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Construction Criteria for Functional Apparel for Caregivers in Day Care Centres in Delta State

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Abstract

The main purpose of the study was to evolve the construction criteria for functional apparel for caregivers in day care centres in Delta state. Specifically the study identified child care tasks performed by caregivers in the day care and construction criteria for functional apparel based on their tasks. Study was guided by two research questions. Its design was survey and was carried out in Delta state, Nigeria. Population of the study was 2620 caregivers. Multi-stage random sampling methods were used to select 297 caregivers for the study. Data were collected with observation checklist and functional clothing requirement assessment questionnaire for caregivers (FCRAQC). The data were analysed using frequency, percentages, mean and standard deviation. Findings revealed 41 tasks performed by caregivers and as such desired apparel made for comfortable in fit and durable in use, safe to prevent fall and injury to the children and wearer and allow easy movement for daily performance of child care tasks among others. Conclusively caregivers require functional apparel in child care for safety and job efficiency. It was recommended that apparel producers should utilize findings to produce functional apparel for caregivers and other occupational jobs.

Key words: Functional, Apparel, Criteria, Caregivers, Children

Introduction

A child is a young person within the stage of birth till puberty. This child is unique and special in terms of development, characteristics, personality and behaviour. Childhood is a period of rapid development in a human's life. Good nutrition, health, love, care and environment (home, school and society) are important conditions necessary for the child's optimal development and survival.

Child's Rights Acts (2003) stipulated that every child have the right to an education and care. The United Nation Educational Scientific and Cultural Organization (UNESCO) in cooperation with UNICEF (2004), initiated early childhood care development education (ECCDE) policy review, to help children have smooth transition from home to school. This comprises of day-care, play group, nursery, pre nursery and kindergarten. The Universal Basic Education (UBE) Act (2004) also expanded the scope which includes programmes and initiatives for early childhood education and development.

Children need appropriate condition such as proper care; that facilitates their optimal development. "Child care is the responsibility of parents and guidance, teachers, or any other person under whose protection the child is" (United Nations Convention on the Right of the Child (CRC) (2009). Presently, however due to the economic situation many parents (both fathers and mothers alike) work for extended periods outside the home with minimal time to spend on childcare. They depend on services of crèche and childcare centres for the long period they engaged outside the home. Formal childcare is carried out by caregivers in the day care settings.

Day care is a supervised care usually outside the home for children. Day-care centre is an institution where children whose parents are engaged in work or business outside the home are given care until their parents come back. Maduewesi (1999) and Tombowua (2013) posit that day care is a "semi - formal education arrangement outside home where young children 0-2 years of age are exposed to learning through play like activities". In the day care, children are left in the care of caregivers who provide happy, healthy and understanding environment in which children grow and develop. The child caregiver takes care and nurtures children who are not ready to enter kindergarten. The caregivers give the children quality support and stimulation necessary for development. They have the responsibility to protect the children from harm and in time of rest / play. They undertake all daily care tasks of the children necessary for their survival. Childcare Worker (2014) reported caregivers duties to include; "feeding, changing clothing, supervision, engaging the children in social interaction, providing safe environment for play and exploration" In carrying out these tasks, caregivers are exposed to some hazards. These tasks involve range of motions and carrying equipment, toys and other care items. They carry out these odious tasks of childcare for prolonged period of time. This constitutes major challenge in apparel selection and usage. These operations require functional apparel informed by the tasks these caregivers carryout.

Apparels are articles of clothing put on the body for protection, beautification and convey different message and impression about the wearer. Agbo and Unom(2011) see apparel as garment worn to protect the body against elements and work conditions as well as for modesty and socio-economic affiliation. "Apparel therefore cannot be separated from human" (Chen, Yan and Gao, 2016) such include: dresses, shirts and trousers used for aesthetic and functional roles. Apparel promotes peoples' health and safety, protects against various forms of environmental hazards, and improves workers efficiency. In some jobs as fire fighting and construction, special clothes are needed to carry out the jobs and achieve safety. Day care centres as an organization require appropriate clothing that protects the worker from hazards and improve efficiency of task performance. This implies need for functional apparel by caregivers in the day care centres. "Functionality in clothing use is important in occupational jobs where optimal performance, productivity and safety are needed" (Kaiser, 1997).

Functional apparel is garment that is designed with special features to aid work performance. "It has a well defined functionality which distinguishes it from other clothing allows individual users to perform certain tasks and protects them from certain hazard on the job" (Man and Swan, 2007 and Dunne, 2004). "It is clothing that serves to provide specific utility such as comfort, warmth, and durability" (Cass, 2001). The functionality of clothing has been discussed by some authors as Leone (2009), Agbo and Unom (2011), Nwadi and Anyakoha (2011), Gupta (2012) and Agbo and Igbo (2017) in relation to physical, psychological, socio-economic and cultural purposes. Functional apparel is constructed based on attributes needed for it to serve its purposeful use. Dedhia (2016) noted "construction, design, materials and finish as physical aspects in apparel". Further stating that construction is the methods used in assembling the apparel.

Construction criteria are the attributes required to produce the functional apparel and which it should possess when production is finished. Functional apparel needs of caregivers led to the development of criteria based on tasks performed in the day care. Gupta (2012) identified users clothing needs in terms of physiological, ergonomics and biomechanical to serve its specific use in performing tasks. The necessary criteria for caregivers' functional apparel needs based on tasks should include; comfort, safety, mobility, serviceability and utility. In today's market functional apparel for caregivers are not readily available. As such garment used are devoid of attributes necessary to perform task in the day care centres. There is need for proper construction of functional apparel for caregivers to serve its function in use.

Apparel should not obstruct activities or impede safety in the work environment. But inappropriate apparel negatively affects caregivers' productivity and tasks performance in the day care centres. As observed apparels worn by caregivers for child care restrict mobility around work area and different tasks postures. Caregivers encounter problems of stains, fluid spillage on the body and clothes, such as urine which impact apparels. Apparels are not durable due to frequent washing. Some apparel styles constitute safety hazards to children and the wearer in form of falls and injury. Clothes used by caregivers were not constructed to suit or aid the performance of child care tasks in day care centres. Chen,Yan and Gao (2016) noted lack of functionality and safety in apparel as a challenge for user to interact with the environment. Thompson and Anyakoha (2012) indicated that the conflicting criteria generated in clothing construction pose some challenges to designers since the criteria for each design problem are endless. Dedhia (2015) stressed that inadequate apparel quality affects its physical and performance expectations. Caregivers lack suitable clothes to efficiently perform tasks in the day care. Ugwu (2012) opined that workers' use of functional laboratory coats make operations easy, protect them from hazards and help meet work demands in the laboratories. Therefore, caregivers need appropriate apparel informed by day care tasks operations. This will provide comfort, safety and allow different movements within work area for efficiency. This is why the study focused on determining construction criteria for functional apparel for caregivers in day care centres in Delta state based on the tasks performed.

Purpose of the Study

The main purpose of the study was to evolve functional clothing requirements of caregivers in day-care centres in Delta State, Specifically, the study:

1) identified the tasks performed by caregivers in the day-care centres in Delta State;
2) determined the necessary construction criteria for functional apparel for caregivers based on the tasks performed in day-care centres.

Research Questions

These research questions guided the study.

1) What are the tasks performed by caregivers in the day-care centres in Delta State?
2) What are the necessary construction criteria for functional apparel of the caregivers based on their tasks in day-care centres.

Methodology

***Design/Area of the study*:** The study utilized survey design. This is considered suitable for the study to collect information from the caregivers that can be generalized. Area of the study was Delta State. Nigeria with 25 local government areas (LGA) and 1,059 public day care centres.

Population of the study: The study population comprised of all the caregivers in all the day care centres in the 25 LGAs of Delta state. The population of caregivers is 2620 (State Universal Education Board (SUBEB) 2017).

Sample for the study: The sample size for the study was 297 subjects from the 25 LGAs in Delta state. Firstly, simple random sampling technique was used to select 13 LGAs out of the 25 LGAs, constituting 50 percent of the population because the population was small. Secondly, from the 13 LGAs selected, 297 day care centres were randomly selected. From each day care centre, one caregiver was purposively selected that has working experience of five years and above. A total of 297 subjects sampled were used for needs assessment.

Instrument for data collection: Functional apparel needs assessment questionnaire for caregivers (FANAQC) was used for data collection. Section A of the questionnaire contained the demographic information of the subjects. Section B had item questions constructed based on the study purpose, and literature review. It had four-point scale.

The instruments were face validated by three clothing and textile lecturers from University of Nigeria, Nsukka. A final copy was made based on their modifications/ corrections. It was pilot-tested on 20 caregivers from Enugu state for reliability. Internal consistency was determined. Cronbach alpha reliability coefficient of 0.89 was obtained.

Method of data collection and analysis: The researcher and research assistants distributed 297 copies of the instruments at scheduled visits. Only 293 copies were retrieved. Data obtained were analysed using descriptive statistics. Frequency and percentages were used to analyse observation checklist. Construction criteria were analysed with mean and standard deviation. Mean of 3.50 and above was considered strongly agreed and below 3.50 was strongly disagreed.

Research Question 1: What are the tasks performed by caregivers in the day-care centres in Delta State?

Table 1: Percentage Responses on the tasks Performed by Caregivers in Day care Centres in Delta State

s/n	Tasks Performed by Caregivers	F (%)	Remarks
1	Receiving the children from the parents	291 (99.7)	Yes
2	Handing children over to their parents	289 (99)	Yes
3	Feeding the children	292 (100)	Yes
4	Winding/burping the babies after feeding	288 (99.0)	Yes
5	Petting the baby to sleep	290 (99.3)	Yes

6	Helping children get in and out of beds and chairs	292 (100)	Yes
7	Changing babies napkin/diapers when necessary	291 (99.7)	Yes
8	Changing babies clothes when dirty	291 (99.7)	Yes
9	Handling babies soiled napkins/diapers	287 (98.6)	Yes
10	Monitoring children so that they do not fight or injure themselves	291 (99.7)	Yes
11	Guiding children in playing to avoid rough play	291 (99.7)	Yes
12	Carrying children on their lap	288 (98.6)	Yes
13	Carrying children on the side	288 (98.6)	Yes
14	Carrying children on the shoulder	284 (97.3)	Yes
15	Carrying children on the back	291 (99.7)	Yes
16	Playing with the children using toys	291 (99.7)	Yes
17	Curdling the baby	288 (98.6)	Yes
18	Keeping children bag intact and safe	290 (99.3)	Yes
19	Keeping children care items intact and safe	289 (99)	Yes
20	Washing feeding bottles and feeding utensils after feeding	291 (99.7)	Yes
21	Tiding up the room	290 (99.3)	Yes
22	Cleaning up messes in the room	291 (99.7)	Yes
23	Making children bed/cot	292 (100)	Yes
24	Teaching children to develop traits like sitting, standing, walking	290 (99.3)	Yes
25	Teaching children of 1-1½ years to sing, read and recite poems	289 (99)	Yes
26	Giving children toilet training	288 (98.6)	Yes
27	Cleaning their nose and mouth when dirty	289 (99)	Yes
28	Rubbing children powder when sweating	291 (99.7)	Yes
29	Knowing when they are pressed to (urinate or toilet)	286 (97.9)	Yes
30	Taking them out to urinate	288 (98.3)	Yes
31	Watching out for challenging behaviour in children	285 (97.3)	Yes
32	Keeping parents informed of children's behaviour	289 (98.6)	Yes
33	Calling parents in emergency	289 (98.6)	Yes
34	Keeping eyes on children at all times	283 (98.6)	Yes
35	Not allowing children put anything dangerous in their mouth	288 (98.6)	Yes
36	Not leaving children alone in the room	288 (98.3)	Yes
37	Not allowing strangers around the children	283 (96.6)	Yes
38	Keeping children out of trouble	279 (95.2)	Yes
39	Discipline children	223 (79.1)	Yes
40	Perform basic first aid emergency	273 (97.8)	Yes
41	Take children out for out door play	273(97.8)	Yes

N = 293, F = Frequency, % = Percentage

Table 1 shows the percentage of responses of Caregivers on task performed in day care centres. Result from the Table showed that 79.10% and above of the respondents identified items 1 to 40 as the activities performed by caregivers in day-care centres. Some 293 respondents representing 100% identified task performed as feeding the children, helping them in and out of bed and making their bed/cot. Some 291 respondents representing 99.7% perform tasks as receiving children, changing diapers and clothes, monitoring, guiding, playing and carrying children at the back, washing feeding utensils, rubbing powder and clean the room. Other 290 respondents representing 99.30% carry children on the shoulder and teach traits. Another 289 respondents representing 99.00% hand over children to parents, burp, keep care items intact, teach reading, clean up dirty nose and call parents in emergency among others.

Research Question 2: What are the functional apparel construction criteria for caregivers based on the tasks they perform in day-care centres?

Table 2: Mean responses on functional apparel construction criteria for caregivers based on tasks in day care centres.

S/N	Construction criteria	$\bar{X}$	SD	Remark
	Caregivers apparel should:			
1	be made with correct pattern size for fit,	3.64	0.87	SA
2	be made with appropriate seams	3.91	0.41	SA
3	be made to provide protection from stains to the wearer	3.75	0.99	SA
4	be produced with safe fasteners to prevent injury to the children and wearer	3.86	0.54	SA
5	have styles safe to prevent fall,	3.80	0.76	SA
6	allow wearer move freely to perform tasks	3.71	0.81	SA
7	made with large armhole for free arm movement	3.78	0.92	SA
8	be comfortable in fit	3.82	0.78	SA
9	be comfortable in use	3.88	0.63	SA
10	be well finished to serve its purpose in use	3.83	0.74	SA
11	be made with attractive fabric colour	3.79	0.82	SA
12	be made with durable fabric	3.57	0.98	SA

$\bar{X}$ mean, SD- Standard Deviation SA- Strongly Agreed

Result in Table 2 shows mean of all the items were between 3.57 – 3.91 indicating strongly agreed. This shows that to perform tasks effectively caregivers apparel should; be made with correct pattern size for fit, appropriate seams, safe fasteners to prevent injury to the children and wearer and durable fabric, be comfortable in fit and use, provides protection from stain, have safe styles to prevent fall, allow wearer move freely to perform tasks among others. Standard deviation ranged from 0.41 –

0.99, meaning caregivers were close in their responses.

Discussion of Findings

The findings of the study in Table 1 identified 41 tasks performed by caregivers in the day care centres in Delta State. Result shows that caregivers perform all childcare tasks since they are important for the child's wellbeing. They perform all the tasks from receiving the children from parents to handing them over to parents at the end of the day. The findings indicated that caregivers feed, carry, change babies' diapers and clothes, curdle and play with children, cleaning up messes and soiled floor, discipline, supervise and teach older ones. This is in line with the report of Sitter (2012) that the general tasks of child caregivers depend on children's age and include; receiving and handing over babies to parents, feeding, carrying, teaching, playing and supervising children among others. The basic job of caregiver is to protect, love, play with and teach the children in her care and share her insight with parents. Finding supports Childcare Worker (2014) who asserts that caregivers provide stimulating and safe environment for play and exploration, manage children behaviour and maintain working area. Azonuche (2016) reported that caregivers undertake "all tasks related to the daily care of the children for survival, proper growth and development". To achieve this, Groark and McCall (2003) pointed that caregivers are duly trained to promote warm and sensitive responsive care giving for mutual relationship between children and caregivers. Caregiver holds the child with fondling, thereby displaying the love necessary for the child's social and emotional development. Anuna (2008) highlighted caregiver's responsibility to the children under their care to include; "changing children's clothes anytime they are dirty and making clean clothes always available for the children to wear". This care gives the children comfort, reduce stress, protect them from exposure to pathogens and provide safe environment for survival and development. As noted by Anyakoha (2015), a baby is helpless, and depends on any person taking care to meet his/her needs of love, warmth, food, clothing and comfort. In the day care, emphasis is on custodial care which mostly concerned with meeting the needs of the children.

Finding showed the functional apparel for caregivers should be made with correct pattern size for fit, appropriate seams, safe fasteners and trimmings to prevent injury to the children and wearer, durable and attractive fabric, be comfortable in fit and use, provides protection, safe styles to prevent falls, among others. This apparel will prevent interference with care giving tasks while providing greater accessibility to care items. Finding of this study agrees with Dedhia (2015) who reported that durability, serviceability, utility, fit and comfort are functional performance necessary in a functional apparel to function. Watkins (1995) stressed that the purpose of functional clothing is to address both task – related and individual's needs to ensure wearer safety, improve job efficiency, comfort, movement and concept of self. Chen, Yan and Gao (2015) noted safety design in apparel as an important criteria which producers translate into attributes to develop safe apparel for consumers. Caregivers need safety and comfort in apparel usage in the day care. Dhinakaran, Sundarasan and Dasaradan (2011) and Thompson and Anyakoha (2012) reported comfort, mobility and fit as foremost background factor in the choice and production of functional apparel to meet user's needs in tasks accomplishment. As observed, user's clothing comfort is paramount in garment use in the day care for tasks effectiveness and children's comfort. This finding supports Merenstein and Gardner (2002) who stressed the effects of swaddling neonates in the intensive care unit to ensure maximum comfort and survival of the new born. Children in day care require care, love, curdling, petting for comfort and survival. Agbo (2011) reported in her study that appropriate garment assist the wearer to comfortably attend to his / her daily activities. Though Connel (2010) buttressed colour choice of people as dependent on individual preference, caregivers apparel require bright colour as children are easily attracted to such apparel. Bright colour makes dirt visible for quick attention. For hygiene and sanitation, gown should be made with durable fabric that can withstand frequency washing and not easily worn out.

Conclusion

Apparel producers are often challenged with meeting functional apparel needs of different occupational jobs because of diversities of work. It becomes imperative to handle these needs in constructing and assembling of the functional apparel for multipurpose uses. The conflicting criteria generated by different apparel situation makes the construction problem endless. Study showed 41 tasks performed by caregivers in the day care centres from the time when parents bring their children in the morning to when they collect them from the day care centres. Therefore, to perform these tasks effectively, caregivers desired apparel made with right size for fit, appropriate seams for comfort, safe and prevent injury to the children and wearer, comfortable in use and allow easy movement in daily task performance.

Recommendation

These recommendations were made.

- Apparel designer should utilize findings to construct functional apparel that will tackle clothing problems caregivers face daily in performing their child care tasks in the day care centres.

❖ The findings should be made available to apparel producing industries to encourage the production of functional apparel for different occupational jobs based on their activities/duties.

References

Auna, E. U. (2008). *Child care practices of Caregivers in Motherless babies home in Imo and Abia States. Unpublished M. Ed Thesis,* Department of Vocational Teacher Education, University of Nigeria, Nsukka.

Anyakoha, E.U (2015) *Home Management for Schools and Colleges (Revised Edition).* Onitsha: Africana First Publishers Plc

African Charter on the rights and welfare of the child (1990). *Rights and welfare of the child.* Monrovia: OAU Document.

Agbo, D.A. and Unom, W.(2011). Role of Parents in Clothing Children (4-11years) n Benue State. *Journal of Home Economics Rsearch.* 14, 193-203.

Agbo, D.A. (2011). *Development of functional garments for physically challenged wheel chair and bedridden females in Benue State. Unpublished P.hD Thesis,* Dept. Of Vocational Teacher Education, University of Nigeria, Nsukka.

Ahsan, N. (2012). *Functional clothing for natural disaster survivors*, Mathesis. Ryerson University, Canada.

American Child Care Worker. (2012) *childminder and assessment reports.* Washington DC: US Bureau of Labour Statistics.

Aurora Health Care System Administrative Manual, (2014). Caregiver Appearance: Dress that Instils Confidence in the Patient Experience. *Policy.* No. 5.

Azonuche, J.E.(2016) *Development of Functional clothing for caregivers in day care centres in Delta state. Unpublished Ph.D. Thesis.* Dept. of Home Economics and Hospitality Management Education, University of Nigeria, Nsukka.

Brock, M. K, Ulrich,V, and Connell, L. J (2010). Exploring the Apparel Needs and Preferences of Twin Girls and their other. *Clothing and Textiles Research Journal.* Retrieved April 24 2018 from http:/www.sagepublications.com.

Cass, A. (2011), Consumer self monitoring materialism and involvement in fashion clothing. *Australasian marketing journal,* 9(1), 46-60.

Chen, L, Yan, X. and Gao, C. (2016). Apparel Design Safety and Production Criteria and Models. *Fibres and Textiles in Eastern Europe.* 24. 6(120). Retrieved April 22 2018.

Child"s Right Act (2003) *Rights of the child.* Lagos: Federal Government Press.

Childcare workers.(2014) Retrieved July 17, 2014 from file//C/user/use/Desktop/childcare task.htm.

Clayton, N. (1990). *Young Living, (6th ed).*New York: Glencoe. McGraw-Hill.

Dedhia, E M. (2015).Functional and Aesthetic Aspects of Apparel. Retrieved April. 22 2018 from *Aspects in Apparel http/www.textilevaluechain/index.php/article/technical/item/166-functional-and-aesthetic-aspects-in-apparel.*

Dhinakaran, M, Sundarasan, M and Dasaradan, B,S. (2011). Comfort Properties of Apparels. *The Indian Textile Journal.* www.indiantextilejournal.com. Retrieved April 22 2018.

Dunne, L.E. (2004). *The Design of wearable technology addressing the human –device* *interface through functional apparel design. M.A. Thesis.* Cornell University. New York.

Federal Republic of Nigeria (2004). *National Policy on Education (4th Ed),* Lagos: NERDC Press.

Federal Republic of Nigeria (2004). *The compulsory Free Universal Basic Education and other Related Matters Act.* Lagos: Government Printer.

Gupta, D. (2012). Functional Clothing: Definition and Classification. *ACTIF Magazine* 05.

Gupta, D. (2011). Design and engineering of functional clothing. *Indian journal of fibre and Textile Research* 36, 327-335.

Groark, J.C. and McCall, R. B. (2003). *Development Project Description: The effect of Improving Caregivers on Early Development.* Peterburg, Russia.

Jha, S. (2009). *Exploring design requirement for a functional patient garment: hospital caregiver's perspective.* Unpublished master's thesis. North Carolina state university, Raleigh, North Carolina.

Kaiser, S.B. (1997). *The social psychology of clothing: Symbolic appearance in context* (2nd ed. Revised). New York: Fairchild publications.

Kaka, H.J and Agwa, S. L. (2008). Challenges of Emerging Technology innovations in Dress and Textiles. *Journal of Home Economics Research.* 9, 176-184.

Leones, K. (2009). Origins and Functions of Clothing. Retrieved 8th June 2011 from *http://-ezinearticle.com origin-and-functions-of-Clothing and =3470541.*

Maduewesi, E. J. (1999) *Early Childhood Education, Theory and Practice.* Lagos: Macmillan Nigeria Publishers Limited.

Man, X and Swan, C. (2007). A mathematical modelling framework for analysis of functional clothing. *Journal of Engineered fibers and fabrics*. 2(3). 10 – 28.

Merenstein, G.B and Gardner, S. I (2002) *Handbook of National Intensive Care* (5th ed) Missouri: Mosby.

National Institute for Children Health And Human Development (NICHD). Early child care research network (1997a). The effects of infant child care on infant-mother attachment:
Result of the NICHD study on early child care. *Child Development* 68(5). Retrieved August, 26, 2014 from http://www.nehi.nlh.gov/pubmed.

Neat child care (2011). *Maid uniform – work attire promotes work happiness.* file.///c/users/user/desktopmaid-uniform-work-attire-promotes-work. Retrieved February, 10 2013.

Oluah, E. And Igbo, C.A (2008). Improving the practices adopted by mothers in management of their children clothing in Enugu State. *Journal of Home Economics Research.* 9, 227-233.

Sitter, S. (2012) A Comprehensive search and review of local nannies: Information blogs about finding the right nanny. *www.nanny.com.*

State Primary Education Board (2011). *Ministry of (Basic and Secondary) Education Bulletine.* Asaba.

Tesman Health and Community Service (2014). Appropriate clothing policy. Tasman early learning centre and out of school hours care (OSHC). File://c/users/use/desktop/appropr iate-clothing-policy:htm. Retrieved July, 17, 2014.

Thompson, D. (2011). *Development of functional apparel for cosmetologists in Lagos, Nigeria. Unpublished Ph.D. Thesis.* University of Nigeria, Nsukka.

Thompson, D. and Anyakoha, E.U. (2012) Determinant of Design criteria for the Development of Functional Apparel for Cosmetologists in Lagos, Nigeria. *Journal of Home Economics Research.* 16, 51 – 60.

Tombowua, S. (2013). Early Childhood Education in Nigeria: Issues and Problems. *Journal of Educational and Social Research. 3(5).*

United Nation International Children's Educational Fund (2004) *Early child care* development *education policy review.*

United Nations Convention on the rights of the child (CRC) (2009) *implementing child rights in early childhood 11th session.* Geneva: United Nations Press.

United Nations Educational, Scientific and Cultural Organization (UNESCO) 2004. *Early childcare development education policy review.*

Ugwu, E.N. (2012). Development of Functional Laboratory Coat for Clothing and Textile Students in Tertiary Institutions in South East Zone of Nigeria. *Journal of Home Economics Research.* 16, 133 – 142.

UNESCO (2007). *Nigeria Early Childhood Care and Education (ECCE:) Programmes; International Bureau of Education (IBE),* Retrieved from efareport@unesco.or. On the 11th June 2011.

Watkins, S.M. (1995). The design process: *In clothing the portable environment* (2nd ed) 334-355).

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Determinants of Clothing Selection among Aged Retirees (65 years and above) in Makurdi, Benue State

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Abstract

The study focused on clothing selection among aged retirees in Makurdi, Benue-State. Specifically, the study identified the factors that guide the aged retirees in clothing selection, determined challenges encountered by the aged retirees in clothing selection. The population consisted of 7623 male and female aged retirees who registered with the Bureau of Pension, Makurdi between January 2014 and January 2017. A sample of 330 aged retiree was randomly selected for the study. Questionnaire was used for data collection. Data were analyzed using means. Findings revealed that durability, occasion, good fit and clothing style are among the factors that determine clothing selection of the aged retirees. Also income, lack of knowledge on right clothing and difficulty in selecting trendy garments were among the challenges encountered by the aged retirees. Based on the findings of the study, it was recommended that aged retirees should select clothing that has good fit with suitable allowance, select trendy garments that gives comfort.

Keywords: Determinants, Clothing, Selection, Aged, Retirees

Introduction

Aging is associated with gradual physical, psychological and emotional changes that reflect on the total appearance of the individual. Aging sometimes is dreaded like a disease that has no cure. Three of the larger challenges of aging identified by sociologists are retirement, ageism and social isolation (Clark, 2018). Ageism refers to prejudice and /or discrimination against other persons. Other problems associated with aging are depression, stress, anxiety and other later-in life disorders. Some these problems may arise or are heightened by negative stereotyping of the aged such as: slowness, helplessness, resistance to change. Cultural and ethnic factors also influence aging. Cultural perspectives that value youth and discard old age do not help the problem of aging.

Aging and retirement are natural, inevitable phenomenon that all individuals must pass through in life. One of the issues disturbing the world today and presenting formidable challenge is ageing and the problems of the elderly. For instance, statutory retirement for different institutions and professions differ in Nigeria. Retirement age for civil servants is based on number of years in service or the age of the civil servant, government policies, disciplinary measures, type of profession and institutions (Lawboy 2017). Teachers retire at 60-65 years. Retirement for Judges is pegged at 70years irrespective of the number of years worked in civil service. This variation may hamper smooth transition from active service to retirement especially where information dissemination is poor. Some aged retirees on the street look really pathetic; they look unkempt and dress haggard with torn clothes, worn-out-sandals especially when they queue for their pension at the bank. The social security benefits in developed nations like UK particularly for those disadvantaged in the labor market by virtue of gender, disability and low-paid, unstable work histories are operational (Clark, 2018). This seems to be none existent Nigeria.

The experience of loneliness, neglect, suffering, none payment of pension, unavailability of right clothing for the aged may lead to emotional dissatisfaction, seeming unhappy state, lack of fulfillment affecting their overall appearance. In this state, Ekot (2015) asserted that the aged retirees' social and psychological relations and perception decrease.

Clothing is generally accepted as one of the fundamental needs of individuals and families all over the world owing to its functional and aesthetic roles. Through clothing, basic human needs are satisfied, both physical and socio-psychological (Nchekwube,2014). Aged people who have retired will probably find that their clothing needs have changed since they now have more leisure time and are less active. Their clothing will probably reflect this change in lifestyle as casual clothing may replace official clothing (Mohammed 2010). Aguiar, and Hurst (2013) opined that people out- of- work need fewer or less expensive clothing. Clothing selection are very personal and emotional issue to an individual and a very important means to define, refine or enhance one's self esteem (Kwon, 1994). Selection of clothing and clothing articles for the aged retirees are guided by series of factors that must fulfill the following characteristics: aesthetics, functionality, and accessibility (Agbo and Dada, 2015). Some of the factors that guide the aged particularly women in selecting their clothing documented by Nwabude (2009), Kalunde (2014) are: 1. Physical / Environmental factors (weather condition, texture, colour and safety of clothing) 2. Economic factors (income, cost, care and maintenance of clothing. 3. Social factors (marital status, and opinion of spouse, group membership, religious belief. 4. Personal / wearer factors (health condition, age, personal values, life style. 5. Emotional factors (comfort, religious beliefs, values).

Good clothing selection is not devoid of challenges. The aged retirees are vulnerable to multiple ageing challenges and health complications that affect their lives. Decline in functioning of some body parts, discomfort from constant use of certain clothing articles such as head tie, transmission of moisture from the skin and heat flushes from menopausal reactions can be very uncomfortable for the aging. All these problems need clothing attention. Difficulty in appearance management and use of correct clothing item could hamper good interaction with other colleges. Some challenges encountered by aged persons while selecting their clothes include: poor knowledge of relationship between clothing and body shape, lack of finances, poor knowledge of clothing characteristics and quality, cultural influence, poor health conditions, ignorance of activities of fashion designers, availability of right clothing for the aged and lack of public awareness on clothing needs, sex-role stereotyping (Nwabude,2009; Broverman, Vogel, Broverman, Clarkson and Rosenkrantz, 2018). Fitting problem and garment alteration form part of challenges faced by elderly while purchasing clothes (Hodge and Bear 2018).

The clothing need of the aged retirees is imperative. The quality of life for elderly people can greatly be improved by good selection of clothing items (Harriet & Minna, 2002). The aged retiree in Makurdi need admiration of their outlook. However, specific needs for fit, comfort among others in their clothing selection pose challenges. The need for aged retirees to clothe properly and conveniently is a matter of concern. Some of the researches conducted on clothing the elderly are particularly devoid of focus on retirees and their peculiar the challenges with regards to clothing. This research therefore is poised to bridge the gaps that exist in the researches about clothing the elderly.

Objectives of the study

The main objective was to determine the factors that guides clothing selection among aged retirees in Makurdi**.** Specifically, the study:

1. Identified the factors that guide the aged retirees in clothing selection.
2. Determined challenges encountered by the aged retirees in their clothing selection.

Research questions

1. What are the factors that guide aged retirees during the selection of their clothing?
2. What challenges are encountered by aged retirees while using and selecting clothing?

Methodology

***Area of study*:** The study was carried out in Makurdi, the capital of Benue State. River Benue passes through Makurdi. As a result, Makurdi is characterized an extreme contrasting weather; it is always very cold between the month of November to February and in the other months. This makes clothing usage quite challenging especially for the aged retirees.

***Research Design*:** Survey research design was employed to seek the opinions of the respondents.

***Population for the Study*:** The study population comprised all 7623 persons from 2010-2015 (Bureau of Pension). Makurdi, Benue State. Population consists of males and females above 60 years who are fully registered in the pension payroll. Some of these were retired compulsorily while some undertook voluntary retirement all from Benue State civil service between 2010 and 2015.

***Sample for the study*:** A random sampling technique was used to draw 30 respondents from each of the eleven (11) council wards that make up the study area. Thus, the sample size for the study was 330 respondents.

***Instrument for Data Collection*:** The instrument for data collection were a structured questionnaire. It was tagged "Clothing Selection among Aged Retirees Questionnaire (CSARQ)" It had 39 items. It was developed based on the objective and literature review. It had 4-point rating scale of strongly agree -4, agree -3, disagree -2 and strongly disagree -1. It was validated by three (3) experts. The reliability determined using Cronbach alpha. A reliability coefficient of 0.797 was obtained.

***Method of Data collection*:** A total of 330 copies of the questionnaire were administered personally (with the help of a research assistant). All the 330 were collected in a period of three weeks. It was 100 per cent return.

***Data Analysis Techniques*:** Data were analysed using means ($\overline{X}$) and grand Mean (G_m).The mean rating of 2.50 was the cut off value taking decision; values 2.50 or above were regarded as agreed while items with mean rating below 2.50 were considered as disagreed.

Findings of the Study

Table 1: Mean Responses on Factors that Guide Aged Retirees in Clothing Selection

S/N	Factors	$\overline{X}_m$	$\overline{X}_f$	$\overline{X}_g$	Remarks
1	Aged retirees consider clothes that are durable and of good quality	2.85	2.98	2.92	Agreed
2	Clothes easily maintained	2.77	2.60	2.68	Agreed
3	Weather/climate determine clothing choice	2.63	2.86	2.75	Agreed
4	Income determine what aged retirees will buy	2.71	2.71	2.71	Agreed
5	Availability of clothing items	2.63	2.62	2.63	Agreed
6	Occasion guides clothing selection	2.79	2.89	2.84	Agreed

7	Age consideration of retirees	2.62	2.77	2.69	Agreed
8	Good fit guides clothing selection	3.00	2.61	2.81	Agreed
9	Attractiveness (aesthetics) determine clothing selection	2.63	2.73	2.68	Agreed
10	Culture is a determining factor	2.70	2.92	2.81	Agreed
11	Clothing style influence selection	2.64	2.95	2.80	Agreed
12	Psychological comfort of aged retirees	2.69	2.65	2.67	Agreed
13	Tactile comfort of aged retirees	2.87	2.83	2.85	Agreed
14	Thermal comfort of aged retirees	2.67	2.52	2.59	Agreed
15	Stain resistant of some clothing item	2.70	2.83	2.76	Agreed
16	Weight of fabric is considered during clothing selection	2.61	2.86	2.74	Agreed
17	Simple design cloth gives aged retirees comfort	2.58	2.65	2.62	Agreed
18	Cool colored cloth are good choices	2.51	2.70	2.61	Agreed
19	Friends choice influences aged retirees clothing choice	2.41	2.94	2.67	Agreed
20	Wife/husbands choice influences selection	2.25	2.87	2.56	Agreed
21	Large buttons/button hole are preferred	2.46	2.83	2.65	Agreed
22	Religion affect aged retirees clothing choice	2.47	2.87	2.67	Agreed
23	physique or body structure determine clothing choice	2.78	2.95	2.86	Agreed
24	Prefers clothing items that aids mobility	2.53	2.58	2.56	Agreed

Cut-off mean=2.50, $\overline{X}$m =Mean of Males, $\overline{X}_f$ = Mean of females, Gm=grand mean of males+females, A=Agreed

Table 1 reveals that out of the twenty four items suggested all were rated above the cutoff points by the respondent which implies that the respondents all agreed to the factors that determined clothing selection.

Table 2: Mean Responses on the Challenges Encountered by Aged Retirees during Clothing Selection

S/N	Challenges Encountered by Aged	$\overline{X}_m$	$\overline{X}_f$	Xg	Remarks
1	Income/non- payment of pension	2.75	2.90	2.83	Agreed
2	Difficulty in selecting clothing styles that fit properly	2.68	2.91	2.79	Agreed
3	Difficulty in selecting comfortable/fashionable footwear	2.33	2.15	2.24	Disagreed
4	Difficulty in selecting trendy styles/garment	2.90	2.94	2.92	Agreed

5	Difficulty in selecting garment fully accepted for aged retirees in my culture	2.62	2.94	2.78	Agreed
6	Difficulty in selecting garments that have openings/closures appropriately	2.67	2.63	2.65	Agreed
7	Difficulty in selecting garments that fit shape	2.89	2.62	2.76	Agreed
8	Knowledge on right clothing	2.88	3.11	2.99	Agreed
9	Difficulty in Clothing maintenance such as laundry	2.77	2.62	2.69	Agreed
10	Difficulty in arranging articles of clothing	2.58	2.52	2.55	Agreed
11	Difficulty in selecting easy to wash clothing	2.88	2.61	2.75	Agreed
12	Garments with no care label seems difficult during clothing selection	2.59	2.58	2.85	Agreed
13	Difficulty in bending /stretching during clothing selection	2.71	2.67	2.69	Agreed
14	Fastening/ unfastening clothing items becomes difficult	2.73	2.77	2.75	Agreed
15	Difficulty in selecting good textile material	2.67	2.64	2.66	Agreed

Cut-off mean=2.50, $\overline{X}m$ =Mean of Males, $\overline{X}_f$ = Mean of females, Gm=grand mean of males+females, A=Agreed

Table 2 reveals fourteen challenges encountered by aged retirees during clothing selection. The grand mean of the fourteen items ranges from (2.99-2.55) which are above the bench mark of 2.50 set for the study. The Grand mean of item 3 was below cut off point of 2.50 set for the study. The respondents did not accept they experience challenges in selecting their foot wears (2.15)

Discussion of Findings

Findings in Table 1 reveal that durability, body shape, good fit, clothing style, comfort among others are the determinants of clothing selection among the aged retirees. Physique or body structure determine clothing choice ($\overline{X}g$ =2.86) being the second highest mean is also an indication that the aged care about the fit of their garments. This finding is in congruent with findings by Ofori, Adu, Tawaih, Akwaboa and Agbovie (2014) who report that size, length and fit of clothing form major determining physical factor that influence clothing selection by students in University of Ghana. The implication is that fit is a common factor influencing both young and aged in garment selection ($\overline{X}g$ =2.92). Shah and Villareal (2010) observe that change in body shape affect balance as the posture may become more stooped, knees and hips are more flexed due to aging. Aged retirees experience a lot of changes on their body that can bring discomfort to their clothing and many of these discomforts occur when they put on some clothing items. James (2011), claims that these disorders are as a result of physiological and biological changes in the body. Some of these disorders include weak bones, depression, stress and some diseases such as high blood pressure, diabetes, and cancer. Ogunwa (2000) also states that because the structure and functions of the body are altered in old age, the elderly or ageing have more severe problems than other age groups in the family. The present study confirms the assertion by Lee (2012) that women experience difficulty in selecting clothing that fits their body shapes and styles that are appropriate for their ageing body. This study however also reveals that this problem is common to both males and females as shown in table two ($\overline{X}m$ =2.68, $\overline{X}f$ =2.91). (Nchekwube & Chigbu, 2014) opined that aging women are generally seen with the deposit of flabby flesh at the upper arm. These figure defects resulting from the aging process create serious fitting problems and make clothing usage difficult task for aging women.

Durability and good quality clothes ($\overline{X}g$ =2.92), is one of the factors that guide aged retirees in clothing selection. Some aged retirees have limited resources to spend on clothing and other textiles, and therefore they try to optimize purchases to get highest possible value for money. Purchasing low quality products can make clothing more expensive in the long term. For example cheap socks may be worn out after two days of use and have to be replaced with new ones; this becomes more expensive (Harriet and Minna 2002). Marc, (2016) expressed that "If we want to buy better clothes that last longer, we have to know what to look for when we are shopping''.

The finding of this research also show that all forms of comfort very much influence clothing selection by the aged. This finding agrees with earlier assertions by Twigg (2007), Thomas and Peters (2009) that aged retiree desire comfort, fit, aesthetics, style, value, good price and function in their clothing selection. Thiry (2009) supports this by stating that the aged are not willing to sacrifice comfort for fashion and that they also prefer protective clothing in extreme environment condition. Manwa, Ndamba, & Lokadhia, (2010) recommends that while selecting clothing one should ensure appropriate size, shape and color. Culture ($\overline{X}g$ =2.81) is also a factor considered during clothing selection by aged retirees. In line with this finding, Asare, Ibrahim and Kwesi (2016) indicate that people's selection of clothes is influenced to a great extent by what is worn by other persons. An individual's clothing is a symbolic aspect of people's culture which gives them identity. For instance in Benue State, the ethnic groups differ in their mode of dressing particularly signified by colour differentiation.

Findings also reveal several challenges confronting the aged while selecting their clothes; the highest, poor knowledge of right clothing ($\overline{X}g$ =2.99), difficulty in choosing trendy styles of garments agrees with report by (Nwabude 2009). Clothing selection requires knowledge, knowledge about the right clothing to wear by the aged retirees especially clothing that brings warmth during harmattan for example caps, socks. Oniye (2012) stated that there is the need to recommend certain clothing for the elderly such as warm clothes and clothes that fit all occasion such as flat shoes and caps. The aged have no difficulty selecting comfortable or fashionable footwares ($\overline{X}g$ =2.24). Fastening/unfastening clothing items for example boot/shoe is a challenge to the aged retirees as palm sandals or simple wear is preferable for easy mobility and comfort ability. Irregular payment of pension can hamper clothing selection. Income is a determining factor in order to select clothing intelligently and efficiently. All these challenges outlined as problems hides clothing from performing its varied functions thereby, making the aged retirees not to enjoy clothing.

Conclusion

The most important consideration for clothing use and selection should be what makes one comfortable and gives the wearer confidence. A good fit allows the joyous senses of motion and freedom, giving both comfort and grace (Salami &Uko-Aviomoh, 2004). Some clothing selection determinants are highlighted as durability and quality, body shape/physique, good fit, clothing style, occasion and comfort among others. The aged retiree should consider all these factors when they are making selections for their clothing's. Some challenges encountered during aged retirees clothing selection are income, lack of knowledge on what to wear, difficulty in selecting comfortable and trendy garments, difficulty in selecting garments that fit shape among others. It was concluded that for the aged retirees in Makurdi to enjoy their clothing, they have to select clothes that has good fit, durable, comfortable, available, with easy care quality garments for easy maintenance. Finally conclusion was drawn that aged retiree should dress neat and always look good both in aesthetics and functionality.

Recommendations

Based on the findings from the study, the following recommendations were made;

- Aged retiree should select clothing that are durable, clothing with opening and closures to facilitate ease of wearing, cloth that have good fit and brings comfort
- Due to delay in payment of pension, the aged retirees should select affordable and easily maintained clothing items
- Due to aging and it challenges it is recommended that the aged

retirees should put on clothing style with simple designs

- It is also recommended that the aged retirees should put into consideration weather/season/climate when they are selecting clothing items so as to keep their body temperature normal and to avoid ill-health.

References

Agbo, D.A. and Dada, H.O. (2015). Overcoming Aging Problems through right Clothing: A Paper Presented at 7th IFHE (International Federation of Home Economics) Africa Regional Meeting Bibliotheca Alexdrina, Alexandra, Egypt.

Aguiar, M and Hurst, E (2013) " Deconstructing Life Cycle Expenditure. *Journal of Political Economy.* 121, (3), 437-472.

Asare, T.O., Ibrahim, A.F. & A.D. (2016). The influence of Social and Psychological Factors on selection of clothing among female students of Kumasi Polytechnic, Ghana. *International Journal of Engineering Research and Review.* Retrieved 20/06/2018 from www. researchpublications.com

Broverman,I.K., Vogel, S. R., Broverman, D.M., Clarkson, F. C. and Rosenkrantz, P.S.(1972). Sex-Role Stereotyping. *Society for the Psychological Study of Social Issues. Retrieved from http://doi.org/10.1111/j.1540-4560.1972.tb00018.x*

Ekot ,M.(2012). Challenges of Elder Abuse and Neglect in Akwa Ibom State.*JHER*,13:75-80

Ezema, P. N. (2000). The Clothing Needs of the Aging: *Eha Amufu College of Education Journal*. 2(11), 9 – 94.

Harriet, M. and Minna, V. (2002) clothing and textiles for disabled and elderly people. VTT Tiedotteita-Research Notes 2143 57p-app 4p

Hodge, V.E. and Bear, M.M. (2018). Elderly women's clothing: acquisition, fit and alterations of ready-to wear garment. Wiley online library. *Journal of consumer Studies & Home Economics, 10(4).* Retrieved from http://doi.org/10.1111/j.1470-6431.1986.tb00641.x

Kalunde, K.R. (2014). *Psycho-social and economic factors influencing the choice of clothing by professional women: A case of Machakos town in Kenya*. A published thesis for Master of Science in fashion design and marketing, school of Applied Human Sciences , Kenyatta University.

Lawboy (2017). Retirement age in Nigeria for various institutions and profession. InfoGuide NIGERIA.com. Information Guide Nigeria.

Lee, Y., Damhorst, M., Lynn, L., Min-sun,K., Joy, M., and Martin. P. (2012). Older Women Clothing Fit and style Concerns and their Attitudes Towards the use of 3D Body Scanning. *Clothing and Textiles Research Journal,* 30(2): 102-118

Manwa, L, Ndamba, G.T. and Lokadhia, M. (2010). A Gendered Dress Code and how it Influences the Choice of Dress in Zimbabwe. *Journal of African Studies and Development.* 2(6), 144-149

Marc, B. (2016) Pro tips for buying clothes that will last years not weeks. Retrieved 04/12/2016 from https:qz.com/823607/pro-tips-for-buying-clothes-that-will-last-years-not-weeks

Mohammed, A. Z. and Umar, J. W. (2010). *Fundamentals of Clothing Education.* Kaduna: De-new creation prints. Ltd.

Nchekwube, J. and Chigbu, R. (2014). Clothing Consumption Problems of Ageing Women in the Family. *International Journal of Family and Consumer Sciences.* 3. 25-31

Nwabude, N. J. (2009). Clothing selection practices of ageing women in Enugu State. Retrieved 13/06/2018 from pdf.

Nyong, B.C and Duze, C.O, (2011). The Pension Reform Act (PRA) 2004 and Retirement Planning in Nigeria. *Journal of Economics and International Finance*,3(2),109++++++

Ofori,I., Adu, C., Tawaih, V. N., Akwaboa, D. A. and Agbovie, T.(2014). Factors that influence clothing selections: A case study of University of Ghana, Legon. Art and Design Studies ISSN 2224-6061(Paper) ISSN 2225-059X(Online)25.

Ogunwa ,A.L. (2000) "Lifestyle Types of Ageing Anambra State Women and their Clothing Behaviours" in Anyakoha .E (edited 2002). Research issues in Home Economics. Nsukka: Home Enterprises

Oniye, A.O. (2012). Retirement stress and management strategies among retired civil servants in kwara state. counselling implications and intervention. *International journal of educational management*. www.docstoc.com/docs/14905722/RE.EN

Salami, L. and Uko-Aviomoh, E. E.(2014). Factors Influencing the Clothing Practices of University of Benin Female Students in *Journal of Home Economic Research* 5(4)138-142

Shah ,K. and Villareal, D.T.(2010). Obesity. Philadelphia: Saunders Elsevier.

Thiry, M.C.(2009). The Untapped Market, AATCC Review vol.9 issue 4, April 2009

Thomas .J.B., and Peters , C., (2009). Silver Seniors, Consumption of Women Over 65. *International Journal of Retail and Distribution Management*, 37(12): 1018-1040

Twigg, J. (2007). *Clothing, Age and the body: A critical Review*. United Kingdom, Cambridge University Press.

Twigg, J., (2009). *Clothing Identity and the Embodiment of Age*. In: In J. Powell and T. Gilbert, eds. 2009. Aging and Identity: A Postmodern Dialogue. New York: Nova Science Publishers.

Twigg, J. and Majima S. (2011). *Consumption and the Constitution of Age Expenditure* Pattern on Clothing Available Online at Clothing and Age.Org. esrcsocietytoday.ac.uk

Clark, G. L (2018). The UK Pensions Crisis and Institutional Innovation:Beyond Corporatism and Neoliberalism. Retrieved from www.palgrave.com on 14/06/2018. Palgrave Macmillan.

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Causes of Maternal Mortality among Women in Mangu Local Government Area of Plateau State, Nigeria

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Abstract

This study examined the causes of maternal mortality of Women in Mangu Local Government Area of Plateau State, Nigeria. Four research questions were formulated and answered using simple percentage, mean and standard deviation. The results revealed that some major causes of maternal mortality in the study area in ranking order include; high blood pressure, HIV/AIDS, lack of family planning and malaria. The most challenged by maternal mortality in Mangu LGA were: children, husbands, government, community and society. It was also found that maternal mortality could be reduced through: media influence, prompt antenatal care and sex education for the adolescents, among others. Some recommendations made for reducing maternal mortality comprise provision of more government health centers, facilities to assist the more vulnerable groups in the community.

Keywords: Maternal, Mortality, Clinic, Early marriage, Antenatal.

