.* Vol. 32(11), pp. 2009-17.

Ewis, A. A., Rahma, M. A, Mohamed, E.S., Hifnawy, T.M & Arafa, A.E. (2013) Occupational health-related morbidities among street sweepers and waste collectors at BENI-SUEF, Egypt. *Egyptian Journal of Occupational Medicine,* Vol.37 (1) pp. 79-94

Firdaus, G. & Ahmad, A. (2010). Management of Urban Solid Waste

Pollution in Developing Countries. *International Journal of Environmental Response.* Vol. 4(4):pp. 795-806.

Garrido V. M., Bittner, C., Harth, V. & Preisser, A. M. (2015) Health status and health-related quality of life of municipal waste collection workers—a cross-sectional survey. *Journal of Occupational Medicine and Toxicology.* Vol. 10 (22).

Kabir, A., Farhana, N., Akter, F., Jesmin, S. & Ali, A. (2015). Sweeping practices, perceptions and knowledge about occupational safety and health hazards of street sweepers in Dhaka city, Bangladesh: a qualitative inquiry. *International journal of community medical public health* Vol. 2(3):237-43.

Masoud, N., Majid, H.M. & Jafar H. (2011). Associated with Occupational Inhalation Exposure to Carbon Black Dust. *Journal of Occupational Health*, Vol.53:PP. 432 - 438.

McKinley, S. (2017). The Importance of Personal and Protective Equipment. Retrieved 20 Oct. 2018 www.safeworkaustralia.gov.au/ppe

Mitchual, S. J.,Donkoh, M. & Bih, F. (2015). Awareness and Willingness to Utilize Health and Safety Measures among Woodworkers of a Timber Processing Firm in Ghana. Journal of Scientific Research & Reports Vol. 6(3): pp 178-188 Retrieved on 22nd November 2018 from https://www.sciencedomain.org/143.34/webj

Niu S. (2010). Ergonomics, occupational safety and health: an ILO perspective. *Applied Ergonomics*; Vol. 41(6):pp. 744-753

Nku, C. O., Peters, E. H., Eshiet, A. L., Oku, O. & Osim, E. E. (2005). Lung Function, Oxygen saturation and symptoms among street sweepers in Calabar-Nigeria. *Nigerian Journal of Physiological Sciences;* Vol. 20: pp. 79-84

O'Hara, l. M., Yassi A. Bryce E. A, E. Van Rosenburg (2017). Infection control and Tuberculosis in Health care workers. An assessment of 28 hospitals in South Africa. *International Journal of Tuberculosis and Lungs*. Vol. 12(3): pp. 234-241

Oginni, F.O, Ugboko, V.I. & Adewole, R.A. (2005). Knowledge, attitude and practice of road cleaners to crash helmet. *American Journal of Public Medicine;* Vol.2; pp. 137.

Patil, P. V. & Kamble, R. K. (2017). Occupational health hazards in street sweepers of Chandrapur city, Central India. *International Journal of Environment*, Vol.6 (2).

Pintakham, K. & Siriwong, W. (2015). Prevalence rate and risk factors associated with health hazards to select the magnitude of health problems among street sweepers in Chiang Rai province, Thailand. *IOSR Journal of Environmental Science Toxicology and Food Technology.* Vol. 9, 15–8.

Safety and Health for field operation Handbook (2014). United State Department of Health, California, USA.

Salmah, U. (2016). Hazard Identification and Risk of Work Assessment on Street Sweeper in Medan City. *Advances in Health Sciences Research,* vol. 1 (3), PP 258 - 265

Smith, G. S. & Brass, P. (2015) Unintentional injuries in developing countries: The epidemiology of a neglected problem. *Epidemiology Revolution* Vol.13:228-66. [PUBMED]

State Government of Victoria (2018). Types of Personal Protective Equipment. Retrieved on 20th November 2018 from https://www.education/vic.gov.au/school/stu.

Sultana, N. & Tania, F. (2016). Sweeping practice and knowledge about occupational safety and health hazards of sweepers. *International Journal of Current Research,* Vol. 8 (05), PP. 30901- 30905. Available online at http://www.journalcra.com.

University of Western Australia (2018). Personal protective equipment guidelines. Retrieved on 21st November, 2018 from

http://www.safety.uwa.edu.au/topics/physical/?a= 1776006
Walley, J. & Wright, J. (2010). Public Health, an Action guide to improving health. .
Second Edition, Oxford University Press Inc., New York pp. 292 – 293.

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Competency Needs of Computer Studies Teachers for Effective Teaching of Web Design

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Abstract

The purpose of this study was to ascertain the competency needs of computer studies teachers for effective teaching of web design. The population for the study is 120 computer studies teachers in secondary schools in Nsukka educational zone. A random of 93 respondents was drawn using a random sampling technique. Five research questions guided the study. A structured questionnaire was used for data collection. Data were analyzed using mean and standard deviation. The findings revealed that teachers highly need competencies in creating web page using HTML coding, using cascading style sheet, creating web page using Adobe Dreamweaver building websites and maintaining and updating websites. Based on the research findings, it was recommended among others that the secondary schools in Nsukka educational zone should organize workshops and seminars for computer studies teachers to help them acquire the needed competencies on web design and development.

Keywords: Competency, Computer, Studies, Teachers, Web Design

Introduction

A teacher is a person who gives instructions or lesson on a subject to learners. A teacher, also called a school teacher, is a person who provides education for students. MacLean and Mohr (2009) explained that the term 'teachers' are subjective insiders involved in classroom instruction as they go about their daily routines of instructing students, grading papers, taking attendance, evaluating their performance as well as looking at the curriculum. Teachers raise questions about what they think and observe about their teaching and their students' learning. They collect work in order to evaluate performance, but they also see student work as data to analyze in order to examine the teaching and learning that produced it. A teacher's role may vary among cultures. Teachers may provide instruction in literacy and numeracy, craftsmanship or vocational training, the arts, religion, civics, community roles, or life skills. A teacher who facilitates education for an individual may also be described as a personal tutor or role model largely

historically, a governess. Marlene (2007) further stated that a teacher is a role model and a role model is a person who inspires and encourages people to strive for greatness, live to their fullest potential and see the best in themselves in diverse economic situations which includes a recessed economy.

A recession is a general downturn in any economy. Recession according to Mckinney (2016) is the contraction phase of a business cycle. It begins after the economy reaches a peak of activity and ends as the economy reaches its trough. A recession is associated with high unemployment, slowing gross domestic product, and high inflation. Economic recession is a period of general economic decline and is typically accompanied by a drop in the stock market, an increase in unemployment, and a decline in the housing market. According to Nash (2012), a recession is a period of decline in total output, income, employment and trade, usually lasting u months to a year and marked by widespread contractions in many sectors of the economy. Youths (students) need to be equipped for survival in a recessed economy. Therefore, teachers need to be fully competent and equipped to help their students acquire the necessary skills needed to survive and help their families in time of recession. In doing this, teachers may follow standardized curricula as determined by the relevant authority. The teacher may interact with students of different ages, from the infants to the adults. In this study, secondary school students are of interest to the researchers. The reason for this is based on the fact that if at graduation the students already are equipped with viable entrepreneurial skill, they would start in good time to make good use of their spare time, cater for their needs and to support their families.

One of the courses studied at the secondary school level in Nigeria is Computer Studies which is the study of computer to enable students to use the computer in various spheres of live to solve societal problems and later occupation. This era ushered in the advent of computer system among other modern technologies. At present, the computer technology has permitted nearly all aspects of human organizational roles and education. Computer encompasses almost all areas of human disciplines, which include computer/information technology, agriculture etc. Today, computer technology in schools is one of the most far reaching and fast growing developments in education. The incursion of electronic computer system into the educational parlance, according to Sherman (2005) provides the wherewithal to solve teaching and learning problems even more rapidly and accurately than hitherto conceived. This has eventually made the computer system the doyen of humanity as it continues to exert greater acceptance. One skill area in Computer Studies that has the capacity of improving the economic prowess of individuals is web design and development.

Web design and development encompasses many different skills and disciplines in the production and maintenance of websites. Often, many individuals will work in teams covering different aspects of design process, although some designers will cover them all. The term web design is normally used to describe the design process relating to the front-end (client side) design of a website including writing mark up. Web design partially overlaps web engineering in the broader scope of web development. Web designers are expected to have an awareness of the usability and if their role involves creating mark up, they are also expected to be up to date with web accessibility guidelines. According to Jegede (2007), the different areas of web design include web graphic design; user experience design; and search engine optimization. Web design involves creating web page design using HTML, styling and formatting web pages using Cascading Style Sheet, using Adobe Dreamweaver to create web pages, building website, maintaining and updating website.

The acquisition of web design skills will equip students with skills that will make them IT compliant. Students will have wide knowledge of the Internet which is the best platform for businesses and other online activities. Web design skills and competencies can boost the economic status of students because websites are widely used in virtually every aspect of life. When students have the competency, they can design websites for individuals and organizations based on their needs and make money from it. This will help in making students to be self-employed upon graduation, and will in turn boost the economic status of their families.

The question now is whether teachers are competent enough to handle web design for students to enable them make a living out of it. For instance, teachers themselves need to be well grounded in creating web pages using HTML, styling and formatting web pages using Cascading Style Sheet, using Adobe Dreamweaver to create web pages, building website, maintaining and updating website which are all aspects of web design to be able to help students acquire the skills. There is therefore, need for this study to find out the competency needs of computer studies teachers for effective teaching of web design

Statement of Problem

Information technology (IT) is a growing field that offers relatively secure positions for those with solid technical skills and there are several specializations that deal with the various facets of information technology that include web design and development. This is a field that can help undergraduate students to make a living to cope and help their families survive both in recession and out of recession. However, it is observed that many students and graduates of the secondary schools in Nsukka educational zone lack this economy booster skill. This clearly shows that they are not reaping the

benefits of web design and development as part of the courses to be learnt. This scenario is so because, it has also been observed may computer studies teachers who are in the position to impart this skill are not competent enough. This is the researchers felt that the very first step in alleviating this challenge is to identify the teachers' competency needs as regards the teaching of web design and development, in order to equip them with the skill gaps for better impartation on students, who will in turn use the imparted skills for economic gains and survival in the recessed economy.

Purpose of the Study

The main purpose of this study was to determine the competency needs of computer studies teachers for teaching web design and development in secondary schools in Nsukka educational zone. Specifically, the study determined the competency needs of the teachers in

1. creating web page design using HTML
2. styling and formatting web pages using Cascading Style Sheet.
3. using Adobe Dreamweaver to create web pages
4. building website.
5. maintaining and updating website.

Research Questions

Five research questions were posed to guide this study. They are as follows; what are competency needs of computer studies teachers in

1. creating web page using HTML coding?
2. styling and formatting web pages using Cascading Style Sheet?
3. using Adobe Dreamweaver to create web pages?
4. building website?
5. maintaining and updating website?

Methodology

This is the procedure that is used to carry out this study. It is discussed under the following subheading:

Area of the Study The area of the study was Enugu State. The unit of observation in the study was Nsukka Educational Zone. Nsukka LGA was chosen because there are many secondary schools in the area offering computer studies and to the best of the researchers knowledge, students graduate from these schools without acquiring any skill on computer studies and web design which is supposed to boost their relevancy after graduation.

Design of the Study This study adopted a descriptive survey research design. A descriptive survey design according to Ali (2006) is one of which uses sample of an investigation to document, describe and explain what is in existence or non-existence on the present status phenomena being investigated. In descriptive survey study, views and facts are collected through questionnaires from teachers on the competency needs of computer studies teachers for effective teaching of web design for family survival in a recessed economy.

Population for the Study The population for this study was 120 Computer Studies Teachers in the 59 government owned secondary schools in Nsukka Educational Zone of Enugu State.