Introduction

Maternal mortality has been a major health challenge in developing countries of the world. Maternal mortality has been defined as the death of mothers caused by diseases and other health conditions related to pregnancy, labour and childbirth and as deaths due to complications from pregnancy or childbirth (Mutihir & Golit, 2010; Zozulya, 2010; CIA World Fact Book, 2018). Maternal mortality has been and still remains a public health challenge especially in developing nations. It is more heartbreaking because young women die in the course of carrying out this vital biological function of child bearing (Mutihir &Golit, 2010). Child bearing age is a critical period in life, especially with respect for healthy family survival. It is the age period between 15-24years.

The World Health Organization (WHO), has categorized young women between the ages of 15-25years as Adolescents and teenagers (WHO, 2013). Adolescence is a process of growing to maturity, a time period between the beginning of childhood and adulthood when hormonal changes transform girls into young women who will be able to have children of their own (National Research Council & Institute of Medicine, 2005;WHO, 2013). To prevent maternal mortality consequently, the health of the mother must be put into serious consideration, likewise her physical and structural maturity. When a pregnant young woman is not in good health, either before, during or after delivery, it can be a predisposing cause of maternal mortality.

There are certain factors that can affect the health of a woman who is within the child bearing age. Some of them include: the physical development of the woman at the time of marriage, accessibility to health care before, during and after delivery, child spacing, nutritional knowledge and application. These factors are often classified as direct or indirect. Direct factors include: hemorrhage, eclampsia, obstructed labour and unsafe abortion. While indirect factors are: obstetric deaths which result from previously existing disease arising during pregnancy, which are aggravated by the physiological effects of pregnancy such as: high fever, malaria, anemia, HIV/AIDs, tuberculosis, cancer, cardiovascular diseases, renal diseases (Adesokan, 2011; Care Quality Commission, 2013; Demographic Surveillance System, 2014).

A young woman under 16 years who is expecting delivery will be at risk of obstructed labour due to pelvic inadequacy and other health conditions due to early age in which many Nigerian girls begin child bearing. Maternal mortality is reported to be very high, especially in the Northern parts of Nigeria, among women living in urban, rural and poorer communities (Chinelo, Okigbo & Ahizechkwu, 2015; Sharma, Brown, Kainuwa, Leight & Nyqvist, 2017), in which Mangu Local government Area is not an exception. It is reported that, 44% of young women aged 20-24 had given birth before they were 20 years old, 27% before they were 18 years old and 8.5% before they were 15 years old. The report further suggested that early pregnancy is likely to be one of the main reasons for the higher maternal mortality rate among young women in northern Nigeria because many of the women are married by age 18 years (WHO, 2013; Morgan & Eastwood, 2014; Sharma, 2017). A study on maternal mortality among adolescent women in Jos, Plateau State was conducted to determine the extent, characteristics and risk factors of maternal deaths in the adolescent women in Jos, Plateau State. The results of the study revealed high incidences of complicated induced abortion (37%), eclampsia and sepsis each accounting for 26.3% as leading sources of maternal mortality ((Ujah, Aisien,Mutihir, Vanderjagt, Glew & Uguru, 2005).

The study revealed that adolescent women dwelling in Jos are at high risk of maternal mortality. One of the ethnic groups of their study was the Mwaghavul women from Mangu L.G.A. of Plateau State. Thus, in Mangu L.G.A, adolescent women were found to be at a high risk of maternal mortality. Furthermore, a study by Samson (2015), revealed a very high risk of mortality from the obstetric case files of women registered from 2015-2016 in Kerang community of Mangu LGA. Also, preliminary data collected at the beginning of this study from five major clinics in Mangu town revealed that 14 out of 159 women that attended antenatal clinic died during child birth. This is why the researchers wish to examine the causes of maternal mortality among women in Mangu LGA of Plateau State-Nigeria.

It is known that when there is good availability of health care services especially with good knowledge of maternal and child bearing issues by women of child bearing age, the users are likely to experience less mother and child mortality. However, experience has shown that maternal mortality among young women has been a key health concern despite efforts of both government and non-governmental organizations in creating consciousness both nationally and internationally. Despite the establishment of the institution of safe motherhood initiative in the health sector, maternal mortality is still very high in Mangu LGA of Plateau State. If the situation is allowed to continue, the area may end up having a lot of motherless children and unhealthy mothers, hence, the reason why this study on the causes of maternal mortality among young women in Mangu LGA of Plateau State is undertaken.

Purpose of the Study

The purpose of this study was to investigate the causes of maternal mortality among young women in Mangu Local Government Area of Plateau State. Specifically, the study determined:

(1) causes of maternal mortality among young women in Mangu LGA.
(2) individuals mostly challenged as a result of maternal mortality in Mangu LGA.
(3) ways of reducing maternal mortality among young women in Mangu LGA.

Research Questions

(1) What are the causes of maternal mortality among young women in Mangu LGA?
(2) Which individuals are mostly challenged by maternal mortality in Mangu LGA?

(3). In what ways can maternal mortality be reduced among young women in Mangu LGA?

Methodology

Design of the Study: The study employed descriptive survey research design to examine the causes of maternal mortality among young women in Mangu community of Plateau State.

Area of Study: The area of the study was Mangu LGA of Plateau State. It is one of the 17 Local Government areas making up the three senatorial zones of the State (National Demographic and Health Survey, 2013). Women of reproductive age, especially the educated ones usually use the available health facilities in Mangu community. However, the less educated ones mostly show a laissez-faire attitude except in cases of emergencies where they are rushed to health centers.

Population of the Study: The estimated population for this study consists of 3,200 women of child bearing age, who attend various health centers in Mangu community of Plateau State. It is a community whose occupations are predominantly farming, trading/small business and animal rearing. There are also educated civil servants. There are five health facilities owned by the government, two private clinics and ten patient chemists, where members of the LGAs receive health care, with an average of four women in attendance in each health center per week. Some of these health facilities are either poorly or hardly equipped.

Sample for the Study: A sample of 159 young women was used. These were those who came for antenatal care and delivery during the time of the study. The distribution of young women sampled for the study from the five coded centers comprises: center A 40, B 52, C 28, D 21 and E 18 respectively.

Instrument for Data Collection: A structured questionnaire of four sections was used. Section A contained questions on respondents' personal information such as age and marital status. Section B contained 20 items which are related research question one on the causes of death among young women during pregnancy and child birth. Section C contained 6 categories of people most challenged by maternal mortality, while Section D contained 11 items on possible ways of reducing maternal mortality among young women in Mangu LGA. The questionnaire was subjected to the scrutiny of three expects: one in Test and Measurement from the University of Jos and two from Plateau State Department of Public Health, Jos. They read through the questionnaire items and made very useful suggestions of which the researchers collated and effected the corrections. The instrument was pre-tested using 20 young women in Kerang community of Mangu LGA who were not part of the sample for the study. Cronbach Alpha reliability index was used which showed a reliability index of 0.76 indicating that the questionnaire was reliable.

***Data Collection and Analysis Methods*:** The questionnaire was administered personally by the researchers within the period of the study. The method of administration was a face to face direct delivery. One hundred and fifty nine women visited the health centers at the period of study and 102 (65%), responded to the questionnaires appropriately. The data were collated and analyzed.

Findings

Demographic Data

The age group distribution of the respondents comprised of 5.88% teenagers, 55.88% adults, 18.63% between the ages of 24 –29years and 19.61% between ages 30 years and above. Based on the marital status, majority of the respondents were not married but pregnant (62.75%). 16.67% of the respondents were married 1.76% of the respondents were widows and 8.82% them were divorced.

Based on occupation, majority of the (50%) of the respondents who were pregnant, were house wives, 23.53% agriculture/business based, 17.65% civil servants and 8.82% were students.

Table 1: Causes of maternal mortality in Mangu LGA

S/N	Causes of Maternal Mortality	Agreed F (%)	Disagreed F (%)	$\overline{X} \pm SD$	Ranking
1	Swollen legs	96 (94.12)	6 (5.88)	3.64±0.77	1
2	High Blood Pressure	89(87.25)	13(12.75)	3.63±0.70	2
3	HIV/AIDs	89(87.25)	13(12.75)	3.63±0.70	2
4	Lack of Family Planning	90 (88.20)	12 (11.80)	3.63±0.69	2
5	Malaria	90 (88.20)	12 (11.80)	3.63±0.69	2
6	Diseases/ Infection	96 (94.12)	6 (5.88)	3.57±0.78	3
7	Distance from the Health Facilities	89 (87.30)	13 (12.70)	3.51±0.71	4
8	Prolonged Labour	90 (88.24)	12 (11.76)	3.45±0.85	5
9	Act of God	90 (88.24)	12 (11.76)	3.45±0.85	5
10	Poverty	90 (88.20)	12 (11.80)	3.45±0.85	5
11	Unsafe Abortion	90 (88.20)	12 (11.80)	3.45±0.85	5
12	Lack of Antenatal care	90 (88.20)	12 (11.80)	3.39±0.85	6
13	Lack of good food	89 (87.30)	13 (12.70)	3.38±1.01	6
14	Socio-cultural beliefs	89 (87.30)	13 (12.70)	3.38±1.01	6
15	Witchcraft	90 (88.24)	12 (11.76)	3.33±0.84	7
16	Lack of healthcare facilities	90 (88.20)	12 (11.80)	3.28±0.96	8
17	Early Marriage	90 (88.20)	12 (11.80)	3.27±0.96	9
18	Sepsis	57 (55.88)	45(44.12)	2.79±1.18	10

19	Bleeding (Hemorrhage) before and after delivery	44 (43.14)	58 (56.86)	2.43±1.11	11
20	Blood loss during pregnancy	44 (43.14)	58 (56.86)	2.31±1.10	12

Source: field data (2017), **NB:** percentages in parenthesis (%), Mean ± Standard Deviation

Table 2 reveals the causes of maternal mortality among young women in Mangu local Government Area as follows: 96 of the responses representing 94.12% of the respondents ranked swollen legs as the first major cause of maternal mortality. 87.25% of the responses ranked High Blood Pressure, HIV/AIDs, Lack of Family Planning, Malaria with mean and standard deviation of 3.63±0.69 as second, 94.12 of responses ranked Disease/Infection as third, 87.30% of responses ranked Distance from the Health Facilities 3.51±0.71 as fourth, 88.24% of the respondents ranked Prolong labour, Act of God, Poverty and Unsafe Abortion with mean and standard deviation of 3.45±0.85 as fifth, 87.30% of the respondents ranked Lack of Antenatal care, Lack of good food and Socio-cultural beliefs with mean and standard deviation of 3.38±1.01 as sixth, 88.24% of the respondent ranked Witchcraft with mean and standard deviation of 3.33±0.84 as seventh, 88.20% of the respondent ranked Lack of healthcare facilities with mean and standard deviation of 3.28±0.96 as eight, 88.20% of the respondent ranked Early marriage below 18years with mean and standard deviation of 3.27±0.96 as ninth, 55.88% of the respondents ranked Sepsis with mean and standard deviation of 2.79±1.18 as tenth, 43.14% of responses bleeding before and after delivery with mean and standard deviation of 2.43±1.11 was ranked eleventh and 43.14 Blood loss during pregnancy with mean and standard deviation of 2.31±1.10 as twelfth cause of maternal mortality in Mangu Local Government area of Plateau State.

Table 2: Persons mostly challenged by Maternal Mortality in Mangu LGA

S/N	mostly challenged as a Result of death of Women during childbirth	$\bar{x} \pm SD$	Ranking
1	Children	3.75±0.55	1
2	Husbands	3.63±0.69	2
3	Relations/Friends	3.27±0.96	3
4	Religious organizations	2.91±1.09	4
5	Community	2.85±1.16	5
6	Government	2.79±1.18	6

Source: Field data (2017), **NB:** Mean ± Standard Deviation

Table 2 shows that the most challenged people by maternal mortality in Mangu LGA by ranking were the children with 3.75±0.55, Husbands with 3.63±0.69, Government with 2.91±1.09, Community with 2.85±1.16 and Society, 2.79±1.18 respectively.

Table 3: Possible ways of Reducing Maternal Mortality among young people in Mangu LGA

S/N	Suggestions on Ways to Reduce Maternal Mortality	$\bar{x} \pm SD$	Ranking
1	Use of social media for sensitization	3.75±0.55	1
2	Prompt antenatal care	3.75±0.55	1
3	Prompt identification and treatment of diseases, including malaria.	3.75±0.55	1
4	Provision of more health centres	3.75±0.55	1
5	Sex education for the adolescents	3.75±0.55	1
6	Proper use of family planning	3.70±0.58	2
7	Good nutrition during pregnancy	3.70±0.58	2
8	Provision of trained health personnel	3.57±0.78	3
9	Safe abortion education	3.38±1.01	4
10	Ensure safe blood transfusion	3.38±1.01	4
11	Health Education/Awareness campaign on health, hygiene and good nutrition	1.89±0.70	5

Source: Field data (2017), **NB:** Mean ± Standard Deviation

Table 3 reveals respondents' opinions on how maternal mortality can be reduced among young women in Mangu LGA. Media influence, Prompt Antenatal care, Prompt identification and treatment of diseases, Provision of more health centres and sex education for the adolescents with mean and standard deviation of 3.75±0.55 were ranked first, Proper use of family planning and Good nutrition during pregnancy with mean and standard deviation of 3.70±0.58 were ranked second, Provision of Trained staff with mean and standard deviation of 3.57±0.78 was ranked third, Safe abortion education and Safe blood supply with mean and standard deviations of 3.38±1.01 were ranked fourth, and Health Education/Awareness campaign with mean and standard deviation of 1.89±0.70 was ranked fifth.

Discussion of Finding

The purpose of the study was to identify the causes of maternal mortality for healthy survival of women in Mangu Local Government Area of Plateau State. The results of data analysis in the study area showed that respondents agreed with most of the items listed as causes of maternal mortality in order of ranking, which included: swollen legs, high blood pressure, HIV/AIDs, lack of family planning, malaria diseases, infection/diseases, distance from health facilities, prolonged labour, act of God, poverty and unsafe labour. The ranking of these items mentioned above (1-5) was quite high (high of 89% and low of 96%) respectively. This is not surprising because the majority of the respondents (63%) in this study were adolescents who were not married but were pregnant. Thus their lack of knowledge and experience on maternal health care could have contributed to the reasons for the causes of maternal mortality. This is similar to the works of some researchers (Zozulya, 2010; 2005; Adesokan, 2011; WHO, 2013; Sharma et al, 2017). In their studies, they listed causes such as: unsafe abortion, hemorrhage, cancer, obstructed labour and socio-cultural believes. Also, the results of analysis in Plateau State and specifically, among the Mwaghavul tribe in Mangu LGA by Ujah et al (2005) showed that, there were other indirect causes of maternal mortality such as sickle cell anemia, meningitis, hepatitis, cardiovascular diseases and pulmonary tuberculosis, among women in the LGA. The number of women in the present research work who went for antenatal care on a weekly or monthly basis were quite few (an average of four). It is therefore possible that the majority of the women perhaps, only attended antenatal clinics when they had challenges, complications or difficult labour.

The results of this study also identified Persons mostly challenged by Maternal Mortality in Mangu LGA. They include children, husbands, relations/friends, religious organizations, community and government in ranking order. Maternal mortality among young women has many implications not only to individuals, family members and community but also to the nation and the world at large. Another study by Mutihur, (2010) and Morgan & Eastwood (2014) reported that the government, the society and other agencies could be challenged as a result of the effect of maternal mortality.

Also, this study has shown clearly that, maternal mortality could be reduced. Some of the ways to reduce maternal mortality in Mangu LGA according to ranking included: use of the social media for sensitization of the populace, prompt antenatal care, prompt identification and treatment of diseases, provision of more government health centers and sex education for adolescents. Home Economists and other health workers can assist in educating adolescents, young and older women by mounting up educational campaigns and making good use of the social media in this era of Information Communication Technology, especially to reduce the menace. This is why the MDG target aimed to reduce the number of young women who die in pregnancy and childbirth by three quarter by 2015 (Mutihir & Golit, 2010; United Nations Population Fund, 2016; CIA World fact book (2018). This however is yet to be fully achieved in Nigeria, as young women are still at high risk of maternal mortality. Furthermore, the results of the analysis reveal that, maternal mortality could be reduced when there are provision of trained staff, proper use of family planning, provision of more health centres and good nutrition during pregnancy. That also confirmed the reports of Ujah et al, (2005) and Adesokan (2011). They found out that abortion related maternal deaths were high because of unplanned and unwanted pregnancies. Again, from the present research work, age was found to be one of the risk factors of maternal mortality in Mangu LGA. The studies by Morgan &Eastwood (2014) and Care Quality Commission (2013), posited that young women were at risk of maternal mortality because some of them were still developing and had not attained full maturity. Furthermore, Sharma et al (2017), in their study on maternal mortality in Jigawa State, Nigeria, reported higher risks among young adults in the Northern parts of the country. This factor may be more obvious in places where younger women are given to early marriage or exposed to child bearing, especially between the ages of 11 to 13. It is therefore the opinion of the researchers that maternal mortality issues should be treated properly by health practitioners with greatest concern to reduce the rate of maternal mortality in Mangu local government area of Plateau State. It is important to note however that the process of data collection during national surveys may not be as perfect as it is with other developed countries. In developing countries it could be difficult to reach some of the remote villages during some seasons of the year meaning that such data representation may not be absolutely precise.

Conclusion

Based on the findings and discussions, the following conclusions were reached in the study; there are many causes of maternal mortality in Mangu LGA. The cases of maternal mortality are more common among unmarried adolescents who may not be fully prepared for the responsibilities of child bearing and rearing. The reasons for these maternal mortality rates could include poverty, poor health care facilities as well as other socio-cultural challenges.

Recommendations

The following are some of the recommendations drawn for policy formulation

❖ Community health education programmes should be carried out to encourage most, if not all pregnant women to attend antenatal clinic which will aid early identification and management of diseases to prevent mortality. Besides, family planning services should be accessible for couples, likewise the single adolescents to prevent unwanted pregnancies and unsafe abortion.

❖ Safe motherhood initiative programmes should be propagated and made accessible to all women of child bearing age. There is also the need for government to enforce programmes for the rural women economic empowerment. This will help improve their health status during pregnancy to advocate through mass media.

- ❖ The women, children, husbands (households) and communities can all get involved in poverty alleviation activities, health and environmental education and application and use of available family resources wisely.
- ❖ Government should enact a law in order to discourage and prevent early marriage and also create awareness on the danger of early marriage and teenage pregnancy. There should be health education during antenatal sessions by health personnel on the factors responsible for maternal mortality and how to prevent them.
- ❖ Government and other non-governmental organizations should encourage and sponsor seminars and workshops in order to train traditional birth attendants on the modern techniques used in deliveries.

References

Adesokan, (2011). Postnatal Care: Reproductive Health for All Ages. Akure Bosem Publishers Nig. Ltd

Care Quality Commission. National Findings from the 2013 Survey of Women's Experiences of Maternity Care. Care Quality Commission, London; 2013.

Chinelo, C.O. and Ahizechukwu, C.E. (2015). Skilled birth attendance in Nigeria: A function of frequency and content of antenatal care. *Africa Journal of Reproductive Health. 19*(1), 25-33

CIA World Factbook - Unless otherwise noted, information in this page is accurate as of January 1, 2018

Demographic Surveillance System. Northern Nigeria (Nahuche HDSS); International Journal of Epidemiology; (2014). P.dyu.Google Scholar

Morgan, K. J. & Eastwood, J. G. (2014). Social determinants of material self-related health in south western Sydney Australia.

MutihirT.J. and Golit W. N. (2010). A review of policies and programs for promoting maternal health in Plateau State, Nigeria. African Journal of Reproductive Health. (Special Issue); 14 (3): 44

National Demographic and Health Survey (NDHS)(2013).Nigeria Demographic and Health Survey. Retrieved from: https://www.unicef.org/nigeria.

National Research Council & Institute of Medicine Lloyd CB, ed. (2005). Growing up global: the changing transition to adulthood in developing countries. Washington, DC: National Academics Press.

Samson E. (2015). Examining the causes of maternal mortality for healthy survival of women in mangu local government area of Plateau State, Nigeria (unpublished project). University of Jos, Plateau State, Nigeria.

Sharma,V., Brown, W., Kaimuwa, M. A., Leight, J. and Nyqvist, M. B.(2017). High maternal mortality in Jigawa State, Northern Nigeria estimated using the sisterhood method. BMC Pregnancy and ChildbirthBMC series – open, inclusive and trusted2017:163

https://doi.org/10.1186/s1288-017-1341-5
Ujah, I.A.O, Aisien, O.A., Mutihir, J.J., Vanderjagt, D.J., Glew, R.H. & Uguru, V.E. (2005). Maternal mortality among adolescent women in Jos, north central Nigeria. Journal of Obstetrics and Gynaecology, 25(1), 3- 6.
World Health Organisation, (2013). Trends in maternal mortality: 1990 to 2013. Estimates 'by WHO, UNICEF, UNFPA, the World Bank and the United Nations Population Division. Geneva: WHO; 2014
Zozulya, M. (2010). Maternal motality in Nigeria: An indicator of women's status. http://www.consultancyafrica.com/index.php?option=com_content&view=article&id=358358:maternal –mortality-in-nigeria-an-indicator-of-womensstatus&catid==59:gender-issues-discussion-papers&itemid=267

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Proximate Analysis and Organoleptic Attributes of *Ukpo Ogede* and *Uloka* (Local Dishes) of South-South Zone of Nigeria

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Abstract

The study determined the organoleptic attributes and proximate composition of two locally consumed dishes in Edo State namely *Ukpo Ogede* and *Uloka*. *Ukpo Ogede* and *Uloka*. The proximate analysis were determined using AOAC (2005) method. Organoleptic evaluation revealed the dishes were highly rated in terms of color, flavour, appearance, texture and general acceptability. The selected proximate analysis results revealed that *Ukpo Ogede* and *Uloka* are rich source of carbohydrate (28.64 and 47.35 respectively) but *Ukpo Ogede* is low in protein while *Uloka* is average (2.24 and 5.31 respectively), Ash (0.34 and 1.89). The fat content of *Uloka* is relatively high, while that of *Ukpo Ogede* is low with high moisture content also *Ukpo Ogede* has high significance than *Uloka*.

Key Words: *Ukpo Ogede*, *Uloka*, Proximate, Organoleptic, Analysis.

Introduction

In Nigeria and many other parts of Africa, plantain (*Musa paradisiaca*) serves as a major staple food (Oladele & Khokhar, 2011). Plantains can be consumed in the unripe, fairly ripe, ripe and overripe stages (Okorie *et al*, 2015). Plantains is an important staple food in Central and West Africa, which along with bananas provides 60 million people with 25 percent of their calories (Adetuyi *et al*., 2012). According to FAO (2009), over 2.11 million metric tons of plantain are produced in Nigeria annually. However, about 35-60 percent post-harvest losses had been reported and attributed to lack of storage facilities and inappropriate technologies for food processing (Adetuyi *et al*., 2012). When processed into flour it is used traditionally for preparation of gruel which is made by mixing the flour with appropriate quantities of boiling water to form a thick paste. The use of plantain flour for production of baked goods if feasible would help to lessen Nigeria's dependence on imported wheat. Plantain is widely grown in

Nigeria, particularly the eastern part of the country (Onuoha *et al*, 2014).

In Nigeria, unripe plantain pulp could be eaten boiled, fried, or roasted. It is also commonly made into chips by frying thin slices in oil and salting it (Onuoha et al, 2014). Roasted unripe plantain (called '*bole*' in the Western part of Nigeria) is prepared by roasting unripe plantain pulp over balls of red-hot coal until it is cooked. This is then eaten with any traditional Nigerian soup (Onuoha *et al*, 2014). Boiled unripe plantain is either eaten with sauce, or pounded into '*foo-foo*' and eaten with any Nigerian soup. Unripe plantain pulp is also dried, ground into flour (Onuoha et al, 2014). This flour may be reconstituted in boiling water to make '*amala*' which is eaten with any Nigerian soup (Onuoha et al, 2014). The flour is also used for several other traditional dishes ranging from '*akara*', '*ukpo ogede*' and soups (Onuoha et al, 2014).

Plantain moi moi, traditionally known as *ukpo ogede*, is a Nigerian delicacy prepared basically with overripe plantains and unripe plantain flour. As a recipe of Plantain, *ukpo ogede* therefore could be regarded as a hypoglycemic diet. According to Rambdath (2004), this is because unripe plantain is a low glycemic index food since it contains starch that has only small concentrations of sugar and these sugars are released slowly over time. This is why unripe plantain dishes are usually consumed by Nigerian diabetics to reduce post-prandial blood glucose level (Foster *et al*., 2003).

Maize (*Zea mays L.)* is a member of the grass family (gramineae). It originated from South and Central America (Oladejo & Adetunji, 2012). It was introduced to West Africa by the Portuguese in the 10th century (Oladejo & Adetunji, 2012). Maize is a major cereal crop for both livestock feed and human nutrition (Ridhi, 2014). With its high content of carbohydrates, fats, proteins, some of the important vitamins and minerals, maize acquired a well-deserved reputation as a poor man's "nutricereal"(Ridhi, 2014). Corn contain vitamin B-complex such as B1 (thiamine), B2 (niacin), B3 (riboflavin), B5 (pantothenic acid) and B6 that makes it commendable for hair, skin, digestion, heart and brain (Dilip and Aditya 2013). It contains vitamin C, A and K together with large amount of beta-carotene and fair amount of selenium that help to improve thyroid gland and play important role in proper functioning of immune system(Dilip and Aditya 2013). It has higher content of protein and fat as compared to other cereals (Dilip and Aditya 2013). Corn silk contains maizeric acid, fixed oils, resin, sugar, mucilage, salt and fibres essential in diet(Dilip and Aditya 2013).Corn syrup is useful in manufacturing of jams, jellies, and other sweets and as an additive for cane sugar and maple syrup(Dilip and Aditya 2013). Edible oils obtained from seeds are useful in salad and for cooking (Dilip and Aditya 2013). Roasted seeds are used as coffee substitute (Dilip and Aditya 2013). Maize is the third most important cereal in the world after rice and wheat and ranks fourth after millet, sorghum and rice in Nigeria (FAO, 2009). It is a good source of carbohydrate, vitamins and minerals and it can be processed into a wide range of food items and snacks. Some of the maize-based snacks in Nigeria include: *aadun* (maize pudding), *kokoro* (maize cake) and *donkwa* (maize-peanut ball) (Idowu, 2015).

Ukpo Ogede is a mixture of mashed ripe plantain with plantain flour or yam flour, salt, pepper, crayfish, palm oil and steamed into a pudding (*Madukwe and Ene-Obong, 2006).* One very unique thing about this food is that it is a delicacy that can help households avoid food spoilage and wastage (Omotosho, 2017). Rather than throw those over ripe plantains (as long as it is not rotten), it can be easily converted into a delicious delicacy that can be enjoyed by individuals (Omotosho, 2017). According to *Madukwe and Ene-Obong (2006) 100g of ukpo ogede contains* Iron (1.74 ± 0.14) mg, copper (0.09 ± 0.02) mg, zinc (3.15 ± 0.06) mg, phytate (12.73 ± 0.04) mg and phytate zinc molar ratios (PZMR) (0.04 mg). "*Uloka*" is a snack prepared from roasted whole meal maize flour, red pepper and other spices thoroughly mixed in palm oil to obtain a uniform product of different shapes.

Objectives of the Study

The major purpose of this study was to carry out the organoleptic evaluation and analyze the proximate composition of *ukpo ogede* and *uloka* local dishes peculiar among the people of Edo in Edo state. Specifically, the study determined:

1. proximate composition: moisture content, ash content, protein content, fat content and crude fibre of the two products
2. organoleptic attributes of the two products based on colour, appearance, texture, flavor/taste.

Materials and Methods

Materials

All ingredients for the preparation of the dishes were purchased from the Idi-Oro Plantain and food stuff Market, Mushin, Lagos State, Nigeria. For each of these dishes the materials purchased and quantity (recipecs) as follows:

Dish- *Ukpo Ogede* (plantain Moimoi) Recipe

Ripe plantain	2 medium size
Unripe plantain flour	2 cups
Palm oil	2 cooking Spoon
Cray Fish (ground)	3 table spoonful
Dried pepper	2 table spoonful
Onion	1 medium size
Seasonings	2 cubes
Dried fish (optional) cutlet	2mediumsize
Water	200 ml
Salt	to taste

Snack-*Uloka* (ground roast corn with spices) Recipe

Corn	286g
Palm oil	2 cooking spoon
Dried pepper (grounded)	1 tablespoonful
Ginger (grounded)	1 tablespoonful
Garlic (grounded)	1 tablespoonful
Sugar	3 cubes

Procedure for the preparation of *Ukpo Ogede*

1. Wash and peel the ripe plantain, cut into slices, mash or blend.
2. Beat in the unripe plantain flour.
3. Add water, pepper, dried fish, Cray fish and Maggi cubes.
4. Mix thoroughly and add salt to taste.
5. Line the base of the pot with stalks of the broad leaves.
6. Add some water to the pot and allow to boil.
7. Clean the broad leaves and scoop the plantain mixture into the leaves and place in the pot to steam for about 35 minutes.

Procedure for the preparation *Uloka* (roast corn with spices)

1. Pick the unwanted articles from the corn
2. Roast the corn.
3. Grind into powder and put into a bowl.
4. Add the pepper, ginger, sugar and mix thoroughly.
5. Add the palm oil and
6. mold into required shape.

Proximate analysis.

The proximate compositions of each of the dishes were determined in the laboratory using AOAC (2005) techniques on 100g of each sample as follow:

Moisture Content: 5g of each sample was weighed into clean drying Cans of known weight. These cans were then placed in oven drier maintained at 105^0C. After about 16 to 18 hours, the drying Can was transferred into a desiccator for cooling to take place. Thereafter, the percentage Moisture content of each of the sample was determined using:

$$\%\text{Moisture Content (MC)} = \frac{W_2 - W_1}{S} \text{ X } 100$$

Where, W1=weight of empty drying Can, W2=weight drying Can with content and S=weight of sample.

Ash Content: 2g of each sample was weighed into a crucible which had been ignited and weighed. This is then placed on a hot plate inside a fume cupboard to char the organic matter. The remaining inorganic matter was then transferred into the muffle furnace maintained at 600^0C for 6 hours to ash the sample completely. Thereafter, the crucibles were transferred into the desiccators for cooling. The percentage ash content was determined using:

$$\%\text{ Ash content: } \frac{W_3 - W_1}{W_2 - W_1} \text{ X } 100$$

Where W_1= weight of Crucible, W_2=weight of Crucible plus sample before cooling, W_3= weight of Crucible plus sample after ashing.

***Protein Content*:** to between 0.20g and 0.25g of each sample in a digesting tube, concentrated Hydrogen Tetraoxosulphate (IV) acid and Hydrogen Peroxide 4ml each was added respectively to bring about the hydrolysis of the sample. To this one Selinium tablet of Kjedhal catalyst was added and the sample was digested on the digestion block at 375^0C for 3 hours. After cooling, distilled water was added to the hydrolysates up to the mark on the tube before neutralization and titration would be carried out. The amount of total nitrogen in the raw materials were multiplied with both the traditional conversion factor of 6.25 and sample-specific conversion factors in order to determine total protein content.

Fat Content: Soxhlet extraction was used in the determination of fat content. 3g of each sample is weighed into the thimble. The thimble is blocked with cotton wool and placed in a clean extraction Barrel of the Soxhlet apparatus that had been oven dried and cooled in a desiccator. The sample is reflux for 6 hours; after the extraction, the thimble was removed and the extraction solvent distilled off until the flask is almost dried. The flask is detached, dried in the oven at 500^0C overnight, cooled in the desiccators and weighed.

$$\text{Fat content} = \frac{\text{Wt of flask plus fat} - \text{Wt of empty flask}}{\text{Wt of sample}} \text{ X100}$$

Determination of total crude fibre: the samples were first defatted with Hexane in Soxhlet refluxing apparatus. 1g of the defatted sample is added into 600ml beaker, 100ml TCA reagent added to this and boiled for forty minutes. The digest is filtered and the residue washed six times with hot distilled water. The filer paper with the residue is transferred into a porcelain crucible, dried in oven at 100^0C overnight and weighed (A). Thereafter, it will be ached in a muffle furnace at 6000C for 6 hours, cooled in desiccators and weighed again (B).

Loss in weight during incineration is equivalent to fibre.

$$\% \text{ Fibre} = \frac{\text{weight (A)} - \text{weight (B)}}{\text{Sample weight}} \text{ X 100}$$

Organoleptic evaluation

Coded samples of the *Ukpo ogede* and *uloka* (Sample A- *ukpo ogede* ; Sample D- *uloka*) were placed on white saucers and presented to a ten-man taste panel consisting of staff of Faculty of Education University of Lagos. An evaluation sheet designed on a five point hedonic scale was used to assess the following attributes: Colour (Very Black-5, Just Black-4, Fairly Black-3, Ash-2, Gray-1), Appearance (Fresh-5, Smooth-4, Thick-3, Powdery-2, Greasy-1), Texture (Soft-5, Tender.4, Hard-3, Strong-2, Tough-1), Flavour/Taste (Fresh-5, Spicy-4, Pleasing-3, Off-odour-2, Pungent-1) and General acceptability (Very good & acceptable-5, Good & acceptable-4, Just acceptable-3, Slightly acceptable-2, Not acceptable-1). Water was supplied to the panelist to rinse their mouth in between tasting. Descriptive statistics such as mean, frequency and percentage were used to analyze the organoleptic attribute identified by the panelist.

Results

Table 1: Proximate composition of 100 grams *UkpoOgede* (A) & *Uloka* (D)

Samples	Carbohydrate	Protein	Fibre	Ash	Fat/oil	Moisture
A	28.64	2.24	2.58	0.34	0.47	63.74
D	47.35	5.31	2.75	1.89	30.06	11.67

Table 1 shows the percentage values of nutrients present in sample A which is *ukpo ogede* and sample D which is *uloka*. While the carbohydrate, protein, fibre, ash fat/oil and moisture content of *ukpo ogede* are 28.64%, 2.24%, 2.58%, 0.345 and 63.74 respectively, *uloka* contains 47.35% carbohydrate, 5.31% protein, 2.75% fibre, 1.89% ash, 30.06% fat/oil and 11.67 moisture.

Organoleptic evaluation

Table 2: Colour of Sample D (*Uloka*)

Variables	Sample D
Golden Yellow	6(30%)
Bright Yellow	10(50%)
Fairly Yellow	4(20%)
Blackish Yellow	-
Black	-
Total	**20(100%)**

Table 2 shows that based on the Colour of Samples D, 30% chose Golden Yellow, 50% chose Bright Yellow, while 20% chose Fairly Yellow. Neither Blackish Yellow nor Black was chosen.

Table 3: Appearance of Samples

Variables	Sample A	Sample D
Fresh	8(40%)	6(30%)
Smooth	7(35%)	5(25%)
Thick	5(25%)	5(25%)
Powdery	-	-
Greasy	-	4(20%)
Total	**20(100%)**	**20(100%)**

Table 3 shows the Appearance of Samples A, and D respectively, 40%, and 30% chose Fresh, 35% and 25% chose Smooth, while the remaining 25% and 25% chose Thick. Neither Powdery nor Greasy was chosen.

Table 4: Texture of Samples

Texture	Sample A	Sample D
Soft	5(25%)	3(15%)
Tender	10(50%)	10(50%)
Hard	5(25%)	7(35%)
Strong	_	-
Tough	-	-
Total	**20(100%)**	**20(100%)**

Table 4 shows that based on the Texture of Samples A, and D respectively, 25%, and 15% chose Soft, 50% and 10% chose Tender, while 25%, and 35% chose Hard. Neither Strong nor tough was chosen.

Table 5: Flavour/Taste of Samples

Flavour/Taste	Sample A	Sample D
Fresh	5(25%)	5(25%)
Spicy	10(50%)	10(50%)
Pleasing	5(25%)	5(25%)
Off-odour	-	-
Pungent	-	-
Total	**20(100%)**	**20(100%)**

Table 5 shows that based on the Flavour/Taste of Samples A and D respectively, 25% and 25% chose Fresh, 50% and 50% chose Spicy, while 25% and 25% chose Pleasing. Neither Off-odour nor Pungent were chosen.

Table 6: General Acceptability of Samples

General Acceptability	Sample A	Sample D
Very good	10(50%)	5(25%)
Good & Acceptable	6(30%)	13(65%)
Just acceptable	4(20%)	2(10%)
Slightly Acceptable		
Not Acceptable	-	-
Total	**20(100%)**	**20(100%)**

Table 6 shows the general acceptability of samples of A and D respectively, 50% and 25% chose Very good & Acceptable, 30% and 65% chose Good & Acceptable, while 20% and 10% chose just acceptable. Neither Slightly Acceptable nor Not Acceptable was chosen.

Discussion of Findings

Results from the proximate composition of sample A and D show that the moisture content of D is lower than A comparatively. The moisture content of foods or its processed products gives an indication of its freshness and shelf life, high moisture content subjects food items to increased microbial spoilage and short shelf life, which can lead to its deterioration (Adepoju & Onasanya, 2008). Therefore, shelf life is the time during which a product will remain safe, maintain desired sensory, chemical, physical and microbiological properties, and comply with nutritional labeling. Many factors influence shelf life such as: water activity, pH, redox potential, oxygen, use of preservatives, and processing/ storage conditions (Sandulachi & Tatarov, 2012). Also the high ash content of *uloka* is an indication that the minerals in it is better in quantity than that of *ukpo ogede*. Though the protein content of *uloka* is higher than *ukpo ogede*, (Omuetti et al, 1992 in Ewulo *et al* 2017) had clarified that maize is deficient in essential amino acids that are essential for human nutrition. Research efforts has been concentrated on supplementing cereal food with legumes and has successfully enhanced the nutritional value and/or functionality of staple foods (Awolu *et al*, 2016a). Protein is an essential component of the diet needed for survival of animals and human being, its basic function in nutrition is to supply adequate amount of required amino acids. (Abubakar *et al,* 2016). *Uloka* is high in carbohydrate content and can be good sources of energy. It has higher value of carbohydrate than *ukpo ogede*.

It is a generally held opinion among the natives that for *ukpo ogede* to be acceptable, the colour has to be just black and sometimes very black due to the nature of plantain. Based on my findings on this experimental work, it can be deduced that it is acceptable because it can be seen that a high fraction went for very black and just black.

Also, the appearance of *ukpo ogede* is usually fresh, smooth and thick. It is freshly prepared and smooth because it is well blended. Based on my findings, it can be deduced that it is acceptable because it is highly proportioned for freshness, smoothness and thickness.

The natives believe the texture of *ukpo ogede* should be soft and tender. It is cooked by steaming, hence should be soft and easily digestible by any age group. Based on my findings, it can be deduced that it is acceptable because it is highly proportioned for being soft and .tender.

The taste/flavour of *ukpo ogede* should be fresh, spicy and pleasing. When eaten, it should taste fresh because it has just been prepared. It should have a spicy flavour and taste due to the ingredients utilized and this should be pleasing as well. Based on this finding, it can be deduced that it is acceptable.

Ancestrally, for *uloka* to be acceptable, the color-has to be golden yellow, and in some cases bright yellow or fairly yellow with respect to the amount of palm oil used. Based on my findings on this experimental work, it can be deduced that it is acceptable because it can be seen that a high fraction went for golden yellow, bright yellow and fairly yellow.

The appearance of *uloka* is usually fresh, smooth and thick**.** It is freshly prepared and smooth because it is well blended. Sometimes it could be greasy due to the palm oil utilized. Based on my findings, it can be deduced that it is acceptable because it is highly proportioned for freshness, smoothness and thickness. The texture of *uloka* is usually soft and tender. Based on my findings, it can be deduced that it is acceptable because it is highly proportioned for being soft and tender.

The flavour/taste of *uloka* should be fresh, highly spicy and pleasing. When eaten, it should taste fresh because it has just been prepared. It should have a spicy flavour and taste due to the ingredients utilized and this should be pleasing as well. Based on my findings; it can be deduced
that it is acceptable because all choices were for being fresh, spicy and
pleasing.

Uloka is very good & Acceptable among the people of Edo state and based on my findings, generally, it is ranked to be very high in acceptability.

The proximate analysis showed that the two locally consumed dishes in Edo, Edo State contain in moderations the basic nutrients needed to meet the essential needs of man.

Conclusion

Proximate Analysis is a partitioning of compounds in a food product into six categories based on the chemical properties of the compounds. The six categories are: moisture content, ash content, crude protein (or Kjeldahl protein), crude lipid, crude fibre, nitrogen-free extracts (digestible carbohydrates). The Proximate Composition of *ukpo ogede* and *uloka* have been explored. Also, the acceptability of these products in terms of colour, texture, taste/flavor and appearance has been established using organoleptic evaluation. It is concluded that the consumption of local foods should be encouraged rather than replaced with junks from fast food restaurants.

Recommendations

On the basis of the findings, the following recommendations are made:

- *Ukpo ogede* could be included in the on-going Federal government School feeding programmes because the ingredients for it could be sourced locally.
- The results of the organoleptic evaluation of both *ukpo ogede* and *uloka* could be used as a yard stick because these findings are consistent with opinions held by the natives and localities in Edo State of Nigeria where these meal originated from.
- Generally, maize-based snacks such as *uloka* are cereal-based foods which are rich in carbohydrate and low in protein and deficient in some essential amino acids particularly lysine. Since *uloka* is being consumed among all levels of the populace including school-aged children as refreshment in Southern Nigeria, incorporation of a suitable legume will make the snack useful protein and energy sources for its consumers.
- This paper explore the nutritional values of *ukpo ogede* and *uloka*. The information in proximate composition of these meal could be used in making informed decision. Therefore re-introduction of nutrition education into the school syllabus will teach the young ones to utilize foods within their localities, thus a partnership can be formed between ministry of education and ministry of health.
- More research of this nature should be encouraged.

References

Abubakar, U., Yusuf, K.M., Safiyanu, I., Abdullahi, S, Saidu, SR, Abdu, GT, & Indee, AM, (2016). Proximate and mineral composition of corn cob, banana and plantain peels. International Journal of Food Science and Nutrition. 1. 25-27.

Adepoju OT, and Onasanya LO. (2008). Nutrient composition, anti-nutritional factors and contribution of native pear (Dacryoides edulis) pulp to nutrient intake of consumers. Nigerian Journal of Nutritional Science. 29(2):15- 23.

Adetuyi, F., Ajala, L and Ibrahim, T. (2012). Effect of the addition of defatted okra seed (abelmoschuesculentus) flour on the chemical composition, functional properties and Zn bioavailability of plantain (musa paradisiacal linn) flour. J. Microbiol. Biotechnol. Food Sci., 2: 69-82

Akunor, P.I., and Ishiwu, C.J. (2013). Chemical Composition, Physical and Sensory properties of caked supplemented with plantain peel flour. International Journal of Agricultural Policy and Research vol.1 (4), Pp. 087-092

Ali, M. Z., Musaiger, A. O., Ahmed, M. A., Rao, M. V. (1995). Composition of some traditional foods and dishes in the Arab countries of the Gulf. Proceedings, Workshop on Establishing Food Composition Data for the Arab Countries of the Gulf, UAE, 21-23 November 1995.

Al-Jebrin, A., Sawaya, W., Salji, J., Ayaz, M., & Khalil, J. (1983).Chemical and nutritional quality of some Saudi Arabian dishes based on cereals and legumes. I. Proximate composition, amino acid content and nutritive value. Ecology of Food and Nutrition, 17,157.

AOAC (1990). Official methods of analysis, (15th ed Washington, DC: Association of Official Analytical Chemists.

Awolu, O.O., Omoba, O.S., Olawoye, O and Dairo M. (2016a). Optimization of production and quality evaluation of maize-based snack supplemented with soybean and tigernut. (Cyperus esclenta). Food Sci.Nutr:5:3-13.

Bagdonis, J.M., C.C. Hinrichs, and K.A. Schafft. (2009). "The Emergence and Framing of Farm to school Initiatives: Civic Engagement, Health and Local Agriculture," Agriculture and Human Values, Vol. 26, pp. 107-119.

Barham, E. (2003). "Translating Terroir: The Global Challenge of French AOAC Labeling," Journal of Rural Studies, Vol. 19, pp. 127-138.

Beecher, G. R., &Vanderslice, J. T. (1984). Determination of nutrients in foods: factors that must be considered.

Beery, M. and M. Valliantos. (2004). Farm to Hospital: Promoting Health and Supporting Local Agriculture. UEPI Papers-Research Brief. Urban and Environmental Policy Institute, Occidental College, Los Angeles, CA.

Brown, C. (2003). "Consumers' Preferences for Locally Produced Food: A Study in Southeast Missouri," American Journal 'of Alternative Agriculture, Vol. 18, pp. 213- 224.

Oguntona, C. R.B., Odunmbaku, J. A., Ottun, B. O. (1999) "Proximate composition of ten standardized Nigerian dishes", Nutrition & Food Science, Vol.99 Issue:6, pp.295-302, https://doi.org/10.1108/0034665 9910290466

Dilip K. and Aditya N. J. (2013). Nutritional, Medicinal and Economical importance of Corn: A Mini Review. Research Journal of Pharmaceutical Sciences. Vol. 2(7), 7-8

Durham, C.A., R.P. King, and C.A. Roheim.March (2009)."Consumer Definitions of 'Locally Grown' for Fresh Fruits and Vegetables. "Journal of Food Distribution Research, Vol. 40, pp 56-62.

Edman and S. Klein, 2003. A randomised trial of a low-carbohydrate diet for obesity, N. Engl. J. Med., 348: 2082-2090.

Ewulo T. O., Oluwalana I. B., Ewulo B. S. and Awolu O. O. (2017). Enrichment of traditional maize snack (Kokoro) with moringa (Moringa oliefera) leaf and soybean. African Journal of Food Science. Vol. 11(5) pp. 140-145.

F A O. (2009). Maize, rice and wheat: area harvested, production quality, yield Food and Agriculture Organization of the United Nations, Rome, Italy

FAO, IFAD, UNICEF, WFP and WHO. (2017). The State of Food Security and Nutrition in the World 2017. Building resilience for peace and food security. Rome, FAO.

Foster, G.D., H.R. Wyatt, J.O. Hill, B.G. McGuckin, C. Brill, B.S. Mohammed, P.O. Szapary, D.J. Rade, J.S. Rambdath, D.D., R.L.C. Isaac, S. Teclucksingh and T.M.S. Wolever, (2004). Glycemic index of selected staples commonly eaten in the Carribean and the effects of boiling vs crushing. Br. J. Nutr., 91: 971- 977

Idowu, A.O (2015). Nutrient composition and sensory properties of kokoro (a Nigerian snack) made from maize and African yam bean flour blends. International Food Research Journal. 22(2): 739-744

Institute of Child Nutrition. https://theicn.org/ accessed on 15th June, 2018

Kayode O.F, & Ozumba A.U, & Ojeniyi S, & Adetuyi D.O, & Erukainure, O (2010). Micro Nutrient Content of Selected Indigenous Soups in Nigeria. Pakistan Journal of Nutrition. 9. 10.3923/pjn.2010.962.965.

Madukwe, E. U.and Ene-Obong, H. N. (2006). Adequacy of micronutrient content of south eastern Nigerian meals in meeting the nutritional needs of vulnerable groups. Agro –Science Journal of Tropical Agriculture. Food Environment and Extension, 3 (2): pp. 37-44

National Policy on Food and Nutrition in Nigeria (2016)

Okorie DO, Eleazu CO, Nwosu P (2015) Nutrient and Heavy Metal Composition of Plantain (Musa paradisiaca) and Banana (Musa paradisiaca) peels. J Nutr Food Sci 5: 370. doi:10.4172/2155-9600.1000370

Oladejo, J.A. And Adetunji, M.O (2012). Economic analysis of maize (zea mays l.) production in Oyo state of Nigeria. Agricultural Science Research Journals.Vol. 2(2) pp. 77-83.

Oladele E, Khokhar S (2011) Effect of domestic cooking on the polyphenolic content and antioxidant capacity of plantain (Musa paradisiaca). World Journal of Dairy & Food Sciences. 6: 189-194

Omotosho, k. (July 19, 2017). How to make super delicious plantain moi. Retrieved from:https://www.pulse.ng/lifestyle/food-travel-arts-culture/ukpo-ogede-how-to-make-super-delicious-plantain-moi-moi-id7014892.html

Onabanjo, O. O., Akinyemi, C. O., Sanni, S. A. & Kupoluyi , M. T. (2009) Mineral and Heavy Metal Content of Nigerian Dishes, Journal of Culinary Science & Technology, 7:2-3, 168-180, DOI: 10.1080/15428050903313473

Onuoha, O.N., Eme P.E. and Ekpo, U.E. (2014). Chemical Evaluation of Unripe Plantain Dishes Commonly Consumed by Type 2 Diabetics Attending the University of Uyo Teaching Hospital in Akwa Ibom State, Nigeria. *Pakistan Journal of Nutrition* 13 (6): 331-334, ISSN 1680-5194 © Asian Network for Scientific Information

Ridhi Kataria (2014). Proximate Nutritional Evaluation of Maize and Rice - Gluten Free Cereal. IOSR Journal of Nursing and Health Science (IOSR-JNHS). Volume 3, Issue 2 Ver. V, PP 01-06. e-ISSN: 2320–1959.p- ISSN: 2320–1940.www.iosrjournals.org.

Sandulachi E. and Tatarov P. (2012). Water Activity Concept and Its Role in Strawberries Food. Chem. J. Mold.7 (2), 103-115.

Tchango, J., Bikoï, A., Achard, R., Escalant, J.V. & Ngalani, J.A. (1999).PLANTAIN: Post-harvest Operations. Centre de Recherches Regionales sur

United state department of agriculture food and nutrition services. http://www.nfsmi.org/ accessed on 15th June, 2018

USDA (1998).Agriculture research service. Nutrient database for standard reference, release 12. Washington, DC, USA: United States Department of Agriculture.

Yongfeng Ai and Jay-lin Jane (2015). Macronutrients in Corn and Human Nutrition. Comprehensive Reviews in Food Science and Food Safety. Vol 15 Pp: 581-598

WHO Study Group (1990).Diet, nutrition and the prevention of chronic disease. WHO Tech. Rep. Ser., 797, 105-120.

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Promoting Entrepreneurship Education at the Senior Secondary School Level in North Central Nigeria

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Abstract

The paper focused on enhancing entrepreneurship education in senior secondary schools in the north central Nigeria. The present scenario of the entrepreneurship education at this level was reviewed. Major challenges confronting schools are also reviewed. Some of these challenges include inadequate sufficient and skilled manpower, hasty preparations by government and lack of practical facilities. Strategies for ameliorating the challenges were also discussed. These include, among others, relevant teachers should be committed and adopt social constructivist approach to teaching and learning of entrepreneurship education. It was recommended that Government of Nigeria should allow foreign investors into the country to pave way for more entrepreneurial practices. Enterprise colleges should be established, aimed at fostering specific skills required for entrepreneurship to serve as skill acquisition centers for the youths.

Key words; Entrepreneurship, Education, Social, Constructivists, Strategies

Introduction

A good number of students who have completed their secondary education but could not secure admission into vocational and technology related institutions of higher learning are in dilemma in Nigeria. This is because they were not equipped with the requisite skills for self or paid employment during their senior secondary school education (Igwe, 2007). The clamor now is the New Senior Secondary School Curriculum (NSSSC) which would produce well equipped secondary School graduates for tertiary institutions and for the world of work (Nigeria Education Research and Development Council, NERDC 2016). Federal government of recent compelled every senior secondary student to offer in addition to the major subjects, one entrepreneurship subject towards the acquisition of entrepreneurship education. Entrepreneurship Education is the process of acquiring knowledge, special skills and experiences by an individual for effective conquering and adaptation to his environment. According to Anyakoha (2009), entrepreneurship education seeks to provide students with the knowledge, skills and motivation to encourage entrepreneurial success in a variety of settings.

Entrepreneurship education is offered at all levels of schooling from primary or secondary schools through graduate university programs. This inevitable education is best attained through cogent strategies. That is the role played by schools, teachers, parents, communities, youths, non-governmental agencies (NGO) goes a long way in enhancing entrepreneurship education at the secondary school level. Strategies therefore, imply the measures or techniques that could be used to promote entrepreneurship education. To promote entrepreneurship simply means to enhance it for a meaningful development. Entrepreneurship can provide new division and it can make good students for world of work. In a similar vein, Charlie (2013) has explained that ultimately, entrepreneurship training is designed to teach one the skills and knowledge needed to know before embarking on a new business venture.

The findings concerning entrepreneurship education in the metropolitan area of Kaduna state senior secondary schools by Maxwell, Falola, Ibidunni, and Inelo (2014) indicate that the aspects of business education which features entrepreneurship education is not consistent with the goal of the development of entrepreneurial skills and attitudes in secondary school leavers. The study further found out that the present entrepreneurship program in the sample schools covers the required content but the method of teaching was not practical oriented and was void of real life situations. Thus the program was not effective at motivating secondary school students to start their own businesses. Consequently, Arvanites, Glasgo, and Stumpf (2011) shared that innovative educational methods are needed to develop the entrepreneurial spirit and talents that are necessary to function effectively in an environment of strong market forces and complex people issues. For entrepreneurship education to be most useful, it must address and develop in students, the skills necessary for an entrepreneur. These skills seem lacking in the secondary school graduate which is a matter of concern to the writers. The need therefore arise to appraise the challenges and scenario as well as the strategies for promoting entrepreneurship education geared towards acquisition of entrepreneurial skills at the senior secondary Schools (SSS) in North central Nigeria. The following issues would be discussed in regards;

- Present scenario of entrepreneurship education at the secondary school levels
- Challenges of Entrepreneurship Education at the secondary school level
- Strategies for Ameliorating the entrepreneurship challenges in the Senior Secondary School Level in North Central Nigeria

Present scenario of entrepreneurship education at the secondary school levels

The present scenario of entrepreneurship education at the secondary school levels in north central Nigeria is based understood in terms of its specific objectives, curriculum implementation, curriculum issues, teaching method and attitude of stake holders. The major goal of entrepreneurship education according to Maxwell, Falola, Ibidunni, and Inelo (2014), is to promote creativity, innovation and self-employment among the citizens through the inculcation of entrepreneurial knowledge, competences and attitudes in the learners. Akudolu (2001) affirms that the goal of entrepreneurship education is for learners to acquire entrepreneurial capacities and skills that will make them to be self-reliant and self-employed. Entrepreneurial capacities include the ability to take risks, create opportunities and resources, manifest undaunted commitment to a goal, cope with change and generally act with entrepreneurial mindset. To achieve the major goal of entrepreneurship education, Akudolu (2010) asserted that there is the need to ensure that instructional activities are directed towards the achievement of the following specific objectives.

i. Demonstrate awareness about entrepreneurship.
ii. Create entrepreneurial ventures.
iii. Demonstrate ability to act entrepreneurially in different aspects of life.
iv. Manifest positive attitude towards changes in life endeavours.
v. Demonstrate self-worth and self-reliance irrespective of daunting challenges.
vi. Analyze their strengths and weaknesses and be able to take advantage of their strengths while making effort to overcome the identified weaknesses.
vii. Recognize their entrepreneurial interests and capability.
viii. Demonstrate self-management and take responsibility for themselves and their activities.
ix. Engage in lifelong learning so as to manage and enjoy innovations.
x. Identify and exploit business opportunities.

Lesko (2010) opined that for learners from ages of 14 and above, the objectives of entrepreneurship education should be to raise students' awareness of self-employment and entrepreneurship as options for their future career. A swift action is required for the achievement of those stated objectives through an effective strategy for curriculum implementation at the senior secondary school level.

In an effort to achieve the implementation of the entrepreneurship education in the secondary schools in Nigeria, Federal Government compelled all the senior secondary school students to offer one compulsory entrepreneurship education course in addition to the core cross-cutting subjects. The overview of the senior secondary school curriculum consists of group of five compulsory, core cross-cutting subjects namely English Language, General Mathematics, Computer Studies/ICT, Civic Education, and Trade & Entrepreneurship and four distinct fields of study to include Science/Mathematics, Humanities, Technology and Business Studies, and elective subjects Plateau State Universal Basic Education Board (PSUBEB, 2015). Musibau, Amanda, Sa'adat, and Nkam (2016) asserted that limited time allotted for the entrepreneurship education on the school time table constitutes a major problem in teaching and learning. However, NERDC (2016) e-curriculum presents the list of New Senior Secondary education curricula for entrepreneurship to include 34 trade and entrepreneurship subjects which are; Air Conditioning Refrigerator, Animal Husbandry, Auto Body repair and spray painting, Auto Electrical work, Auto Mechanical work, Auto Parts merchandising, Block laying, Brick Laying and Concrete Work, Book Keeping, Carpentry and Joinery, Catering and Craft Practice, Cosmetology, Data Processing & Radio, TV and electrical work, Dying and Bleaching, Electrical Installation and Maintenance Work, Fisheries, Furniture Making, Garment Making, GSM maintenance, Keyboarding, Leather Goods Manufacturing and Repair, Machine woodworking, Marketing, Mining, Painting and Decoration, Photography, Plumbing and pipe fitting, Printing Craft Practice, Salesmanship, Store Keeping, Textile Trade, Tourism, Upholstery, and Welding & fabrication Engineering Craft Practice.

The present scenario in terms of teaching methodology is not encouraging as stated in the findings of Maxwell, Falola, Ibidunni, and Inelo (2014). The study found out that the present entrepreneurship program in the sample schools in kaduna state covers the required content but the method of teaching was not practical oriented and was void of real life situations. The study further found out that neither practical facilities nor workshop is available for the implementation of the entrepreneurship course. The course is therefore being taught only in theory. The theoretical aspect is not sufficient for actual self-sustainability of the students upon graduation. Thus the program was not effective at motivating secondary school students to start their own businesses.

Furthermore, teaching of entrepreneurship education in the senior secondary school in north central Nigeria is still the teacher centered method as against social constructivism. According to Elena, (2014), traditional pedagogy is frequently in contrast to the needs of entrepreneurial education. Teaching entrepreneurial courses emphasized the used of social constructivist approach instead. The essential core of social constructivism is that learners actively construct their own knowledge and meaning from their experiences. The teacher as a guide metaphor indicates that the teacher is to motivate, provide examples, discuss, facilitate, support, and challenge, but not to attempt to act as a knowledge conduit. Unfortunately, this principle of constructivism is not being practice in teaching of the subject in question in SSS. It is against this backlog that NERDC (2016) e-curriculum emphasizes the shift from the teacher centered to social constructivists approach where the teacher only guides the learners to discover and solve problems and not him solving it. The attitude of stake holders is not left aside as it affects the entrepreneurship education of the learners.

Various stake holders are supposed to compliment the effort of the Government by providing both adequate and efficient human and material resources for the smooth take off of the entrepreneurship education at the senior secondary school level. Unfortunately, such aids by stakes holders are nowhere to be found in the secondary schools (Maxwell, Falola, Ibidunni, & Inelo 2014). Government alone cannot provide the require facilities for this programme as others are on the pipeline too. Another discouraging scenario at this level as asserted by Unachukwu (2009) is that the community does not patronize the local entrepreneurship products produced by the students. Instead, foreign products from china are being patronized which will demoralized the effort of entrepreneurs.

The necessary drive for an entrepreneur is not there and this leads to poor performance in entrepreneurship. Supporting this view is the assertion by Unachukwu, (2009) that an average entrepreneur is rugged and aggressive. This is in line with the old believed that entrepreneurs are mostly "out of schools". Hence, secondary students pay less interest to the entrepreneurial practices in the school because of the stigmatization attached. In view of the present scenario of entrepreneurship education in the senior secondary schools, different challenges abounds.

Challenges of Entrepreneurship Education at the secondary school level

The Federal Government directive for immediate introduction of entrepreneurship education in all secondary schools in the country, including the universities has not only aggravated numerous problems confronting the country's ivory towers, but has also created new challenges. These challenges in the North central include, but not limited to the following:

1. ***Number of Sufficient Skilled Manpower***- the northern secondary schools do not have adequate and high level manpower for effective teaching and learning of entrepreneurship education in the country. As was earlier discussed,

North in general has been known for its' educational backwardness. The available teachers were drafted from those whom have acquired vocational skills in the colleges of education and have not gotten additional skills to cope with the challenges of the new curriculum. Therefore, the expected products of the new entrepreneurship education may not perform any miracles if they are taught by the same old teachers. Arvanites et al (2011) has noted that traditional models of education fall short in their ability to link the knowledge and concepts covered in the classroom to the skills and practice of entrepreneurship.

2. ***Curriculum issues*:** SSS entrepreneurship education curriculum is yet to gain momentum as it is just at the implementation level. Access to genuine text books and other teaching and learning materials are quite difficult since the programme is just beginning (Unachukwu, 2009). Entrepreneurship demands a talented workforce but our system of education fails to provide the necessary foundation for such a work force. Our secondary schools up to the tertiary level presently do not have a well-developed curricular that emphasizes initiatives to increase accountability in entrepreneurship education.

3. ***Student related matters*.** The necessary drive for entrepreneurship education is not in the students and this leads to poor performance in the subject. Supporting this view is the assertion by Unachukwu, (2009) that an average entrepreneur is rugged and aggressive. This is in line with the old believed that entrepreneurs are mostly "out of schools". Hence, secondary students pay less interest to the entrepreneurial practices in the school because of the stigmatization attached.

4. ***Poor facilities***: The poor state of infrastructure in northern secondary schools is worrisome as the new entrepreneurship education will only worsen the situation. Obeleagu-Nzelibe and Moruku (2010) in regards noted that the state of infrastructure in Nigerian university system is, to say the least, embarrassing. This is worst at the secondary school levels. Though the government directed for immediate commencement of entrepreneurship studies in all secondary schools, no special funds have been made to the secondary schools in lieu of the new responsibilities. New classroom blocks, workshops, laboratories, books, academic journals, teachers, computers, among other materials are required for successful prosecution of the new programme.

5. ***Instructional method*:** Maxwell, Falola, Ibidunni, and Inelo (2014) found out that the present entrepreneurship program in the sample schools in Kaduna State covers the required content but the method of teaching was not practical oriented and was void of real life situations. The study further found out that neither practical facilities nor workshop is available for the implementation of the entrepreneurship course. The course is

therefore being taught only in theory. The theoretical aspect is not sufficient for actual self-sustainability of the students upon graduation. Thus the program was not effective at motivating secondary school students to start their own businesses. Furthermore, teaching of entrepreneurship education in the senior secondary school in north central Nigeria is still the teacher centered method as against social constructivism and ASEI (Activity, Student-Centred, Experiment and Improve) method of teaching (Naomi, 2011). According to Elena, (2014), traditional pedagogy is frequently in contrast to the needs of entrepreneurial education. Teaching entrepreneurial courses emphasized the used of social constructivist approach instead.

6. ***Economic Pressure from Parents:*** There is often great pressure from some Nigerian parents who prefer their children making money in the short term over long term benefits of education. This makes it difficult for the secondary school students at their age to devote enough time required for training in entrepreneurship. It is also as a result of such pressures that Nigeria is faced with a high rate of child labour without any skill in entrepreneurship.

7. ***Government policies*****:** The government directive for immediate commencement of the programme is appreciated as it underscores the importance attached to it, yet preparations before the commencement were hasty. There should have been provisions for a pilot scheme in some selected secondary schools before full scale implementation country wide. The introduction was similar to that of the Universal Basic Education, UBE, by the Obasanjo regime with the obvious consequent problems. Government of Nigeria has also failed to create a conducive, economically and a politically friendly environment for the smooth take off of the entrepreneurship education in the north central Nigeria. Government policies towards monitoring and evaluation of entrepreneurship education in the secondary schools seems also very slaked (Ngerem & Ngozi, 2016). The idea of fusing entrepreneurship education in the secondary school is not well appreciated by the author.

8. ***School related issues*****:** Various schools in the northern part of country are yet to introduce and implement school based enterprises where students identify potential business, plan, create and operate small business using the school as mini-incubators (Mustapha & Umaru, 1998). Most of the schools in Nigeria including the north are yet to fully implement the entrepreneurship in the class (Nwachukwu, 2009). Insufficient time allotted to entrepreneurship education on the school time table is another challenge affecting the smooth acquisition of the appropriate entrepreneurship skills as asserted by (Ajagbe *et al.*, 2016).

The following are the most important obstacles facing rapid entrepreneurial development according to Sunday (2012). These challenges are applicable in the secondary school too.

- Rampant political and bureaucratic corruption together with the absence of social consensus on important macroeconomic policy issues.
- Absence of regulatory mechanisms for effective oversight of enterprise development initiatives, especially those in the MSME space.
- The presence of administrative and trade barriers that curtail capacity building and inhibit access to technical support.
- Significant infrastructural deficits (especially with regards to roads and electricity) and systematic irregularities inimical to small businesses.
- Absence of a pro-active regulatory environment that encourages innovative enterprise development at the grassroots level.

Therefore, teachers, schools, parents, communities, youths, NGOs and government can enhance the programme through different strategies. These strategies are discussed below for clarity.

Strategies for ameliorating the entrepreneurship challenges in the Senior Secondary School Level in North Central Nigeria

In other to ameliorate the entrepreneurship education challenges in senior secondary school level in the north central of Nigeria, it is paramount for concerned stake holders to play their roles as expected. These basic strategies should include:

***Teachers' commitment*:** In issues concerning entrepreneurship education, the central focus is usually on students (Hynes & Richardson, 2007). Since the success of enterprise programmes depends on the level of the teachers' commitment, knowledge, skills, and attitudes then teachers need to leave up to their responsibilities as their opinions will intentionally or otherwise be passed onto the students. The teacher of entrepreneurship education should ensure that practice and theories are congruent so that teaching will be effective. A non-entrepreneur and entrepreneurship educator who does not have genuine first-hand experience in, for example, commercializing science, should not educate in this space as opined by Fayolle (2008); Bennett, (2006) and Elena, (2014).

Curriculum restructuring: Curriculum designers particularly NERDC on their part should restructure and develop entrepreneurship internship programmes matching students with locally successful entrepreneurs with clearly established education programmes. Adequate and appropriate provision of curriculum content that would cater for the students and community needs is highly recommended. In other to meet the programme specific objectives, the content should not be design haphazardly. It is hoped that when the strategies discussed above are accorded the needed priority by the respective agencies, the beneficiaries of the progamme will have a course to smile at the end of the tunnel.

***Student cooperation*:** Learners on their own should put in extra effort towards acquiring the appropriate skills. This can be done after school hours or during holidays by going to observe and practice what some entrepreneurs are doing within their locality that are of benefit to self, society and are related to what they are learning in the school. They should downplay the old idea that vocational skills are only for the dropouts. That stigmatization shouldn't weigh them down. In a nut shell, learners should develop positive attitude towards entrepreneurship education.

***Improvement on facilities*:** For any meaning skill acquisition, there must be practical facilities in terms of tools, equipment, laboratory and workshop. Special funds should therefore be made available to the secondary schools in lieu of the new responsibilities. New classroom blocks, workshops, laboratories, books, academic journals, teachers, computers, among other materials are required for successful prosecution of the new programme in the north

***Improvement on the instructional method*:** teaching of entrepreneurship education in the senior secondary schools in north central Nigeria should not be the conventional teacher centered method as against social constructivism. Powell (2013) support this assertion by suggesting that the role of the educator should change from the traditional stand-and-deliver approach and 'Teacher' should be substituted with 'facilitator'. Since traditional pedagogy is frequently in contrast to the needs of entrepreneurial education teaching entrepreneurial courses should emphasized the used of social constructivist approach were the learner interact with the learning situation directly, discover problems and struggles to solve the problems by him/herself without the teacher acting as a knowledge conduit. As such, learners can stand to transfer such skills learned to the benefit of the society there by becoming financially independent and self-sustainable.

***Parents/PTA*:** Parent should as a matter of concern reduce the pressure of making their children to make money in the short term over long term benefits of education. Parents should also try as much as they can to encourage, guide and counsel their children/wards towards attaining entrepreneurial education as it will help them in the long run. Where it is possible, enterprising facilities should be personally obtained for home training.

Improvement on Government Policies: It is true that the present deficit in Nigerian economy is due to lack of genuine entrepreneurs and political reasons which lead to the present economic recession. Creating an economically and a politically friendly environment by government will enhance entrepreneurship education at this level. Since Government is the brain behind the success of entrepreneurship education at the secondary school levels in Nigeria, emphasis should be laid on the acquisition of the entrepreneurial education at this level. In extension, the idea of infusing entrepreneurship education in to the conventional secondary school should be debunk. My candid opinion is for the Federal government of Nigeria to establish separate entrepreneurship secondary schools were the learners can focused on only a single trade as it is in the present Technical colleges in Nigeria. This would go a long way in cushioning the effect of halve baked entrepreneurs in our country and for optimal transfer of learning to world of work after graduation. Studying everything will make the student to learn just a little and become master of none. This scenario is killing.

School effort: The principals, Parents teachers association (PTA) and school Base management committee (SBMC) should also collaborate with the schools to ensure adequate provision of both human and material resources needed for the teaching and learning of entrepreneurship education where government falls short. Schools should also collaborate with the Non-govern-mental agencies/ philanthr-opies to compliment Government effort towards attaining the national goal of entrepreneurship in Nigeria. The community should provide a very conducive learning environment for the programme. They should also patronize the locally made entreprene-urial products by the secondary school students. This will motivate and encourage the students to do more and in turn increase the internally generated revenue (IGR) of a country.

Conclusion

Senior secondary school students are exposed to constant changes in curriculum which is not good for their success in entrepreneurial development. As a recipe of economic development, the strategies discussed must be put in place to promote entrepreneurship education as expected. Most importantly, adequate and appropriate provision of curriculum content that would cater for the secondary school graduates and community needs is highly recommended. In other to meet the programme specific objectives, the content should not be design haphazardly. Since the essential core of social constructivism is that learners actively construct their own knowledge and meaning from their experiences, the educator should serve as a guide metaphor and to motivate, provide examples, discuss, facilitate, support, and challenge, but not to attempt to act as a knowledge conduit. In addition parents, teachers, PTA, NGOs and stake holders should play their roles in ameliorating the entrepreneurship challenges facing the senior secondary schools (SSS) of north central Nigeria.

Recommendations

- A non-entrepreneur should not teach entrepreneurship education at the senior secondary school level in North central Nigeria
- Adequate and appropriate entrepreneurship education curriculum content be made available in the senior secondary schools in North central Nigeria
- Government of Nigeria should strongly allow foreign investors into the country to pave way for more entrepreneurial practices
- Enterprise colleges should be established aimed at fostering the specific skills required for entrepreneurship to serve as skill acquisition centers for the youths no matter how much it will cost Government and Entrepreneurs
- Federal Government in collaboration with State Government should give Scholarship award to performing students in entrepreneurial education every year to serve as a motivational strategy
- Adequate and effective human and material resources be made available for the programme
- Government should monitor the implementation of social constructivists method of teaching entrepreneurship education at the senior secondary schools to the later
- Employment opportunities be made available for the secondary school leavers

References

Ajagbe, M. A., Kelechi, A. N., Nakyejwe, S., Kimuli, L., Cho, N. M., & Campus, Y. M. (2016). Problems and Visions of Entrepreneurship Education in Post Primary Schools. *International Journal of Economics, Commerce and Management, United Kingdom*, *IV*(7), 633–650. Retrieved from http://ijecm.co.uk/

Akudolu, L-R, (2010). A curriculum framework for entrepreneurship education in Nigeria. *Unizik Orient Journal of Education 5(2) 6-7.* Available online @ www.lilianrita.com/.../A%20CURRICULUM%20FRAMEWORK%20FOR%20ENTR, retrieved on 1/11/17.

Akudolu, L-R. (2001). Curricular issues in entrepreneurship education. *Journal of Science and Computer Education (JOSCED). 1 (3) 28 – 35.*

Anyakoha, E. O. (2009). *Developing research skills.* Nsukka: Great AP Express Publishers LTD, Nigeria.

Arvanites, D. A; Glasgo, J. M & Stumpf, S. A. (2011). *Entrepreneurship Education*: An Imperative for Sustainable Development. jeleraps.scholarlinkresearch.org

Bennett, R. (2006). Business lecturers' perceptions of the nature of entrepreneurship. *International Journal of Entrepreneurial Behaviour & Research*, 12(3), 165-188.

Charlie, N. (2013). Entrepreneurship Education and Challenges to Nigerian Universities. *Journal of Education and*

Practice, 4(3), 54-55. Retrieved, 15.04.2017 @ www.iiste.org

Elena, R. (2014). Entrepreneurship Education in Basic and Upper Secondary Education- Measurement and Empirical Evidence, Acta Universitatis Lappeenrantaensis 590. *Thesis for the degree of Doctor of Science (Economics and Business Administration)*

Fayolle, A. & Gailly, B. (2008). From craft to science: Teaching models and learning processes in entrepreneurship education. *Journal of European Industrial Training,* 32(7) 569-593.

Fayolle, A. (2008). Entrepreneurship education at a crossroads: towards a more mature teaching field. *Journal of Enterprising Culture*, 16(4), 325-337.

Hynes, B. and Richardson, I. (2007). Entrepreneurship education. A mechanism for engaging and exchanging with the small business sector', *Education + Training*, 49(8/9),

Igwe, R. O. (2007). Transforming the secondary school curriculum for effective social development in Nigeria. *International Journal of Educational Studies*, 7 (1), 149-156.

Lesko, T. (2010).*Teaching entrepreneurship: the role of education and training-the Hungarian experience*. Accessed 16 April 2010 at ww.nfgm.gov.hu/data/cms1202969/sme_belg.pdf.

Maxwell, O; Falola, H; Ibidunni, S & Inelo, F. (2014). An assessment of the taught entrepreneurship program in Nigerian secondary schools. *Merit Research Journal of Education and Review.* 2(11), 1/269.http://www.meritresearchjournals.org/er/index.htm, retrieved 01.05.2017.

Musibau, A. A; Amanda, N. K; Sa'adat, N. L. K & Nkam, M. C. (2016). Problems and visions of entrepreneurship education in post primary schools. *International Journal of Economics, Commerce and Management United Kingdom,* 4(7), 646. Retrieved 17.04.2017 @ http://ijecm.co.uk

Mustapha, A. I., & Umaru, Y. (1998). Challeneges of Entrepreneurship as perceived by Undergraduate of Tertiary Institution in Kaduna State, (1983).

Naomi, O. K. (2011). The impact of ASEI movement on students ' achievement in secondary school biology in Nakuru county , Kenya, (November), 1–102.

NERDC (2016). e-curriculum. http://www.nerdc.org.ng/eCurriculum/CurriculumSTructure.aspx, retrieved on 14.04.2017

Ngerem, E. I. & Ngozi, E. (2016). Role of entrepreneurship education in secondary school students ' economic development. *International Journal of Education and Evaluation*, *2*(3), 36–42. Retrieved from www.iiardpub.org. retrieved on 14/03/017

Nwachukwu, C. L. (2009). Teaching Entrepreneurship in Business Education in Secondary Schools As a Grass Root Strstegy for Realizing the Nigerian ' S Transformation Agenda. Retrieved on 14/03/017 Availabl online @ http://www.unn.edu.ng/publications/files/images/Nwachukwu%20Chinwe%20L..pdf.

Obeleagu-Nzeribe, C.G. & Moruku, R. K. (2010). Entrepreneurship and Economic Development: The Imperative for Curriculum Innovation in Nigeria,' in Mainoma et.al (eds). *Conference Proceedings, Faculty of Administration, Nasarawa State University, Keffi,* 1.

Powell, B. C. (2013). Dilemmas in Entrepreneurship Pedagogy. *Journal of Entrepreneurship Education*, 16, 99-112.

PSUBE (2015). One day sensitization workshop held on 17/9/2015 on effective implementation of the 9-year basic Education, Primary education Board Pankshin.

Sunday, A. O. (2012). Entrepreneurship Education in Nigeria. *Journal of Education and* Practice, 3(14), 222-288. www.iiste.org, retrieved on 2012.04.006.

Unachukwu, G. O. (2009). Issues and Challenges in the Development of Entrepreneurship Education in Nigeria. *An International Multi-Disciplinary Journal, Ethiopia*, 3 (5), 221-223. www.ajol.info

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Home Economics Teachers and Trade Subjects in Secondary Schools in Owerri Municipal

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Abstract

The study focused on equipping Home Economics teachers for teaching trade subjects in Secondary Schools in Owerri Municipal, Imo state. Three research questions guided the study. Descriptive survey research design was adopted. The Population comprised of 182 Home Economics teachers. Questionnaire was used for data collection. Data were analyzed using mean and standard deviation. Findings show that Home Economics teachers encounter problems in teaching trade subjects such as: inadequate and obsolete facilities, teachers' lack of knowledge and skills about the use of available materials, among others. Ways of equipping the Home Economics teachers to surmount the challenges include: organizing workshops for teachers on operation of modern equipment, building of laboratories, organizing of workshops and seminars to upgrade Home Economics teachers competencies on trade subjects, among others. Recommendations were made among which is mounting an in-service training for Home Economics teachers of Secondary Schools on trade subjects during the long vacation.

Key words: Trade, Subjects, Entrepreneurship, Teachers, Secondary, Schools.

Introduction

Home Economics is a skill oriented subject which focuses mainly on training individuals to acquire necessary skills, techniques, knowledge and attitudes in order to become prospective, competent and effective homemakers and professionals in their chosen field. According to Anyakoha (2015), Home Economics as a vocational course is a unique discipline aimed at equipping individuals for active and competent participation in life within family and work environment. It equips individuals with saleable skills that can make them self reliant. It is a field of study offered at all levels of education in Nigeria: primary, secondary and tertiary level.

At Secondary school level Home Economics is taught in junior secondary while at the senior secondary, it is taught under the three major areas: Food and Nutrition, Home Management, Clothing and Textile. It was from these three major areas that the trade subjects were carved out which are: as follows: garment making, catering services, tourism, cosmetology, textile trade, dyeing and bleaching. These were slated among other 39 trade subjects as options in which students are to choose one as a requirement in senior secondary school.

These trade subjects otherwise known as entrepreneurial subjects were introduced to meet the broad goals of senior secondary education which is to prepare students for tertiary education and to equip those who may not be privileged to proceed into tertiary level with skills for the world of work, wealth creation and entrepreneurship.(Federal Republic of Nigeria FRN, 2013). According to Adesulu,(2011) and Ementa (2013), the trade subject are for self employment and self reliance, creation or innovation of novel business opportunities, national economic growth and rural urban development. Hence, school leavers with little or no additional skill and knowledge should be able to practice the learnt trade, be gainfully employed and useful to the society.

The Federal Ministry of Education on March 14, 2011 launched this laudable programme. The implement-tation started from September 2011 and the first Senior Secondary School Examination on trade subjects was written in 2014 (Okoye and Ogunleye, 2015). For the past four consecutive years of the introduction of these trade subjects, the impact is yet to be felt. School leavers have not fared better in terms of exhibiting the required skills in their different trade areas. Unemployment rate is still escalating at an alarming rate. Orji (2011) noted that the inability of most secondary school graduates of Home Economics to effectively apply occupational skills in other to ensure productive living is as a result of lack of entrepreneurial skills. This could be traced to the problem of teachers' unpreparedness which hinders effective delivery of the requisite skills. Through observation and experience, senior secondary school teachers have not been given in service training to meet up with the ever evolving and dynamic demand of these newly created trade subjects. Thus, these teachers may be encountering difficulties in content and practical delivery of these newly adopted trade subjects. Laudable policies and programmes need to be marched up with tactful implementation strategies to achieve the desired goals. Hence, there is need to equip these teachers with requisite skills for effective implementation of the new curriculum.

Objectives of the Study

The major purpose for this study was to evolve ways of equipping Home Economics teachers for teaching trade subjects in Secondary

Schools. Specifically, the study determined:

1. problems encountered by Home Economics teachers in teaching Home Economics related trade subjects (HERTS) in Secondary Schools.(garment making, catering services, tourism, cosmetology, textile trade, dying and bleaching)
2. ways of equipping schools with adequate instructional resources for teaching Home Economics related trade subjects in Secondary Schools.
3. ways of equipping Home Economics teachers with adequate instructional skills for teaching Home Economics related trade subjects in Secondary Schools

Research Questions

The study was guided by the following research questions:

1. What are the problems encountered by Home Economics teachers in teaching Home Economics related trade subjects (garment making, catering services, tourism, cosmetology and textile trade, dying and bleaching) in Secondary Schools?
2. What are the ways of equipping schools with adequate resources for teaching Home Economics related trade subjects in Secondary Schools?
3. What are the ways of equipping Home Economics teachers with adequate instructional skills for teaching Home Economics related trade subjects in Secondary Schools?

Methodology

Design of the Study: Descriptive survey design was adopted for the study.

***Area of the Study*:** The study was carried out in Owerri Capital Territory, which comprises of three Local Government Areas: Owerri North, Owerri West and Owerri municipal. There are 269 secondary schools in Owerri capital territory with 182 Home Economics teachers.

***Population for the Study*:** The population comprised 182 Secondary School Home Economics Teachers in Owerri Capital Territory. Imo State (Source: Secondary Education Management Board (SEMB), Owerri). They were all females with at least First Degree Certificate from different institutions in Nigeria.

***Sample for the study*:** Purposive sampling was used to select 50 Home Economics teachers who are directly involved in teaching of the trade subject at the Senior Secondary School levels in the schools.

***Instrument for Data Collection*:** A 27-item structured questionnaire was developed based on the research questions and review of related literature. The questionnaire was made of three sections A -C. Section A sought information on the problems encountered by Home Economics teachers in teaching Home Economics related trade subjects in Secondary Schools, Section B sought information on ways of equipping schools with adequate infrastructure for teaching Home Economics related trade subjects in Secondary Schools, while Section C sought information on ways of equipping Home Economics teachers with adequate instructional skills for teaching Home Economics related trade subjects in Secondary Schools. The instrument was subjected to face validation by three experts in Home Economics Department of Alvan Ikoku Federal College of Education. Inputs, corrections and comments of the validates were used to reconstruct and update the instrument before the administration.

***Method of Data Collection*:** Fifty copies of the questionnaire were administered by hand to the respondents in different Secondary Schools in Owerri.47 copies were correctly completed and returned representing 94% return rate which is appropriate.

***Method of Data Analysis*:** The data collected for the study were analyzed using Mean and Standard Deviation for answering the research questions. Mean value of 3.00 and above was used as basis for the decision making.

Results

Table 1: Mean Rating of Respondents on Problems encountered by Home Economics teachers in teaching Home Economics related trade subjects in Secondary Schools

S/N	Problems encountered by teachers in teaching Home Economics trade subjects	X	SD	RMKS
1	High financial demand of the subjects by students	3.20	0.833	Agreed
2.	Poor attitude of students towards practical lessons	3.10	0.814	Agreed
3.	Inadequate and obsolete facilities and laboratories	3.48	0.762	Agreed
4.	Teachers' lack of knowledge and skills about the use of available materials	2.96	0.8562	Agreed
5.	Confusing the content of the scheme of Home Economics subjects with those of trade subjects	3.18	0. 874	Agreed
6.	Insufficient time allocated to the Home Economics trade subjects.	3.14	0.8084	Agreed
7.	Insufficient number of qualified teachers with Certificates on the trade subjects.	3.48	0.9446	Agreed

Key : -Mean response, SD- Standard Deviation

Table 1 shows that the eight items had mean between 2.94 and 3.48 which are all greater than the cutoff point of 2.5. This shows that all the respondents agreed that all the items listed were problems encountered by the Home Economics teachers in teaching the trade subjects. The Standard Deviation values for all the items ranged between 0.76 and 1.01, which implies that the responses of the respondents are close to each other and to the mean.

Table 2: Mean Rating of Respondents on Ways of equipping schools with adequate resources for teaching Home Economics related trade subjects in Secondary Schools.

S/N	Provision of resources in Secondary Schools for effective teaching of trade subjects	X	SD	RMKS
1.	Provision of fund for the purchase of equipments	3.52	0.706	Agreed
2.	Building of laboratories for effective teaching of the trade subjects.	3.42	0.493	Agreed
1.	Equipping the existing and the new laboratories with equipment necessary for teaching the trade subjects	3.44	0.577	Agreed
4.	Organizing workshops to educate teachers on the operation of the equipment.	3.54	0.503	Agreed
5.	Employing technologists who can operate of the equipment.	3.50	0.544	Agreed
6.	Servicing and good maintenance of the equipments regularly for durability	3.48	0.677	Agreed
7.	Allocating more time in the school time table for the trade subjects	3.34	0.717	Agreed
8.	Supplying power regularly for the operation of the equipment	3.46	0.706	Agreed
9.	Inviting skilled resource persons from well established companies to teach practical aspects for effective acquisition of skill by the teachers and the students	3.44	0.644	Agreed

Key : X- Mean responses, SD- Standard Deviation

Table 2 shows that the nine (9) items ranged between 3.34 and 3.54 which are all greater than the cutoff point of 2.5. This shows that all the respondents agreed that the items are all ways of equipping schools with adequate resources for teaching Home Economics related trade subjects. The Standard deviation values for all the items ranged between 0.49 and 0.71, which implies that the responses of the respondents are close to each other and to the mean.

Table 3: Mean Rating of Respondents on Ways of equipping Home Economics teachers with adequate instructional skills for teaching Home Economics related trade subjects in Secondary Schools.

SN	Ways of equipping Teachers with Skill for teaching the Trade subjects	X	SD	RMKS
1.	Assessment of the teachers to know their level of knowledge in the trade subjects	3.38	0.602	Agreed
2.	Organizing workshops and seminars to upgrade Home Economics teachers' competencies on trade subjects.	3.56	0.501	Agreed
3.	Training Home Economics teachers on peculiarities			

	of the trade subjects	3.48	0.508	Agreed
4.	Inclusion of these trade subjects as courses in related aspects of Home Economics in Tertiary Institutions	3.44	0.611	Agreed
2.	Creation of these trade subjects as courses under Vocational and Technical Education.	3.32	0.652	Agreed
6.	Inclusion of some Home Economics related trade courses at the elementary educational level for better awareness	3.60	0.535	Agreed
7.	Provision of text books by specialists on the trade subjects for better access by the teachers	3.72	0.454	Agreed
8.	Purchase of foreign books for universal knowledge on the trade subjects	3.28	0.809	Agreed
9.	Provision of internet facilities to enhance global knowledge, assessment and sharing among teachers	3.40	0.833	Agreed

Key: X- Mean responses, SD- Standard Deviation

Table 3 shows that the nine item s ranged between 3.32 and 3.72 which are all greater than the cutoff point of 2.5. This shows that all the respondents agreed that the nine points were ways through which Home Economics teachers can be equipped with adequate instructional skills for teaching Home Economics related trade subjects in Secondary Schools. The Standard Deviation values for all the items ranged between 0.45 and 0.83 which reveals that the responses of the respondents are close to each other and to the mean.

Discussion of the findings

The findings of the study showed that Home Economics teachers encounter many problems in teaching trade subjects which include the following among others; inadequate and obsolete facilities and laboratories, insufficient time allocated to the trade subjects, insufficient number of qualified teachers with certificates on these trade subjects. The problem of inadequate laboratory and facilities cannot be overemphasized as Ozor, Okeke and Opara (2016) also identified this major challenge. Kembe (2014), linked the situation to a carpenter working in workshop without tools. Practical lesson cannot be compromised in these entrepreneurial subjects. Furthermore, the problem of insufficient number of qualified teachers affirms the findings of Okoye and Ogunleye (2015), that there was paucity of teachers to handle vocational and technical subjects which were a major reason for the poor implementation of the curriculum. Also, Ementa (2013) stressed that the aims of these trade subjects are bound to fail due to shortage of proficient teachers.The major problem of scarcity of books on the trade subjects corroborates with the findings of Adeyonu and Carim-Sanni (2015) that there is scarcity of good books to teach the trade subjects. Similarly, Okoye and

Ogunleye, (2015) also observed the problem of infrequent supply and high cost of these books.

Furthermore, the findings in Table Two showed that all the teachers agreed that the schools need to be well equipped and provided with enough fund for effective implementation of the trade subjects. This affirms the view of Ofoha (2011), that there is need for provision of fund for effective teaching of trade subjects in Edo State. Similarly, in support of the findings, Arubayi (2014) noted that funding is the life wire of any educational programme and the bed rock for effective acquisition of practical skills, knowing that all these trade subjects are for acquisition of practical skills. Onyemaobi (2009) cried this problem a long time stating that excellent educational plan may not take off or be fully implemented without adequate funds The findings also showed that there is need for equipping the existing laboratories and building of new ones which should be well equipped with modern facilities. This is in consonance with Mberengwa (2004) who observed that upgrading of Clothing and Textile laboratory (a section of Home Economics) is a priority, especially in technology equipment. In the same vein (Orji 2014) also noted that there is need for provision of infrastructure for effective teaching of trade subjects. Ali, Mohammed, Alum, Muhammed &Yahya (2012) further affirm that there is need for provision of instructional materials, machineries as well as consumables in the teaching and learning of technical skills.

Finally, Table three showed that there is need for more text books on the trade subjects, this corroborates with the findings of Ementa (2013) who observed that entrepreneurship education (trade subjects) can be effective only when the text books and materials are readily available for use by teachers. He further decried the fact that students will equally not get the best of the lessons without good text books. Also, teachers need to be given chance for in-service courses part of which will equip them with instructional skills so as to effectively teach the trade subjects. This is in line with the findings of Ali, et al (2012) that teachers should be engaged in training and retraining sections to equip them with up to date skills and knowledge towards teaching approaches. Adeyonu and Carim-Sanni (2015) emphasized that for effective implementation of the trade subjects' curriculum, teaching staff, school infrastructures, community interest and support and local resources should be harnessed and made available.

Conclusion

The introduction of trade subjects into the curriculum of Senior Secondary School Education is a good and welcomed innovation. The laudable objective of introducing the trade subjects include: for students to be gainfully employed and useful to the society at the completion of Senior

Secondary School which is mainly towards national development. However, the findings of this study have confirmed that Home Economics teachers in Secondary Schools encounter some problems in teaching the trade subjects. Moreover, the Secondary Schools need to be equipped with infrastructures which will improve the competencies of the teachers. Furthermore, there is need to equip the teachers with relevant instructional skills for the realization of the aim of the introduction of the trade subjects.

Recommendation

Based on the findings, the study made the following recommendations:

- ❖ Home Economics teachers in secondary schools need to be equipped by giving them in-service training on the trade subjects possibly during the long vacation
- ❖ Some courses related to the five trade subjects should be introduced to the students of Home Economics in Tertiary Institutions at the teacher education stage to prepare teachers to handle Trade Subjects effectively.
- ❖ Professionals should develop more books of good quality on the trade subjects for reference in the process of teaching these subjects.

References

Obiazi, E.A. and Ukpore B.A.(2014) Factors influencing students attitude towards clothing and Textiles in Colleges of Education. *Journal of Home Economics Teachers Association (HECTAN)*

Adesulu, D.(2011). Senior Secondary Curriculum to empower students for wealth generation. *Vanguard* News Paper.

Adeyonu, A. G. and Carim-Sanni, A. (2015), Entrepreneurship Education in Senior Secondary Schools in Oyo State, Nigeria. *British Journal of Education Society and Behavioural Science*.5;(1), 50-56

Ali, I., Muhammed, Rashid., Azlam, B. A.,Amirmidin, B.U., Muhammed, S.B. S.,and Yahaya, B.B.(2012) Implementation of Technical and Vocational Education in Post Primary Schools in Nigeria. *International Journal of Humanities and Social Science Inventions.* 1:(1),

Anyakoha,E.U.(2015). *Home Management for Schools and Colleges. (Revised Edition)* Onitsha: Africana First Publisher Limited

Arubayi, D. O. (2014) Problems confronting the Teaching of Clothing and Textile in Tertiary Institutions. *Journal of Educational Research and Development*.2 : (1)

Ementa,C.N.(2013). Curriculum implem-entation of entrepreneurial subjects at the Senior Secondary School, a case study for entrepreneurship education at the secondary schools in Nigeria. *Unizik Orient Journal of Education* 7; (1), 104-111

Federal Republic of Nigeria (2013) Yaba, Lagos-. NERDC Printing Press.

Kembe, E.M. (2014) Promoting creativity and Entrepreneurship for individuals and families. *Journal of Home Economics Research. (JHER)* 18(1), 222-230.

Mberengwa, I. (2014), Curriculum Changes in Home Economics Education at Gweri Teachers Colleges

Zimbabwe. *Journal of Family and Consumer Science Education*.22:(2)

Nigeria Educational Research and Development Council (NERDC)(2009) Third Review

Nigerian Educational Research and Development Council (NERDC).(2008) *The New Senior Secondary School Curriculum structure at a glance.* Lagos, NERDC Press;

Ofoha , D. (2011). Assessment of the implementation of empowerment in Nigeria. *Edo journal of Counselling* 4.(1&2), 75-91

Okoye, K.R.E. & Ogunleye, O..S (2015).Trade Subjects as Compulsory Subjects at the Senior Secondary Schools in Nigeria: A Subject for Re-Consideration. *International Journal of Innovative Research & Development* 4 ; (13),40-43

Onyemaobi G.A (2009). Effective Implementation of Home Economics Curriculum. Key note address presented at the Home Economics panel workshop organized by the Science Teachers Association of Nigeria (STAN) at Owerri 21st - 24th April.

Orji, C.C. (2011). Strategies for integrating creativity and entrepreneurship skills into Junior Secondary Schools in Awka Municipal.

Orji, N.S. (2014). Teachers' perception of the trade / entrepreneurship of the New Senior Secondary Education Curriculum. *Journal of Education and Practice* 5; (6) 213-219.

Ozor, P.E., Okeke, E.N. and Opara, H.C. (2016) Challenges and strategies for improving students' interest in Home Economics Education as a career in Owerri Municipal. *International Journal of Educational Studies (INJEDS)* 1(1) 292-296.

Uwameiye, B.(2016). Availability and utilization of tools and equipment for teaching and learning garment making trade in the senior secondary schools in Edo state. *International Journal of Humanities Social Sciences and Education (IJHSSE)* 3; (3),12-18

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Factors Influencing Fashion and Clothing Choice of Undergraduates in Tertiary Institutions in Imo State, Nigeria

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Abstract

This study investigated factors that influence fashion and clothing choice of undergraduates in tertiary institutions in Imo State, Nigeria. Three research questions and one hypothesis guided the study. Survey research design was used. The population comprised 10580 final year undergraduate students in the institutions. A random sample of 385 final year students were involved. Structured questionnaire was used for data collection. Descriptive statistics and t-test were used for data analysis. Results show that desire to enhance beauty, family orientation and to appear seductive were some of the factors that influence the fashion and clothing choice. Clothing style preferences of female undergraduates include, tight clothing, skimpy dresses and fixing eye lashes, while those of male undergraduates include body hugging dresses, and low waist trousers among others. The study recommends that parents and religious leaders should educate the youths on appropriate dressing patterns and clothing choice at early child hood-stages.

Keywords: Fashion, Clothing, Choice, Factors, Undergraduates.

Introduction

Fashion is a popular style of clothes, hair, manners and habit or practice, especially with regards to clothing, accessories and make-up. Schall and Appiah (2016) defined fashion as prevailing style of clothes that is currently appropriate at any given time. Fashion can also be described by such words as clothing style that is currently appropriate (Daniels in Vieria, 2009, Vigneron & Rekesh, 2010). The basic element of fashion is popularity acceptance. In other hand, fashion can be referred to as generally accepted clothing choice that is widely chosen and accepted by a large number of people.

Fashion often reflects society (Suna, 2013); society values (Engel, Backwell & Miniard, 2005; O'cass & Frost, 2002); status (Vigneron & Rekesh, 2010; Khare & Rekesh, 2010); due to its competitive and innovative nature (Daniellson, 2008). It projects individual's behavioral pattern (Subhani, Hasan, & Osman, 2011), used to express individual's identity

(Kjeldaard, 2009; Keldgaard & Wilska, 2002). It is also used for manifestation of societal culture (O'cass & Mcewen, Banerjee, 2008; 2005; Moori, 2002); as a strong communication tool and means of transferring social and inter-personal messages (Ozlu, 2008; Omair, 2009; Keldgaard & Wilska, 2002). Fashion is also used for social identification (Ku, 2003) and for status expression (Kinra, 2006) It reflects individual's clothing choice.

Clothing is anything placed on the body to motivate action, beautify, attract, and to provide clue to ones' behavior, expectation or intention. It includes garment, ornaments, hairdo and accessories worn by people. Individuals' behavior and life style can be projected by ones' clothing choice (Mathew, 2016). Clothing choice is used to describe the act of selecting clothing among alternatives. Clothing choice can as well be referred to as individual's clothing preferences. It involves making decision on the type of clothing articles an individual desired as appropriate and ideal for use. Ones clothing choice can affect the mood, behavior, health, overall confidence and the reason for wearing clothes (Jill 2016), it can also expose one to sexual harassment and assault (Gray 2016; Bernard, Loughnan, Marchal, Godart & Klein 2015; Loughnan, Pina, Vasquez, & Puvia 2013; Loureiro, Costa & Panchapakesan, (2017)).

There have always been various reasons why clothes are worn. The reasons include warmth, protection, beauty and modesty. In the recent times individual's point of emphasis has shifted to drawing attention to sexuality. In an attempt to achieve this, they dress indecently. This can be seen in the clothing choice of undergraduate students in the tertiary institutions in Nigeria. The way and manner these students dress specifically the female students clearly portrays much emphasis on drawing attention negatively. The dressing style often time distract students from academic activities.