Sample for the Study The sample was drawn using Taro Yamane formula. By the formula, the researcher arrived at 93 as the sample size out of the entire population of 120 computer teachers in the above mentioned study area. For the sake of this research therefore, 93 respondents were randomly selected without replacement out of the entire population for analysis.

Instrument for Data Collection The instrument for data collection was a structured questionnaire. The instrument was titled "Teachers' competency". The questionnaire were made up of two section, A and B. Section A consisted of five clusters A,B,C,D, and E. Cluster A consisted of items seeking the personal information of the respondents. Cluster B was used to gather information on the competency needs of computer studies teachers for effective teaching of web design for family survival in a recessed economy. Cluster B was used to gather information on the competency needs of computer studies teachers in creating web page using HTML coding. Cluster C elicits the competency needs of computer studies teachers in using Adobe Dreamweaver to create web pages. Cluster D elicits of the competency needs of computer studies teachers in building websites. Cluster E elicits the competency needs of computer studies teachers in updating websites. The responses on the questionnaire were on a 4 point rating scale namely: Highly Needed (HN), averagely Needed (AN), Slightly Needed (SN), Not Needed (NN)

Data Analysis One hundred and twenty copies of the questionnaire were administered on Computer Studies Teachers and all the copies distributed were retrieved and analyzed using mean and standard deviation. Any item with a mean of 3.50 and above was regarded as needed while any item with a mean less than 3.50 was regarded as not needed.

Results

The results are presented in line with the research questions.

Research Question 1: *What are competency needs of computer studies teachers in creating web page using HTML coding?*

Table 1: Mean scores and standard deviation on the competency needs of computer studies teachers in creating web page using HTML coding?

S/N	Item Statement	$\overline{X}$	SD	Decision
1.	Ability to turn on the computer	4.50	0.00	Highly Needed
2	Ability to locate HTML from my computer programs	3.94	0.22	Highly needed
3	Knowledge of writing HTML codes	3.90	0.39	Highly needed
4	Ability to access the internet	3.78	0.56	Highly needed
5	Any knowledge of world wide web	3.81	0.41	Highly needed
6	Know the full meaning of HTML	3.82	0.45	Highly needed
7	Ability to create a file using HTML	3.73	0.59	Highly needed
8	Knowledge of inserting tables in HTML	3.65	0.68	Highly needed
9	Ability to create a site in HTML	3.86	0.43	Highly needed
10	Knowledge of choosing a Universal Resource Locator or local root in HTML	3.87	0.42	Highly needed
11	Ability to create blogs in HTML	3.60	0.73	Highly needed
12	Competent in choosing site content	3.81	0.46	Highly needed
13	Skill of creating a database in HTML	3.79	0.50	Highly needed
14	Knowledge of syntax usage in HTML	3.75	0.58	Highly needed
15	Able to edit HTML codes	3.76	0.55	Highly needed

Key: $\overline{X}$= Mean, SD = Standard Deviation

Table 1 shows the mean distribution on competency needs of computer studies teachers in creating webpage using HTML coding. Items 1-15 had mean scores ranging from 3.60-3.94; therefore, the decision is "Highly Needed" indicating that teachers' need the competencies in creating web page using HTML coding.

Research question 2: ***What are competency needs of computer studies teachers in styling and formatting web pages using Cascading Style Sheet?***
The research question was answered using items 1-12 in Table 2.

Table 2: Mean scores and standard deviation on the competency needs of computer studies teachers in styling and formatting web pages using Cascading Style Sheet

S/N	Item Statement	$\overline{X}$	SD	Decision
1.	Ability to turn on the computer	3.64	0.71	Highly Needed
2	Knowledge of what CSS is	3.87	0.42	Highly needed
3	Ability to launch CSS in your computer	3.79	0.52	Highly needed
4	Competent on saving designs in CSS	3.73	0.59	Highly needed
5	Ability to use CSS to provide a list of formatted instructions	3.79	0.56	Highly needed
6	Skills on using CSS to display the web page differently irrespective of the device size	3.80	0.42	Highly needed

7	Expert on using CSS selectors to declare the part of the markup or style applied to the machine tags	3.74	0.58	Highly needed
8	Knowledge of how to CSS use pseudo-classes as a selector to permit formatting based on information that is not contained in the document tree.	3.70	0.52	Highly needed
9	Competent on how to use CSS to grant users greater control over presentation.	3.80	0.47	Highly needed
10	Have idea on how to use CSS to style XHTML and XML markup	3.80	0.55	Highly needed
11	Ability to use CSS to define how Web pages should look when viewed in other media than a browser	3.77	0.57	Highly needed
12	Competent on how to use 60 major properties of CSS	3.88	0.35	Highly needed

Key: X = Mean, SD = Standard Deviation

Table 2 shows that all the items 1-12 had mean scores ranging from 3.64-3.88 indicating that teachers highly need these competencies for styling and formatting web pages using Cascading Style Sheet.

Research question 3: ***What are the competency needs of computer studies teachers in using Adobe Dreamweaver to create web pages?***
Data for answering this research question is shown in Table 3.

Table 3: Mean scores and standard deviation on the teachers' competency needs in using Adobe Dreamweaver to create Web pages.

S/N	Item Statement	$\overline{X}$	SD	Decision
1.	Ability to turn on the computer	3.96	0.31	Highly Needed
2	Knowledge of Adobe Dreamweaver	3.88	0.50	Highly needed
3	Ability to launch Dreamweaver	3.79	0.56	Highly needed
4	Expert in launching into the code environment in Dreamweaver	3.80	0.51	Highly needed
5	Skill in choosing a programming language to work with in Dreamweaver	3.75	0.58	Averagely needed
6	Ability to open a chosen language	3.72	0.51	Highly needed
7	Expert in opening a saved site in Dreamweaver	3.83	0.44	Highly needed
8	Ability to save site in Dreamweaver	3.87	0.42	Highly needed
9	Skill in creating blogs in Dreamweaver	3.86	0.50	Highly needed
10	Ability to edit pictures in Dreamweaver	3.80	0.47	Highly needed
11	Skill in using Dreamweaver design and planning tips on the web page	3.77	0.57	Highly needed
12	Idea of glossary terms and useful resources in Dreamweaver	3.78	0.50	Highly needed

Key: X= Mean, SD = Standard Deviation

Table 3 shows that all the items 1-12 had mean scores ranging from 3.96-3.72 indicating that teachers highly need these competencies for using Adobe Dreamweaver to create web pages.

Research question 4: *What are competency needs of computer studies teachers in building website?*

This research question was answered using items 1 to 13 in Table 4.

Table 4: Mean scores and standard deviation on the competency needs of computer studies teachers in building website

S/N	Item Statement	$\overline{X}$	SD	Remark
1	Knowledge of (ISP) Internet Service Provider for hosting a website	3.92	0.36	Highly Needed
2	Ability to launch www.smartwebng.com through FileZilla	3.69	0.52	Highly needed
3	Idea on how to choose the domain name.	3.82	0.45	Highly needed
4	Expert on how to check availability of the chosen domain name.	3.84	0.44	Highly needed
5	Idea of when domain name is accepted for registration or not	3.74	0.46	Highly needed
6	Ability to check the duration of the site i.e. how long it will last when hosted	3.80	0.47	Highly needed
7	Expert in managing hosting windows	3.90	0.39	Highly needed
8	Skill on how to use syntax in domain configuration	3.91	0.38	Highly needed
9	Ability to use syntax in domain configuration	3.83	0.53	Highly needed
10	Skill on accessing site password through the home pages	3.89	0.40	Highly needed
11	Expert on interpreting the account information well when uploaded to avoid errors while hosting	3.81	0.55	Highly needed
12	Competent in sending password to my control panel for the manipulation of my web page	3.80	0.55	Highly needed
13	Knowledge of how to trace root server when any error occur during uploading of files while hosting a site	3.96	0.31	Highly needed

Key: $\overline{X}$= Mean, SD = Standard Deviation

Table 4 shows that all the items 1-13 had scores ranging from 3.92-3.96 indicating that teachers highly need these competencies for building website.

Research question 5: *What are teachers' competency needs in maintaining and updating website?*
This research question was answered using items 1 to 7 in Table 5.

Table 5: Mean scores and standard deviation on the competency needs computer studies teachers in maintaining and updating website

S/N	Item Statement	$\overline{X}$	SD	Decision
1.	Competent in activities that comprise website maintenance to ensure the operational integrity of a website	3.88	0.41	Highly Needed
2	Knowledge of how website publishing is needed to keep content up-to-date	3.82	0.45	Highly needed
3	Skill on website quality assurance, which is used to	3.83	0.53	Highly needed

	spot errors on a site.			
4	Expert in managing communication with website visitors	3.78	0.56	Highly needed
5	Idea of how website infrastructure monitoring can be used to supervise web hosting	3.82	0.40	Highly needed
6	Expert on how to change control language, manage technical and other challenges in a coordinated way.	3.91	0.38	Highly needed
7	Ability to monitor website performance for update	3.83	0.53	Highly needed

Key: $\overline{X}$= Mean, SD = Standard Deviation

Table 5 shows that items 1-7 had mean scores ranging from 3.91-3.82 indicating that teachers highly need these competencies in maintaining and updating a website.

Discussion on the Findings

The findings of this study under research question 1 showed that teachers highly needed competency skills in creating web page using HTML coding. These competencies highly needed by computer studies teachers on creating web page using HTML coding include: ability to turn on the computer, ability to locate HTML from computer programs, knowledge of writing HTML codes, ability to access the internet, knowledge of worldwide web, Know the full meaning of HTML, ability to create a file using HTML, knowledge of inserting tables in HTML, ability to create a site in HTML, knowledge of choosing a Universal Resource Locator or local root in HTML, ability to create blogs in HTML, competent in choosing site content, skill of creating a database in HTML, knowledge of syntax usage in HTML and ability to edit HTML codes.

In teaching students how to design web pages, some teachers will spend hours teaching how to set text and images, layout pages and build hyperlinks using outdated web languages like front page, but it can be noticed that in HTML, they can quickly master the technical side of making a web page. The result revealed that computer studies teachers lack the competencies on the necessary knowledge needed to teach web design and development. Many studies are based on data from server access logs, analyzing various aspects of user navigation (Pitkow, 2004; Spiliopoulou, 2003; Nicholas et al., 2004). However, these logs have their limitations: they only report on user actions within a single site, browser caching mechanisms may hide some page revisits, and various specifics on the interaction with the browsing application remained concealed. The results indicated that a certain type of users tended to "navigate" from a search result page, whereas, others displayed a more "exploratory" behaviour by submitting many queries during a search session, jumping between search results and visiting numerous new sites. Another perspective is provided by observational short-term studies. Screen

captures, video coverage, and web diaries have been successfully applied to understand Web browsing activities in various specific contexts (Baker, 2003; Choo, 2002).

The findings in Table 2 showed that teacher competency on the use of cascading styling sheet for styling and formatting web pages are highly needed. Cascading Style Sheet is a web application software that contains lots of formatting features like, font pattern, color layout and overall appearance of a website. They are separated from the HTML structure to reduce repeating the styling of similar elements on multiple pages. A style sheet controls the entire layout of a website. It may only be altered once to have an effect on multiple pages of a website. But majority of the teachers has no knowledge on this, rather their knowledge is limited to word processing, creating files and tables using excel application, browsing the internet for information and doing assignments. CSS is a cornerstone technology used by most web designers to create visually engaging web pages, user interfaces for web applications, and user interfaces for any mobile applications. While XHTML gives web pages their basic structure, CSS define the way they look. Both have recommended standards and together will make a long way to making site accessible giving it a consistent look and feel. Most of the teachers do not have the slightest idea of this software and its application for styling and formatting web pages. This to an extent will help in designing a captivating site and easily too and computer teachers are still far from it in University of Nigeria, Nsukka.