Presently, the male undergraduate students in tertiary institutions are becoming more anxiously concerned with their appearance just like the female undergraduate students than in the past decades (Le-Ferla, 2006). Supporting this, Omede (2011) reported that like the female students, most men are now expressing their masculinity through fashion. This has a serious impact on the way they dress and act (Olori, 2003). They see modesty as old fashioned and out-of-date (Schlueter, 2007). Tertiary institutions are places of learning. They are academic as well as social institution. Tertiary institutions are seen as a cure for ills of the society. Part of their responsibility is to handle students' social, economic and political problems (Esiowu & Igbo, 2008). They are expected to help in harnessing and moderating the students' fashion and clothing preferences.

However, the fashion style discourages modesty and work against the African or Nigerian culture (Olori, 2003; Keldgaard & Askegaard, 2006). The clothing preferences portray moral and cultural decadence in the society (Subhani, Hasan & Osman, 2011). Often times the students appear half naked. Olugbenga and Odeleye (2008) reported that most students in tertiary institutions dress provocatively and seductively especially the female students. The undergraduate students dressing pattern portrays indecency without minding that they should look responsible. The current fashion style of students in tertiary institutions in Nigeria expresses near or total abandonment of modesty as power. Schlueter (2003); Ranjan; (2016) and Omede (2011) reported that instead, undergraduate students believe that their sexuality is their power. The undergraduates in recent time have concerned themselves so much with prevailing fashion that they do not have enough time for their study and other things.

This is contrary to their academic training and upbringing. This is morally unacceptable and has become the greatest causes of social, immoral, and economic problems encountered by students in tertiary institutions in Nigeria. The findings of the study will educate the students on the impact of their clothing choice and preferences and help them appreciate the need to dress decently. Therefore, the study sought to investigate factors that influence fashion and clothing choice of undergraduate students in tertiary institutions in Imo State, Nigeria.

Objectives of the Study

The main objective of the study was to ascertain the fashion and clothing choice of undergraduate students in tertiary institutions, in Imo State, Nigeria.

Specifically, the study:

1. identified factors that influence fashion and clothing choice of undergraduate students in the tertiary institutions.
2. determined clothing style preferences of female undergraduate students in the tertiary institutions.
3. determined clothing style preferences of male undergraduate students in the tertiary institutions.

Research Questions

The study was guided by the following research questions;

1. What are the factors that influence fashion and clothing choice of undergraduate students in the tertiary institutions?
2. What are the clothing style preferences of female undergraduate students in tertiary institutions?
3. What are the clothing style preferences of male undergraduate students in tertiary institutions?

Hypotheses (H0)

One hypothesis was stated to guide the study.

$H0_1$: There is no significant difference in the mean ratings of male and female undergraduate students on factors that influence fashion and clothing choice.

Methodology

Area of the Study: The study was carried out in three tertiary institutions in Imo State, Nigeria. The institutions include Imo State University, Federal University of Technology, Owerri and Alvan Ikoku Federal College of Education Owerri.

Study Design: Descriptive survey research design was used. It was considered suitable for the study since it generalizes population using a representative sample.

Population of the Study: The population comprised all final year undergraduate students in three tertiary institutions in Imo State, Nigeria namely Imo State University (3544), Federal University of Technology Owerri (3536) and Alvan Ikoku Federal College of Education Owerri (3500). Records from the Registry Departments of the institutions indicated that there were a total of 10,580 (4,243males and 6,337 females) final year students in these institutions as at the time of the study. The final year students were used as the population because they have spent more than three years in the institutions and they are more fashion conscious than newly admitted students.

Sample and Sampling Technique: The sample size of 385 (comprising 129, 128 and 128) were selected based on the population from three tertiary institutions in Imo State namely- Imo State University, Federal University of Technology and Alvan Ikoku Federal College of Education, Owerri respectively. Multistage and random sampling techniques were used to select the sample size from the population.

Instrument for Data Collection: Questionnaire based on the research questions was used for data collection. The questionnaire was structured on a 4- point scale. The instrument was validated by three experts in Clothing and Textiles. Their suggestions were used to improve the instrument. After validation, the instrument were later administered on 20 respondents who were not part of the population for the study, in order to determine the internal consistency of the instrument using Cronbach Alpha procedure. A reliability coefficient of .950, .963 and .966 were obtained for the three sections of the instrument, representing the research questions respectively. The reliability coefficients obtained indicated a high reliability of the instrument.

Method of Data Collection: A total of 385 questionnaires were distributed, by hand and all were returned fully completed after one month. This represented a return rate of 100 percent.

Data Analysis: Data were analyzed using mean and standard deviation for the research questions, while t-test statistics was used for the hypotheses to establish significant differences in the mean responses of the respondents at 0.05 significant level.

Results

Table 1: Mean Responses and t-test Results of Respondents on Factors that Influence Fashion and Clothing Choice

S/N	Factors that influence fashion trends	$\overline{X_1}$	SD_1	$\overline{X_2}$	SD_2	t-value	p-value
1.	Self esteem	3.07	1.19	2.93	1.07	0.70	.49
2.	Desire to enhance beauty	3.18	1.02	3.07	1.13	0.61	.54
3.	Television advertisement	3.18	1.07	3.04	0.98	0.78	.44
4.	Internet posts	2.96	1.07	2.99	1.05	-0.16	.87
5.	Fashion consciousness	3.07	1.00	3.10	1.17	-0.17	.87
6.	Value consciousness	2.84	1.02	3.17	1.12	-1.83	.07
7.	Peer group influence	3.22	1.11	3.04	1.10	0.95	.37
8.	Need for uniqueness	2.80	1.00	2.86	1.01	-0.35	.73
9.	Social acceptance	2.98	1.15	3.16	1.05	-0.93	.35
10.	Group influence	3.04	0.93	2.93	1.03	0.67	.50
11.	Desire to look like celebrities	3.02	1.05	2.87	1.10	0.82	.41
12.	To give an impression of maturity	2.76	0.98	2.93	1.03	-01.0	.32
13.	Fashion show	2.62	1.02	2.89	1.00	-1.55	.12
14.	Eye catching fashion advertisement	2.84	1.11	2.67	0.99	0.91	.36
15.	Religion	2.80	1.13	2.67	0.96	0.70	.49
16.	Education	2.80	1.15	3.03	0.97	-1.21	.23
17.	Money at hand	3.18	1.26	2.75	0.97	2.09**	.04
18.	Economy of the nation	2.93	0.91	2.79	0.89	0.90	.37
19.	Information and Communication Technology	2.67	0.93	2.74	0.92	-0.44	.66
20.	Social media	2.76	1.00	3.00	1.03	-1.38	.17
21.	Influence from other nations	2.64	0.98	2.81	0.99	-1.01	.31
22.	Lecturers' clothing or fashion styles	2.56	1.02	2.68	0.92	-0.70	.49
23.	To appear seductive	2.87	1.07	2.70	1.03	0.93	.35
24.	Culture	2.82	0.91	2.78	0.96	0.25	.80
25.	Family orientation	2.73	0.96	3.00	0.99	-1.62	.12
26.	Fashion magazine articles	2.69	0.91	2.85	0.99	-1.00	.32

Source: Field survey, 2016

Note: ** = Significant @ 5%, N_1=96 (number of male undergraduate students), N_2 =289 (number of female undergraduate student), $\overline{X}_1$= mean of undergraduate male students; X_2= mean of female undergraduate students

Table 1 indicates that all the items had mean scores above 2.50. This shows that all the 26 items are factors that influence undergraduates clothing choice; hence all the items were accepted. The results on table 1 also showed that in all the items, there were no significant differences except on money at hand (item 17). Therefore the null hypotheses on all the items were accepted except on item 17.

Table 2: Mean Responses of female undergraduate students' clothing style preferences (N= 289).

S/N	Fashion style preferences of female undergraduate students	$\bar{X}$	Std	Decision
1	Skimpy dresses	2.60	0.99	Preferred
2	Short skirts	2.46	1.09	Not Preferred
3	Sleeveless dresses	2.68	0.93	Preferred
4	Very tight dresses	2.67	1.01	Preferred
5	Transparent dresses	2.18	1.09	Not Preferred
6	Artificial nails	2.99	1.08	Preferred
7	Eye lashes	2.98	1.06	Preferred
8	Excessive make-up	2.68	0.99	Preferred
9	Dangling earrings	2.70	0.94	Preferred
10	Dresses without shoulder	2.40	0.95	Not Preferred
11	Dresses with spaghetti straps	2.41	0.90	Not Preferred
12	Mini length dresses	2.47	0.93	Not Preferred
13	Dresses that exposes sensitive body parts	2.25	1.11	Not Preferred
14	Very high heel shoes	2.51	0.97	Preferred
15	Bum shorts	2.31	1.11	Not Preferred

Source: Field survey, 2016.

Table 2 above indicates that items1, 3, 4, 6-9, and 14 had mean scores above 2.5 which showed that the items are clothing style preferences of female undergraduate's students; hence the items were preferred. However, items 2, 5, 10-13 and 15 were not preferred as clothing style preferences of female undergraduate students in tertiary institution in Imo State, Nigeria because they had mean scores less than 2.5.

Table 3: Mean Responses of male undergraduate students on clothing style preferences (N= 96).

S/N	Clothing style preferences of male undergraduates youths	$\bar{X}$	Std	Decision
1	Different forms of messages by inscriptions on their garments	2.61	0.98	Preferred
2	T- shirts with inscriptions of immoral messages	2.37	0.98	Not Preferred
3	Formal shirts without formal trousers	2.60	0.99	Preferred
4	Body hug dresses	2.68	0.97	Preferred
5	Caftan without trousers	2.37	0.99	Not Preferred
6	Low waist trousers (sagging trousers)	2.60	0.99	Preferred
7	Permed hair	2.71	1.02	Preferred
8	Jerry curly hair	2.71	1.02	Preferred
9	Plaited hair	2.36	0.99	Not Preferred

10	Braided hair	2.42	0.96	Not Preferred
11	Earrings	2.34	1.02	Not Preferred
12	Dresses that expose the body (armpit, chest among others)	2.30	1.05	Not Preferred
13	T- shirts without jeans	2.23	1.07	Not Preferred

Source: Field survey, 2016.

Table 3 shows that items 1, 3, 4 and 6-8 were preferred as clothing style preferences of male undergraduate students. Items 2, 5 and 9-13 were not preferred as clothing style preference of male undergraduate students in Imo State, Nigeria.

Discussion of Findings

The findings on factors influencing undergraduate students fashion and clothing choice showed that all the items are factors influencing students clothing choice and preferences with the following having very high mean scores– self-esteem, desire to enhance beauty, television advertisement, peer group influence, lecturers' dressing styles, family orientation, to appear seductive, among others. The study also showed that Information Communication Technology (ICT), influence from other nations, religion, culture, education, celebrities among others are also factors influencing students' clothing styles. The findings align with the findings of Danielson (2008) who reported that dressing to look like celebrities and their fashion style affect youth's fashion choice. The findings are in agreement with the findings of La-Ferla (2006); Moody, Kinderman, & Shina (2010) Mcleod and (2010) stated that to build an impression of maturity is one of the factors that determine students' fashion choice. The study results also supports the findings of Cassidy and Schijndel (2011); Omede (2011); Elliot, Greitemeyer and Pazda (2013); Banerjee (2008); Loureiro, Costa and Panchapakesan (2017) who emphasized that students' clothing style and choice are influenced by social media, internet, promotional offers, social status and peer group influence. The students have higher degree of fashion consciousness and so, they associate themselves with current fashion styles which in turn influence their life styles and clothing preferences negatively.

The result of t-test on Table 1 (Ho_1) on no significant difference in the mean ratings of male and female undergraduate students on factors that influence clothing choice showed that the male and female students have differing opinion on money at hand as a factor that influence clothing choice. However, they did not differ on other factors that influence fashion and clothing choice.

The result of findings on students' clothing preferences of female undergraduate students research question two showed that wearing short skirts, transparent, dresses without shoulder, spaghetti strips, mini length skirts, bum shorts, and wearing dresses that expose the body parts were rejected as students' clothing preferences. While wearing excessive make-up, tight dresses, skimpy dresses, fixing artificial nails and lashes were indicated as clothing style preference of students. The findings align with the findings of Olugbenga and Odeleye (2008) and Source Magazine (2011) who reported that both male and female adolescents prefer wearing skimpy dresses, tight or body hugging dresses. This type of clothing choice attracts undue attention to the body, in some case it gives credence to sexual harassment and offensive comments. Tiggemann and Andrew (2012), Sarron, Alyssa, Jayoung and Kim (2017) reported that tight fitting clothing gives an impression of negative feeling to the body (sexually charged feeling). Also Gray (2016) stated that tight clothing predisposes the wearer to sexual harassment and that wearing dresses that exposes the body parts has a close relationship between sexual activity, sexual orientation and sexiness (Lennon, Johnson, Noh, Zheng, Chae & Kim, 2014). Sometimes, the undergraduate students dresses are usually few inches longer than their under pants. Such dresses hardly cover the legs when sitting, and it is difficult to climb motorcycles, to cross gutter or to pick something from the ground.

The findings also showed that clothing preferences of male undergraduate students include wearing T-shirts without formal trousers; body hug dresses; perming their hairs, low waist trousers and wearing jerry curl hairs. This finding agrees with the findings of Olugbenga and Odeleye, (2008) who stated that undergraduate students of tertiary institutions are commonly associated with putting on body hugging dresses and low waist trousers. Low waist trousers usually portray some of the students as street boys, unorganized and sometimes they look like touts.

The findings of the study have important educational implications for families, students, lecturers and tertiary institutions in Nigeria. Most parents have non-challant attitude towards the clothing preference of their children. This may result to failure in moderating and harnessing the clothing preferences of the young undergraduates which can dispose them to destructive life styles and impact negatively on their future well-being.

Conclusion

Based on the findings of the study, it can be concluded that fashion and clothing choice have significant impact on students in the tertiary institutions. The undergraduate students are influenced negatively by their clothing choice as they desire to appear seductive. This exposes the female students to negative and destructive life styles e.g. prostitution, for there are many hotels and club houses in the study area that are in dire need for such services. The study also observed that the fashion and clothing choice of female students was not encouraging as it promotes sexual harassment. This can be avoided with proper guidance and advocacy. There is therefore, need to sensitize the undergraduate students and the young people on the need to tread cautiously with regards to clothing choice and fashion related issues.

Recommendations

- Students should ascertain the effects of fashion and clothing choice on their academic as well as social life.
- Religious leaders, parents and lecturers should help in educating the youth on safe and appropriate clothing selection.
- The family should help in training their children to appreciate decent dress code at the early childhood stage.
- Lecturers should dress decently and appropriately for students to emulate.
- Undergraduate students should not wear clothes that focus negative attention towards the body and sexuality; rather the focus should be on appearance, aimed at communicating orderliness, authority and power.

References

Banerjee, S (2008). Dimensions of Indian culture, core cultural values and marketing implications- an analysis. *An International Journal of Cross Cultural Management 15*(4), 367-378.

Bernard, P., Loughnan, S., Marchal, C., Godart, A., & Klein, O. (2015). The exonerating effect of sexual objectification: Sexual objectification decreases rapist blame in a stranger rape context. *Sex Roles, 72*(11/12), 499–508.

Cassidy, T. D. & Schijndel, H. (2011). Youth identity ownership from a fashion marketing perspective. *Journal of Fashion Marketing and Management 15*(2), 163-177.

Daniellsson, S. (2008). The impact of celebrities on adolescents' clothing choices. *Undergraduate Research Journal for the Human Science* 8, 1-12.

Elliot, A., Greitemeyer, T., & Pazda, A. (2013). Women's use of red clothing as a sexual signal in intersexual interaction. *Journal of Experimental Social Psychology, 49,* 599–602.

Engel, J. F.; Blackwell, R. D. & Miniard, P. W. (2005). *Consumer behavior.* Cincinnati OH: South-Western College Publishing.

Esiowu, A. P. & Igbo, C.A. (2008). Clothing for self expression by female undergraduates in universities in the South-Eastern States in Nigeria. *Journal of Home Economics Research 9,* 138-147.

Gray, E. (2016, April 15). *Why Anita Hill's 1991 testimony is so haunting today.* Huffington Post. Retrieved December 21, 2016 from: http://www.huffingtonpost.com/entry/anita-hill-matters-hbo-confirmation_us_570fb8f9e4b0ffa5937e5e72

Jill, C. F. (2016). How clothing choice affects and reflect self image. Retrieved on March 27, 2018 from http://www.huffingtonpost.com....

Keldgaard, D. & Askegaard, S. (2006). The globalization of youth culture: The global youth segment as structures of common differences. *Journal of Consumer Research 33*, 231-247.

Keldgaard, D. &Wilska, T. (2002). Me-a consumer? Consumption identities and lifestyle in today's Finland. *Acta Sciological, 45*(3), 195-210.

Kinra, N. (2006). The effect of country on foreign brand names in the Indian market. *Market Intelligence Planning, 24*(1), 15-30.

Khare, A. & Rekesh, S. J. (2010). Predictors of fashion clothing involvement among Indian youth. *Journal of Targeting Measurement and Analysis for Marketing 18*(3), 209-220.

Kjeldaard, D. (2009). The meaning of style? Style reflexivity among Danish Higher School Youths. *Journal of Consumer Behavior 8*, 71-83.

Ku, A. (2003). *Clothing as communicator.* Retrieved on Jan. 20, 2017 from http://www.analyticalq.com/default.htm.

Le-Ferla, R. (2006). *An impressionable age.* Retrieved on Jan 20, 2017 from www.proQuest database

Lennon, S. J., Johnson, K. K., Noh, M., Zheng, Z., Chae, Y., & Kim, Y. (2014). In search of a common thread revisited: What content does fashion communicate? *International Journal of Fashion Design, Technology and Education, 7*(3), 170–178. doi: 10.1080/17543266.2014.942892.

Loughnan, S., Pina, A., Vasquez, E., & Puvia, E. (2013). Sexual objectification increases rape victim blame and decreases perceived suffering. *Psychology of Women Quarterly, 37*(4), 455–461.

Loureiro, S.M.C.; Costa, I.; Panchapakesan, P. A (2017). Passion for fashion: The impact of social influence, vanity and exhibitionism on consumer behaviour. *International Journal of Retail Distribution Management*, 45, 468–484.

Mathew, H. T. R. (2016). Dress for success: How clothes influence our performance. Retrieved on March 22 2018 from www.springernature.com/us

Mcleod, S. A. (2010). *Attribution theory.* Retrieved on Feb.10, 2017 from Http://www.simplyphsychology.org/attribution-theory.ttml.

Moody, W.; Kinderman, P. & Shina, P (2010). An exploratory study, relationships between trying on clothing, mood, emotion, personality and clothing preferences. *Journal of Fashion Marketing and Management, 14*(1), 161-179.

Moori. A. (2002) Islamic criteria for dressing in women and its utilization pattern. *Andishe Sadegh Journal of Humanistic Science 8*(9), 122-129.

O'cass, A. & Frost, H. (2002). Status brand: Examining the effect of non-product related brand association on status and conspicuous consumption. *Journal of Product and Brand Management, 11 (2/3), 67-89.*

O'cass, A. & Mcewen, H. (2005). Exploring consumer status and conspicuous consumption. *Journal of Consumer Behaviour, 4*(1)), 25-39.

Olori, T. (2003). *Culture-Nigeria, ''Indecent'' dressing banned the campus*. Retrieved on Jan. 20, 2017 from http:www.ipsnews.net/Africa/interna.asps?idnew20018.

Olugbenga, D. O. & Odeleye, B. (2008). Contemporary clothing habits and sexual behavior of adolescents in South Western Nigeria. *Journal of Humanities and Ecology 23*(1), 39-44.

Omair, K. (2009). Arab woman massages and identity formation through clothing: Education, gender in management. *An International Journal Business Management, 24(6), 412-431.*

Omede, J. (2011). Indecent dresses in campuses of higher learning in Nigeria: Implication for Counseling. *Journal of*

Emerging Trends in Educational Research and Policy Studies 2(4), 228-233.

Ozlu, P. G. (2008).The effect of culture on different countries in university students while wearing clothes and making choice of their clothes. *Journal of Textiles and Apparel 18*(4), 311-321.

Ranjan, V. (2016). *The effect of fashion on teenagers in school*. Retrieved on Feb. 22, 2016 from http://www.selfgrowth.com/articlesthe-effect-of-fashion-on-teenagers.

Sarron, J. L., Alyssa, D. A., Jayoung, K., & Kim, K. P. J. (2017). *Dress and sex: A review of empirical research involving human participants*. Received Feb. 22, 2016 from https://doi.org/10.1136/s40691-017-0101-5

Schall, M & Appiah, S. C. Y. (2016). Progressive retrogression: Science technology, dress sense and fashion taste among polytechnic students in Ghana. *Art and Design Review* 4, 21-29..

Schlueter, C. (2003). *Celebrities impact on branding*. Retrieved Dec. 13, 2016 from http://www.christainworldviewnetwork.com/print/.php?...

Schlueter, I. (2007). *Its 911 time for Christian girlhood.* Retrieved Dec. 13, 2016 from http://www.christianwoldviewnetwork.com/print.php/&articleiD=1503

Source Magazine on line (2011). *Indescent dressing on Campus*. Retrieved Dec. 13, 2016 from http://8bg670.orbitaltec.net/assiw/indecc1029.html.

Subhani, M. I; Hasan, S. A; & Osman, A. (2011). New article of clothing translates mood of individual. *International Journal of Business and Social Sciences, 2*(23), 183-185

Suna, M. A. (2013). The fashion cycle and theories of fashion. *Indian Journal of Research Paripex, 2*(9), 117-119.

Tiggemann M., Andrew R. (2012). *Clothing choices, weight, and trait self-objectification*. *Body Image* 9, 409–412.

Vieria, V. A. (2009). An extended theoretical mode of fashion clothing involvement. *Journal of Fashion Marketing and Management, 13*(2), 179-200.

Vigneron, F. & Rekesh, S. J. (2010). Predictors of fashion clothing involvement among Indian youth. *Journal of Targeting Measurement and Analysis for Marketing' 18*(3), 209-220.

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Stress Management Strategies Adopted by Postgraduate Working Mothers: Case Study of University of Port Harcourt, Rivers State

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Abstract

The paper focused on stress management strategies adopted by postgraduate working mothers in University of Port Harcourt, Rivers State. Six research questions guided the study. It was a survey. The population for the study was 2,503 postgraduate working mothers. The sample size was 300 postgraduate working mothers drawn by convenience sampling technique. Questionnaire and Focus Group Discussion (FGD) guide were used for data collection. Data were analysed using mean. Findings of the study revealed 48 causes of stress at home, school and work place; 32 coping strategies that will help postgraduate working mothers to cope with stress at home, school and work places; as being organized, focusing at school work while at school, office work while at work and house chores and family matters while at home, among others . Among recommendations made was that postgraduate working mothers should adopt flexible working hours and maintain a balance between work and work life by scheduling work properly.

Keywords: Stress, Management, Strategies, Postgraduate, Working, Mothers

Introduction

Stress is today a serious challenge to many people. According to Pan American Health Organization (PAHO)/World Health Organization Organization (WHO), 2016) stress has become a world -wide epidemic and statistics has shown that stress affects about one out of four persons (Senova & Antosova, 2014). Postgraduate working mothers are no exception as stress involve not only postgraduate working mothers but it is the problem of everyone at any level. According to Thompson, (2017) an estimated 8.2 Million American adults, about 3.4 %

of the United States (US) population suffers from serious stress. The Nigerian watch, Wednesday, 11 December, 2013 reported that as many as 75% of Nigerian workers are suffering from various forms of stress.

Stress is our body's way of responding to changes in life. Life involves constant changes (ranging from changing locations from home, to work each morning to adapting to major life changes like marriage, divorce, or death of a loved one) (Scott, 2018) there is no avoiding stress Different writers and scholars perceive stress from different perspectives; psychological, physiological, behave-oural, occupational, environmental and social (Uzoeshi, 2012). Stress is any uncomfortable 'emotional experience accompanied by predictable biochemical, physiological and behavioural changes (Baum, (1990) in American psychological association, 2018). According to Adamu (2011) stress is seen almost everywhere, traffic, political assembly, military parade workplace, homes, school etc.

The number of working mothers has increased and as women take up role of working as professionals, furthering their education at postgraduate level and their traditional role as home makers, they are under great stress to balance their work, academics, personal and family lives. Women pattern of life is filled with constant change and change as we know is stressful (Hobson, Kamen, Szostek, Nethercut, Tiedmann &Wojnarrowicz 1998). The authors added that the changing social structure where career women with increased responsibility at their work place and postgraduate school programmes, still have to cater for children and aging parents, carry out chores in the home, and cater for other family needs contribute to stress on women. This change is now natural and dynamic, and the biggest challenge for these women is how to balance work, academics and family life without experiencing stress (Sudha & Karthikeyan, 2014). According to Shiva (2013), professional women after working in their offices return home to cook, clean and looked after family affairs then they get tired and worn out. This makes them more stressed up and led to some challenges they face. Also, taking up a postgraduate study is stressful and no one expects postgraduate studies to be stress free. Postgraduate work is challenging on a variety of levels, stretching often excessively, the minds as well as the emotions, the stamina and the finances of individuals involved. Postgraduate education also involved the stretching of time as postgraduate students carry various and often competing roles and responsibilities each demanding time and attention (Haynes Bulosam, Citty, Grant-Harris, Hudson & Koro-Ljungberg 2012).

Postgraduate working mothers struggle to balance their academic pursuit with their work life, personal life and family responsibilities. Postgraduate working mothers transitioning from full time employment to full time postgraduate students have also faced issues of balance (McCoy and Gardner, 2011). These result to additional stress in their lives. Stress is the latest killer. It is the cause rather than the effect of several physical, mental and emotional problems. Stress that is not well managed will bring negative consequences not only to the postgraduate working mother but also to the organization where she works, her family and performance at postgraduate level of education. Stress that is not well managed can cause emotional and physical ill health such as heart disease, lung problems, accident, committing suicide among others. When such a situation prevails, postgraduate working mothers have to face all these situations in her work place, at home and in school. Maintaining a balance between work and life becomes a tough task. One of the population that have been considered vulnerable to stress is the women population particularly women who are mothers, working and pursuing postgraduate studies. It is in view of this that this paper sought to evolve stress managements strategies adopted by postgraduate working mothers at the University of Port Harcourt.

Objectives of the Study

The major purpose of the study was to ascertain stress management strategies adopted by postgraduate working mothers in University of Port Harcourt, Rivers State. Specifically, the study determined:

1. causes of stress at work for postgraduate working mothers
2. causes of stress at home for postgraduate working mothers
3. causes of stress at school for postgraduate working mothers
4. stress management strategies adopted at work by postgraduate working mothers
5. stress management strategies adopted at home by postgraduate working mothers
6. stress management strategies adopted at school (postgraduate academics) by postgraduate working mothers.

Research Questions

1. What are the causes of stress at work for postgraduate working mothers?
2. What are the causes of stress at home for postgraduate working mothers?
3. What are the causes of stress at school for postgraduate working mothers?
4. What are the stress management strategies adopted at work by postgraduate working mothers?
5. What are the stress management strategies adopted at home by postgraduate working mothers?
6. What are the stress management strategies adopted a school by postgraduate working mother?

Methodology

***Design of the Study*:** The study adopted cross sectional survey research design.

Area of the Study: The study was carried out in The University of Port Harcourt in Rivers Sate. University of Port Harcourt runs a postgraduate studies (Diploma, Masters and Doctoral degrees) in all of her faculties.

***Population for the Study*:** The population for the study comprised 2015/2016 postgraduate students in the University of Port Harcourt. The postgraduate students were about 2,503 (Admission Unit of the University, 2017)

***Sampling and Sampling Technique*:** The sample size for the study was 300 postgraduate working mothers. Convenience sampling technique was adopted in selection of the sample for the study. This was to ensure that only postgraduate mothers who were working and can be easily reached were used in the study. A total of eight participants were purposively selected for the discussion.

Instrument for Data Collection The instrument for data collection was a structured questionnaire and focused group discussion guide (FGD). The instruments were developed based on related literature and objectives of the study. Responses to questionnaire items were based on a 4-point rating scale of: strongly agree -4, agree -3, disagree -3 and strongly disagree -1. The instrument was face validated by three experts in the department of Home Economics and Hotel management, Faculty of Vocational Education, Ignatius Ajuru University of education, Rumuolumeni, Port Harcourt. The expert's inputs were used to improve the final copy of the questionnaire for the study. Cronbach Alpha method was used in determining the internal consistency of the instrument and it yielded reliability co-efficient of 0.96

Data Collection Method: A total of 300 copies of the instrument were distributed to the respondents. The entire three hundred copies of instrument were retrieved. One FGD session was held with eight discussants and researchers.

Data Analysis Techniques: The data collected for the study were analyzed using mean. Mean rating from 2.50 and above were considered as agreed while any mean less than 2.50 was considered disagreed. FGD data were summarised.

Findings of the Study

Tables 1: Mean Responses on Causes of Stress for Postgraduate Working Mothers at Work

S/N	Causes of Stress at work	Mean	Remark
1.	Work load	3.92	Agreed
2.	Role overload	3.84	Agreed
3.	Job insecurity	3.66	Agreed
4.	Lack of support from supervisors/ heads of unit	3.80	Agreed
5.	Never receive overtime pay	3.92	Agreed
6.	Salary not paid regularly	2.64	Agreed
7.	Inadequate salary	3.77	Agreed
8.	Allowances/arrears not paid regularly	2.64	Agreed
9.	Always answer query in office	2.53	Agreed
10.	Tribal sentiment	2.57	Agreed
11.	Work beyond working hour	2.54	Agreed
12.	Inability to meet set demand	2.58	Agreed
13.	Poor working condition	3.54	Agreed
14.	Poor staff relationship	3.25	Agreed
15.	Time pressure	3.14	Agreed
16.	Conflict with colleagues	2.82	Agreed
17.	Negligent coworkers	2.93	Agreed
18.	Crowded work area	3.28	Agreed
19.	Extending working hours	2.86	Agreed
20.	Non supportive work environment	2.66	Agreed

Table 1 shows the mean response on causes of stress for postgraduate working mothers at work. The respondents agreed with all the causes of stress at work as their means are above the cutoff point of 2.5 and above.

Focus Group Discussion also reveals the following causes of stress at work for postgraduate working mothers.

- High work load
- Psychological problem to balance family and workload
- Going early to work and coming back late

Tables 2: Mean Responses on Causes of Stress for Postgraduate Working Mothers at School

S/N	Causes of Stress at school	Mean	Remark
1.	Curriculum and instruction	3.73	Agreed
2.	Team work	2.33	Disagreed
3.	Daily class work	3.04	Agreed
4.	Group assignment	2.44	Disagreed
5.	Handling class work	2.61	Agreed
6.	Amount of material to study	3.30	Agreed
7.	Too many assignment given by lecturers	3.49	Agreed
8.	Too many seminar presentations	3.01	Agreed

9. Competition with other students	2.29	Disagreed
10. Poor relationship with other students	2.86	Agreed
11. Poor relationship with lecturers	2.80	Agreed
12. Inadequate time to complete assignment	3.41	Agreed
13. Studying for test and exams	2.69	Agreed
14. Grade competition among classmates	2.97	Agreed
15. Large amount of content to master	3.62	Agreed
16. Over crowed lecture hall	3.57	Agreed
17. Semester system	2.48	Disagreed
18. Inadequate resources to perform academic work	3.49	Agreed
19. Fear of failing	3.44	Agreed
20. Lagging behind	3.41	Agreed

Table 2 shows the mean response on causes of stress for postgraduate working mothers at school. The respondents agreed with 16 out of 20 causes identified. They all have the cut- off point of 2.5 and above while only item 2, 4, 9 and 17 fell below the cut -off point.

Focus Group Discussion (FGD) also reveals the following causes of stress at school for postgraduate working mothers.

- Distance
- Staying long hours in school against proposed hors
- Offering more courses
- Fixing lectures and finishing late
- Clashes of courses
- Plenty of assignment and reading materials

Tables 3: Mean Responses on Causes of Stress for Postgraduate Working Mothers at Home

S/N Causes of Stress at home	Mean	Remark
1. Change in family members health	3.86	Agreed
2. Death of spouse/family members	3.94	Agreed
3. Violence at home	3.84	Agreed
4. Marital conflict	3.81	Agreed
5. Divorce/marital separation	3.62	Agreed
6. Troubles with in-laws	3.40	Agreed
7. Conflict or violence in community	3.30	Agreed
8. Anxiety when not at home	3.37	Agreed
9. Poor mother –children relationship	3.12	Agreed
10. Child care challenges	3.21	Agreed
11. Parenting challenges	3.06	Agreed
12. Poor communication with spouse	3.78	Agreed
13. Family separation due to work and school	3.41	Agreed
14. Personal commitment	3.25	Agreed
15. Social engagement	3.49	Agreed
16. House work is disorganized	3.69	Agreed

17.	Son or daughter leaving home for school	3.32	Agreed
18.	Do not know nor monitor activities of children	2.93	Agreed
19.	Change (decline) of living condition	3.68	Agreed
20.	Physical relocation due to housing change	3.12	Agreed
21.	Need for extra income	3.76	Agreed
22.	Unexpected or unwanted transfer	3.17	Agreed

Table 3 shows the mean response on causes of stress for postgraduate working mothers at home. The respondents agreed with all the causes of stress at home as their means are above the cutoff point of 2.5 and above.

Focus Group Discussion (FGD) also reveals the following causes of stress at home for postgraduate working mothers.

- Fulfilling husband emotional needs.
- Attending to children and their home work
- Lack of stable financial income
- Going to market, cooking and washing

Tables 4: Mean Responses on Stress Management Strategies Adopted by Postgraduate Working Mothers at Work

S/N	**Stress management strategies adopted by postgraduate working mothers at work**	**Mean**	**Remark**
1.	Recognize warning signals (self-awareness)	3.97	Agreed
2.	Keep positive attitude at all-time	3.97	Agreed
3.	Plan instead of responding to pressure	3.94	Agreed
4.	Set attainable/ personal goal	3.93	Agreed
5.	Prioritize task	3.86	Agreed
6.	Effective time management	3.94	Agreed
7.	zCreate a balanced schedule	3.89	Agreed
8.	Adopt a new way of life	3.41	Agreed
9.	Maintain a positive outlook on life	3.81	Agreed
10.	Institutional support (vacation leave, maternity leave, sick leave)	3.70	Agreed

Table 4 shows the mean response on stress management strategies adopted by postgraduate working mothers. The respondents agreed with all the 10 ways identified. They all have the cut- off point of 2.5 and above.

Tables 5: Mean Responses on Stress Management Strategies adopted by Postgraduate Working Mothers at School

S/N	Stress management strategies adopted by postgraduate working mothers at school	Mean	Remark
1.	Be reasonably organized	3.52	Agreed
2.	Learn to say no	3.00	Agreed
3.	Socialize and connect with others	2.66	Agreed
4.	Do not be a perfectionist	3.22	Agreed
5.	Make a list of priorities	3.57	Agreed
6.	Focus at school work while at school	3.70	Agreed
7.	Procrastinate school work	2.26	Disagreed
8.	Avoid unnecessary discussion/distraction	3.70	Agreed
9.	Make adequate plan for daily work schedule	3.81	Agreed

Table 5 shows the mean response on stress management strategies adopted by postgraduate working mothers at school. The respondents agreed with 8 out of 9 ways identified. They all have the cut- off point of 2.5 and above while only item 7 fell below the cut -off point.

Tables 6: Mean Responses on Stress Management Strategies Adopted by Postgraduate Working Mother's at Home

S/N	Stress management strategies adopted by postgraduate working mothers at home	Mean	Remark
1.	Eat a proper diet	3.84	Agreed
2.	Develop and maintain a regular exercise programme	3.78	Agreed
3.	Look for humour	3.46	Agreed
4.	Use tranquilizers/drugs	2.26	Disagreed
5.	Depend on alcohol and smoking	2.37	Disagreed
6.	Confide in close friend	2.56	Agreed
7.	Take it out on family members	2.34	Disagreed
8.	Get house-helps	2.69	Agreed
9.	Balance work and life by spending time with family members	3.81	Agreed
10.	Adequate rest/sleep	3.85	Agreed
11.	Entertainment/music/	3.56	Agreed
12.	Delegate house chores to older family members	3.70	Agreed
13.	Enjoy cultural, spiritual and social activities	3.54	Agreed
14.	Go for medical checkup regularly	3.50	Agreed
15.	Maintain healthy relationship with people around you	3.60	Agreed
16.	Make use of labour saving devices	3.81	Agreed

Table 6 shows the mean response on stress management strategies adopted by postgraduate working mothers at home. The respondents agreed with 13 out of 16 ways identified. They all have the cut- off point of 2.5 and above while only item 4, 5 and 7 fell below the cut -off point (See Table 6).

Focus Group Discussion (FGD) also reveals the following stress management strategies adopted by postgraduate working mothers at home, work and school.

- Make earlier plans for the day
- Use services of house helps at home
- Share house chores among grown up children
- Make out time to have enough sleep
- Official work should be done at the office when due to avoid working under pressure.
- Do not carry office work home.
- At work organizations should employ more man power to reduce work over load
- Organizations should organize seminars on how to cope with stress
- Proper time management
- Friendly relationship between colleague, co-students and lecturers
- Team work with colleagues and co-students
- At school time table should be adhere to
- If there is any change on time table, notification should be done on time.
- Listen to music, watch comedy and read newspapers to relax one self.

Discussion on Findings

The study revealed that postgraduate working mothers experience stress at work, school and at home. The respondents agreed with all the causes of stress at work as shown in Table 1. Work load, role overload, inadequate salary, allowances not paid regularly, and poor staff relationship as the highest rating. These findings is in line with the observation made by Emodi, Adesope, Albert and Nwokoma (2012) that stress is as a result of work over load, inadequate remuneration. In the same vein, Loo See and Leap-Han (2012) also noted that work over load; poor working condition and conflict among co-workers can result to job stress. Legg (2016) observed that feeling discriminated can result to long term stress. FGD revealed high work load, Psychological problem to balance family and workload as well as going early to work and coming back late as causes of job stress. Gadazi, Mobeen and Gardazi (2016) also noted that a lot of working mothers leave home early for work and work over time without pay. This also adds to stress up most working mothers.

On the causes of stress at school (academic stress), the respondents agreed with 16 out of the 20 items as causes of academic stress as shown in Table 3. However, curriculum and instruction, daily class work, too many assignment, too many seminar presentation, inadequate time to complete assignment, large amount of content to study and master, inadequate resources to perform academic work, fear of failing and lagging behind has the highest mean rating as shown in Table 3.This is in line with the findings of Nandamuri and Gowthami (2013) who observed that curriculum and instruction, daily class work, group assignment and placement activity are sources of academic stress to students though he noted that curriculum and instruction form the basis for academic activities as no institution or course can fulfill the academic requirement without the predetermined curriculum and structured instruction. Hence, class work is an integral part of any academic endeavor. The author also noted other academic stressors as fear of failing and lagging behind as well as large amount of content to study and regularly attending classes. In the same vein, Wolfenden (2011) noted that academic pressure, deadlines among others bring about the feeling of stress. Focus group discussion (FGD) also revealed that distance, Staying long hours in school against proposed hours, offering more courses, Fixing lectures and finishing late, clashes of courses, plenty of assignment and reading materials are causes of stress at school. This finding did not come as a surprise because most postgraduate students come from distant places for their study. They also stay long hours in class against proposed hour with plenty of assignment and reading to be done. Table 3 revealed that respondents agreed with all the items as causes of stress for postgraduate working mothers at home. Change in family member health, death of spouse/family member, violence at home, marital conflict, poor communication with spouse, need for extra income, change of living condition, house work being disorganized, trouble with in-laws, and divorce/separation has the highest rating as shown in table 4. This is in line with the findings of National Mental Health Association (2005) that noted that the loss of a loved one is life most stressful event as almost every loss, no matter how expected, will be accompanied by stress and disorientation. In the same vein, Miller (2015) noted that the death of a loved one in itself is extremely stressful. There is also the stress of restructuring one's life which has been one –way and now have changed. According to Vitelli, (2015), bereavement of a loved one is a major source of life stress that often leaves people vulnerable to later problems such as depression, chronic stress and reduced life expectancy. Scott, (2016) observed that the proportion of people stressed about money is on the increase as every seven out of ten respondents are very stressed about money. In the same vein Leggs, (2016) noted that the death of a loved one, changing jobs, moving houses and sending a child off to college are life changes that can be stressful. He further noted that financial trouble is a common source of stress. FGD also revealed lack of stable financial income, fulfilling husband emotional needs, attending to children and their homework, going to market, cooking and washing as causes of stress at home.

The study reveals that the respondents supported the idea of recognizing warning signals (self-awareness), keeping positive attitude at all times, plan instead of responding to pressure, effective time management, prioritize task as stress management strategies at work. This is in consonance with Scott (2016) who noted that self-awareness, developing stress relieving habits among others are ways of coping with stress. In the same vein, Anyakoha, (2015); Kadhiravan & Kumar (2012) observed that keeping positive attitude, being assertive, regular exercise, time management, getting enough rest and sleep without relying on alcohol and drugs are ways stress could be managed at home. These are effective tools against stress and approaching things from a positive perspective can be a good way to minimize the effect stress has on students. This is because a person's attitude about a situation, not the situation itself that results in stress. Also, regular exercise also have positive effect on ones susceptibility to stress, as it enhances confidence, self-esteem and makes less tense and more at ease. Sonye (2013) also observed that the use of competent house helps, delegation of duties to family members are ways stress could be coped with. This is because keeping problems hidden away inside only make stress work. FGD also revealed that making earlier plans for the day, using services of house helps at home, Sharing house chores among grown up children, making out time to have enough sleep are ways to cope with stress. This is because going to bed early and getting 7-8 hours of sleep each day will result in students being less anxious, more relaxed, more energetic and more focused the next day. FGD also revealed that doing official work at the office when due to avoid working under pressure and not carrying official work home are also ways to cope with stress.

Table 5 also revealed that postgraduate working mothers can cope with stress at work place if organizations will employ more man power to reduce work over load, organize seminars on how to cope with stress, Proper time management, Friendly relationship between colleague, co-students and lecturers. Team work with colleagues and co-students, at school time table should be adhere to, If there is any change on time table, notification should be done on time, Listen to music, watch comedy and read newspapers to relax one self.

Conclusion

This study has shown that postgraduate working mothers in University of Port Harcourt experience stress at home, school and work and they have adopted different coping strategies to manage the stress they experience at home, school and work place.

Recommendation

The following recommendations were made based on the research findings

- ❖ Postgraduate students should share house/personal work with family members and official work with subordinates at work place.

- ❖ Break should be given between working hours at school, work and home with light refreshment to overcome physical and mental tiredness
- ❖ Postgraduate students should adopt flexible working hours
- ❖ They should maintain a complete work life balance by scheduling work properly.
- ❖ Postgraduate working mothers should follow management concept strictly to ease time pressure.
- ❖ Organizations can support women by given vacation leave, study leave, sick leave and maternity leave.
- ❖ The school can also support by going on break after each semester

References

Adamu, U.F. (2011). *Stress Management*. Ibadan: Safari Book Ltd.

Anyakoha, E. U. (2015) *Home Management for Schools and Colleges*, Onisha; Africana First Publishers PLC

American Psychological Association (2018) *Understanding Chronic Stress.* APA Help Centre. Retrievd on 20th April, 2017 from: www.apa.org/helpcentre/understanding-chronic-stress.aspx

Emodi, A.L; Adesope, O.M; Albert, C.O and Nwokoma, P.S (2012) Effects of Job Stress and Coping Strategies among Agricultural Academic and Non-Academic Staff in University of Port Harcourt, Rivers State, Nigeria. *Agricultural Economics and Extension Research Studies* (AGEERS)1(1) 125-132

Gardazi, S. F; Mobeen, N and Gardazi, S. A. (2016) Causes of Stress and Burnout among Working Mothers in Parkistan. *The Qualitative report*. 21, 5(6), 916-932.

Haynes, C; Bulosam, M; Citty, J; Grant-Harris, M; Hudson, J and Koro-Ljungberg, M (2012). My World is not by Doctoral Programme…or is it? Female Students Perception of Wellness. *International Journal of Doctoral Studies,* 7; 1-16. Retrieved on 21st August, 2017 from: http://ijds.org/volume7/IJDSv7p001-017Haynes329pdf

Hobson, C. J, Kamen, J, Szostek, J, Nethercut, C. M, Tiedmann, J.W and Wojnarrouicz, S (1998).Stressful Life Events: A Revision and Update of the Social Readjustment Rating Scale. *International Journal of Stress management*, 5(1), 1-23

Kadhiravan, S and Kumar, K (2012) Enhancing Stress Coping Skills among College Students. *Journal of Arts, Science and Commens*, 4(1), 49-52

Leggs, T. J. (2016) *Causes of Stress Recognizing and managing your stressors.* Retrieved on 20th July, 2017 from: www.healthline.com/health/stress-cause#overview

Loo-See, B and Leap-Han,L (2012). Job Stress and Coping Mechanisms among Nursing Staff in Public Health Services. *Human Resources Management Academic*

McCoy, D.L and Gardner, S (2011). The Transition from Full Time Employment to Full Time Graduate Student. A qualitative exploration of Masters and Doctoral Student Experiences inn Higher Education Programmes. *The Enrollment Management Journal,* 5(1)84-109

Miller, M. C. (2014) Death of a spouse or partner can lead to heart attack or stroke in Watson, S.Harvard *Women's Health Watch.*

Harvard.ed/blog/death-spouse-partner-can-lead-heart-attack-stroke201402277055.
Nandamuri, P. P and Gowthami, C (2013) Sources of Academic Stress- A study on management Students. *Journal of Education*, 2, 31-42
National Mental Health Association (2005) *Coping with Loss Bereavement and Grief*. Retrieved on http:/www.nmha.org/infactr/factsheets/42.cfm
Nigerian Watch, 11 December 2013
Ofoegbu, F and Nwadiani (2006). Level of perceived stress among Lecturers in Nigerian Universities. *Journal of International psychology,* 31;1-10.
Pan American Health Organization (PAHO)/World Health Organization (WHO) (2016) *Workplace stress takes a toll on individuals, employers and society.* PAHO/WHO
Scott, E. (2016) *Financial stress – How it affects you and what you can do; Stress Management.* https://www.very well.com/understanding –and-preventing-financial-stress3144546.
Scott, E.M.S (2018) *An Overview of Stress Management*.wwwww.verywellmin.com /stress management-4157211
Senova, A and Antosova, (2014) Work Stress as a world Wide Problem in Present Time. *Social and Behavioural Sciences* 109; 312-316
Shiva, G (2013). A Study on Work Life Balance and Challenges Faced by Working Women. *Journal of business management*, 14(5): 1-4.
Sonye, C. U. (2013) Influence of Professional Roles of Dual Career Women on Their Traditional Roles. *Journal of home Economics Research;* 18, 123-131.
Sudha, J and Karthikeyan, P (2014). Work Life Balance of Women Employee: A Literature Review. *International journal of Management Research and Review,* 4(8), 3: 797-804
Thompson, D. (2017) More Americans suffering from stress, Anxiety and Depression. *Health Day, CBS News*.www.cbsnews.com/news/stress-anxiety-depression-mental-illness-increase-study-finds/healthday/more-americans-suffering-from-stress-anxiety-and-depression
Uzoeshi, K. C (2012). *Everyday Stress and its Management.* Port Harcourt: Paragraphics
Vitelli, R. (2015) *Grief, Loneliness and Losing a Spouse: Learn to live with Grief and Loneliness after the Death of a Spouse*. https://www.psychology today.com/blog/media-spot light/201503/grief-loneliness-and-losing-spouse
Wolfenden, E. (2011) *Physical Symptoms of Stress in College Students.* www.livestrong.com/article/77136-physical-symptoms-stress-college-students

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Household Meal Management Practices of Homemakers in Ayamelum Local Government Area, Anambra State

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Abstract

The study focused on issues relating to household meal management practices of homemakers. Specifically the study determined guidelines homemakers follow in meal management; measures they adopt for enhancing their household meal management; problems they encountered in managing family meal in a recessed economy and possible solutions to the problems. The population was made up of 53,496 homemakers in Ayamelum local government of Anambra Sate. The study was a survey. Questionnaire was used for data collection. Data were analysed using means. Major findings were that the homemakers followed eight guidelines in their family meal management; 12 measures for enhancing family meal management were adopted by the homemakers. The homemakers encountered 14 problems in managing family meals in a recessed economy while all the solution proffered were accepted by the homemakers.

Key words: Family, Meal Management, Homemakers, Households, Recessed Economy.

Introduction

Economic recession is a period of general economic slowdown. According to the National Bureau of Economic Research (NBER), economic recession is "a significant decline in economic activity spread across the economy, lasting more than a few months, normally visible in real gross domestic product (GDP), real income, employment, industrial production and even wholesale to retail sales" (Chike, 2016). The Gross Domestic Product (GDP) is the monetary value of all the finished goods and services produced within a country's borders in a specific period. In a recession, businesses cease to thrive, the GDP diminishes for two consecutive quarters, the rate of unemployment rises and housing price decline and there is a sharp increase in price of goods. This is the situation of the economy in Nigeria after the governor of Central Bank of Nigeria and the National Bureau of Statistics in May 2016, indicated that the Nigerian economy is at verge of a recession (Chike, 2016). By July 2016, the Minister of Finance, reported that the country was at the moment in a state of economic recession (Umoru and

Erunke, 2016).Apart from the gloomy performance of the oil sector which is a worldwide phenomenon, the country's weak production base left the economy without a fallback position when oil prices started tumbling. Nigeria's near-total dependency on imported manufactured goods, ranging from the simplest household consumer items to the most complex industrial inputs makes the economy more vulnerable to both internal and external shocks. Nigeria imported at least 70 percent of its refined fuel, despite pumping 1.6million barrels of crude oil a day in June 2016 according to International Energy Agency (IEA). This lack of strong production base has resulted in imported insulation. According to Coleman (2018) recession is a slowdown or a massive contraction in economic activities. A significant fall in spending generally leads to a recession. There are lots of other indicators that tend to lead or follow a recession but GDP is the only one that counts in terms of indicating that a recession is or is not present. Other indicator includes: (1) high inflation rates; (2) decrease in sales of goods and services; (3) budget deficit in government spending; and (4) decline in the stock market

A meal is food that is prepared and eaten usually at a specific time. Management is the way that people control and organize different situations that happen in their lives or their work. Management occurs in many situations such as a business, schools, hospitals and homes (Anyakoha, 2015).Family is an intimate domestic group made up of people related to one another by bond of blood, sexual mating or legal ties(Gordon,1998).The nutritional need of each member of the family has to be considered in the management process. There is need for budgeting and prioritizing needs to use the scare resources to achieve greater goal. The health status and physical activities of family members must be considered. Food is scarce and many families are suffering from food insecurity in the face of economic recession there is need to apply proper meal management strategies in order to meet the nutritional need of family members, prevent malnutrition and avoid food wastage. It is imperative that available food be properly managed to enhance and maintain the nutritional need of family members. For meals to be properly managed, the home maker must learn to apply the principles of creative problem solving. This will involve proper planning, organize, implementing and evaluating the meal management process. This is important because food stands as an important need of the family and the first in the highracy of needs. There are some tips which can help the manger to manager family meal successfully which includes creating a corresponding grocery list to successfully execute the meal in the plan. Proper planning in everything is the first step to success. Planning of meals for families is not an exception. Therefore meal planning is a careful thinking and application of the knowledge of nutrition and its benefit to feed the members of a family with adequate meals on daily basis (Okeke, 2009). In managing family meal one has to make sure that each family member receives the right proportion of nutrients that will enhance nutrition. In order to achieve this certain factors have to be reconsidered such as age of family member which influence meal plan, knowing full well that a family is made up of children, adolescents, adults and the aged.

Consequently, food price is one of the most significant problems facing families in Nigeria today. The present economic crises and inflation in Nigeria have hiked the cost of food despite all assurance that Nigeria will soon be self-sufficient in rice production (Trade Economics, 2017). This increase in price has affected all available staple food in the country and has thrown many families into hunger, poverty and malnutrition. The purchasing powers of many families have been affected including homemakers in Ayamelum local government area of Anambra State as the most important determinant of food consumption is the family income. According to Oguntola, (2001), due to increase in salary, many Nigerians can afford to buy food like meat which is looked at as "food for the wealthy". However, this is not the situation in Ayamelum L.G.A who is predominantly farmers and depends on the proceeds from their farm products to meet their food need.

Currently, as prices of food continues to increase due to economic recession and natural disaster such as flooding and pest that continue to rave rage Ayamelum local government area of Anambra state living the local government more recessed economically. It is important that families in Ayamelum local government area manage their scarce resources well in order to meet their family food need as proper food management ebbs some nutritional deficiencies such as marasmus and kwashiorkor (Nwamara and Uwaegbute, 2007). Many families are challenged with family meal management due to lack of skills, knowledge, preparation method, and facilities and even time. This exposes the families to risk of food insecurity, malnutrition and poverty.

Purpose of the Study

The general purpose of this study was to explore some issues household meal management practices of homemakers in Ayamelum local government area (LGA) of Anambra State.

Specifically the study determined:

1. guidelines homemakers follow in meal management.
2. measures homemakers adopt for enhancing their household meal management practices.
3. problems encountered by homemakers in managing family meals in a recessed economy.

4. solutions to the problems encountered by mother in managing family meals in a recessed economy.

Methodology

Area and Design of the Study**:** The study was carried out in Ayamelum Local Government Area (LGA) of Anambra State. The LGA is located in south-central zone of Anambra state. It is made up of eight towns. Each town is made up of communities. The study adopted a survey research design.

Population for the Study: The population for the study comprised 53,496 homemakers in Ayamelum local government area of Anambra State (National Population Census,2006). The homemakers were literate and illiterate women. They were predominantly farmers and few civil servants.

Sample for the study**:** The sample for the study comprised of 240 homemakers drawn from the 53,496 homemakers in Ayamelum local government area. A multi-stage sampling technique was adopted. First two towns and three communities from each of the towns were purposively sampled. This gave a total of six communities. Then one-woman group from each of the communities were sampled given a total of six women groups. Finally, 40 homemakers from each of the six groups were randomly sampled which totaled 24000 homemakers.

Instrument for Data Collection: The instrument for data collection was the questionnaire. The questionnaire was in four sections covering the specific purposes of the study. It was developed based on the specific purposes of the study and literature review. It was validated by three Home Economics experts.

Data Collection and Analysis Technique: Two hundred and forty (240**)** copies of the instrument were administered to the respondents by hand during the meetings. The questionnaire also served as interview schedule for the illiterate respondents as items in the questionnaire were explained to them in vernacular. The researcher with the assistance of four research assistants was there to explain the items in the questionnaire as requested by the respondents. The 240 copies of questionnaire administered by hand. Data collected were analyzed using mean. Mean rating of 2.50 and above were considered as agreed item while mean rating of 2.49 and below were considered as "disagree" item.

Results

The following findings were made:

Table 1: Mean Responses on Guidelines for Meal Management Practices of Homemakers

S/No	Meal Management Practices	Mean ($\bar{x}$)	Remarks
1.	Take inventory of family food needs	3.25	Agree
2.	Plan to provide adequate meal household	1.55	Disagree
3.	Consider family members food likes and dislikes	3.40	Agree
4.	Develop meal plan for household	1.55	Disagree
5.	Consider grocery budget (money on hand)	3.25	Agree
6.	Prepare grocery list	1.42	Disagree
7.	Pick time to shop for food items/ proper timing	2.55	Agree
8.	Consider where to buy fresh, and cheap ingredients	3.20	Agree
9.	Compare food prices and quality before making purchase	2`15	Disagree
10.	Consider food in season	2`50	Agree
11.	Prepare meals that are in your plan	2.52	Agree
12.	Consider equipment and utensils available for preparing meals	1.65	Disagree
13.	Consider the time available for cooking	3.15	Agree
14.	Consider health conditions of family members	1.85	Disagree

Table 1 reveals that the homemakers consider eight guidelines out of 14 in the Table in theirs meal planning practices. This is because the eight items had mean scores of 2.50 and above while the other six items were not considered guidelines hence they obtained mean responses lower than 2.50.

Table 2: Mean Responses of Homemakers on Measures Taken to Enhance Household Meal Management Practices

S/No	Measures for Enhancing Meal Management Practices	Mean ($\bar{x}$)	Remarks
1.	Buying food items in bulk	3.08	Disagree
2.	Raising vegetable gardens from where to pick stuff for meals	3.08	Agree
3.	Using low cost proteins to replace expensive proteins	2.50	Agree
4.	Preservation of foods in season by sun drying, freezing and smoking eg beans, tomatoes and fish.	2.80	Agree
5.	Storing food adequately to avoid decay.	1.25	Disagree
6.	Use plant protein to replace animal protein	2.51	Agree
7.	Make grocery list always.	2.08	Disagree
8.	Choose markets where cheap and fresh foods are sold	2.56	Agree
9.	Prepare most food eaten at home	2.66	Agree
10.	Shopping of food items personally without assistance	2.21	Disagree
11.	Vary method of meal preparation	2.55	Agree
12.	Embarking on full or part time farming/ home gardening to reduce food cost	2.65	Agree
13.	Buying cheap cuts of meat instead of costly cut	2.50	Agree

	(e.g biscuit bone)		
14.	Processing foods such as garri, fufu or corn meal for home use.	2.52	Agree
15.	Preserving left-over foods to avoid wastage	2.54	Agree
16.	Store left-over foods in the freezers to avoid spoilage	1.54	Disagree
17.	Smoke meat and fish for preservation	2.55	Agree
18.	Use frozen fish instead of fresh fish	1.65	Disagree

Table 2 reveals that the homemakers consider 12 out of 18 in the table as measures taken by homemakers to enhance household meal management practices. This is because twelve items had mean scores of 2.50 and above while the other six items were not considered measures for enhancing meal management practices by homemakers hence they obtained mean responses lower than 2.50.

Table 3: Mean Responses of Homemakers on Problems Encountered in Meals Management Practices.

S/No	Problems Encountered by Home makers in Managing Meals in a Recessed Economy.	Mean ($\bar{x}$)	Remarks
1.	Fund s for purchasing food items are limited	3.20	Agree
2.	Food preferences or choice of family members is a problem	3.00	Agree
3.	Time constrain in purchasing, preparation and consumption of meals.	2.63	Agree
4.	Lack of skills and equipments for meal preparations	2.53	Agree
5.	Large family size	2.52	Agree
6.	High cost of some food storage facilities such as freezers	3.52	Agree
7.	Poor knowledge of food preservation methods	3.00	Agree
8.	Lack of some meal preparation method is a problem	2.50	Agree
9.	Poor knowledge of nutrition is a challenge in managing family meals	2.52	Agree
10.	Transportation problems in gong to cheap markets	2.52	Agree
11.	Lack of space around the home for gardening	2.54	Agree
12.	Health problems of family members are considered	2.15	Disagree
13.	Superstitious belief associated with the consumption of some foods are considered	3.22	Agree
14.	Price fluctuation in food purchasing is a challenge	3.30	Agree
15.	Poor knowledge of food processing method is a challenge	2.55	Agree

Table 3 reveals that the homemakers consider 14 out of 15 items in the table as problems encountered by homemakers in managing family meal. This is because fourteen items had mean score of 2.50 and above while only one item was not considered as problem encountered by homemakers in managing meals in a recessed economy hence it obtained mean response lower than 2.50.

Table 4: Mean Responses of Homemakers on Perceived Solutions to Problems Encountered in Household Meal Management

S/No	Possible Solutions to Family Meal Management Problems	Mean ($\bar{x}$)	Remarks
1.	perishable food items should not be bought in bulk	3.06	Agree
2.	Use local methods of food preservation to preserve foods e.g. Sun drying and smoking.	3.00	Agree
3.	Storage containers should be used store to dry foods or hang at kitchen chummy eg corn.	2.55	Agree
4.	Foods like onions and yams should be stored in a cool dry place to avoid spoilage	2.80	Agree
5.	Foods should be stored in freezers if available.	2.55	Agree
6.	Space at the back of compound should be used as garden.	2.90	Agree
7.	Hire land for cultivation of food items	3.05	Agree
8.	Use organic manure instead of artificial manure.	3.04	Agree
9.	Process garri, fufu or corn flour if possible at home to save cost.	2.56	Agree
10.	Family likes-and; dislikes should be considered by homemaker	3.07	Agree
11.	Use locally available foods or food in season to prepare variety of dishes to avoid monotony.	2.56	agree
12.	Pre-prepare some ingredients to save time during meal preparation.	2.55	Agree
13.	Join a co-operative group that will buy food items in bulk and share to save cost.	3.00	Agree
14.	Home Economists should carryout enlightenment programmes on food nutrient, their sources and food preservation methods though their extension services.	3.25	Agree

Table 4 reveals that the homemakers perceived 14 solutions to the problems they encounter in household meal management. This is because each of the 14 items had mean scores of 2.50 and above.

Discussion

Table 1 shows that eight items out of fourteen items were considered to be meal planning practices of homemakers in Ayamelum local government area of Anambra State. Those items they considered are taken inventory of family food need, consider grocery budget, prepare grocery list, consider food in season, and consider where to buy cheap and fresh food ingredients and ability to prepare meals that are in the plan. These items obtained mean scores above 2.50 which is the cutoff point and is in line with the findings of Dinkins, who suggested that the use of grocery list, planning meals, and comparing prices using coupons and stocking up on sale items were meal planning practices (Dinkins, 1997). However, a decreased household budget can negatively affect nutrition status of family (Kempson, Palmer, Sadaru, Ridlen and Scotto, 2002).

Balance diet was not rated high as it had a mean score of 1.55 and this is in line with the finding of Comber, Hoonhout, Halteren, Moynihan and Olivier (2013) who reported that health and balanced eating were not primary concerns for most households, with issues such as time, finances, taste, weight management and food waste being more prominent. In their report the cost of healthy eating was noted by several participants and their concerns about diet were offset by the perception of being physically active. Equally, health condition of family members did not rate high and is below the cutoff point of 2.50. However, this is not in line with the study conducted by Hersey, Anliker, Miller, Mullis, Daugherly, Das, Bray, Dennee, Sigmen and Thomas (2001) which examined food shopping practices and diet quality in low-income households. They suggested that thinking about healthy options was shown to increase the odds of meeting household RDAs for vitamin C, A, B_6 and iron (Hersey,*et al* 2001).

The findings of the study in table two revealed that the homemakers adopted twelve out of the eighteen items in measures for enhancing meal management practices of homemakers. Item number 2 of Table 2 had the highest mean rating of 3.08 which agree that raising vegetable gardens is one of the measures for enhancing meal management practices by homemakers in Ayamelum local government area. This is in line with the findings of Anozie, (2013) and Prakash (2003). Prakash (2003) agrees that women play an indispensable role in farming and in improving the quality of life in rural areas. Studies show that the most economical and desirable method of improving nutrition when money resources is limited is by raising foods in the home garden (Prakash, 2003). Propare preservation of foods in season had a mean score of 2.80 while storing food adequately to avoid decay had mean score of 1.25 respectively. Homemakers agreed that foods in season should be preserved properly but storing food adequately to avoid decay was below cutoff point. This shows that the homemakers were not aware of different method of food preservation but may not be properly acquitted with the storage methods. This is in line with the report of Cesarani, Klinton and Foskett (1995) who reported that lack of storage facilities can easily lead to food poisoning and is also in line with study of Anozie (2013) who reported that poor storage facilities and poor preservation facilities may lead to improper feeding of family members.

Table 2 also revealed that homemakers rating in making of grocery list and choosing of markets where cheap and fresh foods are sold were high as the rating was above the cutoff point. This is in line with the study by Lewis, (2013) who reported from the result of her models that using a grocery list and thinking about healthy foods when planning what to feed the family were the only two variables that were shown to improve diet outcomes in both models. She suggests that these food management practices are effective in improving diet outcomes among low-income participants regardless of race, education level, and income level and population density. Item 1 of Table 2 buying food items in bulk also had a mean rating that is below the cutoff point (2.08). this goes to suggest that these homemakers do not buy in bulk which may be as a result of ignorance or lack of fund and is not in consonance with the suggestion of Okeke (2009) who suggested that consumer cooperative society could be formed by the homemakers with the cum of buying goods (food) in bulk or whole and sell to the members of the society. This will help to save the cost of items in the family and at the same time help the homemakers to plan ahead of time.

The finding in Table 3 revealed the mean scores of the responses of homemakers in Ayamelum on the problems encountered in managing family meals. The table revealed that 14 items out of 15 items were above the cutoff point of 2.50 and only one item was below the cutoff point. This result is not in consonance with the suggestion of Anyakoha (2015) who identified that one of the factors that influence meal planning should be health condition of family members. She explains that certain foods are not suitable for certain health conditions. The result is however in line with the finding of Comber *et al* (2013) who reported that healthy and balanced eating were not primary concerns for most households, with issues such as time, finances, taste, weight management and food waste being more prominent. In their study they noted that for a number of households, concerns about diet were offset by the perception of being physically active. All the other items such as food preferences or choice of family members, time constrain in purchasing, preparation and consumption, preparation knowledge and equipments and family size had a mean cutoff point of 3.08, 2.63, 3.00 and 2.52 respectively were in agreement with the report of Comber et al (2013) who pointed out all these items as problems encountered in family meal management. Transport also rated high with a cutoff point of 2.52 and is in line with the study that reported that class-related impediments to the ease and stability to access healthy food includes economically constrained food budgets and disadvantaged residential location that lacks adequate public transportation and food supply system (Beagan, Slijepeceric and Chapman 2010).

Table 4 shows that the rating on the perceived solution to the problem encountered by homemakers on family meal management practices were all the items meet the cutoff point of 2.50 and above. The table revealed that all the items were perceived solutions to the problems encountered by homemakers in managing family meals such as not buying perishable foods in bulk, use of local methods of food preservation, use of storage facilities to store dry food or hang at kitchen chummy, store food in freezers with cutoff point of 3.06, 3.00, 2.55 and 2.55 respectively. This is in line with the study of Otilia, Eduardo &Albert(2018) and is also in line with the general factors to consider when buying food(Anyakoha,2015). It was identified that perishable foods should not be bought in bulk and there is need for proper storage and preservation of food (Anyakoha, 2015). She also encourage buying food in open markets as this is cheaper and considering family needs for food such as likes and dislike and this is in line with the present study.

Conclusion

The study observed that homemakers in Ayamelum adopted different meal management practices to meet their family food needs. These practices ranges from raising vegetables gardens to buying from local markets where cheaper food stuff can be sourced. There are different traditional methods of food preservation and food storage to safeguard their food to avoid spoilage. Poverty and ignorance was the major problems of they encounter in meeting their family food. Home Economic extension services that will enlighten homemakers on food nutrient and their source, preservation and storage were rated highly by the homemakers.

Recommendations

Sequel to the findings and conclusion of the study, it is recommended that:

- Vegetable gardens should be reused by homemakers in order to reduce family meal cost and improve nutrition of family members.
- Meal should be planned in advance for easy management of family resources.
- Consumer cooperative societies should be formed by the women with the sole aim of contributing money in order to buy food in bulk.

References

Anozie, G.O. (2013). Food Management Challenges of working mothers in Abia State: Coping Strategies for sustainable future. *Internal Journal of Home Economics* Vol. 6, pp. 5 – 12.

Anozie, G.O. (2013). Meeting household nutritional needs and poverty reduction and Scarce household energy in Abia State Nigeria. *International Journal of Home Economics.* Vol. 6, pp. 13-20.

Anyakoha, E.U. (2015). *Home management for schools and colleges*. Africana First Publishers, Onitsha.

Cer Sarani, V. Kinton, V. and Foskett, D. (1995). *Practical Cookery*. London: Hodder Straighton.

Chika, J. (2016). *5 things Nigerians need to know about recession.* Retrieved from http://www.naija.com/955575-5-essential=thing-ever-nigerian-know-recession.html

Coleman, B. (2018). Definition of Recession.https://m.economictimes.com

Comber, R. Hoonhout, J. Halteren, A.V, Moynihan, P. and Oliver, P. (2013). *Food practices as situated Action: Exploring and designing for everyday food practices with households citi 2013*. Paris, France.

Conner, M. and Armitage, C.J. (2002). *The social psychology of food.* Maidenhead, UK: Open University Press.

Dinkins, J. (1997). Food Preparers: Their Food budgeting, cost-cutting and meal planning practices. Family economics and Nutrition Review Vol.10, pp.37-7.

Hersey, J., Anliker, J. Miller, C. Mullis, R.M. Daughterly, S. Das, S., Bray, C.R; Dennee P, Sigman-Grant, M & Thomas, H.O. (2001). Food shopping practices are associated with dietary quality in low-income households. Journals nutrition education.

Kampson, K.M. Peumer Keeenan D, Sadani, P.S., Ridlen, S. & Scotto Rosato, N. (2002). Food management practices used by people with united resources to maintain food sufficiency as reported by nutrition educators. *Journal of Animal Diet Association, 102*, 1795 – 9.

Lewis, S.E. (2013). *How-income adults food management practices and nutrition behaviours and the association with diet*. Thesis and Dissertations – Dietics and Human Nutrition. http://knowledge.uky.edu/foodsci-etds//z.

Nilabja, G, Sangeeta, C. & Yogest, B. (2008). Crop supply forecasting for food management. agricultural situation. *India. 65*(5), 331 – 340.

Nwamara, J.U. & Uwaegbute, A.C. (2007). Organoleptic Evaluation of buns Snacks based on Soyabean an Yam Flour Blands. *Journal of Home Economics* Vol.3:pp.207-214.

Oguntola, A.M. (2001). *Effect of minimum wage on consumption of packaged food*. An Unpublished Research Report Submitted to Home Economics Unit, Vocational and Technical Education, University of Benin.

Okeke, S.U.N. (2009). *Home Economics for schools and colleges*. Africana First Publishers Plc Onitsha Nigeria.

Otilia, V., Eduardo, S. & Albert, G. (2018). Food access and coping strategies adopted by households to fight hunger among indigenous communities of Srerra Tarahumara in Mexico. Research centre for the management of Agricultural and Environmental Risk (CEIgRAM) Universidad Politeconica de Madrid, Epana.

Perry, E.H., Willy, M. & Stas, C.A. (1998). *Development of rural food consumption*. American Nutrition Association Research Report, No. 14-39. London.

Prakash, D. (2003). *Rural women food security and agricultural comparatives*. Scfyuj-102 Kalkeiyi, New Delhi 110019 India.

Trade Economics (2017). Nigeria Economic Indicators https://tradingeconomics.com /Nigeria/indicators.

Tricket, S. (1997). *Food hygiene for food handlers*. London: Macmillian Company.

Udeme, C. (2015). *How economic recession might affect you.* https:www.google.com/ng/ amp/www.vanguardngr.com

Umoru, H. and Erunke, J. (2016). *Nigeria in recession, presently in taugh place-* Adeousun. http://www.google.com.ng/amp/www.vanguardngr.com/2016/07/nig-eria-in-recession-presently-in-tough-place-Adeousun/amp/

Uzie, J. (2016). *Effects of economic recession and ways you can help yourself.* www.Olufamouscom/2016/5/effectsof-ecnomic-recession-ways-you-html?m=1

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Selected Food and Nutrition Related Strategies for Reducing the Challenges of Economic Recession among Low-Income Households in Abakaliki Metropolis

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Abstract

This study explored ways selected food and nutrition-related strategies could reduce the challenges of economic recession among low-income households in Abakaliki Metropolis. Specifically, the study identified ways home gardening, nutrition education, and proper meal planning could reduce challenges of economic recession among the households. It was a survey research. The populations for the study were low-income households in the area of study. A random of 200 low-income households was selected. The instrument for data collection was a questionnaire and focused group discussion guide. Data were analysed using frequency and means. The findings reveal 16 ways home gardening, 18 ways nutrition education and 17 ways proper meal planning could help to reduce economic recession among low-income households. It was recommended among others, that the low-income households should engage in home gardening.

Keywords: Strategies, Economic Recession, Low-income, Households, Challenges

Introduction

The economic recession is a notable challenge in Nigeria (Nwuzor (2016). Michael (2016) noted that poor economic management is a cause of Nigeria current recession. The well-being of households especially the low-income households is often negatively affected. Such households need to look for for alternative sources of income to support themselves in order to improve their well-being (Robinson, 2016). Low-income households are those households whose annual income may not be sufficient enough to provide their needs such as clothing, shelter, health care and food (Igba, 2008). Due to the hardship being experienced within such households, Osalor (2016) suggested coping strategies such as home gardening, Nutrition Education and Meal Planning strategies to help cushion the effect of economic recession within the family.

Home gardening provides to nutrition and household food security by implementing quick and immediate access to various foods that can be harvested, prepared and eaten by family members daily thereby reducing their spending in household foods during the period of economic recession (Agwu, 2012). Home gardening helps families that practice it to spend less on purchasing foodstuffs from the market while maintaining a healthy and nutritious lifestyle. Agwu (2016) stated that the low-income households in the urban area should learn from the rural dweller's survival techniques by adopting the strategy of home gardening to increase their food security, improve their nutritional intake for healthy living and reduce their spending on foods. Noko (2016) observed that the time of economic recession should be viewed as the period of improvisation for the households to cope with the menace. Through home gardening, households can have greater access to a variety of plant items that lead to an overall improvement in dietary intake and boost the bioavailability and absorption of essential nutrients (Talukder, 2012).

Nutrition Education is another way of reducing economic recession within the households. Nutrition education involves many activities that are not usually called nutrition education, such as promoting the production of micronutrient-rich foods, nutrition counseling for mothers, cooking demonstrations, health promotion, the production and dissemination of dietary guidelines, as well as ensuring that schools and workplaces offer healthier meals (Nwuzor, 2016).Nutrition education according to Smith (2004) is any system of communication that teaches people to make a better use of available food resources. Gussow and Eide in Igba (2008) proposed the way for a nutrition educator as that of helping people of whatever social, economic or political circumstances to meet their need for nutrition's food.

Nutrition education is a tool to enhance awareness, as a means to self-efficacy, surrounding the trigger of healthy behaviours, (Pius, 2017). Nweze (2015) observed that during the period of economic recession the low-income families' income is reduced drastically such that they cannot provide some primary care facilities. Adegboye, (2014) noted that nutrition education can help in improving the healthy lifestyle of the poor during the period of economic hardship. Due to the challenges of economic recession, there is need for prosper meal planning.

Adegboye, (2014) noted that proper meal planning by the households would help in achieving food security in Nigeria. Meal planning involves choosing a menu or a list of foods that will be included in a meal (Anyakoha, 2016). Anyakoha, (2015) also noted that meal planning is the process of designing adequate diets in which all the essential nutrients are present in the right proportions, for specific person or groups of people. A well-planned meal should meet the nutritional needs of a given individual and thus promote health. An ill-planned meal, on the other hand, can retard good health. Adegboye, (2014) observed that most households waste resources in food purchases, some even waste the prepared meal including the low-income households because of inadequate or lack of meal planning.

The multiple hardships experienced during the period of economic recession especially the low-income households often lead the policymakers and the government in the constant search for the strategies of resolving the problem of economic downturns on the low-income households (Adegbite, 2016). There are also cases of child abandonment in exchange for food, prostitution, kidnapping among others. The problem of this study is what are the ways three selected strategies can help low income households reduce the challenges of the economic recession?

Purpose of the Study: The general purpose of the study was to explore ways selected food and nutrition-related strategies could reduce the challenges of economic recession among low-income households in Abakaliki Metropolis. Specifically, the study determined ways each of the following selected food and nutrition related strategies could reduce the challenges of an economic downturn among low-income households in Abakaliki Metropolis

1. home gardening
2. Nutrition education
3. proper meal planning

Research Questions: The research questions guided the study

In what ways can each of the following food and nutrition strategies reduce the challenges of economic recession among low-income households in Abakaliki Metropolis?

1. Home gardening?
2. Nutrition education?
3. Proper meal planning?

Methodology

***Design and Area of the study*:** The study used a survey research design. Abakaliki metropolis is the area of the study. Abakaliki is the capital of Ebonyi State. Many low-income households in Abakaliki metropolis over time may no longer meet their needs such as sending their children to school, provision of shelter for the family, feeding of the family with three square meals, ability to take care of health problems as they arise among others which could lead to social decadence as noted by FGN (2014).

***The population for the Study*:** The Population for the study comprised all the the father, mother and children of low-income households in Abakaliki metropolis.). Low income as used in this study is the households that do not often have enough to meet their basic needs or live below USD 1 (#360) per day. They live in too little or wrong kind of food, spending as much as 80% of their income on food, leaving little or nothing on housing, health or education (Mbanefor in Igba, 2008). Furthermore, a household occupies a single housing unit and is the medium for foods provision in the family (Anyakoha, 2015).Thus this constitute the focal point for the study. The total population of Abakaliki metropolis consist of 72,518 male, 77,165 female (children inclusive) making a total population of 149,683 (NPC, 2006

***Sample and sampling Techniques*:** The multi-stage sampling technique was adopted in the selection of the sample for the study. The first stage Abakaliki metropolis was stratified into seventeen districts/areas. The second stage involves purposive sampling of eight districts/areas. This is because the households in these selected districts/areas best suit the definition of low income-households (ghetto areas). The third stage involves random sampling of 25 respondents from each of the eight districts/areas given a total sample size of 200 respondents. Finally a home-maker was randomly selected from the two hundred households given a total of 200 home-makers used for the study.

***The instrument for Data Collection*:** Instrument used for data collection were questionnaire and focused group discussion (FGD). The questionnaire was validated by three experts. Two in the Departments of Home Economics, and one from Arts and Social Science Education, all in Faculty of Education, Ebonyi State University, Abakaliki. The reliability coefficient of 0.81 was obtained using Cronbach Alpha Coefficient indicating high reliability.

Method of Data Collection: The researcher distributed questionnaire with the help of two research assistants to the respondents. They explained the information to the members of the low-income households to enable them answer the instruments correctly. 196 copies of the questionnaire were duly filled and returned representing 99.2% return rate.

***Method of Data Analysis*:** Research questions were answered on individual item basis using mean and frequency. Items that scored 3.0 were accepted while items that scored less than 3.0 were rejected as the decision rule.

Findings of the study: The followings findings were made as summarized in tables 1-3.

Table 1: Mean responses on ways home gardening could help to reduce the challenges of the economic recession on low-income households in Abakaliki Metropolis.

S/N	**Ways home gardening could help to reduce economic recession**	$\bar{x}$	Remarks
1.	Home gardening could contribute to family income generation.	4.05	Agreed
2.	Contributes to increase family food supply	3.74	Agreed
3.	Source of fresh and organic food	3.64	Agreed
4.	It saves money to buy other items	3.97	Agreed
5.	Help to bridge pre-harvest food gap.	3.90	Agreed
6.	Increase food availability.	3.74	Agreed
7.	Help to reduce erosion/ runoff	3.35	Agreed
8.	Good for physical and mental exercise	3.40	Agreed
9.	Facilitate household solid waste management	3.65	Agreed
10	Family members learn gardening skill	3.55	Agreed
11	It creates gainful self employment for family members	3.09	Agreed
12	Reduces poverty and improves food security		
13	Caring for plants offers families the chances to work together	3.10	Agreed
14	Home gardening offers sense of satisfaction	3.01	Agreed
15	Enhance adequate nutrition	3.42	Agreed
16.	Tending to veggies can lower blood pressure	3.53	Agreed
	and reduce stress	3.49	Agreed
	Grand Mean	3.53	

Table 1 shows the ways home gardening could help to reduce economic recession in Abakaliki metropolis. The result of the analysis in Table 1 implies that all the items are the ways home gardening help in reducing economic recession within the low-income households.

Table 2: Mean responses on ways nutrition education could help to reduce the challenges of the recession on low-income households in Abakaliki Metropolis.

No	**ways nutrition education could reduce economic recession**	$\bar{x}$	Remarks
1.	Understand classes and importance of food nutrients.	3.76	Agreed
2.	Understand nutritional needs of family members.	3.90	Agreed
3.	Plan family meals.	3.85	Agreed
4.	Prepare family meals effectively.	3.55	Agreed
5.	Purchase wholesome foodstuff.	3.17	Agreed
6.	Process food effectively.	3.61	Agreed
7.	Preserve and store food.	3.36	Agreed

8	Prevent food spoilage	3.25	Agreed
9.	Prevent food losses and wastage	3.51	Agreed
10	Improve shelf life of foods	3.44	Agreed
11	Influences food choices and eating habits	3.90	Agreed
12	Prevent childhood obesity	3.80	Agreed
13	Focuses on overall health and wellness	3.56	Agreed
14	Focuses on eating right	3.92	Agreed
15	Teaches difference between nutritious and unhealthy foods	3.80	Agreed
16	Reduces fast food consumption	3.62	Agreed
17	Encourages physical activity	3.56	Agreed
18	Increases fruits and vegetables intake	3.61	Agreed
	Grand mean	3.50	

Table 2 shows that all the items are the ways nutrition education could help to reduce the economic recession among low-income households in Abakaliki Metropolis. This reveals that the respondents agreed with these items as ways nutrition education could help to reduce economic recession among low-income households in Abakaliki Metropolis.

Table 3: **Mean responses on ways proper meal planning could help reduce the challenges of the economic recession on low-income households in Abakaliki Metropolis.**

S/N	**Ways proper meal planning could help to reduce economic recession**	$\bar{x}$	Remarks
1.	Ensure a more adequate menu.	3.58	Agreed
2.	Help in making culinary discoveries.	3.61	Agreed
3.	Simplify life and reduces stress and anxiety	3.85	Agreed
4.	Optimizes purchases and saves money.	3.33	Agreed
5.	Maximizes time.	3.56	Agreed
6.	Help to avoid unhealthy choices.	3.57	Agreed
7.	Saves energy.	3.44	Agreed
8.	Foster family cooperation and information exchange	3.15	Agreed
9.	Promotes healthier lifestyle	3.50	Agreed
10	Decrease unwanted behaviour like food cravings, over-eating and reduce weight gain (obesity).	3.49	Agreed
11	Reduces food wastage	3.92	Agreed
12	Reduces grocery trips/ wandering at the grocery	3.94	Agreed
13	Add variety to your diet	3.85	Agreed
14	Help to buy, prepare and eat healthier food	3.72	Agreed
15	It saves money	3.80	Agreed
16	Shopping more efficiently	3.65	Agreed
17	It helps to consider likes and dislikes of the family member	3.72	Agreed
	Grand mean	3.62	

Table 3 shows that all items recorded mean criterion which is above 3.0. The implication is that the respondents agreed with all the items are the proper meal planning strategies for reducing the challenges of the recession in low-income households within Abakaliki metropolis.

Discussion

The result from this study indicated a lot of ways home gardening can play in reducing economic challenges facing low income households in Abakaliki Metroplois. These ways among others include contribution to family income, family food supply, produce from the home gardening can be sold to generate more money for the family. It helps to fill pre-harvest food gap, increases food availability and better nutrition through food diversity. It can also enhance rural employment through additional or off-season production. This agrees with Agwu (2016) who encouraged the low-income households in the urban area to learn from the rural dweller's survival techniques by adopting the strategy of home gardening to increase their food security, improve their nutritional intake for healthy living and reduce their spending on foods. Nweze (2015) also noted that for low income earning families that are unable to afford expensive animal products to fulfill their nutritional needs, home gardens offer a cheap source of nutritious foods. Through home gardening, households can have better access to a variety of plant and animal food items that lead to an overall improvement in dietary intake and boost the bioavailability and absorption of essential nutrients (Talukder, 2012). Igba (2013) noted that home gardening will help families to produce most fruits and vegetables which are naturally low in fat, low in calories and cholesterol free. In her own view, Anyakoha (2015) reiterated that it is cheaper to grow one's own vegetables. Any surplus vegetables can be sold for money, thus gardening can be a source of family revenue.

The result from the study also revealed among others things that nutrition education is an effective strategy for reducing the challenges of the recession on low-income households in Abakaliki Metropolis. It helps in lowering low-income households' expenditure on health and drugs during the recession. Nutrition education helps families to understand the classes and importance of food nutrients, nutritional needs of the family members. This is in line with Anyakoha (2015) who stated that the health of the family depends to a large extent on how effectively the nutritional needs of each family member are met. An understanding of the characteristics of different group of people in the family and their nutritional needs is necessary for effective planning and preparation of family meals. Owoo, (2016) also noted that nutrition education is concerned with information on how to attain good well-being and nutritional state. It also helps to prevent childhood obesity (Bree, 2015).Nkan (2015) also noted that proper nutrition and eating habits are crucial to maintain quality of life, control blood sugar levels, maintain good vision, contribute to positive mood, provide good sleep, energy, bone and muscle strength, digestion and good elimination which are severely affected with poor diet. Nutrition education helps the household to find out what kind of foods they should plant in their garden. It also gives information on how they can preserve their foodstuff (raw or cooked), thereby reducing wastage and also help them to make the best choice of foods for an adequate diet using locally available foodstuff. Levine (2013) noted that needy families are the most vulnerable in the society and call for the better enlightenment of the household on nutritional intakes.

Furthermore, the result revealed the ways proper meal planning could help to reduce economic recession to include, ensuring a more balanced menu, help in making culinary discoveries, simplifying life and reduces stress, optimizes purchases and saves money, maximizes time, help to avoid unhealthy choices, foster family cooperation and information exchange, promotes healthier lifestyle among others. This is in line with http://mealz.com/artices/user-1154-theimportance-of-meal-planninh observed that meal planning helps households to buy, prepare and eat healthier food and also saves money, time and reduces stress and anxiety. Adegboye, (2014) noted that proper meal planning by the households would help in achieving food security in Nigeria. He argued that most households waste resources in food purchases, some even waste the prepared meal including low-income households because of inadequate or lack of meal planning. Nweze (2015) observed that during the period of economic recession the low-income family's income is reduced drastically such that they cannot provide some primary care facilities. He maintained that nutrition education can help in improving the healthy lifestyle of the poor during this period of economic hardship through proper meal planning. In the same vein, Kelvin (2012) stated that extravagant costs for entertainments and social activities should be curtailed during the period of economic recessions.

Conclusion

The following conclusions were drawn. Economic recession affects the well being of the members of the low-income households because they are the most vulnerable in the society. It was also revealed that the use of home gardening, nutrition education and proper meal planning would reduce the challenges of economic recession among the low-income households.

Recommendations

- Members of low-income households should engage in home gardening because the products got from it can help to generate more money thereby reducing the challenges of economic recession.

- ❖ Home Economist/Extension workers should organize workshops and seminars for low-income households on nutrition education as a means of reducing economic recession among low-income families.
- ❖ Members of low- income households should be encourage to practice proper meal planning as it will help them to buy, prepare and eat healthier food, saves money, time and reduces stress and anxiety.

References

Adeboye, L. (2014). Developing Entrepreneurial skills through Business Education Programmes to curb Youth Restiveness for Sustainable Niger Delta Development. *European Journal of Business management 4(21).*

Adegbite, W. (2016). The impact of economic recession among low-income families in Ogun State: A Philosophical Perspective. *African Research Journal. 7(2), Pp. 266-276*

Agwu, U. (2016). Human Papillomavirus; knowledge and vaccine acceptance among undergraduates in a tertiary institution in South East Nigeria. *The 28th international committee of the Medical Women's International Association, Munster Germany*.

Anyakoha, E.U. (2016). *Home Economics for Junior Secondary Schools* Abuja: Africana First Publishers Plc.

Anyakoha, E.U. (2015). Home Management for Schools and Colleges. *Revised Edition. Abuja: Africana First Publishers Plc.*

Bree, S. (2015). Nutrition education: why it is more important than ever in 2015. http://comunityfoodbank ofsbc.org/2015/01/nutrition-education-why-it-is-more-important-than-ever-in-2015/.Retrived 5/7/2018.

Federal Government of Nigeria (FGN), (2014). National Housing Policies and the Realization of Improved Housing for all in Nigeria: An Alternative Approach. *Asian Journal of homepage, Asian Development policy Reviewed. 2(3), 47-60*

https://mez.com/artices/user-1154-the-importance-of-meal-planning. Retrived 15/7/2018

Igba, C.E. (2008). Food Security Stat*us* of Low Income Households in Ebonyi State. An Unpublished Thesis Ebonyi State University, Abakaliki.

Igba, C.E. (2013). Economic and Health benefits of fruits and vegetable consumption within families. Workshop on vegetable/crop production and rural dwellers empowerment. A case study of Ebonyi State, Nigeria, in the Local Government Area and Development Centres of Ebonyi State. *A proceedings of . the* workshop, *5th – 7th March, 2013, 18-21.*

Kelvin, D. (2012). Review of evidence on the problem of the economic downturn on disadvantaged groups, DWP. A Working Paper No. 68. *Nottingham: International Conference for Public and Social Policy, University of Nottingham.*

Levine (2013). *Implications of the financial crisis for developing countries, IFPRI.* Washington, USA.

Micheal, (2016). Survey Reports of Earnings, Hours Worked, and Hourly Wages of Low-income families. *Journal of the American Statistical Association, 88 (424), 1208-1218*.

Nkan, V.V. (2015). Problems affecting nutrition status of older adults. *Nigeria journal of home economics, 5(1), 151-155*.

Noko, J. E. (2016). The empirical studies analysis of the impact of unemployment on economic growth of Nigeria. *Journal of Management Sciences, 3(1), 23-29*

NPC (2006). A review of the 2006 population census. *A retraining programme held for staff of NPC, Abakaliki branch on Dec 14, (2) (18).*

Nweze B. (2015). Recession in the Europe Length and Depth of the Downturn Varies Across Activities and Countries. *Eurostat: Industry, Trade and Services, 97.*

Nwuzor, J. N. (2016). Reducing the problems of the economic recession, among Enugu Indigenes: Policy implication. *A working paper presented at MAN annual conference October.*

Osalor, P. (2016). Nigerian Economic Recession and Entrepreneurial Revolution. *Vanguard, September.*

Owoo, N. (2016). Food insecurity and Family Structure in Nigeria. *African Journal of Economics and Management Studies. 7, 535-546.*

Pius, L. (2017). Government provision of early child care and education to preschool orphans in orphanages in Southeast.. *Research in Curriculum.*

Robinson, (2016). Unemployment Insurance and Job Search of the Great Economic Recession. *NBER, A working paper 17534.*

Talukder, A., (2012). Increasing the production and consumption of Vitamin A- rich fruits and vegetables: lessons learned in taking Bangladesh homestead programme to a national scale. *Food Nutr Bull 21(2), 165-172.*

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Barriers to Undergraduate Students' Participation in Solid Waste Management: A Case Study of the University of Nigeria, Nsukka

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Abstract

The study focused on proper solid waste management practices among the undergraduates of the University of Nigeria, Nsukka. Specifically, it determined barriers to undergraduate students' participation in solid waste management and ways of enhancing such participation. It was a survey. The population was made up of undergraduates. Questionnaire was used for data collection. Frequencies, percentages and Chi-square (χ^2) were used for data analysis. Findings include 13 barriers to undergraduates' proper solid waste management practices and six ways of enhancing their waste management practices. Barriers include, among others, low environmental consciousness/awareness, lack of enforcement of environmental laws, and non-adherence to policies guiding solid waste management in the school. Ways of enhancing practices, include: provision of waste bins and containers at strategic places, etc. There was no significant difference between the male and the female undergraduate students and barriers to proper solid waste management practices ($p > .05$). It was recommended, among others, that the school management should provide more waste bins at strategic places.

Keywords: Solid waste, Management, Practices, Barriers, Undergraduates

Introduction

Solid wastes refer to discarded or abandoned materials. According to Kapoor (2001) solid wastes are all wastes arising from human activities that are normally solid and are discarded as useless or unwanted. Aibor and Olurunda (2006) defined solid waste as unwanted or any discarded material arising from human activities and is not free flowing. Waste management is the systematic administration of activities which provide for the collection, sorting, separation, storage, transportation, processing and disposal of solid waste (Frick & Sullivan, 2007). Solid wastes in this study are dry wastes which are useless and discarded and which are brought about as a result of undergraduates' activities. The solid waste so generated must be properly disposed of to guarantee an environment conducive to health. Effective disposal of solid waste depends largely on the quality of solid waste management practices, and the types of solid waste generated.

Solid waste management is one of the most challenging environmental problems facing human beings especially in the developing countries (Agboje, Adeoti, & Irhivben, 2014). Solid wastes management is arguably the most important municipal service (World Bank, 2012) because of the amount of waste generated by human beings. World Bank (2012) indicates that in 2002 there were 2.9 billion urban residents who generated about 0.64 kg of municipal solid waste per person per day (0.68 billion tonnes per year) and estimates currently, these amounts have increased to 3 billion residents generating 1.2 kg per person per day (1.3 billion tonnes per year).

Management is the art of controlling and handling of something in order to be successful. Management according to Harold (2011) is the art of getting things done through and with people in formerly organized groups. Boundless (2017) also defined management as the act of getting people together to achieve desired goals and objectives using available resources efficiently and effectively. Management is the act of handling and controlling of solid waste by the undergraduates to avoid littering the environment and reducing health hazards caused by improper management of solid waste.

Solid waste management is the most pressing environmental challenge faced by urban and rural areas of Nigeria (Agboje, Adeoti, & Irhivben, 2014; Wale, 2016). Wale also explained that Nigeria, with population exceeding 170 million, is one of the largest producers of solid waste in Africa, despite a host of policies and regulations, guiding solid waste management in the country. Wale also reported that Nigeria generates around 3.2 million tons of solid waste annually, out of which only 20-30 percent is collected making the environment dirty and harmful to inhabitants. Babayemi, Ogundirian, and Osinbanjo (2017) reported that uncontrolled electronic waste, agricultural waste, scrap metals, waste polymers, and waste from transportation sector are prevalent in Nigeria. University environment is not an exception, as some parts of the environment are seen littered with piece of papers, waste food packs, polyethene bags, among others. These are mainly due to the activities of students, majority of who are undergraduates of the University.

An ideal University environment should always be clean and devoid of solid wastes. There should be proper solid waste management practices including generation, collection, storage, transportation and disposal of solid waste by inhabitants (Amori, Fatile, Ihuoma & Omoregbee, 2013). This is expected to promote healthy environment on campus. Healthy environment prevents rodents, mosquitoes and other flies, thereby preventing related diseases (WHO, 2018). It is observed that University of Nigeria, Nsukka make provisions for proper disposal of solid wastes but improper disposal however, often occur in some parts of the University environments, especially in classrooms and hostel areas, thereby, defacing its scenic and aesthetic beauty in spite of the fact that waste baskets or bins are been provided for the undergraduates to dispose solid wastes therein. This suggests that there may be factors militating against undergraduates' proper solid waste disposal practices in the university, which had not being identified or considered as a problem.

Purpose of the Study

The purpose of this study was to find out the barriers to students' solid waste management practices among the undergraduates of the University of Nigeria, Nsukka. Specifically, the study determined the;

1. barriers to undergraduate students' participation in solid waste management.
2. ways of enhancing the students' participation in solid waste management practices.

Research questions

1. What are the barriers to undergraduate students' participation in solid waste management?
2. What are the ways of enhancing students' participation in solid waste management?

Hypothesis (HO)

The following null hypothesis was formulated and tested at .05 level of significance.

1. There is no significant difference on the barriers to undergraduate students' participation in solid waste management based on gender.

Methodology

***Design of the Study*:** descriptive survey design was adopted for the study.

***Population for the Study*:** The population for the study consisted of 19,973 undergraduates of University of Nigeria, Nsukka. These were made up of 10,153 males and 9,820 females in ten faculties of the University of Nigeria, Nsukka (Academic Planning Unit, June 2017).

***Sample for the Study*:** The sample size for the study consisted of 392 undergraduates. Multistage sampling procedure was used. First step involved random selection of four faculties from the 10 faculties in the University. The second step involved random selection of two departments from each of the four faculties. This gave a total of eight departments. The third step involved the use of accidental sampling technique to select 49 students from each of the eight departments, giving a total of 392 students who constituted the sample for the study.

***Instrument for Data Collection*:** Questionnaire was used for data collection. The questionnaire was divided into three sections; A, B and C, covering demographic variables; barriers to proper solid waste management practices, and ways of improving solid waste management practices, respectively. The instrument was validated by three experts in Human Kinetics and Health Education. Their suggestions were used to modify and improve the instrument. Split-half method using Kuder-Richardson-20 was used to determine the reliability of the instrument. A reliability coefficient index of 0.82 was obtained and the instrument was judged reliable.

***Method of Data Collection*:** A total of 392 copies of the questionnaire were administered by the researcher and assistants (students) to the respondents by hand. Three hundred and eighty-seven (387) completed copies of the questionnaire were retrieved from the respondents. This represents 98.7 percentage return.

***Method of Data Analysis*:** Data collected were analyzed using frequencies and percentages. The hypotheses were tested using chi-square (χ^2) statistics at .05 level of significance.

Results

Demographical Characteristics of Respondents

Data on demographical characteristics of the students show that majority (68.9%) were between the age of 21 and 30 years, followed by those aged 20 years and below (28.3%). There were more females (63.0%) than males (36.5%). For level of study, the distribution was as follows: first years (18.9%), second years (22.4%), third years (23.0%), fourth years (12.0), fifth years (8.4%) and final years (15.3%).