The findings agree with Ajayi, Ekundayo & Haastrup, (2009) that non-availability of internet access in some schools because of the recurrent cost of bandwidth, high cost of personal computers and inequality of access to technology are the challenge teachers of computer encounter in secondary schools. Thus, most of them are unable to afford computers and access time due to the relative cost to the average income of workers in the country. Ukoha (2008) also observed that problems of lack of technology proficiency (mainly with computer and internet usage, operating software, relevant authoring software for web design) and lack of awareness when the server crashes and unreliable technology to maintain web activities are some of the hindrances to web design.

The findings in Table 3 showed that teachers' competency needs in the use of Adobe Dreamweaver is high. Adobe Dreamweaver can combine a visual design surface known as Live View and a close editor with standard features such as syntax highlighting, code completion, and code collapsing as well as more sophisticated features. Real-time syntax checking and code introspection for generating code hints to assist the user in writing code is also available in Adobe Dreamweaver. Using Dreamweaver, students will learn to create simple Web pages as well as

dynamic and comprehensive web sites at ease. It was discovered that computer studies teachers in secondary schools in Nsukka Educational Zone highly need Adobe Dreamweaver competence. Yun et al (2002) agreed with the findings that students with basic computer and internet knowledge who wish to enrich their knowledge of Web publishing tools will have the opportunity to learn the Web editing software that is the factor application in web development.

The findings in Table 4 showed that teachers highly need competency skills on building websites. Web host provides one with details of how to get ones site up and running. Kyrnin, (2007) agreed with the findings that the Internet is nothing more than a large collection of computers attached to a telecommunications network and a set of protocols that establishes the rules for data to be sent and received by them. Most computers are linked to the internet through a modem that directs traffic to and fro a local phone or cable company. An Internet Service Provider (ISP) directs the incoming and outgoing data through a local hub to regional hubs. All the data that makes up a website is located on one or more specialized computers known as servers. This allows most anyone to create a website that is available to the public on the World Wide Web (www), which is the collective network of all website in the world that can be accessed through the internet. In order for computers to understand each other, universal codes and protocols have been established. One of the most important of these protocols for website and domain hosting is the hypertext transfer protocol (HTTP). It is this protocol that allows queries to be sent to specific servers so that the websites on those servers can be accessed.

The finding in Table 5 showed that teachers highly need competency skills on maintaining and updating websites. Website maintenance comprises all the activities needed to ensure the operational integrity of a website or internet. In order words, it is all about doing all the things needed to make a site run smoothly and according to plan. These activities are carried out by members of a Website Maintenance Team. Owing a website or blog has its own responsibilities. One cannot just upload it and forget it. Regular maintenance is a must if one wants the site to be successful. Website is subject to being hacked. Using a proper website maintenance program can try and avoid being hacked by keeping everything up to date. These are all kinds of things that need to be done when maintaining a website. Therefore, teachers in secondary schools in Nsukka Educational Zone should have an overview or general information of website updating and maintenance to enable a quality transfer of knowledge to the students.

Recommendations

Based on the findings of this study, the following recommendations were made:

- The principals in conjunction with the government should organize workshops and seminars for

computer studies teachers to help them acquire the needed competencies on web design and development.

- The Ministry of Education should make the development of teachers' competencies a priority and set target when all computer studies teachers are expected to be highly ICT compliant.
- The government should always provide funds for procurement of computer and internet facilities and infrastructures in government secondary schools so as to curb the constraints of inadequate internet facilities and leave teachers with no excuse whatsoever for not being ICT competent.
- The government through the ministry of education should conduct periodic instructional supervision and review of computer facilities with a view to update the standard of computer stills acquired in secondary schools in Nsukka Educational Zone.

Conclusion

Computer studies teachers need to improve their competencies in teaching web design and development to students. Based on the findings of this study, it was deduced that teachers are highly in need of web design and development competency skills in secondary schools in Nsukka Educational Zone. To this intent, the teachers' need to be equipped with the identified competencies in web design and development to enable them impart same on their students in order to make a living from the skills acquired and thus help their families survive in a recessed economy.

References

Ajayi, E. & Haastrup, I. (2009).The Application of Information and Communication technology in Nigeria secondary school. *International (NGO) Journal*, 4(5), 210-214

Baker, K.R., 2003. The Impact of Paging vs. Scrolling on Reading Online Text Passages. *Usability News,* (5) 1. Available at http://psychology.wichita.edu/surl/usabilitynews/51/paging_scrolling.htm

Choo, E. A. (2002). 'Information seeking on the web: an integrated model of browsing and searching' *First Monday, 5(2)* retrieved 15 August,2016 from http://www.firstmonday.org/ojs/index.php/fm/article/view/729

Jegede S.A ., 2007. The Effect of Problem Solving Technique on Students Competencies Tackling Chemical Problem. *Research Journal of Applied Science*, 2, 801-803

Jon, N. (2012). *Game Theory and Small Business in Recession*. Available at www.study.com

Kyrnin, L. (2013). Efficacy of Educational Technology in Elementary and Second Day Classrooms: A meta-analysis of the research literature from 1992-2002. *Ph.D Dissertation, Southern Illinois University at Carbondale.* Retrieved November 8 2005, from ProQuest Digital Dissertations Database. (Publication No.AAT 3065343)

MacLean, O. & Mohr, U. (2009). Individual Characteristics Associated with World Wide Web use: An Empirical Study of Playfulness and Motivation. *The Database for Advances in Information Systems, 28(2), 53-62*

Marlene, I. (2007). Teachers' Role to Influence the Learning style preferences on student success in online versus face-to-face environments. *The American Journal of Distance Education*, 16(5), 102-112.

Nwachukwu, O. (2016). Nigeria in Weird Survival Strategies amid Economic Recession. *Businnes Day Newspapers*. September 19. 2016

McKinney, P. (2016).Economic Recession-Definition, Causes and Effect. Available at www.study.com

Nicholas, D., Huntington, P., Williams, P. & Dobrowolski, T. (2004). Re-appraising information seeking behaviour in a digital environment: bouncers, checkers, returnees and the like, Journal of Documentation, 60(1) 24-43

Sherman, D.O (2005), Computerization of Examination Results, Ibadan. Macmillian

Spiliopoulou, H. A. (2003), Electronic Journal of E-Learning Volume 9 Issue 1 2011

Pitkow, J. E. (2004), Characterizing Browsing Strategies in the World-Wide Web, Computer Networks and ISDN systems 27 (6), 1065-1073

Ukoha, O., (2008), Student Satisfaction with the Usage of E-Learning Strategies to Augment Mathematics Instruction. Global Digital Business Review. 3(1), 7-15

www.startuptipsdaily.com Star Edom, June 28 2016

Yun, P. O. (2002), "Constructing Attack Scenarios through Correlation of Intrusion Alerts". In Proceedings of the 9th ACM Conference on Computer and Communication Security. Washington D.C., November 2002.

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Care Labels Utilization by Laundry and Dry Cleaning Establishments in Benue State

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Abstract

This study investigated care label utilization practices by launderers and dry cleaners in Benue state. Specifically, the study determined launder's and dry cleaner's perception of the uses of care labels in their clothing care activities; problems that hinder or could hinder uses of care label by launderers in laundry/dry cleaning establishments in Benue State and ways of enhancing their utilization of care label. Three research questions guided the study. Descriptive survey design was adopted for this study. The population for the study was 63 launderers/dry cleaners in the laundry/dry cleaning establishments in Benue State, there was no sampling. Questionnaire and focus group discussion guide were used for data collection. Data analyzed using mean and standard Deviation. Responses from focus group discussion were summarized. Findings of the study include: that launderers/dry cleaners perceived care label as sources of information on type of fibre/fabric, type of care- laundry or dry-cleaning, hand or machine wash, water temperature. Hindrances to the use of care labels include incorrectly presented information by the manufacturers; users inability to read and interpret care labels; some care labels are inconspicuous on clothing ways of enhancing utilization include that care labels should be attached in a conspicuous part of the clothing by the manufacturers; care labels should be legible during useful life of clothing items.

Introduction

Clothing is any article or item placed on the body in order to protect, beautify or adorn it. It includes a variety of items and applications such as clothes (garments, gowns, shirts, trousers, skirts, undergarments, watches, belts, ties, make-up, hair do ,umbrellas, hand bags, walking sticks, among others(Anyakoha,2015).It performs important functions including protection, modesty, decoration, identification, status, creates impression, build self-expression among others. It is one of the basic human needs. In the process of utilization of clothing articles they become dirty and must be cleaned and cared for. The care given to clothes depends on the fabric type (fibre). There

are various ways of caring for different clothes including laundry and dry cleaning.

Laundry is the process of washing, proper drying and finishing of clothing items. Dry clean involves the processes of cleaning clothing and related textiles with special solvents instead of water (Anyakoha, 2016). Clothing manufacturers often attach care labels to clothes. Such care labels are expected to give information on fibre types, care of that fibre, hand/ machine washing symbols, dry cleaning and ironing symbols, and other necessary information. The launder or dry cleaner is expected to study the care labels and follow the instructions given therein.

The scenario in the laundry/dry cleaning establishments in Benue state on the use of care label is given the researcher a concern. It is observed that many people who patronize launderers and dry cleaners in Benue State often complain and express dis-satisfaction with their laundered/dry cleaned clothing articles. Often the articles get damaged in the process of laundry or dry cleaning. It becomes doubtful as to whether or not the service providers are aware of and utilize the information on the care labels. This situation causing many people's clothing items to get damaged in the process, thereby counting looses to the owners' of the clothing items. This situation most times has led to huge amount of loss both on the launderers and the owners of the clothing items. It is therefore important that care label utilization be ascertained to reduce the number of clothing items damaged during the laundry/dry cleaning process by the service providers. It is upon this background that the study is undertaken to ascertained care label utilization of launders/dry cleaners' in Benue state.

Purpose of the Study

This study focused on care label utilization by launders /dry cleaners in Benue State laundry/dry cleaning establishments. Specifically the study determined;

1. launder's/dry cleaner's perception of the uses of care labels in their clothing care activities.
2. problems that hinder or could hinder the uses of care label by launderers in laundry/dry cleaning establishments in Benue State.
3. ways of enhancing utilization of care label by launderers in laundry/dry cleaning establishments in Benue state.

Research Questions

To accomplish this, the study sought answers to the following research questions.

1. What is the launderers'/dry cleaner's perceptions on uses of care labels in their clothing care activities?
2. What are the problems that hindered or could hinder the use of care labels by launderers in laundry/dry cleaning establishments in Benue state?
3. What are the ways of enhancing care labels utilization by launderers

in laundry/dry cleaning establishments?

Methodology

***Area of the Study*:** The study was carried out in the four major urban towns in Benue State. The registered laundry and dry cleaning establishments in the state are found in these major towns. There are 63 such registered establishments (Benue State Ministry of Trade, Commerce and Industries, 2016).

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

***Population for the Study*:** The population for the study was made up of all the trained launderers and dry cleaners in the 63 registered in laundry/dry cleaning establishments in the Benue State (Benue State Ministry of Trade, Commerce and Industries, 2016). It was expected that each establishment had at least three trained personnel.

Sampling for the Study: A purposive sample of 63 trained launderers/dry cleaners was selected from each of the 63 establishments. One trained staff with the highest qualification and experience was selected from each establishment.