Table 1: **Percentage Responses and Chi-square Analysis on Barriers to Undergraduate Students' Participation in Solid Waste Management based on Gender (n=387)**

S/N	Perceived Barriers	Male(143) f(%)	Female(244) f(%)	Total f(%)	Chi-Square (χ^2)	(p-value)
1	Low environmental awareness among students	120(84.5)	216(89.3)	336(86.8)	1.845	.174
2	Lack of enforcement of environmental laws	125(88.7)	204(86.8)	329(85.1)	.274	.601
3	Poor environmental sanitation monitoring by student union executives or other authorities	117(83.0)	206(84.1)	323(83.5)	.080	.778
4	Indifferent attitudes towards the undergraduates' responsibilities	123(86.6)	195(83.3)	318(82.2)	.732	.392

5	Undergraduates' lack of awareness of their own responsibilities to their environment	120(84.5)	195(83.3)	315(81.4)	.090	.765
6	Poor coordination among environment agencies in the school	115(81.0)	195(81.9)	310(80.1)	.053	.818
7	None adherence by undergraduates to policies guiding solid waste management in the school	108(75.5)	200(81.6)	308(79.6)	2.058	.151
8	Ignorance of the effects of improper solid waste management practice to health and the environment	108(75.5)	183(75.3)	291(75.2)	.002	.962
9	Lack of motivation among students for solid waste management exercises	110(77.5)	165(69.6)	275(71.1)	2.744	.098
10	Lack of information about solid waste management exercises for the students	109(76.8)	165(69.3)	274(70.8)	2.443	.118
11	Limited approved dumping sites in the school	96(68.1)	145(60.2)	241(62.3)	2.396	.122
12	Absence of waste bins and waste disposal containers at strategic places for the students, such as classroom, halls of residence	96(67.6)	141(58.8)	237(61.2)	2.971	.085
13	Poor attitudes of waste disposal workers in the school	83(60.1)	154(65.0)	237(61.2)	.876	.349
14	Levies paid by undergraduates to the school and in their various hostels for sanitation	63(44.4)	95(39.6)	158(40.8)	.841	.359
	Overall	**75.1**	**73.3**	**73.0**	**1.243**	**.412**

≥ 50% is a barrier; p-value (p) $\leq$ .05 implies significant difference exists; otherwise (p > .05), no significance difference; df = 1

Table 1 show that 13 items are barriers to undergraduate students' participation in solid waste management. The Table further show that there is no significant difference between male and female undergraduate students' responses on barriers to proper solid waste management practices (p > .05). This implies that the perceived barriers to proper solid waste management practices were the same for both the males and females.

Table 2: **Ways of enhancing students' participation in solid waste management practices (n=387)**

S/N	Ways of Improvement	F	%
1	Provisions of waste bins and containers at strategic places like libraries, faculty theatres, GS building	371	94.6
2	Enacting policies for effective implementation of solid waste management in the school	370	94.4
3	Organizing enlightenment campaign for students about the effects of improper solid waste management practices to health	362	92.3
4	The student union executives monitoring environmental sanitation in various hostels	360	91.8
5	Improving environmental agencies coordination in the school	357	91.1
6	School administration mapping out more dumping sites	333	84.9
	Overall %		**91.5**

Table 3 shows that the majority (91.5%) of the respondents indicated that all the items are ways of improving proper solid waste management.

Discussions of Findings

Findings showed that 13 of the items as listed in Table 1 are barriers to undergraduate students' participation in solid waste management, which include among others: low environmental consciousness of the students, lack of enforcement of environmental laws, and non-adherence to policies guiding solid waste management in the school. This could be attributed to the influence of being in a learning environment and are exposed to learning in variety of ways despite the impact of such learning. Being students, and in such learning environment will likely improve the self-efficacy of the undergraduates and thus improved practices of solid waste management. These findings were not in line with the findings of Alexander, Kwame and Stephen (2014) that of all the challenges facing solid waste management practices, only institutional arrangement and adequate solid waste management laws were found not to be major challenges on assessing the challenges affecting solid waste management system in the Kumasi Metropolis. However, Nachalida, Beverley, and Kirstin (2017) identified insufficient infrastructure, weak strategic planning and unorganised waste management and fee collection system as barriers to solid waste management. Pollans (2017) reported limited enforcement of existing policy as one of the barriers to sustainable waste management.

Findings showed that the percentage of males that perceived the items as barriers to undergraduate students' participation in solid waste management practices was higher than females. However, the difference was not significant. Table 1 showed that there is no significant difference between male and female undergraduate students' responses on barriers to proper solid waste management practices. These findings were in contrast with the findings of Ugwu, Ubele and Nwankwo (2014) that the female residents of Obollo-Afor had better practice of liquid and solid waste than their male counterparts.

Results showed that all the items on ways of enhancing students' participation solid waste management were indicated by the majority of the respondents. These findings support the view of Ramatta, Dennis and Philip (2014) that proper education of the public, the provision of more communal trash bins, and the collection of waste by private contractors could help prevent exposing the public to diseases as they investigate the domestic waste practices, waste disposal, and perceptions about waste and health in an urban community in Accra. The findings is also in line with the findings of Ugwu, Ubele and Nwankwo (2014) who asserted that seminars, workshops on solid waste disposal should be carried out and compulsory introduction of legislation on waste disposal practice and its enforcement by the environmental health officer should be advocated on solid waste disposal practice among residents of Obollo-Afor in Udenu Local Government Area of Enugu State.

Conclusions

Barriers to undergraduate students' participation in solid waste management practices include among others; low environmental awareness among the students; lack of enforcement of environmental laws; undergraduates' lack of awareness of their own responsibilities to their environment; non-adherence by undergraduates to policies guiding solid waste management in the school. There was no significant difference on the barriers to undergraduate students' participation in solid waste management practices based on gender and level of study.

Ways of enhancing students' participation in solid waste management practices include among others; provision of more waste bins at strategic places like libraries, lecture theatres, General Studies building; enacting policies for effective implementation of solid waste management in the school.

Recommendations

Based on the findings of this study, the following were made;

- The school management should set up policies that will guide the effective implementation of solid waste management for students.
- The school management should as well provide more waste bins and containers at strategic places like libraries, faculty theatres, GS

building etc. for proper disposal of solid waste by the undergraduates.

- ❖ There should be enlightenment campaign which should be organized by health educators for the students to sensitize them on the effects of improper solid waste management practices to health.
- ❖ The student union executives should help in monitoring environmental sanitations carried out in various hostels at least once per semester.

References

Academic Planning Unit (2017). University Of Nigeria, Nsukka.

Agboje, I.A., Adeoti, A. and Irhivben, B.O. (2014). Performance Assessment Of Solid Waste Management Following Private Partnership Operations In Lagos State, Nigeria. Available At Https://Www.Hindawi.Com/Journals/Jwm/2014/868072/

Aibor, M.S and Olorunda, J.O (2006). *A technical handbook of environmental health in the 21st century for professionals and students.* Lagos; Divine Favour Publishing Company.

Alexander, Kwame and Stephen (2014). *Challenges Affecting Solid Waste Management System In The Kumasi Metropolis.* Retrieved From Https://Www.Theartsjournal.Org/Index.Php/Site/Article/View/323/234

Amori, A.A., Fatile, O., Ihuoma, S., and Omoregbee, H.O. (2013). Waste Generation And Management Practices In Residential Areas Of Nigerian Tertiary Institutions. *Journal Of Educational And Social Research* Vol. 3 (4). Retrieved From Https://Www.Researchgate.Net/Publication/279192102_Waste_Generation_And_Management_Practices_In_Residential_Areas_Of_Nigerian_Tertiary_Institutions

Arbuckle, JG, Frick, G.W. Miller, M.L, Sullivan TEP, Vanderver, T.A (2007). *Environmental law handbook, 6th ed.* Washington (DC): Government institutes, inc.

Ayodeji, P.I (2010). *Exploring Secondary School Students' Understanding And Practices Of Waste Management In Ogun State, Nigeria.* Retrieved 10/02/2017 From Https://Www.Researchgate.Net/Publication/228748309_Exploring_Secondary_School_Students%27_Understanding_and_Practices_Of_Waste_Management_In_Ogun_State_Nigeria

Babayemi, J.O., Ogundirian, M.B., & Osinbanjo, O. (2017). Current Levels And Management Of Solid Waste In Nigeria. Available At Https://Doi.Org/10.1002/Tqem.21498

Boundless, (2016). Freudian Psychoanalytic Theory Of Personality. *Boundless Psychology*. Retrieved 04/12/2016 From Https://Www.Boundless.Com/Psychology/Textbooks/Boundless-Psychology-Textbook/Personality-16/Psychodynamic-Perspectives-On-Personality-77/Freudian-Psychoanalytic-Theory-Of-Personality-304-12839/

Frick, G.W., Sullivan, T.F.R. (2007). *Environmental glossary.* Rockville: Government institutes inc.

Harold, k (2011). *What is management? Definitions, meaning and features.* Retrieved 10/12/2016 from http://kalyan-city.blogspot.com.ng/2011/04/what-is-management-definitions-meaning.html

Kapoor, B. S. (2001). Environmental Sanitation; A *useful task for students of* engine*ering and a ready reference for designers and planners.* S Chard and Company Ltd, New Delhi.

Nachalida, Y., Beverley, C. and Kirstin, R. (2017). Barriers to effective municipal solid waste management in a rapidly urbanizing area in Thailand. Int. J Environ Res Public Health, 14(9). Available at https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5615550/

Oluwole, S. O. (2014). The influence of socioeconomic attributes of residents on domestic solid waste disposal in Lagos metropolis, Nigeria. *Journal of Waste Management.* Hindawi Publishing Corporation.

Pollans, L.B. (2017). Trapped in trash: 'Modes of governing' and barriers to transitioning to sustainable waste management. *Sage Journals*, 49(10), 2300-2323. Available at http://journals.sagepub.com/doi/abs/10.1177/0308518X17719461?journalCode=epna

Ramatta M. Y., Dennis C., and Philip B. A. (2014). *Domestic waste disposal practice and perceptions of private sector waste management in urban Accra.* Retrieved 19/02/2017 from http://www.biomedcentral.com/1471-2458/14/697/prepub

Ugwu, Ubele & Nwankwo (2014). *Waste disposal practice among residents of Obollo-Afor in Udenu Local Government Area of Enugu State.* Unpublished.

Wale, B. (2016). *Solid waste management in Nigeria*. Retrieved from https://www.bioenergyconsult.com/solid-waste-nigeria/

World Bank (2012). What a Waste: A Global Review of Solid Waste Management. *Urban development series; knowledge papers* no.15. World Bank, Washington, DC. © World Bank. Retrieved 13/03/2017 from https://www.openknowledge.worldbank.org/handle/10986/17388 License: CC BY 3.0 IGO

WHO (2018). Quantifying environmental health impacts. Available at http://www.who.int/quantifying_ehimpacts/publications/preventing-disease/en/

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Service Provision Challenges of Rehabilitation Centres in Jos Metropolis of Plateau State

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Abstract

The study identified service provision challenges of Rehabilitation Centres in Jos Metropolis of Plateau State. It identified the problems faced by the care-givers and the physically challenged persons and possible solutions to the problems. Survey design was adopted. Population for the study consisted of 150 physically challenged persons and care givers in the centres. Three research questions to guide the study. Questionnaire was used for data collection. Data were analyzed using means, standard deviation and percentages. Findings reveal 11 challenges being encountered by the care-givers during service provision and 10 encountered by challenged persons. The study also identified five possible solutions to some of the problems encountered. Based on the findings, it was recommended that, government and philanthropists should provide funding for the caring services of the rehabilitation centres so that care-givers can be helped in providing their services successfully.

Keywords: Services, Provision, Caregiver, Rehabilitation, Physically, Challenged.

Introduction

Lack of ability to perform an activity in a manner considered normal for the human beings, as a result of impairment is termed disability. Impairment concerns the physical aspect of health; disability is the loss of functional capacity resulting from impaired organ; handicap is a measure of the social and cultural consequences of impairment (WHO, 2010). In most part of Nigeria, people living with disability are roaming the streets begging for alms. This has posed a major problem and has contributed to the wrong behaviours manifested by people living with disabilities which results into the way the society view them as people who need to beg for alms to survive (Balarabe & Mahmond,2014). Within the contemporary Nigerian society, there is little appreciation that disability is fundamentally an issue inexorably linked to and rooted in human rights. The common perception, held by government, policy-makers and the public at large, is that disabled people and disability issues are viewed in terms of charity and welfare. Consequently, this viewpoint is a significantly entrenched factor that seriously militates against the disabled people within the country (Lang & Upah, 2008). There is no disability discrimination legislation that has been enacted within Nigeria, despite the fact that two bills have been introduced into the National Assembly. The bills introduced are; 15% of all elective and appointive positions at all level of government be reserved for qualified and suitable physically challenged persons and these persons also be guaranteed employment opportunities in both the government and private sectors in different parts of the country (Olawale 2007).

Disabled people sometimes have difficulty doing things and other people may take these for granted. Difficulties in travelling on public transport, climbing stairs or even using some house hold appliances poses a challenge to the disabled people. Historically, disable people have been pitied, ignored, vilified- even hidden away in institutions. Nevertheless, discriminations continued to exist in certain important areas (Gobalakrishman, 2013). There is no form of social protection for disabled people in Nigeria which exacerbates the level of poverty and problems encountered. There are some international NGOs that do supply services to disabled people, but their geographical coverage is very limited. Consequently, for the vast majority of disabled people living in Nigeria, particularly those living in rural areas, there is no access to disability services whatsoever. Again, this situation compounds the level of social exclusion that the disabled experience (Lang & Upah, 2008). Findings by Okoli (2010) also corroborated this and in the findings, it was revealed that disabled people in Nigeria are living in an environment that is hostile to their yearnings and aspirations. Also, it was reported by (Lieketseng, Lizahn & Gubela 2017) that physically challenged persons lack good health facilities in rehabilitation centers and this give rise to more disabilities and worsening the existing disabilities. Students who are physically challenged encounter barriers in their quest for education. In Ekundayo and Ajayi (2009), the physically challenged faced a lot of challenges, for the blind, lack of production and distribution facilities for reading material like Braille translation software writing equipment / screen reader, lack of trained personnel that will handle these special needs persons and most of the buildings, offices, markets, schools are built long ago before ever considering these persons. For the deaf, communication is difficult because many do not know how to use the sign language. For the mobility impaired, lack of access path narrow entrance doors, lack of equipped automobile door opener and in accessible buildings which have steps. These persons need special training to be able to make effective use of the available resources. Kalu (2004) emphasized that the physically challenged feels frustrated, helpless, angry, abandoned and unwanted in society, and ends up unfulfilled. The absence of facilities and support for the disabled persons kill zeal and determination to cope with the disability. The physically challenged persons lose self-confidence in the society, and some may fight back against the society in different ways. Ozoji (2010) reported that government recognizes the importance of physically challenged persons, and has published laudable policies for protection and possible services but most often the necessary funding that will be used to implement the policies becomes a problem due to paucity of funds. It has been observed that, lack of fund is one of the major challenges in the provision of services in the rehabilitation center for the physically challenge persons. Coordinating services and offering individual support to the persons of these centers demand a lot of money and inadequate funding hinders professional development in the areas of rehabilitation each of them need, (Adebisi, Jerry, Rasaki & Igwe, 2014).

Dada (2005), successful care giving must be a joint family decision whether the physically challenged is to be left at home or in rehabilitation centre. In the provision of services to the physically challenged persons, the care giver is a very important part of the care giving process for the disabled. The care giver must prepare for this role by being able to understand that the cause of the disability is irreversible and accept the responsibility to shape the personality of the physically challenged. However, only a few people are prepared for the responsibilities and tasks involved in caring for the physically challenged. In order to help make the task of caring easier, it is pertinent to have trained personnel and a guide for managing the rehabilitation centres with disabled people. This guide will help to serve as a road map which gives optimal paths for care givers, WHO (2010). It is also an emphatic reminder that those who care for the physically challenged can do better job of providing care services. For effectiveness in care giving services to the physically challenged persons, an individual must possess certain attitude, training and qualifications. In Kumar, Gautan & Sitanshu, (2012), Capacity building for caregivers or service providers through recruiting, training and subsequent retraining is necessary for effective service provision in rehabilitation centres. Murthy (2016) opined that, care giving can be demanding as they perform a variety of tasks such as cooking, cleaning, providing companionship and assisting persons with toileting, bathing, dressing, errands in addition to another task. The more challenging the persons need the more complex, demanding and stressful the care givers role might be. Stress and decreased time for personal needs are two major challenges that caregivers face. Following the trend of care giving services, it is obvious that physically challenged in this part of the world have not been adequately catered for, likewise little or no study has been really carried out on the caring service for the physically challenged persons in Jos metropolis. Therefore, there is a need to investigate into problem of caring services from the aspect of care giver and the disabled persons. Service provisions in rehabilitation centres for both the care givers and the physically challenged persons have been encountering some problems. Notable among them are; the absence of disability discrimination laws, inadequate qualified care givers, lack of funding and inadequate facilities. This gave rise to this research work with a focus on the rehabilitation centres in Jos metropolis of Plateau State.

Objectives of the study

The general objective was to investigate the service provision challenges of rehabilitation centres in Jos metropolis. Specifically, the study:

1. identified problem faced by the care givers in providing care services to the physically challenged persons in the Rehabilitation Centres in Jos Metropolis.
2. identified problem encountered by the physically challenged in receiving care services in the Rehabilitation Centres in Jos Metropolis
3. determined possible solution to the problems encountered by both the care givers and the physically challenged persons during the provision and the receiving of services in the Rehabilitation Centres in Jos Metropolis.

Research Question

The following research questions were raised to guide the study;

1. What are the identified problems faced by the care givers in providing care services to the physically challenged persons with the rehabilitation centres in Jos Metropolis?
2. What are the identified problems encountered by the physically challenged in receiving services in the rehabilitation centres in Jos Metropolis?
3. What are the possible solutions to the challenges encountered during the provision and receiving of

services in the rehabilitation centres in Jos Metropolis?

Methodology

Research Design: - The research work adopted descriptive survey research design. The design is suitable as it aimed at collecting data and describing in a systematic manner.

Area of Study: - The study area was Jos metropolis of Plateau State. It has 4 Rehabilitation Centers for the physically challenged, and each of this centres are located in different wards across the Metropolis. The four centre names are Plateau school for the deaf, Zawan school for the blind, Archbishop Ganaka Memorial School for the Handicapped and Professor J. I Iheanacho Centre.

Population for the Study: -The total population for this study was One hundred and fifty (150). It comprises of physically challenged persons and workers of four Centre, which has a population of one hundred and ten physically challenged persons of the three categories in the study and forty care givers, (Centre Record, 2015). The entire population was used for the study since it was a manageable size.

Instrument for Data Collection: Two types of structured questionnaires were used for collecting data. One of the questionnaires was for the staff and the other for the physically challenged. The questionnaire for the physically challenged (QPC) was administered to the physically challenged. The questionnaire for caregiver providing care (QCPC) was administered to caregiver only. A 5-point scale questionnaire was used. Other types of items used include open and closed ended test item. It was validated by three experts in the Department of Home Science and Management. The reliability of the instrument which was estimated using Cronbach Alpha formula and found to be 0.78 was used.

Method of Data Collection: - A total of 150 copies of the questionnaire was administered on the spot and collected immediately. 110 copies of the instruments were administered to the physically challenged persons (PQC) and 40 copies to the care giver providing care (QCPC). Three assistants helped in the administration and retrieval of the questionnaire forms. All the copies of the questionnaire were properly completed and returned, giving a 100% return rates.

Method of Data Analysis: - The data collected through the use of the two sets of questionnaires were analyzed using percentage and mean to answer the research questions. The response to the question items were rated in the following other 5, 4, 3, 2, 1 for SA, A, D, SD, UD respectively. The responses were problem or not problem based on 2.50 decision point

Results

Table 1: Mean Responses on Problems Encountered by the Caregivers

S/n	Problems faced by the care givers	Mean (%)	Decision point
1	Lack of funding from the government	3.31 (66.2)	Problem
2	Lack of appropriate and modernized equipment and materials	4.26 (85.2)	Problem
3	Lack of essentials amenities and facilities building, electricity, conducive environment, and water	4.18 (83.6)	Problem
4	Inadequate specialized training and retraining of caregivers.	3.69 (73.8)	Problem
5	Poor incentives (salaries, wages, bonuses, essential materials etc)	3.39 (67.8)	Problem
6	Lack of insurance for both caregivers and disabled	4.36 (87.2)	Problem
7	Lack of parents/guidance support	4.08 (81.6)	Problem
8	Negative attitude of Nigerians	2.15 (43.0)	Not problem
9	Shortage of personnel:	2.69 (53.8)	Problem
10	No mechanisms to review and access methodologies used in education of special need persons.	3.74 (74.8)	Problem
11	Providing care poses health hazard to caregivers	3.59 (71.8)	Problem
12	Balancing the demand of family makes it difficult to provide optimum services	3.92 (78.4)	Problem
	Overall mean	**3.61 (72.3)**	

Table 1 presents the response to problems encountered by the caregivers at the various centers visited in Jos metropolis. Eleven of the items are problems based on 2.50 decision point set in the study with mean range of 2.69-4.26. This revealed that the caregivers are really encountering problems. Such problems were; funding (3.31), lack of equipment (4.26), poor incentive (3.39), health hazard (3.59) among many others. However, only one of the problem items was not problem which is negative attitude of Nigerians with the lowest mean of 2.15. This implies that the care-givers are having service challenges in providing services to the physically challenged persons.

Table2: Mean Responses on the Problems Encountered by the Physically Challenged Persons

S/no	Problems encountered by the physically challenged	$\bar{X}_b$	$\bar{X}_d$	$\bar{X}_i$
1	Lack of adequate funding from all levels of government for the provision of materials for special training	3.68	4.21	3.97
2	Lack of good and conducive learning environment for persons	3.94	3.92	4.35
3	Lack of facilities and special qualified caregivers for the special and specific caring services	3.20	3.21	2.17
4	Lack of essential amenities e.g rest room within the classroom environment	3.97	4.14	3.82
5	Lack of implementation of government laudable policies.	3.54	3.82	4.02
6	Lack of respect for the dignity of persons by the respective care givers	3.91	4.03	3.86
7	Lack of support and encouragement by the society	3.82	3.96	4.33
8	Problem of discrimination and consideration to exercise their skills and knowledge in the society	2.80	2.42	2.95
9	Loneliness and excommunication among peer and society at large.	3.62	3.89	4.04
10	Lack of good health of a family or/and care giver is a key factor which can affect the health and well being of the persons.	4.02	4.28	4.20
	Overall mean	**3.37**	**3.79**	**3.77**

$\bar{X}_b$= mean for the blind, $\bar{X}_d$ = mean for the deaf $\bar{X}_i$= mean for the immobile

Table 2 presents the response to problems encountered by the physically challenged persons based on their categories in Jos metropolis. All the 10 items are problems with means range of 2.80-4.02 by the blind persons based on the 2.50 decision point set. This includes; funding (3.68), lack of facilities (3.20) lack of implementation of government laudable policies (3.54) among others. The Table also presents the response to 10 problem by the deaf persons. These have means range of 3.2-4.28.

Furthermore, the Table shows 10 problems encountered by the mobility impaired persons. The problems have means range of 2.96-4.35.

Table 3: Percentage Responses on Possible Solutions to Problems Encountered by the Care-givers and Physically Challenged Persons

S/n	Possible solutions to some problems encountered	Frequency (%)
1.	Adequate funding of the rehabilitation centre for the physically challenged persons by government and philanthropy	120 (80%)
2.	Full implementation of government laws and policies as it affects the physically challenged persons	110 (73.3%
3.	The center owners should provide necessary materials and equipment for the care giving services.	90 (60%)
4.	The family and the community should give special considerations and attention to the physically challenged persons	140 (93.3%)
5.	Support and encouragement from the society to the physically challenged persons	135 (90%)

Table 3 shows five problems with percentage range of 60-90. Though, there are numerous problems but the listed above were the most pointed out by the respondents. The respondents identified that the listed solution if met will address some of the perennial problems of the caring service to the physically challenged persons in Jos metropolis.

Discussion of Findings

From the data collected and analyzed, the study revealed some of the numerous problems encountered by the care givers and the various types of physically challenged persons examined in the study. The result revealed that the caregivers' experiences some notable problems in the caring services provided for the physically challenged persons in rehabilitation centres. Also, there is no enough specialized caregiver which an important part of the care is giving process for the disabled. In line with World Health Organizations (2010), in order to help make the task of caring easier, it is pertinent to have trained personnel and a guide for managing institutions with disabled people. Murthy (2016), in his report opined that care givers' emotional health is important not only for the care giver, but also for the care receiver. The aim should be to minimize the stress of care giving and maximize the positive feeling of care giving. According to Bolanle and Ajokpaniovo (2012), rehabilitation is all encompassing – physical, emotional, social, medical, vocational and of course economic. The care givers then must be well and adequately trained and skilled as good counsellors so as to provide quality services in the rehabilitation centre through their wealth of experience and training and retraining, advising and consultation and even environmental manipulations such that would be of help to the physically challenged person in the centre to achieve optimal functioning. The study established the problem funding and lack of necessary tools and machinery to work effectively: this agrees with Ekundayo and Ajayi (2009), that equipment for teaching are lacking or inadequate or in bad shape to permit the centre freedom in performing the needed task. This is one of the major challenge facing service provision in the rehabilitation centres, in all aspect of service provision in centres for the physically challenged, inadequate and inaccessible funds could be regarded as the prime reason for delay and slow pace development. Coordinating services and offering individual support to the physically challenged persons demand a lot of money and inadequate funding hinders development in the areas of rehabilitation services each of them need. In most cases also, the available funds for these projects are not accessible to the care givers and managers thereby making the service provision in the rehabilitation centres to suffer unnecessarily in areas of infrastructures, equipments and learning materials. (Adebisi *et al* 2014). This also agrees with (Lieketseng *et al* 2017),that in the real sense rehabilitation centres for physically challenged persons lack good health facilities and free health care is not always free for persons with disabilities nor is it accessible to them.

Finally, the evidence from the study enumerated some of the problems which were found to have notable difference for all the categories' of physically challenged persons in the study. The finding agrees with Gobalakrishman (2013) that there is problem of discrimination between the disabled and the people. Also with Balarabe and Mahmond (2014), who opined that lack of dignity of persons in the society has lead them to beg for alms to survive. Okoli (2010) reports that disabled persons are living in an environment that is hostile leads to frustration and abandonment.

Furthermore, the study raised some of the solutions to the pertinent problems for both the caregivers and the physically challenged persons in the study. Among such are adequate funding, full implementation of government laws and policies, provision of necessary materials.

Conclusion

Care giving services to physically challenged persons is encountering problems both on the side of the care givers and the physically challenged persons. It was found that funding among many other problems is really hindering the caring practices and services for the physically challenged persons in Jos metropolis. The study also established that the problems are significantly affecting the services and this has made the services to be difficult for both the care givers and the care receivers in the study. It was further established that adequate funding, implementation of government laws and policies, provision of necessary material at the centers will ameliorate some of the significant problems being encountered.

Capacity building of service providers can be improved through effective education, training and recruitment. A review of knowledge and competencies of care givers in relevant areas can provide a starting point for developing appropriate measures to improve them. Manpower generation by promoting new courses and initiating degree and diplomas in relevant courses will solve the problem of inadequate trained care givers (Kumar, Gautan and Sitanshu, 2012).

Recommendations

Based on the finding of the study, the following recommendations were made:

1. NGOs and other relevant bodies should do adequate enlightenment and sensitization campaign for the general public to have a positive attitude and approach towards the physically challenged persons in order to reduce stigmatization and discrimination.
2. Government and philanthropist should adequately provide fund for the caring services so that care givers can be eased in providing their services successfully.
3. Training of specialist in caring services to the physically challenged persons should be encouraged and the care givers should be adequately remunerated in order to be effective in the services being provided.
4. Providing facilities for the study of all the required skill and training for the persons' Braille, language interpreter, mobility specialist.
5. The caregiver need to initiate and propel the changes they want to see happen in the rehabilitation centre especially in terms of policy implementation by playing the role of influencing policy direction.

References

Abang, T. B. (2000). *Hand Book of special Education.* Teaching the Visually Handicapped. Ibadan University Press Limited.

Adebisi, R. O., Jerry, J. E. & Igwe, E.N. (2014). Barriers to Special Needs Education in Nigeria. *International Journal of Education and Research*, 2(11),451 – 462.

Balarabe,H. A & Mahmond, O.A (2014). Approaches to Tackling the Menace of Street Begging by usually Disabled Persons in Northern Nigeria. *Sub-Saharan African Journal of Medicine*. 1(1), 161-167.

Bolanle, S.O. & Ajokpaniovo, M. (2012). Counseling Strategy for Effective Rehabilitation of the physically and Health Disabled. *Journal of Councelor Education*. 16(1). 79-98.

Dada, O.O. (2005). Wheelchair Accessibility of Public Building in Ibadan, Nigeria. *Asia Pacific Disability Journal*, 16(2), 115-124.

Ekundanyo, H.T. and Ajayi, I.A. (2009). Towards Effective Management of University Education in Nigria. *International NGO Journal* 4(8), 342-347.

Gobalakrishnan, C. (2013). Problems Faced by Physically Challenged Persons and their awareness towards Welfare

Measures. *International Journal of Innovative Research and Development.* 2(4), 487- 493.

Kalu, I. (2004). *Disability and Human Right Issues and Prospect for Development*. Nigeria kraft Book Limited. Ibadan Published by British Council.

Kumar, S. G., Gautam, R. & Sitanshu, S. K. (2012). Disability and Rehabilitation Services in India: Issues and Challenges. *Journal of Family Medicine and Primary Care*. 1(1). 69-73.

Lang, R. & Upah, L. (2008). Scoping Study: Disability issues in Nigeria. Retrieved May 3, 2009, http://www.ucl.ac.uk/lcccr/downloads/dfid_nigeriareport

Lieketseng, N., Lizahn, C. & Gubela, M. (2017).The Experiences and Challenges faced by
Rehabilitation Community Service therapist within the South African Primary Health Care health system. *African Journal of Disability*. 6(311).

Murthy, R.S. (2016). Care giving and Caregivers; Challenges, Psychaitry and Opportunities in India. *Journal of Social Psychiatry*. 32(1),10-18

Okoli C. B. (2010). *The Plight of Disabled Nigerians and the Need for Mass Enlightenment. Mobility Aid and Appliances* Research and Development Centre (MAARDEC). http://www.maardec.net/

Olawale, S. G. (2007). Aetilological perception of alms-Begging behaviours among people with Special Needs in Oyo State: Counseling towards Solution. *The Counselor*, 23(1), 44- 53.

Ozoji, E. D. (2010). *Special Education for Beginner Professionals* (Revised Edition). Jos: Deka Publications Ltd.

World Health Organisation, (2010). http://www.searowho.int (accessed Aug. 10, 2011).

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Objectives of Fashion Illustration Curriculum for Integration into Clothing and Textiles Programmes of Home Economics Education in Nigerian Universities

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Abstract

The major purpose of the study was to identify Objectives of Fashion Illustration Curriculum for Clothing and Textiles programmes of Home Economics Education in Nigerian universities. The study was a survey. The study was carried out in three geo political zones in Nigeria namely, South East, South West, and North Central. The population and sample for the study were made up of 1,494 respondents comprising Home Economics lecturers, Fine Arts lecturers, final year students of Home Economics and registered professional garment manufacturers in areas under study were purposely selected. Mean scores and Analysis of Variance (ANOVA) were used to analyze the data. Findings from the study included; 27 objectives (3.45 ± 0.64) that could be integrated into the Clothing and Textiles programme in Nigerian universities. Based on the findings of the study, it was recommended among others that Curriculum planners (National Universities Commission) and administrators should utilize the objectives of fashion illustration identified in this study in their review of the current Home Economics programmes in universities in Nigeria such that their challenging curriculum will prepare students for realistic employment.

Key words: Fashion, Illustration, Curriculum, Objectives, Nigerian, Universities.

Introduction

Unemployment and underemployment pose serious challenges to graduates in Nigeria. Presently, Nigerian education is faced with the challenge of producing graduates who are properly trained for self reliance. The responsibility of producing professional designers and manufacturers of clothing and clothing products rests upon the institutions that offer Clothing and Textiles. Besides this, the success of Clothing and Textiles business of Home Economics entrepreneurs depends on the training programme in institutions. Igbo (2006) highlighted the need for developing entrepreneurship through entrepreneurship education. Unfortunately, Mastamet-Mason (2012) reported that Textiles and Clothing programmes in higher education in developing countries has not sufficiently prepared its students for the challenges in the workforce. Ene-Obong (2006) identified the need to design unique and challenging Home Economics curricular that will produce graduates geared towards self-employment.

Curriculum development can be defined as the 'systematic planning of what is taught and learned in schools as reflected in courses of study and school programmes' (Conde, 2012; Huang & Yang, 2004). The first stage in curriculum development as highlighted by Tyler (1975) is the selection of aims, goals and objectives.

Objectives are the foundation upon which lessons can be built and assessments that can be proved to meet the overall course or lesson goals. Objectives are tools for reaching goals. The purpose of objectives is to ensure that learning is focused clearly such that both students and teachers are aware of what is going on. Therefore, learning can be objectively measured since objectives are expected result before the completion of work. Objectives may be general objectives or specific objectives. Specific objectives are based on general objectives. There are three types of objectives namely, cognitive, affective and psychomotor (Anderson & Krathwohl 2001; Gall, Gall & Borg, 2007). This research is aimed at developing the objectives of Fashion Illustration Curriculum for Clothing and Textiles programmes of Home Economics Education in Nigerian universities.

Clothing and Textiles is a branch of Home Economics that equip students with knowledge and skills that are needed for self employment and wealth creation. Some components or areas of Clothing and Textiles include textile research and development, textile production, textile designing, textile marketing and sales, clothing designing, clothing manufacturing, fashion merchandising, fashion advertising, and fashion illustration (Wolfe, 1989; Weber, 1990).

Fashion illustration is the communication of fashion that is anchored on illustration, drawing and painting. Fashion illustration is a form of stylized drawing. It is usually commissioned for reproduction in fashion magazine as one part of an editorial feature or for the purpose of advertising and promoting fashion makers, fashion boutiques and department stores (Mckelvey & Munslow, 1997; Griffiths & White, 2000; Borrelli, 2000b; Borrelli, 2004).

Fashion illustration needs to be taught along with other components of Clothing and Textiles. This in turns requires appropriate curriculum. Fashion illustration courses are the basis of clothing designing, pattern drafting, alteration, grading and clothing construction. It's absence in the Clothing and Textiles NUC curriculum of Home Economics programmes in Nigerian universities is a major deficiency (National Universities Commission (NUC), 2007). Thus, students and graduates of Home Economics are not adequately equipped with knowledge and skills needed for drawing human figure as well as garment styles. Also, students lack knowledge and skill in communication of fashion which is anchored on illustration, drawing and painting. This problem necessitated this study. Knowledge and skill in fashion illustration would enable students develop artistic skill necessary for a fashion illustration career. According to Ellington, Hahn & Mcleod (2017), the fashion industry is ever evolving, thus educational institutions are faced with the challenge of staying current in their curriculum while instilling traditional core knowledge.

This study on the identification of objectives of Fashion Illustration Curriculum for Clothing and Textiles programmes of Home Economics Education in Nigerian universities is therefore necessary. It will form basis for training students and graduates of textiles and clothing in creativity, technical, and entrepreneurship skills necessary for self-employment and wealth creation. Integrating objectives of Fashion Illustration Curriculum into Clothing and Textiles programmes of Home Economics Education is a measure towards improving the clothing and accessories produced in the fashion industry necessary for economic development in Nigeria.

Purpose of the Study

The main purpose of the study was to identify objectives of Fashion Illustration Curriculum for integration into Clothing and Textiles programme of Home Economics Education in Nigerian universities. Specifically, the study determined objectives of Fashion Illustration.

Hypothesis

The following null hypothesis guided the study and were tested at 0.05 level of significance:

Ho: There are no significant differences in the mean responses of Home Economics lecturers, Fine and Applied Arts lecturers, and Clothing production experts in industries on the Fashion Illustration objectives that could be integrated into the curriculum of Clothing and Textiles programmes of Nigerian universities.

Methodology

Design of the Study: The research design that was utilized for this study was survey (Gall, M.D., Gall., & Borg, 2007).

Area of the Study: The research was carried out in three geo-political zones in Nigeria namely, South East, South West and North Central for the distribution of the Objectives of Fashion Illustration Curriculum Needs Assessment Questionnaire (QFICNAQ). The universities in the study area where Home Economics is taught were purposely selected for the study. They are Michael Okpara University of Agriculture, Umudike, (MOUAU) in Abia State, University of Nigeria, Nsukka (UNN) in Enugu State; Ebonyi State University, Abakaliki, (EBSU) in Ebonyi State and Abia State University, Umuahia Campus (ABSU) in Abia State. In South West, the study was carried out in University of Lagos, Lagos State. In North Central, the study was conducted in University of Agriculture, Makurdi, in Benue state and Kogi State University, Kogi. The study was conducted among the clothing manufacturers in the major commercial town in each of the states that was used for the study.

Population for the Study: The population for the study was made up of 1,494 respondents. The entire Home Economics lecturers numbering 63 and final year students of Home Economics in the seven Nigerian universities numbering 251 were purposely selected for the study since the population is small. Besides, all the Fine and Applied Arts lecturers at University of Nigeria, Nsukka who specialized in textiles, fashion and graphics numbering 11 were used for the study. Therefore, there was no sampling for Home Economics lecturers, Fine and Applied Arts lecturers, and final year students of Home Economics.

***Sample and Sampling Technique*:** The sample size for the study was 1,494. There was no sampling for Home Economics lecturers, Fine and Applied Arts lecturers, and final year students of Home Economics. However, purposive sampling technique was used to select registered professional garment manufacturers from the major commercial town in each of the states that was used for the study. Their number was 1,169.

***Instrument for Data Collection*:** Data for the research was collected using Fashion Illustration Curriculum Needs Assessment Questionnaire (FICNAQ).

Fashion Illustration Curriculum Needs Assessment Questionnaire (FICNAQ) was designed by the researcher to solicit information on the objectives of fashion illustration that could be integrated into the Clothing and Textiles programmes of Home Economics Education in Nigerian universities. It was made up of a four-point rating scale of strongly agree, agree, disagree and strongly disagree.

The instrument was composed of two parts namely, one and two. Part one obtained demographic information of the respondents which include gender, location, name of university, status and academic qualifications. Part 2 sought information on objectives of fashion illustration. Cronbach's reliability index was used to determine the internal consistency of the instruments on the data obtained. Data obtained from the pilot test were used for the computation of reliability coefficient which gave an overall coefficient = 0.984 for all the sections.

Method of Data Collection**:** Distribution of the Objectives of Fashion Illustration Curriculum Needs Assessment Questionnaire (QFICNAQ). Fourteen research assistants who are graduates of Home Economics acted as research assistants in explaining the content of the questionnaire as well as in the administration and retrieval of the instrument from the respondents. The instrument was administered on lecturers, students and registered professional garment designers by hand with the help of fourteen research assistants. The items in the questionnaire were explained to the respondents to facilitate understanding and retrieval.

This study involved distribution of questionnaire by the researcher and research assistants to find fashion illustration objectives.

Method of Data Analysis**:** Data for the research question were answered using Means Scores. Analysis of Variance (ANOVA) was used to test the hypothesis at 0.05 level of significance.

Hypothesis (H0): There are no significant differences in the mean responses of Clothing and Textiles lecturers, Fine and Applied Arts lecturers, and Clothing Production Experts in industries on the fashion illustration objectives that could be integrated into the curriculum of Clothing and Textiles programmes of Nigerian universities. Analysis of Variance (ANOVA) result on this hypothesis is presented in Tables 1 and 2.

Table 1: Analysis of Variance of Responses of HEL, FAAL and CPE on the Objectives (on the concept) of Fashion Illustration Curriculum

	Objectives of fashion illustration	$\overline{X}_1$	SD$_1$	$\overline{X}_2$	SD$_2$	$\overline{X}_3$	SD$_3$	XG	SD	F-value	Sig. of F	REMARKS
	At the end of fashion illustration education students should be able to :											
1	Define the concept of fashion illustration	3.53	0.66	3.75	0.46	3.57	0.57	3.57	0.58	0.29	0.74	NS
2	Explain fashion terminologies	3.51	0.62	3.62	0.51	3.47	0.63	3.47	0.63	0.29	0.74	NS
3	State the role of	3.43	0.68	3.62	0.51	3.45	0.63	3.45	0.63	0.31	0.73	NS

	illustration in the fashion industry/ work of a fashion illustrator										
4	Describe design fundamentals- / elements of design	3.50	0.65	3.62	0.51	3.44	0.64	3.45	0.64	0.42	0.65	NS
5	Explain principles of design and their use on clothing	3.43	3.54	3.37	0.51	3.34	0.56	3.35	0.56	0.53	0.58	NS
6	Describe common figure types	3.31	0.76	3.37	0.74	3.36	0.63	3.36	0.63	0.18	0.83	NS
7	Identify the basic shapes (silhouettes) that are used in clothing	3.54	0.50	3.50	0.53	3.61	0.53	3.60	0.53	0.54	0.58	NS
8	Identify and use various drawing media for fashion illustration	3.30	0.69	3.50	0.75	3.45	0.62	3.44	0.62	1.31	0.27	S
9	Identify and use various colouring media for fashion illustration	3.28	0.71	3.12	1.12	3.48	0.60	3.46	0.61	3.56	0.02	S
10	Describe fashion illustration techniques	3.54	0.58	3.37	0.74	3.49	0.57	3.49	0.57	0.35	0.70	NS

Home Economics Lecturers (HEL) = 46; Fine and Applied Arts Lecturers (FAAL); 08, Clothing Production Experts (CPE) = 805, Total Respondents = 859; * Significant @ p < .05 (Researcher, 2014).

Analysis of Variance (ANOVA) reveals that there are no significant differences on the concept of fashion illustration in eight objectives of the study. However, items 8 and 9 recorded F calculated values that are greater than significance of F (F tabulated) at 0.05 level of significance. Therefore, there are significant differences among the respondents with respect to their opinions on those objectives of fashion illustration. The implication is that the respondents have different opinions in these objectives. In this regard, the null hypothesis was rejected for items 8 and 9 as shown in Table 1.

Table 2: Analysis of Variance of Responses of HEL, FAAL and CPE on the Objectives (on drawing techniques, design presentation and evaluation) of fashion illustration curriculum.

	Objectives of fashion illustration	$\overline{X}_1$	SD_1	$\overline{X}_2$	SD_2	$\overline{X}_3$	SD_3	XG	SD	F-value	Sig. of F	RMKS
1	Sketch a female and a male croquis using the specific proportions of the fashion, figure and the grid	3.45	0.68	3.37	0.74	3.38	0.58	3.39	0.58	0.29	0.74	NS
2	Draw children in different locations	3.39	0.68	3.50	0.53	3.45	0.57	3.45	0.57	0.32	0.72	NS
3	Draw women's proportions and body shape, the female face, female poses, female clothing, female fashion figure proportions.	3.45	0.62	3.50	0.53	3.42	1.21	3.42	1.18	0.02	0.97	NS
4	Draw men's proportions and body shape, the male face, male poses, male clothing, male fashion figure	3.41	0.58	3.50	0.53	3.46	0.65	3.46	0.64	0.17	0.84	NS

	proportion.											
5	Analyze common drawing problems	3.45	0.54	3.37	0.51	3.51	0.57	3.50	0.57	0.41	0.66	NS
6	Develop free hand design projects for presentation	3.39	0.68	3.62	0.51	3.44	0.66	3.44	0.66	0.44	0.64	NS
7	Draw clothing onto fashion figure templates	3.36	0.67	3.50	0.53	3.33	0.80	3.33	0.80	0.21	0.80	NS
8	Draw clothing onto figure templates	3.41	0.74	3.50	0.53	3.49	0.61	3.48	0.61	0.37	0.68	NS
9	Draw dresses, skirts, tops, pants and jackets	3.50	0.54	3.75	0.46	3.38	0.68	3.39	0.67	0.37	0.68	NS
10	Draw hats	3.50	0.54	3.50	0.53	3.47	0.55	3.47	0.55	0.04	0.95	NS
11	Draw handbags	3.45	0.58	3.50	0.53	3.47	0.57	3.47	0.57	0.02	0.97	NS
12	Draw shoes	3.41	0.58	3.50	0.53	3.39	0.56	3.39	0.56	0.16	0.85	NS
13	Draw boots	3.41	0.61	3.37	1.06	3.38	0.57	3.39	0.57	0.03	0.96	NS
14	Draw jewelries (necklaces, bangles, earrings)	3.39	0.57	3.62	0.51	3.44	0.58	3.44	0.58	0.56	0.57	NS
15	Identify design portfolios, contents and layout	3.50	0.58	3.62	0.51	3.40	0.57	3.41	0.57	0.30	1.17	NS
16	Plan and execute a design presentation	3.45	0.62	3.50	0.53	3.49	0.57	3.49	0.58	0.08	0.91	NS
17	Evaluate design presentations	3.41	0.58	3.50	0.53	3.49	0.68	3.49	0.67	0.33	0.71	NS

Home Economics Lecturers (HEL) = 46; Fine and Applied Arts Lecturers (FAAL); 08, Clothing Production Experts (CPE) = 805, Total Respondents = 859; * Significant @ $p < .05$ (Researcher, 2014).

Analysis of Variance (ANOVA) reveals that there are no significant differences in the mean ratings of responses of Clothing and Textiles lecturers (CTL), Fine and Applied Arts lecturers (FAAL) and Clothing Production Experts (CPE) in seventeen objectives (on drawing techniques) of fashion illustration within the Home Economics curriculum. This implies that the null hypothesis was upheld in these seventeen items as revealed in Table 2.

Discussion of findings

The study revealed the mean ratings of respondents on what should constitute the specific objectives of Fashion Illustration Curriculum within and Clothing and Textiles program. The findings of the study as presented in Tables 1and 2 indicated that all the 27 outlined objectives of fashion illustration were accepted by the respondents. This implies that these objectives were considered adequate and relevant for fashion illustration curriculum. The study determined several objectives of fashion illustration. Therefore, at the end of the training Home Economics students can define the concept of fashion illustration and describe design fundamentals. The students can also identify and use various drawing and colouring media for fashion illustration. Home Economics students can sketch a female and a male croquis using the specific proportions of the fashion, figure and the grid. Also, they can draw children's, women's and men's proportions, body shape, the face, fashion figure proportions, clothing and accessories. In addition to these, Home Economics students can develop free hand design projects for presentation. The findings of this study are in agreement with the report of several authors (Turunpenny, 1981; Bradley, 2003; Burke, 2011; Borrelli, 2000b; Borrelli, 2004).

Occupational Home Economics curriculum is planned and developed on the basis of knowledge, skills and attitudes necessary for successful employment in particular jobs as highlighted by Mastamet-Mason (2012). These objectives are in line with what Arubayi (2003) recorded that the goal of teaching Clothing and Textiles is to help learners acquire knowledge, skills and techniques for meeting personal and societal clothing needs. The success of Clothing and Textiles business of Home Economics entrepreneurs depends on the training program in institutions. Home Economics students are supposed to learn practical skills which would enable them get jobs in industries or other formal sectors of the economy. Hence, self-reliance and income generation activities are stressed in the study of Clothing and Textiles (Hosegood, 2006 ; Udale & Sorger, 2006; Ellington ; Hahn ; & Mcleod, 2017; Weber, 1990).

There are no significant differences in the mean ratings of response of Home Economics lecturers (HEL), Fine and Applied Arts lecturers (FAAL) and Clothing Production

Experts (CPE) in twenty five outlined objectives of fashion illustration within the Clothing and Textiles curriculum of Home Economics Education in Nigerian universities. This implies that the null hypothesis was accepted in these twenty five objectives. However, there were significant differences among the respondents with respect to their opinions on identifying the basic shapes (silhouettes) as well as on identifying and using various drawing media for fashion illustration. The implication is that the respondents have different opinions in these objectives. In this regard, the null hypothesis was rejected for these objectives. This suggests that the objectives of fashion illustration determined in the study by Home Economics lecturers, Fine and Applied Arts lecturers, Clothing production experts and final year students are appropriate. It has been reported that the success of Clothing and Textiles business of Home Economics entrepreneurs depends on the training programme in institutions (Ene-Obong, 2006; Griffiths & White, 2000). Igbo (2006) highlighted the need for developing entrepreneurship through entrepreneurship education.

Conclusion

The study has identified objectives of Fashion Illustration Curriculum that could be integrated into the Clothing and Textiles curriculum of Home Economics Education in Nigerian universities. Findings from the study included; 27 learning objectives (3.45 ± 0.64) that could be integrated into the Clothing and Textiles programme in Nigerian universities. The learning objectives of fashion illustration determined in this study were considered adequate and relevant. Therefore, they should be integrated into Clothing and Textiles curriculum of Home Economics Education in Nigerian universities.

Recommendations

Based on the findings of the research the following recommendations were made:

(1) Curriculum planners (National Universities Commission) and administrators should utilize the objectives developed in this study in their review of the current Home Economics programs in Nigerian universities such that their challenging curriculum will prepare students for realistic employment. Therefore, the research study if adopted by benchmark will address curriculum issues.

(2) The findings of this study should form data base for further investigations on curriculum development for Clothing and Textiles programmes in Nigerian universities.

References

Anderson, L.W., & Krathwohl (Eds) (2001). *A Taxonomy for Learning, Teaching and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives.* New York: Longman.

Arubayi, D.O (2003) Problems confronting the teaching of Clothing and Textiles in tertiary institutions. *Journal of Educational Research and Development*, 2(1): 53-62.

Borrelli, L. (2000b). *Fashion Illustration* Now. London: Thames and Hudson Ltd.

Borrelli. L (2004) *Stylishly drawn: Contemporary fashion illustration.* New York: Harry N. Abrams.

Bradley, B (2003). *Drawing the clothed figure. Achieve movement and personality in drawing the clothed figure drawing.* United Kingdom: David &Charles.

Burke, S. (2011). *Fashion Artist. Drawing techniques to portfolio presentation.* 2nd Edition China. Burke Publishing.

Conde, E.A. F (2012). Curriculum development by Elmer A.F. Retrieved on 5th July,____2012 from www.scribd.comldocl 184393S81Curriculum development.

Ellington, T. N; Hahn, K; & Mcleod, H (2017) A case study: Fashion design and merchandising college core curriculum assessment to improve future learning. *International Journal of Home Economics.* 10 (1) 2017.

Ene-Obong, H. N. (2006) Challenges of entrepreneurship in home economics and enhancement strategies In: E.U. Anyakoha (2006) *Entrepreneurship education and wealth creation strategies. Practical tips for economic empowerment and survival.* A publication of Home Economic Research Association of Nigeria (HERAN).

Gall, M.D., Gall, J.P., & Borg, W.R., (2007) *Educational Research. An Introduction* 8th Edition United States of America. Allyn and Bacon.

Griffiths. I. & White. N. (2000). *The fashion business: Theory practice.* Image Oxford: Berg. Limited.

Hosegood, B. (2006). *The complete book of sewing.* London. Dorling Kindersley.

Huang, G. H., & Yang, L. L (2004). *Curriculum development and design: Concept and practice.* Taipei: Hsi Ta Shu Yuan.

Igbo, C.A (2006) Developing Entrepreneurship through Entrepreneurship Education In: International Federation for Home Economics (IFHE): Position Statement In: International *Journal of Home Economics,* 1(1) Retrieved on 5th June, 2012 from http://www.ifhe.org.

Mastamet-Mason A (2012) Bridging The Gap Between Academia And Industry To Build Competiveness Within The Textile And Apparel Sectors Of Africa. Microsoft Kenya Polytechnic University College, Nairobi Kenya. Origin Africa- 25th April,2012. Retrieved on 6th July, 2012 from Microsoft Office Power Point Slide 97-2003.

Mckelvey K & Munslow J (1997). *Illustrating Fashion* London: Blackwell Science Limited

National Universities Commission (2007). Benchmark Minimum Academic Standards for Undergraduate Programmes in Nigerian universities, April 2007. New York: Allyn & Bacon.

Turnpenny, J. M. (1981). *Fashion design and illustration.* London: Hutchinson and Company (Publishers) Ltd.

Tyler, R.W (1975). *Basic principles of curriculum and instruction.* London: The University of Chicago Press.

Udale. L & Sorger. R (2006). *The fundamentals of fashion design.* Switzerland: AVA Publishing.

Weber, J (1990) *Clothing: Fashion. Fabrics. Construction* United States of America: Glencoe McGraw - Hill.

Wolfe, M.G (1989) *Fashion! A Study of Clothing Design and Selection, Textiles, The Apparel Industries" and Careers.* USA The Goodheart- Willcox Company, Incorporated.

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Entrepreneurial Opportunities for Graduates of Clothing and Textiles of Tertiary Institutions in Anambra State

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Abstract

This study investigated the entrepreneurship for graduates of clothing and textiles of tertiary institutions in Anambra State. Three research questions guided the study. It was a survey. The population for the study was 40 lecturers of Home Economics in the area of study. Questionnaire was used for data collection. Data were analysed using mean. Major findings include 18 entrepreneurship opportunities available to graduates of clothing & textiles in the area of fabric and clothing construction, 26 entrepreneurship opportunities in the area of production of household articles, costume and jewelry making and 9 factors militating against students acquisition of entrepreneurial skills. It was recommended that students should be exposed to entrepreneurship opportunities in textile and clothing, well qualified lecturers should be employed to handle textile and clothing courses and workshop and training should be given to clothing and textile lecturers.

Key words: Entrepreneurship, Opportunities, Clothing, Textiles, Graduates.

Introduction

Every society across the globe has its peculiar problem and challenges. Nigeria as a developing country faces her own share of social, political, economic and cultural problems which have in no small measure affected the wellbeing of the populace. Among the problem bedeviling the country is youth unemployment which has a serious implication for national development. According to the national bureau of statistics (NBS), youth unemployment rate in Nigeria increased to 33.10 percent in the third quarter of 2017 from 29.50 percent in the second quarter of 2017 (Okudo 2017). According to Nwanna (2018) The increasing number of unemployed graduates in Nigeria which is obviously threatening the sustainability of the nation's economic development is sending disturbing signal to the global environment.

In the face of current global job crisis, the rate of youth unemployment has become alarming. According to Babalola (2017) chronic youth unemployment is evident in Nigeria. Every year, thousands of graduates are produced but there are no jobs for majority of them. According to him, Nigeria streets are littered with youth hawkers who ordinarily would have found gainful employment in some organization, government parastatals or rather be self-employed with initial seed capital from government or finance houses. The recurring ugly decimal of youth unemployment in Nigeria that keeps worsening by the decades calls for serious concern and urgent actions. According to Olatoye (2018) such intervention should come from a sustained pragmatic synergy involving the federal and state government, the private sector and richly endowed individuals. According to him, if nothing is done to check the level of unemployment in Nigeria, we may soon be agonizing over split milk as the wave of sundry crimes such as armed robbery, hostage taking for ransom, terrorism, prostitution as well as drug peddling and its addition takes over our directionless youths. This has brought to the fore the need for increased participation of youths in entrepreneurship as it will not only enable them to be economically empowered but also to create job for other people.

According to Adeleke (2018) youth unemployment in Nigeria remains the most traumatic societal ills facing the country. He asserted that the only solution to this menace is for the Nigerian government in collaboration with private organization's and universities to embark on entrepreneurship drive for social development and self employment.

Entrepreneurship is the ability to seek out investment opportunities, establish and run a business enterprise successfully (Anyakoha 2015). According to her, it involves the following activities and more: Identifying investment opportunities, choosing investment opportunities, making business plan, mobilizing resources – establishing the business/creating something new and bearing risk.

Akhurst (2012) defined entrepreneurship as the process by which individuals pursue opportunities without regard to resources they currently control. They add that the essence of entrepreneurial behavior is to identify opportunities and to put useful ideas into practice by launching a new business or revamping an already existing firm.

According to Kembe (2014) when people are exposed to entrepreneurship, it is evident that they would be exposed to opportunities that would enable them to become creative and productive. Success in such venture should raise self-esteem and improve on the quality of an individual's life. Anikweze (2006) opined that entrepreneurial opportunities lead to creation of goods and services for the satisfaction of the needs of the society as well as the creation of jobs and employment. It calls for an individual's ability to fashion out ways of making livelihood in an existing venture.

According to Nwokomah (2010) entrepreneurial opportunities is clothing and textile include dressmaking/clothing construction, designing, dry cleaning and laundering, he-dying and batiking, beauty care, fashion merchandising and pattern illustration etc. Ugwu (2012) has identified entrepreneurship opportunities in textile and clothing as tailoring and dressmaking, dyeing, embroidery, crocheting, weaving and hair dressing. Entrepreneurship opportunities in textile and clothing according to Ene-Obong (2009) include designing, clothing maintenance, dressmaking, seamstress, costumers, and modeling. There is no doubt that a student who has been exposed to any one or two of the above opportunities is in a better position to start his/her own business.

Clothing and textile is a branch of Home Economics which is studied in colleges of education, polytechnics and universities. According to Ossai (2001) Clothing and textile education is a branch of Home Economics education that is concerned with the acquisition and development of practical skills by the beneficiaries.

Graduates of clothing and textiles are expected to be equipped with skills and knowledge that will make them employable and self-reliance thus reduce unemployment and poverty. The aim of clothing and textile curriculum at the tertiary level is to teach the learners how to strategically plan and use available resources in their environment to improve their homes, families and societal clothing needs (Abiamuwe, Seriki and Lemon 2014). They therefore require entrepreneurial opportunities in the following areas to make them productive and self reliance on graduation such as fabric construction, pattern drafting techniques, clothing construction, production of household article and crafts, production of costume and jewelry making among others.

The high rate of poverty, unemployment and many other vices are increasing at an alarming rate. Ochonoger and Onyebueke (2003) observed that the current rate of unemployment with its related problems and growth in technology places an increased demand for students to be skillfully productive. Against the background of the foregoing, it therefore become imperative to investigate the entrepreneurship opportunities available to graduates of textile and clothing of tertiary institution for sustainable national economy.

Purpose of the Study

The major purpose of the study was to investigate entrepreneurial opportunities in textile and clothing available Home Economics graduates of tertiary institutions. Specially, this study determined entrepreneurship opportunities available to the graduates in the area of:

1. fabric and clothing construction.
2. production of household articles, costume and jewelry making.
3. factors militating against students acquisition of entrepreneurial skills.

Research Questions

The following research questions guided the study:

1. What are the entrepreneurial opportunities in the area of clothing construction
2. What are the entrepreneurial opportunities available in the production of household articles, costume and jewelry making.
3. What are the factors militating against students acquisition of entrepreneurial opportunities.

Methodology

Design of study: The study adopted a survey research design.

Survey Research design was considered appropriate for the study.

Area of Study: The study was carried out in Anambra and Enugu States. The study was conducted in Nwafor Orizu College of Education Nsugbe, Federal Polytechnic Oko, Federal College of education (technical) Umunze, Institute of Management and Technology (IMT) Enugu and State College of Education (technical) Enugu. These institutions were selected based on the fact that they offer clothing and textiles as one of their courses.

Population for the Study: The population for the study was (40) lecturers and technologists from Federal Polytechnic Oko, Nwafor Orizu College of Education Nsugbe, Federal College of Education (technical) Umunze, The whole population was used for the study because of the manageable size. The entire population was lecturers and technologists from these institutions are as follows:- Federal Polytechnic Oko – 12 lecturers and 6 technologist, Nwafor Orizu College of Education Nsugbe 11 lecturers, Federal College of Education (technical) Umunze 11.

Instrument for Data Collection – Data was collected using structured questionnaire. The questionnaire was divided into two parts. Part one contained three items designed to seek background information about the respondents. The second part was divided into four sections to correspond to the research question.

This section consisted of 59 items based on literature review. The questions sought information on entrepreneurship opportunities available by graduates of clothing and textile of tertiary institutions. The response options were based on a 4 – point rating scale. The questionnaire was validated by three experts from Home Economics department. The reliability index using Cronbach Alpha coefficient for each of the objectives were 0.72.

Method of Data Collection: The questionnaires were administered by the researcher to the respondents by hand with the help of two assistants. Forty (40) copies of the questionnaire were retrieved. This shows a 100% return rate.

Method of Data Analysis: The data were analysed using mean to answer the research questions. The mean scores were used to determine the perceived importance level expressed on a 4-point scale for each of the item. A mean rating of 2.50 was used for decision making.

Findings

The study identified the following

1. 18 entrepreneurship opportunities available in the area of fabric and clothing construction.
2. 26 entrepreneurship opportunities available in the production of household articles, costume and jewelry making.
3. 9 factors militating against students acquisition of entrepreneurial skills.

Table 1: Mean Responses on Entrepreneurship Opportunities Available to Graduates of Clothing and Textile in Area of Fabric and Clothing Construction.

SN	Entrepreneurship opportunities available in the area of fabric	Mean	Remark
1.	Weaving fabrics	2.70	Available
2.	Kitting articles	2.71	Available
3.	Crocheting articles	2.65	Available
4.	Dye to fabrics	3.02	Available
5.	Batic making	3.06	Available
6.	Textile printing	3.00	Available
7.	Construction of shirts and trousers	2.82	Available
8.	Construction of blouses and shirts	3.01	Available
9.	Construction of clothing accessories like shoes, slippers, hats, belts, etc.	3.04	Available
10.	Construction of traditional and corporate wears for males	3.05	Available
11.	Construction of traditional and corporate wears for females	3.05	Available
12.	Grading of patterns	2.62	Available
13.	Clothes alternations – pattern alteration	2.71	Available
14.	Clothes adaptations – pattern adaptation	2.68	Available
15.	Mending of clothes	2.79	Available
16.	Laundry work	2.68	Available
17.	Dry cleaning	2.62	Available
18.	Clothing merchandising	2.56	Available

Table 1 reveals that all the items have mean scores of 2.50 and above ($x = \geq 2.50$). This means that these entrepreneurship opportunities are all available to graduates of clothing and textiles of tertiary institutions in Anambra state.

Table 2: Mean Responses on the Entrepreneurship Opportunities Available To Graduates in Production of Household Articles, Costume and Jewelry Making.

SN	Entrepreneurship opportunities in the Production of household articles, Costume and jewelry making.	Mean	Remark
	Making of:		
1.	toys and macramé	2.83	Available
2.	table clothes	2.78	Available
3.	head rest	2.72	Available
4.	throw pillows	3.01	Available
5.	bed sheet and bed covers	3.02	Available
6.	wall hanging	2.96	Available
7.	foot mats and rugs	2.80	Available
8.	quitted bed covers and pillow cases	2.78	Available
9.	flowers and flower vases	2.97	Available
10.	soap and detergents	2.76	Available
11.	perfumes	2.62	Available
12.	air freshener	2.65	Available
13.	window and door blinds	2.71	Available
14.	patch work articles	2.62	Available
15.	embroidery on clothes	2.82	Available
16.	sewing of dance costume	2.62	Available
17.	bead making like necklace, bangles	2.92	Available
18.	beaded handbag	2.82	Available
19.	beaded belt	2.81	Available
20.	beaded slippers	2.61	Available
21.	beaded hair bands	2.72	Available
22.	beaded hats	2.60	Available
23.	beaded table cover	2.71	Available
24.	beaded table mat	2.83	Available
25.	beaded flower vase	2.97	Available
26.	oven gloves	2.57	Available

Table 2 reveals that all the items have mean scores of 2.50 and above. ($\bar{x} \geq 2.50$). This means that these entrepreneurship opportunities are all available to graduates of clothing and textile of tertiary institutions in Anambra state.

Table 3: Mean Responses on Factors Militating Against Students Acquisition of Entrepreneurial Skills

SN	Factors militating against students Acquisition of the entrepreneurial skills	Mean	Remark
1.	Lack of qualified teachers teaching the subject.	2.56	Agreed
2.	Lack of adequate equipment in clothing and textile laboratory	2.83	Agreed
3.	Lack of workshop and training for lecturers teaching the subject.	2.69	Agreed
4.	Lack of proper maintenance and care of existing equipment.	2.72	Agreed
5.	Lack of sufficient fund for the purchase of materials for practicals.	2.80	Agreed
6.	Lack of seriousness and dedication on the part of the lecturers handling the course.	2.59	Agreed
7.	Lack of seriousness and dedication on the part of the students.	2.62	Agreed
8.	Lack of proper awareness about incomplete entrepreneurial skills available in clothing & Textile education	2.42	Not Agreed
9.	Large classes were regimentatives is essential instead of effective Practical exercises	2.53	Agreed

Table 3 indicates seven factors are militating against students' acquisition of entrepreneurial skills as each item has a mean ranging from 2.56 to 2.83 ($x \geq 2.50$). Only one item on lack of proper awareness has the mean of 2.42.

Discussion of Findings

The study shows entrepreneur opportunities by clothing and textile graduates. The findings of this study revealed that graduates of clothing and textile required entrepreneurship opportunities in fabric and clothing construction such as activities in weaving, knitting, crocheting, application of dye to the fabric, batic making, printing, construction of shirts, construction of trousers, construction of blouses, construction of skirts, construction of clothing accessories like shoes, slippers, hats, belts etc.

These findings were in agreement with the opinion of Sarpong, Howand and Amankwah (2012) who stated that students are expected to be equipped with entrepreneurship skills and knowledge that will make them self reliance to help reduce unemployment and poverty. When students offering clothing and textile are exposed to entrepreneurship activities in the above mentioned items they will become self reliance on graduation and this will help in reducing the unemployment problem in the country. These findings were also in agreement with the opinion of Anozie (2006) which stated that the different areas of Home Economic which is also a vocational technical education can keep the graduates gainfully employed where they cannot find paid employment. This include interior decoration, production of toys, gift items, dress making and merchandising.

Table 2 showed that all the 28 entrepreneurship opportunities in the production of household articles, costume and jewelry making were required by graduates of clothing and textile. These include production of toys and macramé, production of table clothes, production of head rest, production of throw pillows, production of bed sheets and bed covers, production of wall hanging, production of rugs and foot mats, production of quilted bed covers and pillow cases, production of flower and flower vases, production of perfumes, production of air freshener, production of doors and windows blinds, making of patch work articles and embroidery work, sewing of dancing costume, bead making like beaded handbag, bead slippers, beaded belt, table cover, table mat, flower vase. When students have acquired all these entrepreneurial opportunities it will open doors of opportunities for them to survive in the world of work. This finding is in line with the opinion of Woodcock (2012) who posited that graduates cannot rely on their certificate alone to automatically open doors for them, but on the right mix of skills, abilities and personal qualities. Also, Ideh (2012) asserted that encouraging students to prepare and plan is one way to encourage entrepreneurship to students at all levels of educational training. The need for a country to explore its full potential and achieve sustainable national economy necessitated the need to train students to enhance their possession of entrepreneurship opportunities.

These entrepreneurial opportunities when incorporated in the students can make them self-reliance as they raise money and their standard of living. This view is in line with the opinion of Onu (2008) who is of the opinion that through well planned and executed entrepreneurship education, Nigeria youths will learn to be happy and fulfilled persons. They will be productive and committed as employees or employers. Entrepreneurship education is a planned instruction and training that equips an individual with relevant knowledge and skills in a particular occupation of vocation. It stimulates investment interest with business, brings about weak creation and eradicates hunger and poverty in the society.

Table 3 shows the factors militating against students acquisition of entrepreneurial skills. These include lack of qualified teachers teaching the course, lack of adequate equipment in clothing and textile laboratory, lack of workshop and training for lecturers teaching the course, lack of proper maintenance and care for the existing equipment, lack of sufficient fund for lack of seriousness and dedication on the part of lecturers and students.

These findings were in agreement with the opinion of Osho, Aluigor, Nwike and Onyia (2014) who said that many factors militates against the teaching and learning of clothing and textiles in schools which include lack of laboratory facilities and lack of qualified teachers to handle the subject.

According to Opoku (2004) digital technologies have been integrated into virtually every facets of education including commerce, health, governance and ant society and have become critical factors in creating wealth worldwide. Nigerian university have not yet taken advantage of this to strengthen entrepreneurial studies in the universities.

In the opinion of Sassenberg (2001) Absence of technical support for the teaching of entrepreneurship education is a big obstacle to acquiring entrepreneurial opportunities.

Conclusion

Twelve entrepreneurship activities were required by graduates of clothing and textiles in fabric and clothing construction. 18 entrepreneurship activities were required in the construction of household articles while 26 entrepreneurship activities were required in production of household articles, costume and jewelry making. 9 factors militates against students acquisition of entrepreneurial opportunities. If students of clothing and textiles were exposed to these entrepreneurial activities they will be productive and self employed and the issue of unemployment will be solved to some extent.

Recommendations

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

- Unemployed youths should be informed on the identified entrepreneurship opportunities in clothing and textile.
- Government should provide funds for clothing and textile practical classes.
- Lecturers in this department should be trained on the identified opportunities to train the trainee through seminars, workshop and conferences.
- All these entrepreneurship opportunities identified should be inculcated in the curriculum of clothing and textile course. This will enrich the entrepreneurial knowledge of the students.

References

Abiamuwe N.O., Seriki-Mosadolorun, J.S. and Lemon, A.B. (2014) Strategies for Improving Students skill Acquisition in clothing and textile in Tertiary Institution in Lagos State HERAN vol. 20 pg. 190-198.

Adeleke, (2018) Youth unemployment, Most Traumatic societal ills in Nigeria. Retrieved July, 2018 from daily post. Ng. News.

Akhurst, A.E. (2012) Promoting Entrepreneurial and Informed Consumption practices in families: The Role of Home Economics. Journal of Home Economics Research 17:1-9.

Anikweze 2006. Entrepreneurship ed. New Initiatives for Home Tr. Ed.

Journal of Home Research v. 7 pg. 171-178.

Anozie, G.D. (2006) *Entrepreneurship skills and occupational Areas of Home Economics*. *Journal of Home Economics Research v. 7, pg 217-221*.

Babalola, E.I. (2017) Tackiling unemployment in Nigeria. Retrieved on July 2018 from www.tribuneonlineng.com.letter

Chigunta, F. (2001) *Youth Livelihood and enterprise activities in Zambia* Report to IDRC, Canada.

David Mc Celland (2010). *Work force*. Retrieved on 8/8/2015 from www.hr.wa.gov.Dataandplanning.

Federal Government of Nigeria (2004) *National Policy on Education* Lagos: Federal Government Press.

Ideh, V. (2012) *Entrepreneurial Skill Needed by Agricultural Graduates for Sustainable Fish Farming enterprise in Delta State*. Journal of Nigeria Vocational Association (NVAS) 83-93.

Iyere, F.O. (2002) Teaching Home Economics in contemporary Times: A practical perspective. Journal of Education System. Research and Development 4:2; 35-36.

Living Stone, C.A. (2007) *Founders of Work Stories of Work early days*. New York: Berkeley, C.A. press

Mole, A.J.C & Dim, L.C. (2010). Repositioning entrepreneurship and retirement education: Strategic place of library information services. *International Journal of Education Research,* 10(2). 79.

Nwanna, (2018) With Digi preneur, Anambra taddes youth unemployment. Retrieved on July 2018 from http://guidan.ng

Obunadike J.C. (2011) *Status of teaching and learning facilities in Anambra state secondary school: Implication for sustainable development. Journal of education for developing areas.* 19(2) 236 – 243.

Ochonogor E.O. (2008) Equipping N.C.E. Home Economics students with life skills for Entrepreneurship. *Journal of Home Economics Research* 9 254 – 261

Ochonogor, E.O. & Onyebueke, D.O. (2003). Towards improving skill Acquisition in practical by N.C.E. Home Economics Students for self reliance. *Journal of Home Economics Research 5. 68-73.*

Ogundele, O.J. (2007) *Introduction to entrepreneurship development, cooperate Government and Small Business Management*. 1st Edition: Lagos: Molofin Nominees.

Okudo (2017) Youth unemployment. Retrieved on July 2018 from https://www.pulse.ng

Olaitan, S.O. and Mama, R.O. (2001) *Principle and Practice of School Farm Management* Owerri Cape publishers International Limited.

Olatoye (2018) Youth unemployment as a tickling time bomb. Retrieved on July 2018 from https://www.pmnewsnigeria.com

Onu, V.C. (2008) Repositioning Nigeria youths for Economic Empowerment Through Entrepreneurship Education. *Journal of Home Economics Research* 9. 148-157.

Opoku, R.A. (2004), *Ghana and ICT, Strides and Challenges and the way forward.* Retrieved January 2010 from http://www.ghana.webi.com /Ghana home page.

Sarpong, G.D., Howard, E.K & Amankwh A (2012). *Teaching of Fashion and Textile studies in Ghanaian Tertiary Institutions.* International Journal of Innovative Research & Development 1(9) 472 – 4 & 5.

Sassenberg, M.A. (2001). Evaluating Marketing Communication between the entrepreneurial students and a South African Distance Education Campus. *International Journal of Economic and Developmental Issues*. 1(2) 13.

Woodcook, B.E. (2012) *What are employ ability Skills*. Available @ http://www.kentiacuk.ices Retrieved on 7/10/2014

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Teachers' Awareness and Utilization of Play Activities in Teaching Preschool Children in Nsukka Urban, Enugu State

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Abstract

This study investigated teachers' awareness and utilization of play activities in teaching preschool children in Nsukka Urban, Enugu State. Descriptive survey research design was adopted. The population consisted of 120 kindergarten teachers in the 52 government approved preschools in Nsukka Urban. A sample of 60 kindergarten teachers was randomly selected. Questionnaire was used for data collection. Data were analyzed using frequency, percentage, mean and standard deviation. Findings reveal that most of the preschool teachers were not aware of play activities for teaching preschool children. Findings reveal that teachers were aware of nine activities including among others rhymes that teach numbers and alphabets (89.5%), and songs that teach shapes and colors (70.2%). Also there is poor utilization rate of play activities among the preschool teachers. The government, private operators and preschool teachers should provide enabling environment, encourage and allow children choose the activity they want while the teachers observe and assist preschoolers. Provision of standard preschool environment/facilities, improve awareness and utilization of play activities by preschool teachers will greatly ensure holistic development of children.

Key words: Teachers, Play, Preschool, Preschoolers, Children.

Introduction

Education is the process of developing knowledge and ability in learners towards formation and modification of their behaviors for the benefit of the society. Consequently, most countries of the world have provided various educational programmes for their citizens because education is conceived as the greatest legacy that any nation can confer to her children who are the future leaders. Children are the touchstone of a healthy and sustainable society, how they are nurtured has significant influence on how they will grow, prosper and be viewed by others (Ibiam, 2016). Children go through distinct stages of development including: infancy and toddler-hood;

preschool; middle childhood; and adolescence (Laura, 2003). Preschool age corresponds to a critical period of physical, cognitive and psychosocial development of the child. The quality and intensity of care, nutrition and stimulation a child receives during this period determines to a large extent the level of physical and cognitive development the child can attain (Adenipekun, 2004).

Preschool children are children between ages of three and five that attend preschools commonly called nursery or kindergarten. Some of the characteristics preschoolers typically display include: curiosity, gaining strength and coordination, cause and effect experimentation, memory skill increase, display of independence, engage in pretend play, ask lots of questions, and lots more (Segal, Bardige, Woika and Leinfelder, 2006). In view of the characteristics of preschoolers and their need for stimulation and activities, the need for provision of enabling environment which will provide them with opportunities and age appropriate facilities for play, stimulate learning and be appropriate for physical activities is indispensable (Amirat, Abdl-Aziz and Salwa, 2014). Such child friendly environment is made available in the preschool programmes.

Preschool programme is an educational establishment offering early childhood education to children prior to their entering the primary school (Stephens, 2013). Preschool education is a foundation that helps to shape and improve the children's lives, their potentialities and personalities towards self–actualization, training and modeling and it also focuses on children learning through play (Ibiam, 2016). Preschools have lots of activities that are fun and entertaining for the preschoolers; activities that help them in developing gross and fine motor skills (Catherine, 2012). These activities help to mold and channel preschooler's growth and set the foundation for better learning and development. They also help to build preschoolers' confidence and make them well rounded individuals. Seeds for a lifelong love for learning are planted in preschoolers with interesting preschool activities organized and supervised by their teachers (Okechukwu & Anyakoha, 2016).

A teacher is a person who provides education for children and facilitates their learning; he or she must have obtained specified professional qualifications or credentials from a university or college. The role of teachers is often formal and ongoing, carried out in the school or other place of formal education (Wright, 2011).

The early years of life are the best opportunity to lay the foundations for a child's future. By getting it right in early childhood, the seeds for tomorrows' engaged active student, productive and skilled worker, confident and loving parents are planted (Council of Australian

Government, 2009). According to Segal, et.al, (2006) each stage of development of the child has teaching strategies appropriate for it depending on the capabilities of children in that stage. Walker and Bass (2014) noted that research unequivocally demonstrates that if a solid, intentional, play based curriculum with a rich creative environment and highly professional educators in the field can be provided, children will receive quality early childhood education that will influence and impact on their lives and learning in the future.

From children's own perspective, play and learning are not separate. Play-based curriculum primarily involves allowing the pupils to learn and explore at their own pace. This helps the teachers to identify different abilities of each pupil and thus pay particular attention to their peculiar needs with respect to their mental and psychomotor development (Anderson-Mcnamee, 2010). The roles of the teachers are to observe and provide interesting materials that promote exploration and learning (Anderson-Mcnamee, 2010). Play is a physical or mental leisure activity that is undertaken purely for enjoyment which often has behavioral, social and psychomotor rewards (Play Therapy, 2007). It is an activity that is self chosen and self directed, intrinsically motivated, guided by mental rules, imaginative, and conducted in an active, alert but relatively non-stressed frame of mind (Gray, 2008).

There are many benefits to play. Research shows that 75% of brain development occurs after birth and play helps with that development by stimulating the brain through the formation of connections between nerve cells. This process helps with the development of fine and gross motor skills as well as development of language and socialization skills (Anderson-Mcnamee, 2010). Children increase their problem-solving abilities and an understanding of size, shape, and texture through games and puzzles. A review of several studies showed that play is significantly related to creative problem-solving, co-operative behavior, logical thinking, IQ scores, and peer group popularity. Play enhances the progress of early development from 33% to 67% by increasing adjustment, improving language and reducing social and emotional problems (Fisher, 1992). Indeed, play is such an instrumental component to healthy child development that the National Association for the Education of Young Children (2009) named play as a central component in developmentally appropriate educational practices; and the United Nations High Commission on Human Rights (1989) recognized play as a fundamental right of every child.

Despite the benefits derived from play for children, time for free play has been markedly reduced in schools. Children today receive less support for play than did previous generations mostly because of a more hurried lifestyle, changes in family structure, over protection and increased attention to academics and enrichment activities at the expense of recess or free play (Pappas 2011). Ndukwe (2002) found that most preschools in Enugu State lack adequate games, recreational space and facilities. The researchers observed during their visits to some preschools in the study area that most preschools do not have child friendly environment, lack space and facilities to encourage play activities in the preschools. As a result, use of play way approach for preschoolers becomes difficult if not impossible; leading to teachers adopting other methods for teaching children.

Foundation of anything is very crucial to its growth and development. Poor academic performance has been attributed to poor education foundation due to poor teaching standards during early years of life Aremu (2003). National survey showed that about 50% of children aged 3-5 years lack access to any form of organized early childhood education program. Only 20% of children aged 3-5 years are participating in organized early childhood care programmes most of which are not child-friendly preschool centers (Federal Ministry of Health, 2010). This has been attributed to poor academic performance at primary, secondary and tertiary levels of education. This is evident in the result of a study conducted by Arong and Ogbadu (2010), which showed that over 50% of primary school pupils used for the study were unable to write their own names. Because of the great importance that education has on national development, this poor performance is a source of concern to parents, educators, government and administrators. Since education at preschool level is the bedrock and the foundation towards higher knowledge, and an instrument that fosters the worth and development of the individual for further education and development, there is a need to examine the utilization of play activities in teaching children at the foundation years in the study area.

Purpose of the Study

The major purpose of this study was to explore teachers' awareness and utilization of play activities in teaching preschool children in Nsukka urban. Specifically, this study:

1. determined teachers awareness of play activities for preschoolers
2. identified the play activities utilized by preschool teachers in teaching preschoolers

Research Questions

The study answered the following research questions:

1. What play activities for preschoolers are teachers aware of?
2. What play activities do teachers utilize for preschoolers?

Methodology

***Design of the study*:** The study adopted a Descriptive Survey Research design.

Area of the study: The Study was conducted in Nsukka Urban, Nsukka local government area, Enugu state. Nsukka Urban is about 15 Kilometers from the Northern border of the state. It is in this section that University of Nigeria Nsukka is situated. Nsukka urban has 52 government approved preschools (Nsukka Local Government Education Unit, May, 2015).

Population for the study: The population consisted of 120 kindergarten teachers in 52 government approved preschools in Nsukka urban. Their minimum qualification in education was Senior Secondary School Certificate (SSCE/WASC), age 18years, with not less than five years teaching experience.

Sample for the Study: A sample of 60 female preschool teachers was randomly drawn from the population. Fifty percent (50%) of the 52 preschools (a total of 26 schools) were randomly selected from the list of schools secured from Nsukka Local Government Area Education Office (2015). Secondly, all the female teachers in the sampled 26 preschools were used for the study (60 female preschool teachers).

Instrument for Data Collection: Instrument used for this study was a structured questionnaire on teachers' awareness and utilization of play activities in teaching preschool children in Nsukka Urban. The questionnaire contained questions on teachers' background information relevant to the study (Section 1), teachers' awareness of play activities (Section 2) and teachers' utilization of play activities (Section 3). The instrument was validated by three lecturers in the Department of Home Science and Management, University of Nigeria, Nsukka.

Data Collection Techniques: Data was collected by the help of two trained research assistants within four weeks. The trained assistants with the researchers distributed and retrieved sixty (60) questionnaires from the respondents. This is a 100% return rate. Due to incomplete information, three questionnaires were discarded and only 57 copies were used for data analysis.

Data Analysis Techniques: The data collected was analyzed using frequency, percentage, mean and standard deviation. Frequency and percentage were used to present results on teachers' awareness of play activities while mean and standard deviation were used to present results on teachers' utilization of play activities in preschools in Nsukka urban. Means that are equal to and above 2.50 were regarded as often used and those below 2.5 were regarded as not often used.

Results

Background Information on the Respondents

From the study, majority of the teachers (57.9%) were from private schools, 36.8% were from government owned schools while 5.3% of them were from organization owned schools.

The study also further reviewed that majority of the teachers (40.4%) had 11-20 years teaching experience, 22.8% of them had above 20 years, 19.3% had 6–10 years and 17.5% of them had about 5 years teaching experience.

The educational qualifications of the teachers revealed that 33.3% of the teachers had NCE/OND certificate, 26.3% had B.Sc/B.Ed/HND, 17.5% had TCII, 14.0% had senior school certificate while only 8.9% of them had M.Sc/M.Ed as their educational qualification. None of the teachers had PhD, and FSLC.

The study also showed that 38.6% of the teachers had training in early childhood development while the other 61.4% of the teachers did not have training in the area of early childhood development. Among those that had the training 45.5% of them obtained the training from courses in the University/colleges of education, 36.4% of them got the knowledge from attending workshops/conferences while 18.1% got theirs from reading books.

From the study, 43.9% of the teachers had over 25 children under their care, 38.6% of the teachers had 15 – 25 children under their care and 17.5% of the teachers had 8 – 15 children under their care.

Research Question One: Are teachers aware of play activities for teaching preschoolers?

Table 1 – Percentage Responses on preschool teachers' awareness on play activities used for teaching preschoolers in Nsukka Urban

S/N	Play Activities for Children	Yes F (%)	No F (%)
	Children:		
1	go outside in the field and play freely	14(24.6)	43(75.4)
2	dance around while singing different nursery rhymes	39(68.4)	18(31.6)
3	play with sand and water	15(26.3)	42(73.7)
4	chase butterfly and pick flowers	11(19.3)	46(80.7)
5	play with teddy bears and soft toys indoor	27(47.4)	30(52.6)
6	play outside with tricycles, swings, dome climbers, ladders and merry go round	25(43.9)	32(56.1)
7	play games involved rolling, skipping and hopping for physical development	21(36.8)	36(63.2)
8	play with puzzles and building blocks for physical and cognitive development	39(68.4)	18(31.6)
9	scribble on paper with large crayons and colored pencils	13(22.8)	44(77.2)
10	play for a very long time during school hours while the teacher observes	12(21.1)	45(78.9)
11	pick leaves and count fruits on the tree	19(33.3)	38(66.7)

12	identify their body parts while singing parts of the body rhyme	49(86.0)	8(14.0)
13	choose the activity they want and play how they want while the teacher observes	10(17.5)	47(82.5)
14	practice finger painting for pre-reading and pre-writing skills development	38(66.7)	19(33.3)
15	use poster colors with brush to paint on easel/thick paper	25(43.9)	32(56.1)
16	sing rhymes that teach numbers and alphabets	51(89.5)	6(10.5)
17	use materials such as cartons, papers tape, scissors and gum for construction of objects	15(26.3)	42(73.7)
18	use paper cutouts and flannel board to tell stories	25(43.9)	32(56.1)
19	sing songs that teach shapes and colors	40(70.2)	17(29.8)
20	dress up and groom dolls for dramatic play	10(17.5)	47(82.5)
21	use clay and play dough to mould objects	15(26.3)	42(73.7)
22	cut out objects from books and paste on a board/box	20(35.1)	37(64.9)
23	stack blocks and fit cubes together to form a construction	25(43.9)	32(56.1)
24	sort objects in class according to size, color and shape	38(66.7)	19(33.3)
25	put different spices in a scent bottle/box to smell	5(8.8)	42(73.7)
26	sing songs that teach days of the week and months of the year	37(64.9)	20(35.1)
27	string large beads/buttons/macaroni on thick thread	10(17.5)	47(82.5)
28	cut out scraps of different textures and paste on a box/board	18(31.6)	39(68.4)
29	tell stories while looking at picture books	35(61.4)	22(38.6)

Note: F = frequency, % = percentage, Sample size (N) = 57

Table 1 shows the frequency and percentage responses on teachers' awareness of play activities used for teaching preschoolers. The Table shows that nine items had yes responses above 50% such as children: sing rhymes that teach numbers and alphabets (89.5%), identify their body parts while singing (86.6%) and sort objects in the classroom according to sizes, colors and shapes (66.7%). On the other hand, the teachers answered 'no' above 50% in 21 items such as children: dress up and groom dolls for dramatic play (82.2%), chase butterflies and pick leaves (80.7%), choose the activity they want and play how they want (82.5%), among others.

Research Question Two: Do teachers utilize play activities for preschoolers?

Table 2 – Mean and standard deviation responses on play activities teachers utilize in teaching preschoolers in Nsukka Urban.

S/N	Play Activities for Children	Mean	Standard Deviation	Remarks
	Children:			
1	go outside in the field and play freely	2.52	0.83	Often
2	dance around while singing different nursery rhymes	2.76	0.77	Often
3	play with sand and water	2.34	0.55	Not often
4	chase butterfly and pick flowers	2.41	0.74	Not often
5	play with teddy bears and soft toys indoor	2.39	0.72	Not often
6	play outside with tricycles, swings, dome climbers, ladders and merry go round	3.21	0.77	Often
7	play games involved rolling, skipping and hopping for physical development	3.04	0.79	Often
8	play with puzzles and building blocks for physical and cognitive development	2.23	0.84	Not often
9	scribble on paper with large crayons and colored pencils	2.65	0.51	Often
10	play for a very long time during school hours while the teacher observes	2.22	0.94	Not often
11	pick leaves and count fruits on the tree	2.10	1.73	Not often
12	identify their body parts while singing parts of the body rhyme	3.31	0.83	Often
13	choose the activity they want and play how they want while the teacher observes	2.01	1.61	Not often
14	practice finger painting for pre-reading and pre-writing skills development	2.44	0.79	Not often
15	use poster colors with brush to paint on easel/thick paper	2.34	0.84	Not often
16	sing rhymes that teach numbers and alphabets	3.55	0.33	Often
17	use materials such as cartons, papers tape, scissors and gum for construction of objects	2.43	0.55	Not often
18	use paper cutouts and flannel board to tell stories	2.51	1.07	Often
19	sing songs that teach shapes and colors	2.97	0.51	Often
20	dress up and groom dolls for dramatic play	1.81	0.55	Not often
21	use clay and play dough to mould objects	1.95	1.39	Not often
22	cut out objects from books and paste on a board/box	2.19	0.14	Not often
23	stack blocks and fit cubes together to form a construction	2.25	1.74	Not often
24	sort objects in class according to size, color and shape	2.56	1.10	Often

25	put different spices in a scent bottle/box to smell	1.57	0.67	Not often
26	sing songs that teach days of the week and months of the year	3.21	1.19	Often
27	string large beads/buttons/macaroni on thick thread	2.03	0.92	Not often
28	cut out scraps of different textures and paste on a box/board	2.13	0.88	Not often
29	tell stories while looking at picture books	2.78	0.95	Often

Table 2 shows the mean and standard deviation responses on play activities teachers utilize for preschoolers in Nsukka Urban. The Table shows that the respondents utilized twelve activities often they include children: play outside freely, dance around while singing nursery rhymes, children play outside with swings and dome climbers, children play games involving rolling and skipping, children scribble with large crayons, sing songs that teach shapes and colors and tell stories while looking at picture books, among others. The respondents did not utilize seventeen activities often. These include children; play with sand and water, chase butterflies and pick flowers, play with soft toys, children play with puzzles and building blocks, pick leaves and count fruits, choose the activity they want, dress up and groom dolls for dramatic play, put different spices in a scent bottle/box to smell and string large beads/buttons/macaroni on thick thread, among others.

Discussion of Findings

Table 1 showed the percentage responses on teachers' awareness on the use of play activities for preschoolers. Majority of the teachers were not aware of the use of play activities for teaching preschoolers. Respondents who were aware of using play activities for preschoolers, 89.50% of the respondents were aware of children using rhymes that teach numbers and alphabets, 70.20% responded to children singing songs that teach shapes and colours, while 64.90% of them responded to children sing songs that teaches the days of the week and months of the year among others as play activities for teaching preschoolers. This is in line with what Wallace (2012) said that music and creative movements are important for a child's cognitive and socio-emotional development. The table also showed that 73.70% to 82.50% of the respondents said 'no' to children choosing the activity they want and playing how they want, dressing up and grooming dolls for dramatic play, and also using clay and play dough to mould objects as learning activity. This is contrary to what Scott (2009) and Bodrova, Gameroth & Leong (2010) said that children are the ones to choose the activity they want as this will make them stay on the activity longer and hence develop their attention span. It is also contrary to the stipulations of Bergan (2002) that dramatic play is essential for language and social development. Hyvonen (2011) also stated that play covers a wide range of social, cognitive, emotional and physical activities that is of great help to holistic development of the child.

Table 2 showed the mean and standard deviation responses on teachers' utilization of play activities for preschool children. From the table, the respondents do not allow children to initiate activities often. The response is contrary to the stipulations of Scott (2009) and Bodrova, et.al (2010) that children develop their attention span and focus by choosing the activity they want and playing how they want. This could also be attributed to the findings of Ndukwe (2002) that most preschools in Enugu State lack adequate games and recreational facilities. As a result, utilization of play activities for preschoolers has become difficult if not impossible; leading to teachers adopting other methods for teaching children. Also, children are not allowed to take part in dramatic play, this is against the opinion of Bergan (2002) that make-believe play is a vital context for the development of self-regulation because it involves emotion, cognition, language and sensory-motor actions; and thus may promote the development of dense synaptic connections. The respondents however, allow children practice singing activities often and some few other activities this is in line with the stipulations of Wallace (2012) that singing and creative movements are essential for physical and language development. Murata and Maeda (2002) emphasized that Physical activities are essential for all preschoolers, and they learn best when directly involved with their environment. This involvement can be manifested through daily physical education activities. Through developmentally appropriate physical education activities, strong foundation of fundamental motor skills (e.g., jumping, throwing, and running) can be built. It is with this foundation that preschoolers become physically active adults who are knowledgeable of how their bodies move with potential collateral benefits toward developing for sport-specific skills. Karen (2012) in differing with the findings of the present study said that young children are curious beings, discovering and investigating the world around them. They use their senses seeing, hearing, tasting, smelling, and touching to accomplish their tasks. Play is the tool for this work—the tool young children use to explore the mysteries of the physical and social worlds. In play, children learn collaboration and conflict resolution with friends as they investigate the properties of equipment, materials, and routines. Through the phenomenon of play, children develop and learn as they participate in activities in every area of the classroom. Play affords children the ability to improve their language, social, physical, math, science, and thinking skills. The development and enhancement of these skills promotes their self-esteem.

Conclusion

This study has shown that majority of the preschools in Nsukka urban are owned by private individuals. Majority of the teachers have basic literacy certificates (TCII, WASC, NCE/OND), though had no formal training in the area of early childhood education and care. A greater percentage of the teachers have teaching experience between 11 – 20 years. The teachers were not very aware of what constitutes play activities for teaching preschoolers. All important learning approach (play-way) for preschoolers was not adequately utilized in Nsukka Urban.

Recommendations

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

- ❖ the State Ministry of Education for early childhood education should have vibrant and functional committee to oversee pre-primary school programmes, facilities, personnel qualification among others in the area.
- ❖ private operators of pre-primary schools should work with the stipulated government standards for preschools such as adequate space for play, facilities, and teachers' qualifications among others.
- ❖ preschool teachers should encourage children to engage in free play while they support and supervise them to make the exercise fruitful and rewarding for children.
- ❖ parents through the Parents Teachers Association (PTA) should encourage the government, private operators, and preschool teachers to ensure that child friendly environment, facilities and activities are put in place to enhance optimal development of children.

References

Adenipekun, O. (2004, June 26). Government Falters in Early Childhood Education. *Vanguard Newspaper*. 20-22.

Amirat, A. E., Abdl-Aziz I.Y., & Salwa, A. Z. (2014). Mothers Education and her Knowledge about Home Accident Prevention among preschool Children in Rural areas of Shakia Governorate. *IOSR Journal of Nursing and Health Science (IOSR-JNHS). 3*(1) 32-40.

Anderson-McNamee J. K. (2010). *The Importance of Play in Early Childhood Development.* A self-learning from Montana State University Extension.

Aremu, O. A. (2003). *A multi-causal evaluation of academic performance of Nigerian learners: issues and implications for national development*. Department of Guidance and Counseling, University of Ibadan, Ibadan.

Arong, F. E., & Ogbodu, M. A. (2010). Major causes of declining quality of education in Nigeria from the administrative: A case study of Dekina local government area, Kogi state.

Bergan, D. (2002). The Role of pretend play in children's cognitive development. *Early Childhood Research and Practice journal*, *6*(1), 66-80.

Bodrova, E., Gameroth, C., & Leong, D. L. (2010). Play and self-regulation (lessons from Vygotsky). *American Journal of Play*, *6*, 99-101.

Catherine, H. (2012*)*. Physical Activities to build your Preschoolers gross motor skills. Retrieved 15th February, 2018 from http://entomelogy.wsu.edu/blog/faculty/research-extension

Council for Australian Government (2009). Belonging, being and becoming: the early years learning framework for Australia, Canberra. Retrieved 20th October, 2015 from http://docs.education.gov.au/node/2632

Federal Ministry of Health (2010). Issues concerning the survival and total well-being of the child. Federal Ministry of Health Publications.

Fisher, E. P. (1992). The impact of play on development: A meta-analysis. *Journal of Play and Culture*, *5*, 159-181.

Gray, P. (2008). The value of play 1; the definition of play gives insight. Retrieved 5th February 2015 from http://www.psychologytoday.com/blog/freedomlearn/2008/the-value-of-play-1-gives-insight

Hyvonen, P. T. (2011). Play in the school context. *Australian Journal of Teacher Education, 36*(8), 49-67.

Ibiam, J. (2016). Overhauling Quality in Early Childhood Education. *Journal of Research and Practice in Childhood Education, 2*(1), 30-48.

Karen, S. S. (2012). The Importance of Play in the Preschool Classroom. *Texas Childcare Quarterly, 36*(3) 57-64.

Laura, E. B. (2003). *Child Development*. USA: Pearson Education, Inc.

Murata, N. M., & Maeda, J.K. (2002). Structured Play For Preschoolers With Developmental Delays. *Journal of Early Childhood, 29*(4) 237-240

Ndukwe, P. N. (2002). School and teacher factor, as determinants of classroom material resources utilization in pre-primary schools in Lagos State. *Unpublished Ph.D Thesis, University of Ibadan.*

Okechukwu, F. O., & Anyakoha, E. U. (2016). Common Causes of Accidents and Required Safety Practices in Pre-primary School Classrooms in Enugu State, Nigeria. *Journal of Home Economics Research (JHER), 23*(2), 183-194

Pappas, S. (2011). Benefits of Play. *Early Childhood Education Journal*, *30*, 241-246

Play-Therapy. (2007). A definition of play. Retrieved 25th January 2015 from www.playtherapy.org.uk/AboutPlayTherapy/PlayDefinitin.htm

Scott, A. (2009). Five Alternative Teaching Methods. Retrieved 29th May 2015 from http://m.mentalfloss.com/article.php

Segal, B., Bardigel, M. J., Woika, J., & Leinfelder (2006). *Characteristics and Interest of Preschool Children.* Pearson Education Inc.