***Instrument for data collection*:** The data was collected with two instruments namely a 4-point scaled questionnaire and focus group discussion guide (FGD). The questionnaire was developed based on the research questions and literature review. It comprised of two sections. Section A demographic information of the respondents. Section B had three parts, to which respondents responded to in line with the three research questions. The questionnaire had four point response options that required the respondents to strongly agree (SA), agree (A), disagree (DA), and strongly disagree (SD) (4, 3, 2 and 1) respectively on the items. The FGD guide was based on the three research questions.

The two instruments were face-validated by three experts in Home Economics from tertiary institution. The reliability coefficient computed using cronbach Alpha method which yielded a coefficient of 0.85. This was considered high enough and the instrument reliable.

***Data Collections techniques*:** A total of 63 copies of questionnaire were administered by hand.

***Method of data Analysis*:** Means were used for data analyses. Any item with the mean of 2.5 and above was regarded as an "agreed" opinion of the respondents. Items with means less than 2.5 were regarded as "not agreed" responses. The FGD information was organised and summarized based on the research questions.

Findings of the Study

Table 1: Mean Responses of Launderers'/Dry cleaner's Perceptions on Information found on Care Labels

S/No	Perceptions on Care labels information	X	SD	Remark
1	Type of fibre/fabric	3.7	0.06	A
2.	Type of care- laundry or dry-cleaning	3.0	0.05	A
3.	Hand or Machine wash	3.6	0.05	A
4.	Water temperature	3.5	0.06	A
5.	Bleaching or otherwise	3.5	0.06	A
6.	Water extraction method (wringing or drip-drying)	3.7	0.06	A
7.	Pressing or Ironing method	3.6	0.05	A
8.	Temperature of the iron	3.2	0.05	A
9.	Dry cleaning solvent	3.5	0,06	A
10.	Storage type	3.7	0.06	A
11.	Method of drying	3.2	0.05	A

X = Mean of launderers', SD = Standard Deviation of the launderers' = Agreed

Table 1 reveals that all the items have their means ranged from 3.0 to 3.7 and are above the cutoff point of 2.5.This indicates that the launderers in the laundry/Dry cleaning establishments agreed with this items as the perceived of the use of care label for laundry/dry cleaning establishments.

Summaries from the focus group moderators guide also shows the perceived uses of care label that, Care label provide guidelines to consumers and apparel care givers about the best cleaning procedures to be used for a particular combination of fabric, thread decoration and construction techniques. And that following the instruction on the care labels will provide assurance that appearance and fit of the garment will be maintained after repeated cleaning treatments.

Table 2: Mean rating of Respondents on Problems Hindering or may Hinder the uses of Care Labels by Launderers in Laundry/Dry Cleaning establishments in Benue State

S/No	Problems hindering or may hinder launderers	X	SD	Remark
1.	Wrong information on Care label	3.5	0.06	A
2.	Users inability to read and interpret care labels information	3.0	0.48	A
3.	Some care labels are inconspicuous on the clothing	3.5	0.06	A
4.	Correct temperature of washing machine setting is not stated	1.9	0.03	D
5.	Care labels do not mention a particular solvent for fabric	3.1	0.05	A
6.	Workers lack of awareness of care label	2.9	0.04	A
7.	Lack of skills to conform	2.5	0.04	A
8.	Incomplete information on care label	3.2	0.04	A

9.	Care labels are removed during handling	3.1	0.05	A
10	Some care labels are not legible through the life time of the clothing	3.0	0.05	A

X = Mean of launderers; SD = Standard Deviation of the launderers' = Agreed

Table 2 reveals that all the items had the average mean from 2.5 to 3.5, which is above the cutoff point of 2.5 except, the item four with average mean less than the cutoff point of 2.5 mean. The result shows that the launderers in the laundry/dry establishments in Benue State agreed with these items that they are the problems hindering or may hinders the use of care label for them (launderers in the laundry/dry cleaning establishments).

The focus group discussions moderators' guild was also summarized and the results were not far from the information obtained from the questionnaire. Some of the issues that attributed from the discussions as the problem hindering or may hinders the use of care labels are; Correct temperature of washing machine setting is some time not stated for, Lack of awareness of the use of care labels, Care labels are removed during handling so the launderer find it difficult during cleaning process, they also attributed that Some care labels are inconspicuous on the clothing.

Table 3: Mean Rating of Respondents on ways of Enhancing Utilization of Care Label by Launderers

S/N	Ways of enhancing the use of care labels	X	SD	Rmark
1.	Sensitization / awareness work shop on the use of care label for the launderer and dry cleaners in the establishments, be organized by clothing and textile lecturers in collaboration with ministry of commerce Benue State.	3.3	0.05	A
2.	Care label must be permanently attached by the manufacturers of the clothing, during the production and be monitor by experts in clothing.	3.1	0.05	A
3.	Care label should be attached in a conspicuous part of the clothing by the manufacturers.	3.1	0.05	A
4.	Care label should be legible during useful life of clothing items	2.9	0.50	A
5.	The care label instruction should be written in a language that is universal by the manufacturers so that it will be understand by launders in laundry /dry cleaning establishments	3.4	0.05	A
6.	The launderer should pay attention to identify care label tag to study them before washing so that they can obey the rules of the care label.	3.3	0.05	A
7.	Correct temperature of washing machine setting should always be stated for hand/machine wash, dry cleaning,	3.0	0.05	A

and other instruction be stated by the manufacturers'

X = Mean of launderers; SD = Standard Deviation of the launderers' = Agreed

Table 3 on the ways of enhancing the utilization of care label by launderer/drycleaners in the laundry/dry cleaning establishments in Benue state shows that the launderers have agreed with all the items presented on the table as the ways of enhancing the utilization of care labels. Since all the items had the mean of above 2.5 and it is above the cutoff point of 2.5. The summary of the focus group discussion moderator guild shows that, Care label should be placed in a conspicuous place on the clothing, by the manufacturer for the launderers to see when cleaning the clothing items. They also stipulated that Care label should be legible during useful life of clothing items. The care label instruction should be written in language that is universal to understand by the laundry and dry-cleaning establishment and that launderer should pay attention to identify care label tag to study it before washing, so as to obey the rules of the care label on the item.

Discussion of the Findings

Findings of research question one on launderers'/dry cleaner's perceptions of care labels information reveals that, care label information should include; method of drying, storage type, dry cleaning solvent, temperature of the iron or ironing method, water extraction method (wringing or drip-drying), bleaching or otherwise, water temperature, hand or Machine wash, type of care- laundry or dry-cleaning and type of fibre/fabric. The findings are consistent with the stipulations of Care Labeling for Clothing and Textile Product Supplier Guide (CLCTPSG 2014). The stipulations of CLCTPSG state care label give special instruction on how to care for clothing items, provide information on how to wash by hand and by using machine or dry cleaning .it also explain the best method to use on clothing items without damaging it**.** Care label also provide guidelines to consumers and apparel care givers about the best cleaning procedures to be used for that particular combination of fabric, thread decoration and construction techniques this findings also are in line with Davis (2016). He stated that the instruction on the care labels provide assurance that appearance and fit of the garment will be maintained after repeated cleaning treatments, and that care labels are important in establishing responsibility if garment are damage in the care process, knowing the requirements and responsibility of care labels this will help you to take proper care of the clothing items. This finding on the uses of care label are in line with Dolhan (2018),that care label should explain what should be done on the clothing item attach to. The finding are also consistent with the rules of Federal Trade Commission (2018)

The findings also showed that Problem hindering the use of care label by launderers in the laundry /dry

cleaning establishments; are incorrect care instruction provided by the manufacturer of clothing items,. These are in consonance with American society for testing materials guide line (2013) (ASTM).Who identified the constraint to the use of care label as some time the normal care of the article in use is not properly stated ,also when dry cleaning only is not known when the label do not mention a particular solvent to be use.

In consideration of the important of making use of care label in laundry/dry cleaning establishments a good number of ways were revealed by the respondents in order to enhance the utilization of care label by launderers in laundry/dry cleaning establishments. Prominent among the ways adopted for enhancing utilization of care label include .Organizing a sensitization/awareness workshop on the use of care label for the launderers. Care label must be permanently attached. Care label should be placed in a conspicuous place on the clothing item and Care label should be legible during useful life of clothing items. The findings agreed with the stipulations of Federal Trade Commission (2018).

Recommendations

Based on the findings of the study, this recommendations were made, that launderers in the Laundry/dry cleaning establishments should make use of care label tag attach on the clothing item to follow their instruction, information and method stated on them in their services, Correct temperature of washing machine setting should always be stated for machine wash, and other instruction such as hand/dry cleaning, and other instruction be stated by the manufacturers. The launderer should pay attention to identify care label tag to study it before washing and obeying the rules of the care label in use, to avoid damage of the clothing items during cleaning.

Conclusions

Based on the findings of the study, it can be concludes that care labels help to provide information on how to wash, iron ,dry, bleach and dry clean clothing items. But notice that there are some problems that hindered or could hinder launderers in the laundry/dry cleaning establishment from using the care label information such like when multiple instruction are attach to one clothing item, when the instruction are not well stated, and when they are not see by the launderers. Nevertheless ways to enhance the utilization of this care label were highlighted from the result that, care label should be legible, conspicuous and permanent throughout the life time of that garment. And the launderers should endeavor to use them whenever they are laundering or dry cleaning clothing items.

References

Anyakoha E. U(2015) *Home Management for School and Colleges Revised Edition* appearance. New Jersey: Prentice Hall.

Anyakoha E.U (2016).*Home Economics for Junior Secondary School* (Revised ed)Onitsha: African FEB publishers limited.

Ariety, D. (2000) Controlling the information flow: Effects on consumer's decision making and preference .*Journal of Consumer Research,27 (2),233 -248.*

Benue State Ministry of Trade, Commerce and Industries (2017) Benue State book of records Makurdi.(unpublished)

Care Labeling for Clothing and Textile Product Supplier Guide (2014) Cincinnati: Ohio south western publishing company.

Care Labeling Guide to common Care symbols (2014) Australian, ACCC publisher.

Care Label Regulations (2014), Hand Book for Care label Regulation commission Rule. New York publishers.

Dolhan,P.(2014) Revised Care Labelling Standard "iron out" the problems of wash and wear. *The Textile Journal, 121 (5),36 -39.*

Federal trade commission care label rule (2014) The National textile base standard Technical Company. Boston.

Heba Assem El-Dessouki(2015) A survey on knowledge about Care label on garments by Higher

Education. U.S. LAC Company.

Kirsi L. & Ingun ,G.K (2018) "Environmental and Ethical perceptions Related to clothing labels among Norwegian consumers". *Research Journal of Textile and apparel*, vol.17 issue.1,pp.50-58.http//doi.org/10.1108/RJTA -17 -10/2013.

Staden H., Merwe D.; Aardt, A. and Ellis, S.(2016) Low -literate Consumers use of clothing

labels amidst personal and products related challenges, *International journal of consumer studies,* 41,1, (79 -86)

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Enterprise Characteristics of Selected Hotels for Indigenous Snacks Acceptability in South-West Nigeria

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Abstract

The study assessed the enterprise characteristics of various tourists' centers across the selected states in Southwest Nigeria. It was conducted in selected hotels and tourists centers in southwest Nigeria. Twenty caterers were randomly selected in each hotel and tourist centers. Data were collected using questionnaire and analyzed using frequencies and percentages. The findings of the study show that indigenous snacks were offered in lower proportion to continental snacks in hotels across the states in south-west Nigeria, these snacks are prepared and packaged hygienically and also theses hotels have adequate recreational facilities. The study recommended that workshops and seminars should be organized on promotion of indigenous snacks into hotels and tourists centers.

Keywords: Enterprise, Characteristics, Hotels, Indigenous, Dishes, Tourists

Introduction

Food contains nutrients which must be consumed in the right proportion for good intellectual development and growth, also for the maintenance of good health (Olusanya *et al*., 2000). Report by Meludu (2010) grouped food into raw food, convenience food, fast food, and medicinal food. Apart from main meals, there are those referred to as snacks, these are small casual meal, ready- to-eat (RTE) food products which are sometimes considered as substantial source of nutrients. Snacks play important role in Nigerian food culture (Abiola *et al*., 2012) by show-casing the diversity in food selection. The European Food Information Council (2000) reported that the consumption of snacks in addition to one's appropriate daily calorie intake will lead to increase in body weight. Buthrie *et al*. (2002) also documented that snacks are high in fats and sugar and are therefore, "bad" and "makes one fatter". Snacks are also perceived as junk food eaten in between meals because they typically have little or no

nutritional value and are not seen as contributing towards general health and nutrition but a healthy snack can offer health benefits. Snacks can even be included in weight loss plan; this can be done by choosing snacks with about 100 calories and a mix of carbohydrates, protein and healthy fats. Summerbell *et al*. (1995) stated that snacking is also an effective way to fit extra nutrients into one's diet and prevent overeating at meal times. They contribute about 15-20% of our daily energy intakes, 15-20% of our daily mineral intake and 13-17% of our daily vitamin intake. Generally, the role of snacks is to offer a light, convenient and enjoyable food option before the main meal time (Olusanya *et al*., 2000). Nutritionally, Martinez (2015) stated that eating a healthy snack increases the intake of essential nutrients. For example, fruits and vegetables add vitamins A and C, both of which are important for immunity building, wound healing, healthy teeth and gums. They also offer fibre and fill the stomach for very few calories, low fat cheese, yoghurt or hummus increase protein intake, which is necessary for healthy muscles, skin cells and hair. Whole grain crackers add complex carbohydrates and additional fibre, low-fat dairy foods increase Calcium intake, a nutrient that is needed for healthy bones (Sanni and Adebayo, 2010).

Traditionally, snacks are prepared from ingredients available in the home, cold cuts, sandwiches, nuts and fruits (Delroy, 1985). Indigenous snacks could serve to create market potentials for the farmers to supply farm produce such as maize, millet and beans (Apata, 2017). The same author opined that these raw materials used to prepare indigenous snacks could also be introduced to hotels and tourist centres to make sufficient sales, which could require investment, large equipment and thereby create employment for people around the centres which can hitherto improve local economy. Examples of indigenous snacks include aadun (corn cake), akara ogbomoso (Ogbomoso town's cake), kokoro (maize flour), and dodo ikire (overripe plantain chips).The author further stressed that tourism development is gradually becoming the concern of many stakeholders, as tourist centres are springing up while tourists come from both within and outside the country. According to Apata (2017), local snacks are often sold by itinerant sellers from trays or boxes on their heads, from stores in the market and schools or by the wayside in small rural towns as well as larger urban centers. In southwest Nigeria, some of these snacks are widely sold at marketplaces and hawked at motor parks. Indigenous foods as snacks are fundamental components of a destination attributes and overall tourist experience which could result in culture contact (Long, 2004). Some tourists might want to experience taking locally made food inform of snacks at tourism destinations, especially if encouraged and accepted by caterers in hotels and tourists centres.

Purpose of the study

This study explored enterprise characteristics of various tourists

centers across selected states in Southwest Nigeria. Specifically the study determined

1) socio-economic characteristics of caterers in selected hotels and tourists centres in southwest Nigeria.
2) types of dishes and snacks are available in the hotels and tourists centres.
3) factors affecting serving indigenous snacks at selected hotels in south-west Nigeria,
4) recreational facilities available in the selected hotels and tourists centres.

Research questions

1 What are the socio-economic characteristics of caterers inselected hotels and tourists centres in southwest Nigeria?
2 What types of dishes and snacks are available in the hotels and tourists centres?
3 What are the factors affecting serving indigenous snacks at selected hotels in south-west Nigeria?
4 What are recreational facilities available in the selected hotels and tourists centr

Methodology

***Area of study*:** The study was carried out in selected hotels and tourists centers in south-west Nigeria based on geopolitical zone. Four states were purposively selected from six states in South-west Nigeria, due to peculiarity of the snacks where two hotels and two tourists' centers that are frequently visited were purposively selected.

***Population for the study*:** The population of the study consisted of caterers in selected hotels and tourist centres in selected states in South West Nigeria. According to the Small and Medium scale Enterprise Development Agency of Nigeria (SMEDAN), there are a total of 2,431 hotels in South West Nigeria (SMEDAN, 2017).

***Sample for the study*:** The sample consisted of caterers on duty in the selected ratings of four-star hotels and tourist centers that were frequently visited were purposively selected in each sampled state. Stratified random sampling technique was used to select respondents. Twenty caterers in each of the hotels and tourists centers were randomly selected given total of 160 respondents.

Instrument for data collection: Structured questionnaire was used to collect information from the caterers. The instrument was face validated by three lecturers in the Department of Wildlife and Aqua-tourism of the University of Ibadan. The reliability of the instrument was ascertained from the pre-test, carried out with twenty respondents. A reliability coefficient of 0.8 was obtained using the test-relist method was estimated using multiple linear regressions. Oral interview was conducted with the local snacks processors.

***Data collection and analysis technique*:** One hundred and sixty copies of the questionnaire were distributed to caterers in selected hotels and tourists

centers. All the questionnaires were completed and retrieved. Data collected were analyzed using mean scores and the attitude model.

Results

Socio-economic characteristics of the respondents: The findings reveal that the mean age was 39.96±4.21. Majority of the respondents were single (5.3%). This was followed closely by the married folks (47.5%). Also, respondents with tertiary education had the highest representation (81.9%). They were also largely Christians (81.3%). All the respondents (100%) were Nigerians.

Table 1: Types of dishes available in selected hotels/tourist centers in southwest Nigeria

States	African dishes F (%)	African and Continental dishes F (%)	Continental dishes F (%)
Osun	38 (95.0)	0 (0)	1 (2.5)
Ekiti	14 (35.0)	0 (0)	0 (0)
Oyo	34 (85.0)	4 (11.0)	1 (2.5)
Ogun	25 (65.0)	13 (32.5)	5 (12.5)

Table 2 shows the percentage distribution of types of food service available in hotels across southwest Nigeria states. Availability of African dishes offered was higher in hotels at Osun and Oyo states (95%, 85%) respectively. More than half (65%) of African dishes were offered in Ogun state hotels and Ekiti hotels had the least less than half (35%) of African dishes. 32.5% of African and Continental dishes was available in Ogun state, 11% of African and Continental dishes were available in Oyo while no African and Continental dishes available in Ekiti and Osun state hotels. 2.5% of Continental dishes available in Osun and Oyo state hotels, 12.5% of Continental dishes available in Ogun hotels while no Continental dishes offered in Ekiti hotels.

Table 2: Types of snacks available in hotels/tourist centers across the states

States	Osun F (%)	Ekiti F (%)	Oyo F (%)	Ogun F (%)
African snacks	6 (15.0)	0 (0)	2 (5.0)	0(0)
African and Continental snacks	1 (2.5)	0 (0)	1 (2.5)	4 (10.0)
Continental snacks	28 (70.0)	40 (100.0)	31 (73.0)	32 (80.0)
Absence of African and Continental	0 (0)	0 (0)	2 (5.0)	0 (0)

Table 3shows that all the hotels in the study area offered Continental snacks in higher proportion (70%) in Osun, (100%) Ekiti, (73%) Oyo and (80%) in

Ogun respectively while very few (15%) of African snacks were available in Osun hotels and very few (5%) of African snacks in Oyo hotels while there were no African snacks available in Ekiti and Ogun hotels. Very few (2.5%) of African and Continental snacks available in Osun and Oyo hotels and very few (10%) in Ogun hotels, very few (5%) absence of African and Continental snacks was recorded in hotels at Oyo states.

Table 3: Factors affecting serving indigenous snacks at selected hotels in south-west Nigeria

S/N	Factors	Osun Yes F (%)	Ekiti Yes F (%)	Oyo Yes F (%)	Ogun Yes F (%)
1.	Indigenous snacks are displayed as part of Hotel's restaurant menu or sold differently around the hotel facilities	12 (30.0)	10 (25.0)	32 (80.0)	26 (65.0)
2.	Indigenous snacks enhance income generation to the hotel	35 (87.5)	30 (75.0)	36 (90.0)	36 (90.0)
3.	Indigenous snacks are hygienically prepared	14 (35.0)	20 (50.0)	7 (17.5)	7 (17.5)
4.	Indigenous snacks could be listed on the hotel's menu list	28 (70.0)	40 (100.0)	27 (67.5)	31 (77.5)
5.	Inadequate information on how the snacks was made affect its consumption	18 (45.0)	30 (75.0)	13 (32.5)	15 (37.5)
6.	High cost of processing machines affect the availability of indigenous snacks	23 (57.5)	10 (25.0)	14 (35.0)	18 (45.0)
7.	Lack of advertisement to promote sales affect indigenous snacks	24 (60.0)	40 (100.0)	14 (35.0)	27 (67.5)

Table 4 reveals factors affecting serving indigenous snacks at selected hotels in south-west Nigeria. Majority (70%) of the caterers in in Osun, (100%) in Ekiti, (67.5%) in Oyo and (77.5%) in Ogun accepted that indigenous snacks be listed on the hotels menu list. Also, Most (87.5%) caterers of hotels in Osun, (78.5%) in Ekiti (90%) in Oyo and Ogun agreed that indigenous snacks can enhance income generating to the hotel. Moreover, (35%) of respondents in Osun, (50%) in Ekiti, (17.5%) in Oyo and Ogun agreed that indigenous snacks are hygienically prepared. However, very few (30%) of caterers in hotels at Osun state, Ekiti (25%), Oyo (80%) and Ogun (65%) displayed indigenous snacks as part of hotels restaurant menu. Few (45%) of caterers in Osun, Ekiti (75%), Oyo (32.5%) and (37.5%) in Ogun indicated that inadequate information on how the snacks was made affect its consumption. Also, (57.5%) of caterers

in Osun, (25%) in Ekiti, (35%) in Oyo and (45%) in Ogun indicated that high cost of processing machines affect the availability of indigenous snacks. (60%) of caterers in Osun, (100%) in Ekiti, (35%) in Oyo and (67.5%) in Ogun agreed that lack of advertisement affect the promotion of indigenous snacks.

Table 4: Number of rooms available in hotels across states

Number of rooms	Osun F (%)	Ekiti F (%)	Oyo F (%)	Ogun F (%)
1-50	2 (5.4)	1 (2.6)	8 (20.5)	3 (7.9)
51-100	35 (94.6)	38 (97.4)	31 (79.5)	31 (81.6)
101-150	0 (0)	0 (0)	0 (0)	1 (2.6)
151-200	0 (0)	0 (0)	0 (0)	2 (5.3)
201-250	0 (0)	0(0)	0 (0)	1 (2.6)
Total	37 (100.0)	39 (100.0)	39 (100.0)	34 (100.0)
Mean	77.7297	89.8462	87.6923	94.8947

Table 5 reveals the number of rooms available in the hotels across states. In Osun state, (5.4%) of hotels have 50 rooms, (94.6%) have between 51 and 100 rooms, and no hotel has number of rooms between the range of 101 and 250. (2.6%) of hotels in Ekiti have up to 50 rooms, (97.4%) have 51 to 100 rooms while no hotel has between 101 to 250 rooms. (20.5%) of hotels in Oyo have up to 50 rooms, (79.5%) have between 51 and 100 rooms while no hotel can be found with number of rooms ranging from 101 to 250. In Ogun, (7.9%) of hotels have up to 50 rooms, (81.6%) have between 51 and 100 rooms, (2.6%) have between 101 and 150 rooms, (5.3%) have between 151 to 200 rooms and (2.6%) have between 201 and 250 rooms with the mean of (77.7%) in Osun,(89.8%) in Ekiti,(87.7%) in Oyo and (94.9%) in Ogun

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Table 6: Percentage Responses on Recreational Facilities available in selected hotels/tourists centres in Southwest Nigeria

Facilities	Osun F (%)	Ekiti F (%)	Oyo F (%)	Ogun F (%)
Gym	39 (97.5)	40 (100.0)	3 (7.5)	37 (92.5)
Swimming pool	37 (92.5)	40 (00.0)	8 (20.0)	39 (97.5)
Tennis court	9 (22.5)	10 (25.0)	9 (22.5)	30 (75.0)
Basketball court	4 (0.0)	30 (73.0)	6 (15.0)	6 (15.0)
Volleyball court	0 (0)	20 (50.0)	2 (5.0)	2 (5.0)
Spa	4 (0.0)	20 (50.0)	2 (5.0)	13 (32.5)

Table 6 shows that most of hotels across the states (97.5%), (100%), (7.5%) and (92.5%) in Osun, Ekiti, Oyo and Ogun respectively have gym. Majority of the hotels in Osun, Ekiti and Ogun has an average of (96.7%) of swimming pools except hotels in Oyo state that has the least (20%).All the hotels in Osun, Oyo and Ekiti states have an average of (23.3%) of tennis court with the exception of hotel in Ogun state that have (75%) of tennis court. All other hotels across the states have very low percentage of basketball court except hotels in Ekiti that have (75%). Most of the hotels in the states do not have volleyball court except the hotels in Ekiti state with (50%), also, (50%) of hotels in Ekiti have spas and (32.5%) hotel in Ogun state. (10%) of hotels in Osun state and only (5%) of hotels in Oyo state have spa. This showed that (60%) of the hotels in all the states have recreation facilities that could encourage tourists to their hotel although with peculiar sport facilities

Discussion

This study looked at enterprise characteristics of various tourists' centers across selected states in Southwest Nigeria. Most of the caterers were male (58.1%). The large number of male caterers could be attributed to the observations of Foskett *et al*.(2003) that men are the best chef in the hospitality industry. This could be due to the fact that men are more versatile and strong with kitchen tasks. A higher proportion (51.3%) of caterers were single, this inferred that single people have more time for themselves without hindrance of family responsibility.

Majority of the hotels in the study area offered higher percentage of African dishes and continental snacks. The result shows that African dishes and continental dishes were displayed in virtually all the hotels in the study area which indicated that the caterers in the hotels were conversant with local dishes and as such offered them. This also implies that most Hotels may be interested in promoting local dishes. The study revealed that indigenous snacks were displayed as part of hotels restaurant menu sold around the hotel facilities. The numbers of rooms available in most hotels in the study areas were between 50 and 100. Considering the display of indigenous snacks around the hotels, across the states, it was observed that indigenous snacks were displayed or hawked mostly around the hotels or tourist centres in Ogun state compared to other states, while conventional snacks were showcased and offered by the caterers virtually in all the hotels in the study area. The hoteliers agreed that lack of advertisement affect the promotion of indigenous snacks, this corroborates the findings of Yunis (2004), about product and services that they serve as life wire of hospitality industry. Caterers in some hotels accepted that indigenous snacks should be listed on the hotels menu list. This implies that the caterers in hotels and tourist centres welcome the idea of introducing indigenous snacks into the hotels and tourist centres menu list which can be a source of promoting and

encouraging the use or consumption of the indigenous snacks by the people visiting the hotel or tourist centres. The study also revealed that all the hotels in the study area encouraged or offered sport facilities such as gym, swimming pool, tennis court, basketball court, volleyball court and spa. These corroborated UNWTO (2014) and Kukoyi *et al*. (2013) on how hospitality and tourism benefit economic conditions of a country. The result also showed that 60% of the hotels in all the states have recreational facilities that could encourage tourists to their hotel although with peculiar sport facilities.

Conclusion

It is evident from the study that most of the caterers in the hotels and tourists centres indicated that they do not encourage acceptance of indigenous snacks in their hotels. African dishes were offered mostly and higher in majority of the hotels in South-west Nigeria. Continental snacks offered in higher proportion in virtually all the hotels while very few offer of African snacks were available in most hotels in South-west Nigeria and indigenous snacks as part of hotels restaurant menu was displayed by average number of caterers in the hotels.

Recommendations

Based on the findings of this study, the following recommendations were made;

- There is a need to intensify effort in encouraging and persuading the caterers in the hotels and tourist centres to accept indigenous snacks, in order to fill the gap of balancing African snacks especially indigenous snacks with the food offered in the hotel.
- Efforts should be made to organize workshop and seminars on promotion of indigenous snacks into hotels, tourists' centres and various government agencies and general public for acceptability. Caterers need to collaborate with indigenous snacks processors to be able to harness the indigenous snacks resources into hotels and tourists centres.
- Hygiene standards should be established and strictly adhered to in the preparation and packaging of local snacks that are to be sold in hotels in the region.
- Hotels should have recreational facilities that will encourage tourists in patronizing them and also the local and continental snacks that they have available.

References

Abiola, T; Shittu, T.A; Idowu, M. and Sanni, S.A. (2012) Chemical composition of cracker coasted peanut made from composite cassava wheat flour dough. In C. Igwe (Ed.) *Proceedings of the 36th Annual Conference of the Nigeria Institute of Food Science and Technology (NIFST)* (South West), Lagos, October 15-19th Pp. 143-146.

Apata, O. C. (2017) Assessment of selected indigenous snacks for acceptability by tourist and caterers in Southwest Nigeria; Ph.D. Thesis; Department of Wildlife and Ecotourism Management, Faculty of Agriculture and Forestry, University of Ibadan. Pg. 1-148.

Buthrie, J.F; Lazarus R; Baur L; Webb K. and Blyth, F. (2002) Role of food prepared away from home. *Journal of Nutrition* Vol. 34: 140-150.

Delroy, B. (1985). The role of snacks food; *Food Technology in Australia*. 47(4): 154 – 158

European Food Information Council (EUFIC) (2000) Foods on the Move: the Role of Snacking in our Diet. www.just-food.com/analysis/the-**role-of-snacking**-in-our-diet. Date accessed: 20/07/2016.

Foskett, D., Ceserani, V. and Kinton, R. (2003) The Theory of catering. Book Power, India. Pp. 1 – 33.

Kukoyi I. A., Tijani, N. O. and Adedara, M. T. (2013). Evaluation of Ikogosi Warm Spring; a potential geo-tourist site in Ekiti State, South-West, Nigeria. *Eur. J. Hosp. and Tour.* 1(3), pp 1-9.

Long, L. M. (2004). Culinary Tourism: A Folkloristic Perspective on Eating and Otherness. Southern Folklore, 55 (3), 181-204.

Martinez E. (2015) www.livestrong.com. Accessed: 3/6/2015.

Meludu, N.T. (2010) What to Cook Today for a Healthy Living Tomorrow. Pg. 1

Olusanya, J.O.; Bala, F.; Eyisi, O.; Olojola, S.O. (2000). *Nutrition and Health. Exam Focus; Food and Nutrition*.

Sanni, S. A. and Adebayo, A. A. (2010). Proximate composition of five selected snacks used as small drops in south-west Nigeria. In: H.D. Melpha. *Proc. Of. 34th annual conf. NIFST Port Harcourt.* Pp 250-254

Small and Medium Scale Enterprise Development Agency of Nigeria (2017). Enterprise Optimization Report. Abuja. SMEDAN Publichation.

Summerbell C.D; Moody R.C; Shanks J; Stock M.J; and Cuissler, C. (1995) Sources of energy from meals vs snacks in 220 people in four age groups. European Journal of Clinical Nutrition 49, 33-41.

United Nation World Tourism Organization (UNWTO). (2014). Glossary of Tourism Terms. Cf.cdn.unwto.org/sites/all/files/Glossary-of-terms. Date accessed: 20/20/20166

Yunis, E. (2004). Sustainable Tourism and Poverty Alleviation. Paper presented at the World Bank ABCDE Conference – Europe. Brussels. Accessed: 10/05/2004.

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Strategies for Coping with Economic Recession: A Case Study of Female Lecturers in University of Ilorin, Nigeria

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Abstract

This study explored strategies for coping with economic recession adopted by female lecturers in university of Ilorin, Nigeria. It was a survey. The population consisted of 367 female lecturers, out of which 200 lecturers were sampled for the study through multi-stage sampling technique. Questionnaire was used for data collection. Data were analyzed using descriptive statistics while ANOVA was used to test hypothesis at 0.05 level of significance. Findings reveal that there is no significant difference in the mean responses on academic activities related coping strategies, as well as agricultural production related coping strategies adopted for surviving economic recession by female lecturers in university of Ilorin based on faculties. It was recommended among others that the Academic Staff Union of Universities (ASUU) in universities of Ilorin should organize seminar to promote planning and budgeting among the university lecturers and families also female lecturers in university of Ilorin should be encouraged to employ home gardening and agricultural strategies. Families should also be encouraging to embark on additional income such as baby siting, analysis for both students and staff and by adopting to the new lifestyle.

Keywords: Economic Recession, Survivals Strategies, Coping, Female Lecturers, Families.

Introduction

Recession is a downturn in any economy. Recession is associated with high unemployment, slowing Gross Domestic Product and high inflation. Economic recession is a period of general economic decline and is typically accompanied by drop in the stock market, an increase in unemployment and decline in the housing market. Generally, a recession is less severe than a depression. The

blame for a recession generally falls on the federal leadership often either the President himself, the Head of Federal Reserve or the entire administration (Zafar, 2016). The National Bureau of Economic Recession (2010) defined, recession as a significant decline in economic activity spread across the economy, lasting more than a few months, normally visible in a real Gross Domestic Product GDP growth rate for two consecutive quarters (say first and second quarters). Judging by the above definition, Nigeria is experiencing economic recession currently, since her first and second quarter growth in 2016 were 1.7% and 2.06% (Osalor, 2016). The stance is also supported by International Monetary Fund (IMF) and Central Bank of Nigeria (CBN) (Noko, 2016). Simply put people are going to lose their job, the value of the nation's currency is going to drop and people will lose their homes. During any recession, news stories about unemployment figures takes center stage while the families dealing with the recession suffer, often quietly recession affect families and individual badly. People work hard just to stay afloat in hopes that the economy will turn around soon, but often to no avail. While many families and individual do their best to carry on so as if nothing is wrong with the world, recessions can have a profound effect no their day to day activities and the way they live. Families and individual may not be able to avoid the effects of the recession, but they can make changes that can improve their situations and help them prepare for the future, while they want for an economic upswing. Also during recession economic hardship knows no limit and boundaries, it affects livelihood of everybody in one way or the other and this naturally gives impetus to survival instincts as people work harder and more effective to tackle the new economic challenges. In a recession, families and individual with little or no buffers to resist the effect of recession are mostly likely to be hit severely, but there are ways the unfortunate condition could be manage.

The major causes of economic recession in any economy (Nigeria inclusive) include high inflation which is a general rise in price of goods and services leading to law purchasing power, accumulation of debt servicing especially foreign debts, high interest rate, discouraging investor, fall in aggregate demand, fall in wages or income and mass unemployment, and general loss of confidence on the government due to economic indices (Ishiekwere, 2016). David Quilly (2010), described the following as the effect of recession on families and individual such as jobs and employment, affects the stability of families and individual. Our status, self-worth, health and well-being can drastically impacted by the loss of a job. While many who lose their jobs use the time for growth and exploration, many suffer with depression, alcoholism and denial. With unemployment rates running extremely high during recession, individuals and families struggle to find work to pay their bills each month. The stress of not

finding work, and a loss of income can lead to damaging inter-family relationships that can take years to mend. Sometimes families must borrow money from relatives or friends which can result in tense situations. Reduced income leads to reduced entertainment, during and extracurricular activity expenses. People cut back on extras during a recession, so many families must make drastic changes to their prerecession lifestyles. Families may not accommodate short and long-term non-residential investment during a recessions. Families may put investment account on hold, hoping to play catch-up at a later date. Families may also be tempted to invest money because of the reduced expense of stocks without any expendable income, investing may not be feasible. Entrepreneurs may have lack of funds available for borrowing or starting new business during a recession. Real estate value – many families depend on the value of their homes as part of retirement plan. During a recession, however, real estate value fell drastically and foreclosures increase, forcing many families out of their homes. Real estate can no longer be view as a safe investment during an economic downturn. Education, many families cannot afford to send their children to college during a recession. Furthermore, the college experience changes for many students who do attend, as universities fill classes with too many students or cut classes, majors and staff, all while increase tuition. During recession, families must still pay the household bills, and try to get out of debt, bankruptcy, judgments, and late payment can all hurt your credit score. Families must understand the difference between needs and wants during a recession. Families need safe place to live clothing, food, and access to affordable health-care. As priorities shift for many families during an economic downturn, they can focus on the necessities and learn more about their innate survival skills.

Kale, Malgari and Huruna (2017) reported that the current recession in Nigeria experiences can be attributed to several causes including poor economic planning and no concrete implementation, high inflation rate, high interest rate, high taxation, policy conflict, overdependence of the nation on petroleum as a source of income, resources mismanagement, high rate of importation, heavy indebtedness to the World Bank and International Monetary Fund (IMF), the dynamic of cover population, the national relocation of employment and the changing of means of labour, growing gap between the elite and impoverished, political instability, leadership crises, diseases burden, budget priority and implementation. Despite the economic recession, female lecturers like other women are faced with enormous responsibilities, which range from domestic shores to child bearing and rearing, economic activities (such as the lecturing job), many of which are voluntary or natural responsibilities. Women shoulder more than 90% of the domestic production task (Ako-Nai, Ologunde, & Adekola 2010). However,

adopting strategies to surviving the economic recession is also the responsibilities of the women. Strategies implies that individuals are in the position to make crucial economic choices of adverse adjustment in the formal economy that lend to make such choice impossible (Wood, 1982; Roberts, 1994; Ako-Nai, Ologunde & Adekola, 2012). Earlier studies have examined the concept of family and women survival strategies (Dugue & Pastran, 1973; Jeln, 1982; Ako-Nai, Ologunde & Adekola 2010; Adesina – Uthman, 2012). This is important as Buboltz (1991) has noted that home economics has an underlying base value, which is survival. Literature have suggested number of strategies with which women can survive economic recession. Cano and Ion (2017) suggested planning and budgeting resources of one's disposal as a way to reduce much of the necessary time and effort of achieving the goal of surviving economic recession. In this regard, Smith recommended the avoidance of buying what one cannot afford, avoidance of buying on credit, reduction of spending when indebt and avoidance of dependence on others on the government.

In a survey across the 36 states of Nigeria, Nwachukwu (2016) reported that 37 percent of Nigeria were cutting down an household expenses and luxury items such as ice cream, Suya, Nkwobi and pepper soup, while focusing on the basic needs of clothes and food to eat. Clark (1999) suggests having home garden in order to save some money for other things, due to increase in price of fruits, and vegetables such as okra, spinach tomatoes, green pepper, red pepper, plantain and banana. Redeclift (1986) reported that efforts have been made in certain countries to add part time farming as a policy objective, Nwackukwu (2016) reported that there are clear cases at families increasingly engaging in subsistence agriculture to plant some vegetables in their backyard to sustain living, David Quilty (2010) suggested that lifestyle changes brought about by a recession will include a period of adjustment. Families must allow themselves time to adapt, and understand that children may not fully understand the financial implications affecting the family. Talk with children about things will change, and be realistic about expenditures and outcomes. It's a great time to teach kids about money management. After a period of unemployment, belt-tightening may still be necessary, as the impacts of unemployment can be far-reaching. Instead focus on changes that need to happen now, and how the family can make the best out of the situation. The findings of this study will be significant to female lecturers, families, economists and the societies at large as it will help female lectures learn and adapt strategies for coping with economic recession which will benefit families, economists and the societies at large.

Purpose of the Study

The main purpose of the study was to investigate coping strategies employed

by female lecturers in University of Ilorin, Nigeria to survive economic recession. Specifically, the study determines:

1. academic activities related coping strategies adopted for surviving economic recession by female lecturers.
2. agricultural production related coping strategies. adopted for surviving economic recession by female lecturers.

Research Questions

The following was raised to guide the study;

1. What academic activities related coping strategies are adopted for surviving economic recession by female lecturers?
2. What agricultural production related coping strategies are adopted for surviving economic recession by female lecturers?

Research Hypotheses

The following null hypotheses were tested in the study at 0.05 level of significance.

Ho1: There is no significant difference in the mean responses on academic activities related coping strategies adopted for surviving economic recession by female lecturers in University of Ilorin based on faculties.

Ho2: There is no significant difference in the mean responses on agricultural production related coping strategies adopted for surviving economic recession by female lecturers. in University of Ilorin, based on faculties.

Methodology

Area of Study and Design: Area of study was university of Ilorin. University of Ilorin in Ilorin South, Local Government Area of Kwara State. Nigeria. The University comprises 15 faculties and 113 departments (Staff data Human Resource Division, University of Ilorin, 2017). Descriptive survey research design was adopted in carrying out the study.

Population for the Study: The population comprises of 367 female lecturers in University of Ilorin, Nigeria, constituting 81 professors/Readers, 84 Senior Lecturers, and 202 Lecturer 1 and below.

Sample and Sampling Technique: A total of 200 female lecturers made up the sample for the study. A multistage sampling technique was employed in selecting the sample size for the study. At first stage 6 faculties were randomly selected from the 15 faculties. In the second stage three departments were randomly selected from each of the 6 faculties. In the third stage, a purposive selection of the 6 faculties were made. In the last stage a non-proportionate stratified random sampling technique was adopted to select only female lecturers as follows: Department of Home Economics and Food Science (35), Department of English and Performing Arts (34), Department of Mass Communication and Computer Science (25), Department of Educational Management and Guidance and Counseling (60), Department of

Chemistry and Bio-Chemistry (24), Department of Mathematics and Plant Biology (22).

Instrument for Data Collection: A structured questionnaire was developed based on the objectives of the study and used for data collection. The instrument comprised two sections, A and B. Section A sought information on the demographic data of the respondents while B dealt with the specific objectives of the study. Responses to items were based on a 4 point likert rating scale ranging from Strongly Agree (4), to Agree (3), to Disagree (2) to Strongly Disagree (1). The instrument was validated by three experts from related fields in the University of Ilorin. Reliability of instrument was established using test-retest technique. The results of the two administrative were analyzed using Pearson's Product Moment Correlation, and it yielded a high positive coefficient (r) of 0.82.

Method of Data Collection: The instrument was administered with the help of two trained research assistants by hand. Two Hundred copies of the questionnaire were distributed to the lecturers. Efforts were made to ensure that the items were completed correctly. All Two Hundred copies of the questionnaire were returned showing 100 percent return rate.

Method of Data Analysis: Descriptive statistics of means was used to answer the research questions raised while inferential statistics of ANOVA was used to analyze hypotheses at 0.05 level of significance.

Results

Research Question One: What academic activities related coping strategies are adopted for surviving economic recession by female lecturers in University of Ilorin based on faculties?

Table 1: Mean analysis of academic activities related coping strategies by female lecturers.

No	Academic activities related coping strategies	X_1	X_2	X_3	X_4	X_5	X_6	X_g	Decision
1	Stop buying expensive things	2.89	2.91	3.08	2.93	3.40	3.50	3.00	Agreed
2	Avoid debt/credit	2.91	2.94	2.88	2.90	2.88	3.41	2.96	Agreed
3	Attending conference at least one annually	3.40	3.41	3.28	3.35	3.29	3.64	3.39	Agreed
4	Write and publish at least one journal annually	3.34	3.35	3.16	3.27	3.17	3.45	3.29	Agreed
5	Forming publication group	3.51	3.56	3.52	3.52	3.52	3.68	3.55	Agreed
6	Involving in faculty programs	2.66	2.65	2.64	2.65	2.67	2.82	2.67	Agreed
7	Publishing in a free	2.91	2.94	2.96	2.93	3.00	2.64	2.91	Agreed

	journal								
8	Not budgeting above one's income	3.71	3.18	3.04	3.12	3.13	3.45	4.17	Agreed
9	Publishing in local journal	3.51	3.36	3.52	3.52	3.54	3.86	3.57	Agreed
10	Avoiding very expensive conference	3.54	3.56	3.52	2.53	3.50	3.73	3.56	Agreed
11	Analysing data for staff and students offering related training.	3.51	3.56	3.52	3.52	3.50	3.73	3.55	Agreed

X1 = Mean response of female lecturers in Faculty of Agriculture X2 = Mean response of female lecturers in Faculty of Arts X3 = Mean response of female lecturers in Faculty of Communication and Information Sciences. X4 = Mean response of female lecturers in Faculty of Education X5 = Mean response of female lecturers in Faculty of Life Sciences X6 = Mean response of female lecturers in Faculty of Physical Science Xg = Grand mean (for the 6 faculties)

Table 1 shows that the respondents agreed that they adopt academic activities related coping strategies for surviving economic recession. This is because the grand mean scores for the 10 items were greater than 2.50 cut-off point ($\boldsymbol{x}$ > 2.50). Strategy 9 had the highest mean score of ($\boldsymbol{x}$ =3.57), indicating importance of publishing in local journal to the respondents.

Research Question Two: What agricultural production related coping strategies are adopted for surviving economic recession by female lecturers in University of Ilorin based on faculties?

Table 2: Mean analysis of agricultural production related coping strategies adopted by female lecturers

No	Agricultural production related coping strategies	X_1	X_2	X_3	X_4	X_5	X_6	X_g	Decision
1	Planting vegetables	3.49	3.50	3.48	3.48	3.50	3.73	3.52	Agreed
2	Snail farming	3.09	3.12	3.04	3.07	3.04	3.09	3.08	Agreed
3	Having orchards	3.14	3.15	3.08	3.12	3.13	3.14	3.13	Agreed
4	Having poultry	3.06	3.09	3.08	3.07	3.04	3.45	3.11	Agreed
5	Fish farming	3.17	3.18	3.08	3.13	3.08	3.36	3.16	Agreed
6	Harvesting and preservation	3.14	3.18	3.12	3.13	3.08	3.59	3.19	Agreed
7	Planting maize and cassava	3.43	3.44	3.44	3.43	3.42	3.50	3.44	Agreed
8	Producing garri and store	3.00	3.03	2.96	2.98	3.92	3.50	3.04	Agreed
9	Practicing storage system	3.31	3.32	3.32	3.32	3.29	3.45	3.33	Agreed
10	Selling farm products such as oranges, vegetables and fishes	3.17	3.15	3.28	3.52	3.21	3.50	3.33	Agreed

Table 2 shows that the respondents agreed that they adopt home gardening and agricultural strategies for surviving economic recession. This is because the grand mean scores for the 10 items were greater than 2.50 cut off point. Strategy 1 had the highest mean score of ($\boldsymbol{x}$ = 3.52). Thus perhaps is because the respondents are homemakers, and would prefer to prepare fresh vegetables for their families.

Ho1: There is no significant difference in the mean responses on academic activities related coping strategies adopted for surviving economic recession by female lecturers in University of Ilorin.

Table 3: ANOVA analysis on difference in academic activities related coping strategies adopted by female lecturers.

	Sum of squares	Df	Mean square	Fcal	Fcrit	Decision
Between groups	136.931	5	27.386	1.037	2.31	Accepted
Within groups	5125.264	194	26.419			
Total	5262.195	199				

α =0.05

Table 3 shows an F-value of 1.037 and a p-value of 2.31, testing at an alpha level of 0.05, since the p-value is greater than the alpha level,(P>0.05) the null hypothesis which states that 'There is no significant difference in the mean responses on academic activities related coping strategies adopted for surviving economic recession by female lecturers is accepted. Consequently suggesting that there is no significant difference in the mean response of female lecturers in Faculties of Agriculture, Arts, Communication and Information Sciences, Education, Life Sciences and Physical Sciences on academic activities related coping strategies adopted by female lecturers.

Ho2: There is no significant difference in the mean responses on agricultural production related coping strategies adopted for surviving economic recession by female lecturers. in University of Ilorin

Table 4: ANOVA analysis on different in agricultural production related coping strategies adopted by female lecturers

	Sum of squares	Df	Mean square	Fcal	Fcrit	Decision
Between groups	106.509	5	21.307	0.943	2.31	Accepted
Within groups	4381.886	194	22.587			
Total	4488.395	199				

α =0.05

Table 4 shows an F-value of 0.943 and a p-value of 2.31, testing at an alpha level of 0.05, since the p-value is greater than the alpha level,(P>0.05) the null hypothesis which states that 'There is no significant difference in the mean responses on agricultural production related coping strategies adopted for surviving economic recession by female lecturers. is accepted. Consequently, implying that there is no significant difference in the mean response of female lecturers in Faculties of Agriculture, Arts, Communication and Information Sciences, Education, Life Sciences and Physical Sciences on agricultural production related coping strategies adopted by female lecturers.

Discussion of Findings

The study investigated coping strategies employed by female lecturers in University of Ilorin, Nigeria to survive economic recession. The findings of research question one on academic activities related coping strategies adopted for surviving economic recession by female lecturers revealed that that the respondents agreed that they adopt various academic activities related coping strategies for surviving economic recession. Such as attending conference at least one annually, forming publication group, publishing in a free journal, avoiding very expensive conference, publishing in local journal and analysing data for staff and students offering related training. This findings agreed with Bamigboye, Ede, & Adeyemi (2016) whose study revealed that drop in government allocation due to economic crisis and has affected the release of grant, payment of allowances to teachers, purchase of books, subscription for journals needed for effective education curriculum delivery, staff training through workshops, conferences and seminar. They further discovered in their study that teachers are not motivated to be effective in their task of effective education delivery.

The findings of research question two on agricultural production related coping strategies adopted for surviving economic recession by female lecturers revealed that the respondents agreed that they adopt various agricultural production related coping strategies for surviving economic recession such as planting vegetables, snail and fish farming, having poultry, producing garri and having orchards. This in in consonant with Ifabiyi & Banjoko (2018) who discovered in their study on Economic recession coping strategies among rural dwellers in Kwara State Nigeria that increase in price of goods and services and economic recession encourages many people to go back to farming, this implies that despite the negative effects of economic recession, the positive effect is that it has encouraged many rural dwellers to go back 10 to Agriculture so as to be food secured. The findings further agree with Fredline (2013)who argued that the families instead of waiting should

consider taking up part-time job, and engaging in petty trading to survive recession. The findings also support that of Noko (2017) who reiterate that they can practice home gardening in their backyard, with small pots, cans, homestead land, roadsides, and edges of field, vacant plots or in containers. Home gardening can be done with little or no money, by the use of locally available planting materials, green manures, life fencing or indigenous methods of pest control (UNDP, 2006). This is further in collaboration to Noko (2016) statement that the period of economic recession should be seen as the period of improvisation for the households to cope with the menace.

The problem of high cost of living resulting from high inflation, low purchasing power can readily be solved by the households especially in the urban areas embracing the practice and culture of home gardening in this period of recession. Home gardening contributes to nutrition and household food security by providing quick and direct access to different foods that can be harvested, prepared and eaten by family members daily thereby reducing their spending in household foods during this period of economic recession (Agwu, 2012).

Hypothesis one which stated that there is no significant difference in the mean responses on academic activities related coping strategies adopted for surviving economic recession by female lecturers in University of Ilorin based on faculties was accepted (P>0.05). The result is expected given the fact that the respondents are lecturers, whose promotion on the job depends on how many journal articles they have published. As it costs much to publish in local and international journals, the lecturers have no plan and budget towards it. This finding is similar to Cano and Ion (2017), which found that lecturer who plans effectively, will survive economic recession with less time and effort. The findings support smith (2016), which stated that to survive economic recession people should stop buying what they cannot afford, avoid buying on credit, reduce spending if in debt and avoid depending on others to save them.

Hypothesis two which stated that there is no significant difference in the mean responses on agricultural production related coping strategies adopted for surviving economic recession by female lecturers in University of Ilorin, based on faculties was accepted (P>0.05). The researcher is of opinion that the finding aligns with expectation because the respondent recruited for the study is home makers. Aside being lecturers, they prepare food for family. The finding 11 corroborate Clark (1999), which reported that in difficult economic situation, Russians work on their garden plot to produce their own fruits and vegetables.

Nwachukwu (2016) reported an increasing family engagement in subsistence agriculture to plant vegetables in the backyard to sustain living since the economic recession. Also according to Nnanyerugo (2015) a former banker in a telephone chat that

people should learn to live on your income, the banker say. If there are opportunities to make extra cash, once it is legitimate individuals should go ahead to do it. Such as baby sit, making hair or apply make-up, events decoration, baking and do some house repair you. Nnanyenigo (2015) also reported that cutting down on household expenses and luxury items enduring the situation, adjusting family feeding pattern, creating and engaging subsistence agriculture amongst others are in line with the findings of the study Nnanyenigo (2016).

Conclusion

It can be concluded that female lecturers in university of Ilorin adopt planning and budgeting as well as home gardening and agricultural strategies to survive economic recession. Also, there is no difference in the mean response of female lecturers in faculty of Agriculture, Arts, Communication and Information sciences, Education, Life sciences and Physical sciences on planning budgeting, home gardening and agricultural strategies for surviving economic recession.

Recommendation

Based on the findings, the following recommendations were made;

- As female lecturers can survive economic recession with planning and budgeting, the academic staff union of university (ASUU) in the University of Ilorin should organize a seminar to promote among university lecturers.
- More female lecturers in the University of Ilorin should be encouraged to employ home gardening and agricultural strategies.
- Also female lecturers should be encouraged to venture into other business that is for additional income in line with their specialties such as baby sitting, events decoration, catering services, make-up, dress making and baking.
- The female scientist should be encouraged to be doing analysis for both students and staff.
- Families should prioritize expenses and pay bills in order of importance. Some bills can be paid late but other bills must be paid on time in other to avoid foreclosure. Less debt and more responsibilities can lead to smarter money management and a stress-free financial life.
- Family can cope during this period of adjustment by relying on each other, becoming a true support network. Take control of the situation to reduce the negative impacts of the recession and to set a good example for the rest of the family.

Finally, the effects of a recession on families last a lot longer than the duration of a recession. Ultimately, almost everyone suffers during an economic downturn. Families can survive by adapting to a new lifestyle, working together and making changes to improve the future.

References

Adesina-Uthman, G. A., & Uthman, I. O. (2012). Muslim women and home survival in Nigeria and Malaysia: A comparative analysis and lessons for contemporary Nigerian muslim women. Journal of Research in Peace, Gender and Development, 2(2), 22-27.

Ako-Nai, R. I., Ologunde, A.O., & Adekola, 0. G. (2010). Global integration, household survival, and economic empowerment of women in Osun State, Nigeria. Journal of Nigeria Studies, 7(1), 1-24.

Bubolz, M. M. (1991). Reflections on Human Ecology Past, present and future. Education and Development Journal of Nigeria Education Research Council, 2(1), 242-245.

Bamigboye, G., Ede, A., & Adeyemi G (2016) Impact of Economic Crisis on Education: Case Study of Southwest Nigeria. Presented at Conference Inted Valencia, Spain. Doi: 10.21125/Inted.2016.1650.

Cano, E., & Ion, G. (2017). Innovative practices for higher education assessment and measurement. Hershey (Pennsylvania): IGI Global. /

Clarice, S. (1999). New forms of employment and household survival strategies in Russia Coventry: Centre for Comparative Labour Studies. University of Warwick.

David Quilly (2010). Economy and policy. Family and Home, Frugality Investing, Lifestyle, Money Management

Duque, J., & Pastran, E. (1973). Las estrategias de superviviencia economica de las unidades familiares del sector popular urbano: una investigacion exploratoria. Santiago: FLACSO.

History of Unilorin since 1975. Retrieved from https://www.unilorin.edu.ng/index.php/about-us on 18th July, 2018

Human Resource Department University of Ilorin. (2017) Female Lecturers in University of Ilorin. retrieved from Staff Data Base.

Ifabiyi J.O & Banjoko I.K (2018) Economic Recession Coping Strategies in Nigeria: The Case of Rural Dwellers in Moro Local Government Area of Kwara State. Journal of Global Economics 6(1), 279. DOI: 10.4172/2375-4389.1000279

Ishiekwere, T. (2016). Worst economic crisis in 25 years: What Nigeria can do to .get out of recession. Retrieved August 19, 2017, from Sahara Reporters: http://saharareporters.com/2016/10/05/worst-economic-crisis-25-yearswhat-nigeria-cando-get-out-recession-tonyishiekwere

Jelin. E. (1982). Pan y afectos: la organizacion domestica en la produccion y la reproduccion. Buenos Aires: CEDES. Kale, A., Maigari, B., & Haruna. H. (2017). Economic recession in Nigeria: implications for nursing education and practice. IOSR Journal of Nursing and Health Science, (5(2), 54-62.

Noko, E.J. (2016). Economic recession in Nigeria: causes and solution. Retrieved August 19, 2017, from EduCacInfo: http://educacinfo.com/economic-recession-nigeria/

Noko, E.J (2017)Strategies of reducing the effect economic recession in Nigeria. Available at http://educacinfo.com/economic-recession-nigeria/

Nwachukwu, O. (2016). Nigerians in weird survival strategies amid economic recession. Business Day Newspaper.

Osalor, P. (2016). Nigerian economic recession and entrepreneurial revolution. Retrieved August 19, 2017. from Vanguard News: http:/A\w r

\v.vanguardngr.com.'2016/09/nigeriaeconomic-recession-entrepreneurial-revolution/

Redclift, M. (1986). Survival Strategies in Rural Europe: continuity and change. Sociologia Ruralis, XXVI-3(4), 218-227.

Roberts, B. (1994,).. Informal Economy and Family Strategies. International Journal of Shift in the Evolution of Labour Relations, International Labour Review, 125(6). 1-6.

Smith. L. (n.d.). Five strategies for surviving tough times. Retrieved August 24, 2017. from Investdpedia: littp://Vvrw\v.investopedia.com/articles/pf/08/survive-tough-times.asp

The National Bureau of Economic Research. (2010). The NBER's Business Cycle Dating Committee. Retrieved August 19, 2017, from The National Bureau of Economic Research: http://\vww.nber.org/cycles/recessions.html

Wood, 1982: 149: Capital Exploitation and Economic Crises. https://99beauty.com

Zafar, S. (2016). What is economic recession? - Definition, causes & effects. Retrieved August 19, 2017, from Linkedln: https://w\\ rw.linkedin.com/pulse/what-economic-recessiondefinition -causes-effects-sultan-zafar