Stephens, T. (2013). Preschool Report. Retrieved 29th May 2015 from www.childcareintro.com

Wallace, K. (2012). How your child benefits from play. Retrieved 7th February 2015 from http://www.babycenter.com/how-your-child-benefits-from-play

Walker, K., & Bass, S. (2015). *Early Childhood play matters: international teaching through play: Birth to six years.* Richmond, BC, Canada: ACER Press.

Wright, I. V. (2011). Teaching Patterns. Retrieved 31st May 2015 from www.bucknell.edu

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Fitting Problems in Ready-to-Wear Garments among Petite Female Students: Case Study of Yaba College of Technology, Yaba, Lagos State

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Abstract

The study investigated fitting problems in ready-to-wear garments among petite female students in Yaba College of Education, Yaba, Lagos State. Descriptive survey research design was adopted. Three research questions guided the study. Population was 1,872 female students. Sample size was 308. Questionnaire and Focus group discussion guide were used for data collection. Data were analyzed using mean and standard deviations. Findings revealed seven fitting problems of petite students. Findings also showed that misleading size tags, figure types, few shops having limited number of petites' ready-to- wear garments were among the factors that contribute to garment fit problems. Findings also revealed that ways in which fitting problems can be managed by petite students included having ones measurement at hand while shopping, having knowledge of the right garments to wear, making custom made garments among more. Conclusions were made. Among recommendations proffered was that garments producers should use standardized sizes in production of ready to wear garments and petite figures should try different garments before buying.

Keywords: Fit, Garment, Size, Ready-to-Wear, Petite, Students

Introduction

Fit is one of the most important criteria for consumers in their garment buying decision. A garment may be well constructed and have all the excellent functional and aesthetic features which may attract the attention of the consumer, but if it does not fit well, the consumer may not like it. Fit is defined as the way a garment conforms to the body or the relationship between the garment and the body, and is commonly seen as one of the most important indications of the quality of garments (Brown and Rice, 2010). Garment fit refers to the relationship between the size and contours of the garment to that of the body (Shan, Haung and Qiam, 2013). Laitala, Klepp and Hauge (2011) described clothing fit as the correspondence in outward appearance of a piece of clothing to one's body. Proper fit gives the wearer of a dress a feeling of physical comfort and self-confidence. A good fit enhances the appearance of the wearer by making the body look well proportioned, smart and more flattering (Rasband and Liechty, 2006). Ashdown, Loker, Adelson, Carnite, Lyman-Clark and Petrova (2007) pointed out that female consumer mainly judge garment fit based on visual and tactile information they are able to obtain from the garment. Visual judgment is based on the appearance of the garment on the body. A well-fitting garment, therefore, depends on more than the relationship between the garment dimensions to the body dimension. Ashdown, et. al. (2007) mentioned that a garment with good fit during wear should hang smoothly and evenly on the body, with no wrinkles, pulls or distortion, the fabric should have straight seams, pleasing proportions, and adequate ease for movement with the hems parallel to the floor. A well-fitting garment should have all the elements of good fit such as garment grain, ease, line and balance to enable a garment to look presentable and attractive (Stamper, Sharp and Donnell, 2010). These elements determine the way the body fits into the garments. Knowledge of these elements of garment fit will enhance consumers' selection of ready-to-wear garments.

Ready-to-wear garments are mass produced clothes in factories. Throughout most of human existence, apparel was custom made from measurements taken from intended wearer and fit to the individual's size and shape (Brown and Rice, 2010). With the advent of industrial revolution, the form of ready-to-wear garments became a new way to acquire one's apparel. Ready-to-wear garment is designed to provide consumers with pre-assembled apparel, in a range of standard sizes, designed to fit the average consumer (Weidner, 2010). They are produced in standardized sizes, stocked in retail stores, and intended to be worn by the purchaser (Shan, Huang and Qian, 2013). Unlike custom apparel which had been produced for a specific customer, ready-to-wear garments are made to fit a target customer whose precise body size and measurements are not known to the manufacturer (Park, Nam, Choi, Lee and Lee, 2009). They are made using standardized sizes. By this definition, people whose measurements are not within the average size will experience difficulty with fit, either in part or in totality, when wearing standard size clothing (Anikweze, 2013).

Meeting the needs of every person in terms of fit preference is difficult for apparel companies because ready-to-wear garments are made for consumers with normatively proportioned bodies. One of the most difficult challenges facing the apparel industry today is the ability to provide well-fitting garments to a broadly defined target market (Ashdown, Loker, and Adelson, 2007). One of the contributing factors in garment fitting problems is the individual body shapes. According to Weidner (2010), common fitting problems in garments occur within the specialty sizes which are petites, misses and plus-size. Special clothing has been designed for people whose figures vary from the norm. For the petite, there is often a problem in obtaining appropriate ready-to-wear clothing that fits well because of their figure.

Petite is a term used in fashion to describe females that measure five feet (5ft) in height or below (Kinley, 2010). Petite refers to stature not weight. Petite clothing is designed to fit women shorter than 164cm to cater for narrower shoulders and shorter vertical proportions (Ashdown, et. al. 2007). Being petite depends on the length of limbs, the width of shoulders, the size of bust and waist. Petite women come in different shapes, sizes and also encounter different fit problems due to their body type. Kinley (2010) reported that petite women are not completely satisfied with the ready-to-wear garment found in stores and most of the fit problems encountered were associated with the length. Park, et. al (2009) asserted that garment sizing is a contributing factor to garment fit problems. Most clothing manufacturers in developing countries including Africa do not follow a standardized sizing system when producing garments. This leads to varying sizes among the manufacturers or within the same manufacturer, leaving consumers frustrated and confused (Alexander, Connell and Presley, 2005). Size label communication is also considered a factor contributing to garment fit problems. Wrong and unrealistic information communicated on the size label can lead to consumers choosing an improper fitting garment (Brown and Rice, 2010). Petite consumers should bear in mind the right ideas on the garments to purchase such as garments that will camouflage their figure and give them the illusion of height. Garments such as V-neck tops, elongate their necks which makes them look taller. Monochrome outfits (clothes of the same colour), well fitted garments outline their well-trimmed shape and garments with vertical stripes elongate their figure which makes them look taller. Based on this backdrop, this study determined the fitting problems in ready-to-wear garments among petite students in Yaba College of Technology, Lagos State.

Purpose of the study

The major purpose of this study was to determine fitting problems in ready-to-wear garments among female petite students in Yaba College of Technology, Yaba, Lagos State. Specifically, the study determined the:

1. fitting problems of the petite students,
2. factors contributing to garment fit problems among petite students
3. ways of solving fitting problems by petite students

Research Questions: The following research questions guided the study:

1. What are the fitting problems of petite students?
2. What are the factors contributing to garment fit problems among petite students?
3. In what ways can fit problems be solved by petite students?

Methodology

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

***Area of the Study*:** The area of the study was the four female hostels (Akata, New Hall, Bakassi and PGD Hall) in Yaba College of Technology, Yaba, Lagos State. The female hostels were considered appropriate as area of the study since it has a large population of female students residing in the hostel.

***Population of the Study*:** The population for this study was one thousand, eight hundred and seventy-two (1,872). This consisted of the entire female students residing in the four female hostels (Source: Students Affairs Record as at May, 2017).

***Sample and Sampling Techniques*:** The sample size for this study was 308. This was achieved using "Taro Yamen" statistical method of determining sample size. Convenience sampling was used to select seventy-seven (77) students from each of the four female hostels.

***Instrument for Data Collection*:** Questionnaire and focus group discussion guide were used for data collection. The questionnaire was titled "Fitting Problems in Ready-to-Wear Garments among Female Petite Students" (FPRGAFPS). It was divided into two sections. Section A sought for demographic information while section B was based on the research questions. Section B was drawn on a four point scale rating: Strongly Agreed (SA), Agreed (A), Disagreed (D) and Strongly Disagreed (SD). Focus group discussion guide was also used for data collection from the respondents and their responses were recorded. Three Home Economics experts validated the instrument. Test retest method was used to determine the internal consistency of the instrument and it yielded reliability co-efficient of 0.85.

***Method of Data Collection*:** Three hundred and eight (308) copies of the questionnaires were distributed to the female petite students by the researchers. Seventy-seven copies of the questionnaires were conveniently distributed to the female petite students in each of the four female hostels. Efforts were made to ensure that the items were filled correctly without omitting any of the needed information. Two hundred and ninety-five (295) copies of the distributed questionnaires were returned showing 96% return rate. For the focus group discussion, the female students were grouped into twelve for each batch. Each of the four female hostels had three batches for the group discussions. The discussions were guided with the purposes of the study. "Common room" in each of the hostels was utilized for the focus group discussion after seeking permission from the hostel supervisor. Three research assistants helped the researchers in taking notes, comments, recording and videoing while the researchers moderated the discussions.

***Method of Data Analysis*:** Data were analyzed using mean and standard deviations. 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. The responses of the participants were recorded, summarized and used to corroborate the findings of the study.

Results

Table 1: Mean and Standard Deviation on Fitting Problems of Petite Students

S/N	Fitting Problems of Petite Students	$\ddot{X}$	SD	Remark
	Fitting problems among petite students include problems in fit at:			
1.	length of ready-to-wear garment are usually too long	3.02	1.07	Agreed
2.	waistline of ready-to wear garments are too large	3.31	0.58	Agreed
3.	armholes of ready-to-wear garments are usually too large	2.85	0.94	Agreed
4.	sleeves of ready-to-wear garments are too loose for petite	2.69	1.15	Agreed
5.	ease of hip line are too loose for a petite figure	2.65	1.10	Agreed
6.	bust line of ready-to-wear garments are too large	3.04	0.86	Agreed
7.	width of shoulder of ready-to-wear garments are too long	2.77	1.14	Agreed

Table 1 contains the mean and standard deviation of fitting problems of petite students in ready to wear garments. From the analysis, the mean responses ranged from 2.65 to 3.31 which is above the cutoff point of 2.50. Hence, all the items were agreed upon as fitting problems in ready to wear garments. Standard deviation ranged from 0.58 to 1.15. This implied that their mean responses were not far from each other.

Findings from focus group discussion revealed that the fitting problems in ready to wear garments include:

1. Ready–to-wear trousers' length are usually longer for the petite figure
2. Bust line of ready-to-wear garments are usually loose for petite figure
3. Armholes of ready-to wear garments are often too large for the petite figure
4. Hiplines of ready-to-wear garments are usually too loose for petite students
5. Sleeves of ready-to-wear garments are too long for the petite students

Table 2: Mean and Standard deviation on Factors Contributing to Garment Fit Problems among Petite Students

S/N	Factors Contributing to Garment Fit Problems among Petite Students	Ẍ	SD	Rmk
1.	Variations in figure type of petite students such as petite with large bust, flat chest, large hip and broad shoulder causes fit problems	3.52	0.69	Agreed
2.	Information on garment size label used as a guide can be trusted	2.00	1.02	Disagreed
3.	Garment size label are often misleading	2.76	1.00	greed
4.	The labels found on garments are not understandable	2.66	1.02	Agreed
5.	Well fitting petite's ready-to-wear garments are usually scarce	2.86	1.06	Agreed
6.	Non availability of specialty clothes for petite	2.57	0.99	Agreed
7.	Standard sizes for garments do not suit petite figures	2.88	1.08	Agreed

From the analysis in Table 2, all but one of the listed items were agreed upon as factors that contribute to garment fit problems. Item 2 with a mean of 2.00 was rejected. Hence, information on garment size label used as a guide cannot be trusted. However, standard deviation ranged from 0.69 to 1.08 indicating that the mean responses of the respondents were not far from each other.

Findings from focus group discussion revealed that the factors that contribute to garment fit problems include:

1. Misleading size tags are often placed on ready-to-wear garments
2. Few shops have special clothing for petite figures
3. Ready-to-wear garments in the petite sections are limited
4. Difficulty in getting fashionable styles for the petite figure

4. Table 3: Mean and Standard deviation on Ways of solving fitting problems by Petite Students

S/N	Ways of Solving Fitting Problems by Petite Students	Ẍ	SD	Rmk
1.	Paying attention to size tags on garments when shopping	3.20	0.67	Agreed
2.	Having ones measurement at hand helps when shopping	3.25	0.77	Agreed
3.	Trying different clothes enables one to buy the right fit	3.40	0.69	Agreed
4.	Having knowledge of the right garments to wear	3.53	0.92	Agreed
5.	Making custom made garments would guarantee garment fit	2.95	1.08	Agreed
6.	Amending ready-to-wear garments would ensure garment fit	2.86	0.99	Agreed

Table 3 revealed that all the listed items had mean values above 2.50. The items had mean values ranging from 2.86 to 3.53 implying that all the items were all accepted as ways in which fit problems can be managed by petite students. Standard deviation ranged from 0.67 to 1.08 indicating that the mean responses were not far from each other.

Findings from focus group discussion revealed that the ways in which fit problems can be managed by petite students include:

- ❖ Not paying attention to size tags but trying out the garment to determine fit
- ❖ Knowing ones measurement and ability to choose appropriate garment that would fit
- ❖ Amending ready-to-wear garments to suit ones size.
- ❖ Sewing ones clothes instead of buying ready-to-wear garments ensures adequate fit among petite students.

Discussion of Findings

Findings revealed that the fitting problems of petite students in ready to wear garments included problems in: length of ready-to-wear garments, waistline, armholes and sleeves being too loose, problem with ease of hip line, bust line and width of shoulder. This showed that the petite students have fitting problems in ready-to-wear garments. The problems can be attributed to their figure type. In line with the findings, Alexander, et al. (2005) reported that most fitting problems encountered by petite figures in ready-to wear garments were in various parts of their body such as waist, hip, armholes and bust. Kinley (2010) submitted that petite women were not completely satisfied with the ready-to-wear garments found in stores and most of the fit problems encountered were associated with the length. To further support the finding, Tootal Sewing Products (1984) in Anikweze (2013) stated that the most common fitting problems that exist among different figure types are large bust, small bust, low bust, flat chest, narrow chest, round shoulders, broad shoulders, narrow shoulders, square shoulders, thick waist, hollow back (for skirts), large stomach and plump upper arm. Findings from focus group discussion revealed that the fitting problems in ready to wear garments include length of ready–to-wear trousers are usually longer for the petite figure, bust of ready-to-wear garments are often loose, armholes of ready-to wear garments are usually too large for the petite figure, hiplines of ready-to-wear garments are usually loose and sleeves of ready-to-wear garments are loose. These findings agreed with the opinion of Ashdown, et. al. (2009) that petite consumers are least satisfied with the length, bust and hips of ready-to-wear garments. Robertson (2008) supported these findings by stating that every girl's body has its own unique shape, and this probably accounts for a myriad of styles, lengths and shapes of dresses available in the market.

Findings indicated that the factors that contribute to garment fit problems include figure type affects the choice of garments purchased, garment size label provides valuable information, labels found on garments are understandable, garment size labeling, non availability of specialty clothes for petite and standard sizes of garments that do not suit petite figures. This showed that there are a number of factors responsible for garment fit problems. In line with these findings, Park, *et. al* (2009) asserted that garment sizing is a contributing factor to garment fit problems. Most clothing manufacturers in developing countries including Africa do not follow a standardized sizing system when producing garments. This leads to varying sizes among the manufacturers or within the same manufacturer, leaving consumers frustrated and confused (Alexander, et. al., 2005). Size label communication is also considered a factor contributing to garment fit problems. Weidner (2010) reported that apparel manufacturers are not using a standard system to size ready to wear clothing. Findings also showed that the information on garment size label used as a guide cannot be trusted. In support of these findings, Faust and Carrier (2010) reported that numerical size codes on tags of ready-to-wear garments are unrelated to specific individual body measurements. Findings from focus group discussion revealed that the factors that contribute to garment fit problems include misleading size tags, few shops having special clothing for petite figures, ready-to-wear garments in the petite sections being limited and petite figures having difficulty in getting fashionable styles. Wrong and unrealistic information communicated on the size label can lead to consumers choosing an improper fitting garment (Brown and Rice 2010). To further buttress the finding, Fung Global Retails and Technology (FGRT) (2017) stated that ready-to-wear apparel manufacturers decide the fit and sizing of their garments based on limited information. Apparel manufacturers generally decide on sizing by using fit models in one or two standard sizes and then scale prototypes proportionally up and down to all sizes based on the one or two originals. Benrubes, Estel and Jordan (2015) stated that creating clothing that fits well is particularly challenging in the petite and plus-size categories, where specific parts of garments need to accommodate different body shapes instead of following a proportional scale from standard sizes. For example, a garment in a petite size might have a larger-than-proportional waist or a longer torso than mathematically scaled measurements would call for.

Result of findings also revealed that the ways in which fit problems can be managed by petite students include paying attention to size tags on garments when shopping, having ones measurement at hand helps when shopping, trying different clothes before buying, having knowledge of the right garments to wear, making custom made garments and amending ready-to-wear garments bought. In agreement with these findings, Park, et. al. (2009) stated that to help petite consumers with the right choices of ready-to-wear garments, they are advised to know their body measurements and have it at hand while purchasing garments. Petite consumers should bear in mind the right ideas on the garments to purchase i.e garments that will camouflage their figure and give them the illusion of height. In line with the findings, (FGRT) (2017) reported that the appropriate way to solve apparel fitting problems is through computer aided technology known as 3D body-scanning technology that help apparel companies create garments with a more accurate fit by providing true measurements of customers of different shapes and sizes. Body-scanning tools can also benefit consumers, by enabling them to virtually try on clothing in order to find the best fit. Findings from focus group discussion revealed that the ways in which fit problems can be managed by petite students include not paying attention to size tags but trying out the garment to determine fit, knowing ones measurement and ability to choose appropriate garment that would fit. In support of these findings, Benrubes, Estel and Jordan, (2015) asserted that petite figures should stop focusing on garment tags when shopping because a lot of ready-to-wear garments are not developed with standardized sizes.

Conclusion

The study determined fitting problems in ready-to-wear garment among petite students. Findings indicated that the fitting problems encountered by petite figures include problems in length of ready-to-wear garments, waistline, armholes and sleeves being too loose, problem with ease of hip line, bust line and width of shoulder. Results also showed that the factors contributing to garment fit problems include figure type, garment size label, non availability of specialty clothes for petite and standard sizes for garments that do not suit petite figures. Results indicated that the ways of helping petite figures to manage fitting problems include paying attention to size tags on garments when shopping, having ones measurement at hand helps when shopping, trying different clothes before buying, having knowledge of the right garments to wear, making custom made garments and amending ready-to-wear garments bought.

Recommendation

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

- Producers of garments should use standardized sizes in production of ready-to-wear garments.
- Producers of ready-to-wear garments should endeavor to include correct size tags on fabrics.
- Petite students with extreme figure types such as large bust, large hips, tiny waist and long torso should go for custom made garments that will enhance their figure faults.

References

Alexander, M., Connell, M. J & Presley, A.B. (2005). Clothing Fit Preferences of Young Female Adult Consumers. *International Journal of Clothing Science and Technology*, 17, (1) 52-64.

Anikweze, G. U. (2013). Figure Types and Challenges of Making Garments in Nigeria. *Production Agriculture and Technology, Nasarawa state University Journal. 9 (1) 135-146. Retrieved on 21st July, 2017 from: www.patnsukjournal.net/currentissues*

Ashdown, S.P., Loker, S. & Adelson, C. (2007). Using 3D Scans for Fit Analysis. *Journal of Textile and Apparel, Technology and Management*, 4, (1) 1-12.

Ashdown, S. P., Loker, S., Adelson, C., Carnrite, E., Lyman-Clark, L & Petrova, A. (2007). Improve apparel sizing: Fit and Anthropometric 3D Scan Data. *Clothing and Textiles Research Journal*, 24, (2) 137-146.

Benrubes, A. C., Estel, C. & Jordan, A. (2015) Dress well when you are Petite. Retrieved on 4th June, 2017 from http//:dress_well_when_you_are_petite.edu

Brown, P. & Rice, P. (2010). Ready-to-Wear Apparel Analysis. 2nd Edition. New Jersey: Merrill-Prentice Hall.

Calasibetta, N. J. & Tortora, D. K. (2003). Adolescents' Clothing Motives and Store Selection Criteria: A Comparison between South Korea and the United States, *Journal of Consumer Affairs,* 29, (2)1-11

Faust, M.E. & Carrier, S. T. (2010). Women's Wear Sizing: a New Labeling System. *Journal of Fashion Marketing and Management,* 14,(1) 88-126.

Fung Global Retails and Technology (FGRT) (2017). 3D Body-Scanning Technology: Creating the Perfect Fit. Retrieved on 27th July, 2017 from: www.fungglobalretails&tech.deboralweiswig.com

Kinley, T. R. (2010). Fit and Shopping Preferences by Clothing Benefits Sought. *Journal of Fashion Marketing and Management,* 14, (3) 397-411

Laitala, K., Klepp, I. G. & Hauge, B. (2011). Materialized Ideas: Sizes and Beauty. *Journal of Current Cultural Research,* 3:19-41.

McRobberts, B. L. (2005). Petite Women: Fit and Body Shape Analysis. Unpublished MSc Thesis from the School of Human Ecology, Louisiana State University

Park, J., Nam, Y., Choi, K., Lee, Y. & Lee, K. H. (2009). Apparel consumers' type and their shopping characteristics. *Journal of Fashion Marketing and Management*, 13, (3) 372-393

Rasband, J. A. & Liechty, E. L. G. (2006). Fabulous Fit. 2nd Ed. New York: Fairchild Publications.

Ransband, J. A. (2010). High Technology in the Apparel Industry. *Human Ecology*, 11-16.

Robertson, C. (2008). *How to match Prom Dresses to Figure Types*. Majon International. Retrieved on 5th May 2017 from http://www.majon.com/articles/Clothing_for_Women/prom_dresses_657.htm;

Shan, Y., Haung, G. & Qian, X. (2013). Research Overview of Apparel Fit. *Clothing and Textiles Research Journal* 161: 39-44. Retrieved on 6th August, 2017 from http://link.springer.com>chapter

Stamper, A.A., Sharp, S. H. & Donnell, L. B. (2005). Evaluating Apparel Quality. 2nd ed. New York: Fairchild Fashion Group.

Weidner, N. L. (2010). Vanity Sizing, Body Image, and Purchase Behaviour: A Closer Look at the Effects of Inaccurate Garment Labelling. Unpublished MSc. Thesis from Eastern Michigan University.

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Intra-Partum Care Practices among Child Bearing Mothers: Role of Special Educators

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Abstract

The major purpose of the study was to investigate the practice of intra-partum care among child bearing mothers attending maternal and child health (MCH) clinics in Nsukka health district. Specifically, the study determined the mothers' use of pain reduction, hygiene materials, hospital facilities, consultation with midwives and doctors in intra-partum care. It tested one hypothesis at 0.05 level of significance. Survey design was used. Data were collected using questionnaire. A total of 363 childbearing mothers (CBMs) participated in the study. Data were analyzed using percentages and Chi-square (X^2). Findings revealed the various types and numbers of intra-partum care practices the mothers use: pain reduction (four); personal hygiene (five); consultation withmidwives and doctore (four); and use of hospital facilities (four). Based on this, the study recommends the involvement of special educators in maternal and child health clinic to promote intra-partum care practices.

Keywords: Intra-partum, Care, Mothers, Disability, Child Health.

Introduction

Intra-partum care is service rendered to pregnant women in labour and delivery period. Labour is childbirth or parturition which comes with uterine contractions associated with pain at waist, lower abdomen and at times rupture of membrane or baby's sac. Labour takes place in three stages: namely dilatation of the cervix uteri, passage of the child through the birth canal and expulsion of the placenta (Memon and Handa 2013). Labour pain could be reduced through various ways. Immersing in water is one of the ways to manage pain during labour in addition to Tens machine, gas and air, pethidine injection, deep breathing, massage and epidural anesthesia. Royal College of Midwives (1994). In developed countries hospitals are encouraged to ensure that birth pools are available to all women. These practices remain a mirage in developing countries due to some seemly factors like culture, belief, ignorance among others. (Leap, Dodwell Mirenada, New born & Mary, 2010).

Maternal and fetal infections have been reported due to poor personal hygiene exhibited by mothers and attending midwives handling the mother in labour. The mother is expected to put clean pad on the vulva while in labour. Put on clean wrapper. The delivery surface should be covered with delivery mat and mother draped with sterilized delivery cloth. The midwife attending to the mother in labour should wear face mask and put on hand gloves that will reach to the elbow before delivering a woman in labour. These precautions aim at preventing infections or further infections to mother, baby and midwife or doctor attending to the woman in labour. The government also stepped into wedging war against maternal and fetal infection in 2005 with birth preparedness and complication readiness (B/P/CR) programme aimed at promoting timely utilization of skilled health care services (Iliyasu, Abubakar, Galadanci and Aliyu, 2010). This programme went a long way in creating awareness to personal hygiene and consequences of not maintaining it during child delivery.

In 2015 there were about 135 million births globally (The World facebook, 2016). About 15 million were born before 37 weeks of gestation (WHO, 2015) while between 3% and 12% were born after 4 weeks (Buck and Paltt, 2011). In the developed world most deliveries occur in hospitals while in the developing world most births take place at home with the support of a traditional birth attendant or at a health post (Fossard and Bailey, 2016). Recent antenatal records showed that most deliveries were conducted in health post and general hospitals than in federal hospitals. One of the reasons why mothers patronize general hospitals or health post could be due to nearness to them. Again, federal hospitals are used as referral centres in case of any complication. Mothers can deliver through several ways to ensure alive mothers and alive babies.

The most common way is through vaginal delivery. At times caesarean section may be recommended due to some factors such as fetal or maternal distress, multiple pregnancies such as twins, triplets, quadriplets and so on, breech presentation, cord prolapsed while in early stage of labour, cephalo pelvic disproportion among others. Vacuum delivery and forceps deliveries could also be opted for women with maternal distress but rarely used due to their untold effects on babies. Some of the pros and cones of vacuum and forceps deliveries include injury to the scalp, brain and shoulder dislocation which may lead to erb's palsy. Brain injury may lead to cerebral palsy among others.

These processes women pass through, during labour calls for specialist in different fields that will render help to minimize complications. The service of a special educator cannot be over emphasized because of composition of women in labour. The hearing impaired women in labour need a special educator to relay the instruction given during labour and delivery of baby. The special educator is needed at any point in time of labour process to interpret the rudiments of labour process. This well help the women get relaxed, belong and empowered to deliver babies safely. Many maternal and child death and complications may be geared toward poor practice of labour process before the actual delivery takes place. The disabled women in labour need assistance from special educator that understand their need, speak their language and in good relationship with them to enhance relaxation as well as safe delivery. Not only that respiratory therapists work as educators in Asthma clinics educating people who are suffering from heart and lung problems. The respiration therapist assist an Asthmatic in labour to initiate condusive environment for delivery of baby. The therapist knows when the mother in labour needs aids for ventilation. Hence the respiratory therapist is needed to avoid intracranial emergencies due to lack of oxygen which may lead to intellectual disability or even death of unborn child or neonatal death (respiratory therapist, 2017) Intra-partum care necessitates the need for drugs, equipment facilities and properly trained medical personels (Daly Azefor Nasah, 1993).

In a study conducted by Langer, Farnot, Garcia, Barros Victoria, Belizan and Villar 1996 in Latin America on Effect of Psychological support on pregnant women well being and satisfaction. The result of the study indicated that women in the intervention or treatment group showed a statistically significant better knowledge of seven of the nine alarm signs considered and of two of the three labour-onset signs required. Furthermore, no differences between groups were observed in improvement in diet, utilization of hospital facilities for delivery.

Research was also carried out by Bello, Gummi, Hassan Shehu and Audu (1997) on impact of community education on use of emergency obstetric services in Kebbi state Nigeria using focus group discussion. The findings revealed that the community awareness of the causes of maternal death, nature of obstructed labour, signs of pre-eclampsia, need for prompt treatment increased.

Olusanya, Okogbo, Momoh Okogbenin and Abebe (2010) conducted a study on maternal morality and delay; socio-demographic characteristic of maternal deaths with delay in Irrua Nigeria. The study accessed the contribution of delay to maternal deaths and also determined the socio demographic characteristics of patients with maternal deaths associated with delay. The result indicated mortality ratio of 1747/100, 000 live births. Delay was associated with (77.8%) of all maternal deaths. Type 1 delay was the major problem contributing (57.1%). The result also identified risk factors for delay as unbooked status socio economic status and martial status.

Each year complications from pregnancy and child birth results in about 500,000 maternal deaths, 7 million women have serious long term problems and 50 million women have health negative outcome following delivery, 15 such complications include obstructed labour, post partum bleeding, eclampsia, post partum infection. Health problems among babies include respiratory distress, jaundice, low blood sugar and so on.

In the developing countries the rate of death is more of which Nigeria is inclusive. The ugly scenario calls for urgent research like this present study.

Purpose of Study

The main purpose of the study was to investigate the level of intra-partum practice among childbearing women attending MCH clinics. Specifically the study determined levels of practice of the following by the women:

1. Use of pain reduction.
2. Use of hygiene material for personal hygiene.
3. Consultation with midwives and doctors.
4. Use of hospital facilities.

Research Questions

What is the level of practice of:

1. pain reduction practice of childbearing women during intra-partum stage?
2. personal hygiene of childbearing mother during intra-partum period?
3. medical consultation of childbearing women during intra-partum period?
4. hospital facilities used during childbearing period?

Methods

Area of the Study: The study was carried out in Nsukka Health District in Enugu state Nigeria. There are 15 clinics in the area. There are 8 clinics in the rural area and 7 clinics in Urban area.

Design of Study: A cross sectional survey research design was used for the present study.

The Population for the Study: The population was made up of 923 registered pregnant women in the Urban and rural clinics. The population comprised of mostly women who have under gone through basic education, post basic education and tertiary institution
(Nsukka Health District Board, 2016).

Sample for the Study: The sample was made up of 12 functional clinics that were purposively selected. The subjects were selected from antenatal register, using systematic random sampling, 31 respondents from each of the 12 sampled antenatal clinics were selected. Sample of 372 pregnant women representing forty percent of the population were utilized for the study.

Instrument for Data Collections: The instrument used for the data collection was structured questionnaire. It was developed based on research questions and literature review.

It was face validated by three experts. The reliability co-efficient of the instrument was .82.

Data collection: A total of 372 copies of the questionnaires were distributed by hand. Only 363 copies were properly completed and retrieved. This represents 97.58 percent return.

Data analysis: The data were analyzed using percentages from answering the research questions. Chi-square(x^2) was utilized to test hypothesis at 0.05 level of significance.

Results

Table 1: Frequency and Percentages Responses on Level of Practice of Pain Reduction (n = 363)

S/n	Pain reduction practices	Yes F	Yes %	No F	No %
1	Use of pool	93	25.6	270	74.4
2	Use of pethidine	105	28.9	258	71.1
3	Use of Air bag	80	22.0	283	78.0
4	Squatting method while in pain	200	55.1	163	44.9
	Average		**32.9**		**67.1**

Table 1 reveals that 93(25.6%) of child bearing mother use pool to reduce pain, 105(28.9%) practiced use of pethidine for pain, while 200(55.1%) practice use of squatting to reduce pain during labour. The table also reveals that higher percentage of childbearing mothers do not adopt pain reduction practices during labour.

Table 2: Frequency and Percentages Responses on Personal Hygiene (n = 363)

S/N	Personal hygiene practices	Yes F	Yes %	No F	No %
1	Shaving of the pubic area	250	68.9	113	31.1
2	Use of clean pad	315	86.8	48	13.2
3	Use of delivery mat	190	41.3	213	58.7
4	Use of hand gloves	210	55.9	153	42.1
5	Drape spread	219	60.3	144	39.7
	Average		**63.04**		**36.96**

Table 2 shows, use of hygienic material for personal hygiene which reveals 250(68.9%) childbearing mothers that practice shaving of pubic area before child birth, 315(86.8%) practice use of clean pad, 210(57.9%) practice use of gloves while 219(60.3%) make use of drape spreads while giving birth.

Table 3: Percentage and Frequency on Consultation with Midwife (n = 363)

S/n	Consultation practice	Yes F	Yes %	No F	No %
1	Spontaneous delivery	315	86.8	48	13.2
2	Vacuum delivery	45	12.4	318	87.6
3	Cesarean section	155	42.5	208	57.3
4	Forceps delivery	35	9.6	328	90.4
	Average		**37.83**		**62.13**

Table 3, reveals consultation practice of childbearing women which reveals that 315 (86.8%) of women deliver spontaneously, 155(42.5%) women deliver through cesarean section while 318(87.6%) do not use vacuum and (328(90.4%) childbearing mothers do not use forceps for their delivery.

Table 4: Frequency and Percentages Responses on Use of Hospital Facilities (n = 363)

S/n	Use of hospital facilities	Yes		No	
		F	%	F	%
1	Health post	316	87.1	47	12.9
2	Private hospital	213	58.7	150	41.3
3	State hospital	220	60.6	143	39.4
4	Teaching hospital	100	27.5	263	72.5
	Average		**58.48**		**41.53**

Table 4, shows use of hospital facilities for child delivery which reveals that childbearing women of 316(87.1%) utilize health post, 213(58.7%) use private hospital, 226(60.6%) use state hospital (General hospitals) and 100(27.6%) use Federal hospitals. Some percentages do not use hospital as shown in the Table.

Discussions

Results in table 1 revealed that 67.1% of childbearing mothers do not practice pain reduction during labour. The finding is not surprising because some mothers believe that labour pain should be endured and if pain is expressed that one will continue to express pain each time she comes to deliver. This finding is in line with New born and Mary (2010) that discovered that culture, belief and ignorance could hinder one from seeking relief from pain during labour.

Data presented in Table 2 showed that 63.04% of women in labour practice personal hygiene. The finding is expected since childbearing mothers find in the antenatal clinics are taught the consequences of non practice of personal hygiene by material and child health workers. The improvement in the practice is also as a result of programme initiated in the year 2005 by federal government which created a lot of awareness to personal hygiene and consequences to health (Iliyasu, Abubakar, Galadanci and Aliyu, 2010).

Result in Table 3 also showed that 86.8% and 42.25% of women deliver through spontenous vaginal means and cesarean section respectively through vaccum 12.4% and for forceps 9.6% deliveries. These findings are expected since health workers (midwives and nurses) enlighten mothers found in the antenatal on what to do throughout their period of pregnancy, labour and after labour. This finding is in consonant with Bello, Gunm, Hassan, Shehu and Audu (1997) who discovered that childbearing mothers were aware of causes of maternal death, nature of obstructed labour, sign of pre-eclampsia and need for prompt treatment.

Data presented in Table 4 revealed that 58.48% of childbearing mothers practices utilization of delivery facilities, while 41.53% did not deliver in the hospital. This is not surprising because of the existence of private maternity homes and traditional birth attendant homes. Probably, these mothers may have delivered in the later facilities. Nevertheless, the 58.48% showed that some childbearing mothers still patronized delivery facilities. This is in line with Daly, Anefor and Nasah (1993) who found out that mothers utilized delivery facilities due to availability of medical personnel, obstetric equipment, facilities and drugs which enhanced safe delivery.

Conclusions

Based on the findings and discussion of the study the following conclusions were attained.

1. Childbearing mothers practiced intra-partum care.
2. Level of education of childbearing mothers did not influence child bearing mother's practice of intra-partum care.
3. Hypothetically, level of education had no significant influence on childbearing mothers practice of intra-partum care.

Recommendations

Based on the findings discussions and conclusion of the present study, the following recommendations were made:

- ❖ More scientific research should be conducted on factors that hinder practice of intra-partum care among mothers, both qualitative and quantitative are essential for developing rational and effective responses to the problem.
- ❖ Knowledge is power, so emphasis on education of mothers on practice of intra-partum care should be made by health workers in the maternal and child health clinic because knowledge enhances practice of what is known
- ❖ Provision of obstetric emergency facilities, drugs and adequate and trained health workers to enhance practice.
- ❖ Stimulating and empowering health services like involvement of special educators in maternal and child health clinic to encourage practice of intra-partum care should be instituted in various MCH clinics.

References

Bello, S.F., Hassan, M., Shehu, D., Audu, L. (1997). Community education to encourage use of emergency obstetric services in Kebbi state, *Nigeria International Journal of Gynecology and obstetrics*, 59, 5191-5200.

Buck, G.M. & Platt R.W. (2011). Reproductive and perinatal epidemiology oxford. Oxford University press.

Daly, D., Aofor, M. & Nasah, B. (1993). Safe mother in francophone Africa: Some improvement but not enough University of Pennsylvania. African studies centre.

Fossard, E. & Bailey M. (2016). Communication for Behaviour change: using Entertainment Education for Distance Education. India. SAGA publication.

Larger, A., Farnot, U., Garcia, C., Barros F., Victoria, C., Belizan, I.M. & Villar, J. (1996). The Latin American Trial of Psycho social support during pregnancy: Effects on mothers' well-being and satisfaction social science and medicine, 42 1589-1597.

Leap; Dodwell N. Mirada; Newburn Mary (2010). Working with pain in labour. New Digest. National childbirth trust. https://en.m.wikipedia.org/wiki/birthpool.

Iliyasu, Z., Abubakar, I.S., Galadanci, H.S. & Aliyu, M.H. (2010). Birth preparedness, complication readiness and fathers' participation in maternity care in a northern Nigerian community. *African Journal of Reproductive Health,*14(1):21-32.

Memon, H.N., Harda, V.L. (2013). Vagina childbirth and pelvic floor disorders" Women's health England 9 (3) 265-77; quiz 276-7 doi, 0 22171 whe 13.17 PMC 3877 300.PMID 23638782.

Okusanya, B.O. Okogbo, F.O. Momoh M.M. Okogbenin, S.A. & Abebe, J.O. (2010). Maternal mortality and Delay. Socio-Demographic characteristics on maternal deaths in Iruna, Nigeria. Retrieved from www.ncbi.n/m.nih.gov. retrieved on 2/02/2011.

Respiratory Therapist (2017). http://en.m.wikpedia.org/wiki/ retrieved 8 May, 2017.

Royal college of midwives (1994). Joint statement by Royal college midwives and RCOG https://enm.wikipedia.org/wiki/birthpool

The World facebook (2016). www.cia.gov. Retrieved 30 July, 2016/

WHO (2015). Preterm birth fact sheet. https://en.m.wikipedia.org/wiki/pain-in-labour. Retrieved 30 July 2016.

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Strategies adopted by Home Economics Teachers in Preparation for Retirement in Kaduna, Kaduna State

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Abstract

This study explored the issues related to the preparation for retirement by Home Economics teachers in Kaduna state. Specifically, it determined ways Home Economics teachers prepare for retirement; problems they encounter in preparation for retirement and possible ways they could ameliorate such problems. Descriptive survey design was adopted. Questionnaire was used for data collection. The population of the study was made up of all Home Economics teachers in Kaduna north and south local government. Teachers with 20 years of experience and above or 40 years old and above were purposively sampled. A total of 47 teachers participated in this study. Frequencies, percentages and means were used for data analysis. Findings revealed that Home Economics teachers prepare for retirement in different ways and encounter different challenges in preparing for retirement. Based on the findings, it was recommended that Home Economics teachers should utilize the several options such as retirement savings, programmes, investment decisions and guidance from experts to aid their preparation for retirement and amelioration of the challenges they might encounter.

Keywords: Teachers, Strategies, Preparation, Retirement, Home Economics

Introduction

Retirement can be a roller coaster because it changes so much about one's life, work role, relationships, daily routines, and assumptions about oneself. Retirement or termination of work signifies a period of major change in the life of every employee. Such changes are usually devastating and traumatic in the life of the retiree. The adverse psychological and socio-economic disposition identified to characterize retired civil servants due to functional discontinuation of their regular financial source of livelihood and its corresponding decline in social status and social isolation cannot be overstated (Inaja & Rose, 2013). Many retired teachers experience such challenges which include financial insufficiency, family conflict and health challenges. Some also experience loss of self-esteem due to lower status in which they find themselves on retirement from a highly exalted position they had occupied as public servants (Olatunde & Onyinye 2013).

In Nigeria, the statutory retirement age for civil servants across most sectors is 60 years or 35 years of unbroken active service, apart from research and academics who retire at 65 or 40 years of service, professors and high court judges who retire at 70 (FGN 2008). Retirement in the public or private organization is an official and formal ending of a work life. It is a transition from active involvement in the world of work to active world of leisure (Wong & Earl, 2009). Different people view retirement in different ways. While some persons view it positively and await it with happiness, others have negative perceptions about it as they associate that stage of life with boredom, economic suffering, ill health and death. Such individuals experience a sense of loneliness and loss of status. Retirement is however a necessary end which every worker must anticipate, whether in the public sector or in the private sector (Onoyas, 2013). The workers in the public sector anticipate retirement and its many challenges than those in the private self-employed jobs.

Teachers generally including Home Economics (HE) are usually bothered about the issue of retirement. This is because it marks the cessation of active service, monthly income and other social benefits they enjoyed during service. Home Economics teachers should not be overly worried about retirement for several reasons. This is because Home Economics teacher education programme prepares the pre-service teachers as both a teacher and an entrepreneur. Many Home Economics teachers have acquired one or more skill that could help them be successful entrepreneurs.

Unfortunately, some people fail to prepare sufficiently for retirement. Insufficient information on preparation for retirement has led 90 percent of retirees in Nigeria to depend exclusively on pension fund administrators for economic survival (Adjekophori, 2014). This sometimes accounts for the sudden death and sickness that often befall retirees when their source of economic survival is not forthcoming. Millions of pensioners representing 92 percent of those who worked in Nigerian federal government ministries, departments, and agencies (MDAs) become trapped in poverty during retirement because of unpreparedness for life after retirement (Ali, 2014).

Planning for retirement can be beneficial to individuals in several ways. People who prepare for their later life financial needs are more likely to have adequate resources in retirement and satisfied with their income (Jeon & Bae 2010). In addition, by making preparations, retirees may feel they have gained some control over their uncertain futures (Jeon & Bae 2010), which can help reduce worries and anxiety about the future (Hershey & Earl 2009). Planning help the retirees to adjust better to the transition to retirement because the increased sense of control and preparedness leads to greater satisfaction in retirement (Rose Hewitt, Howie & Feldman, 2010).

The most important outcome of planning for retirement is having greater means of survival in later life. Having adequate income in later life enhances a person's ability to spend retirement as desired. Furthermore, as older adults face health problems, more income allows them to receive more appropriate care and better equips them to make adjustments to their environments to maintain high quality of life (Kahana, Kelley-Moore & Kahana, 2012). While these many benefits of planning exist for individuals, higher levels of planning also are beneficial to families, the institution of work, and the welfare state. People who enter old age with adequate finances are less likely to need to rely financially on family members, their employers or state programs.

The Home Economics teacher is not just a teacher but also a professional with competencies in many areas. These areas as outlined by Restudy Committees for Home Economics in Fox, Stewart & Erickson (2008) include:

- ❖ Child Development-Family Relations
- ❖ Family Economics-Home Management
- ❖ Housing, Home Furnishing, and Equipment
- ❖ Foods and Nutrition
- ❖ Clothing and Textiles
- ❖ Home Economics Education

With these competencies, the Home Economics teacher before retirement or after retirement can successfully venture into any business related to the competencies above. Many Home Economics teachers due to the benefits and social security associated with public service might overlook the preparing for retirement.

Inadequate preparation for retirement endangers the life of an individual especially because of the many possible pitfalls in life after direct employment stoppage with certain opportunity structures that are specific to retirement. Just like other individuals, as Home Economics teachers approach retirement, one of their principal concerns is how to make ends meet after they quit working.

According to (Nenty in Korb & Akintunde 2013), retired school teachers including Home Economics teachers face numerous challenges such as limited financial resources to meet their financial needs, lack of expertise to initiate and manage income generating activities among other challenges. The major causes of these challenges are the low pension, lack of collateral for obtaining loans with the exit of the pay slip and huge family financial demands as well as having no clear policy on the retirement (Nenty in Korb & Akintunde 2013).

After retirement Home Economics teachers have to come up with strategies to raise money to cater for their financial obligations as they are no longer salaried (Oparanma, 2011). Home Economics Teacher Education is known to be a vocational oriented such that graduates of the programme even when involved in full time salary paid jobs should have a complementary source of income. This makes Home Economics teachers different from other teachers. This study therefore intends to assess the strategies adopted by Home Economics teachers in preparation for retirement in Kaduna State.

Purpose of the Study

The general purpose of this study was to explore issues relating to preparation for retirement by Home Economics teachers in Kaduna state. Specifically, this study determined

1. ways Home Economics teachers prepare for retirement in Kaduna state
2. the problems Home Economics teachers might encounter in preparation for retirement in Kaduna state.
3. possible ways Home Economics teachers could ameliorate the problems they might encounter in preparation for retirement.

Research Questions

The research questions for this study tend to seek;

1. What are the ways Home Economics teachers prepare for retirement in Kaduna state?
2. What are the problems Home Economics teachers might encounter in preparation for retirement in Kaduna state?
3. What are the possible ways Home Economics teachers could ameliorate the problems they might encounter in preparation for retirement?

Methodology

Research Design: The study was descriptive survey.

Area of the Study: The study was conducted in Kaduna South and Kaduna North Local Government Areas of Kaduna state

Population for the Study: Population for the study comprised of all the Home Economics teachers in Kaduna South and Kaduna North LGA of Kaduna State who have spent about 20 years in service or are 50 years old and above. The information gotten from the respondents shows that 11 respondents were within the age group 40-45, 17 respondents were within the age group 46-50, 11 respondents were within the age group 51-55, while 8 respondents were within the age group 56-60. A total of 47 respondents participated in the study (Field survey, 2018).

Sample for the Study: Purposive sampling was used to select Home Economics Teachers who have spent about 20 years in service or are 50 years old and above.

Instrument for Data Collection: Questionnaire was used for data collection. The validity of the instrument was established by three experts. Two Home Economics lecturers and one guidance and counselling lecturer from tertiary institution were used. The Cronbach's alpha was used to test the reliability. The reliability co-efficient of .84 and was considered high enough and reliable to be used for the study.

Data Collection Technique: The copies of the questionnaire were administered on the sampled respondents through the help of research assistants. 55 copies were distributed, and 47 copies were retrieved and used for the study.

Data Analysis Technique: Mean was used to analyze and answer the research questions. For section B, mean of 1.50 and above signified acceptance or agreement while mean of 1.49 and below shows rejection or disagreement. Section C and D, mean of 2.50 and above signified acceptance or agreement while mean of 2.49 and below shows rejection or disagreement.

Findings of the study

Table 1: Mean response on the ways Home Economics prepare for retirement (N = 47)

S/N	Ways Home Economics Teachers Prepare for Retirement	Mean	Remarks
1	Monthly contributory pension scheme	2.00	Accepted
2	Personal savings account with a bank	2.00	Accepted
3	Skills acquisition and training for use in retirement	2.00	Accepted
4	Acquisition of fixed and movable assets prior to retirement	1.17	Rejected
5	Investing in shares and stocks	1.91	Accepted
6	Establishment of a skill acquisition centre	1.13	Rejected
7	Regular attendance of pre-retirement programmes helps in preparation for retirement	1.65	Accepted
8	Discussion of my retirement plan with others who have retired helps in preparation for retirement	1.63	Accepted
9	Planning for post-retirement leisure activities	1.09	Accepted
10	Information gathering and knowledge acquisition about retirement before retirement	1.55	Accepted
	Grand Mean	1.61	Accepted

Table 1 reveals that Home Economics teachers adopt different ways to prepare for retirement. Apart from items 4 and 6, the remaining eight items in Table 1 have mean ratings above 1.5. The grand mean of 1.61 implies that the respondents generally agreed they adopt different ways to prepare for retirement agreed that the items.

Table 2: Mean of responses on problems encountered in preparing for retirement (N = 47)

S/N	Problems Encountered in Preparing for Retirement	Mean	Remark
1	Poor attitude of teachers towards saving in preparation for retirement	3.49	Agreed
2	Inadequate knowledge of how to use retirement money	3.38	Agreed
3	Inadequate knowledge of management of post retirement life	3.15	Agreed
4	Over dependence on salary during service	3.21	Agreed
5	Anxiety on life after retirement	3.04	Agreed

6	Ignorance of what to do with pension money	3.06	Agreed
7	Inappropriate investment decisions such as acquisition of liabilities instead of assets	2.15	Disagreed
8	Difficulty in time management	2.36	Disagreed
9	Fear of social stigma which views retired people as economically useless individuals	2.98	Agreed
10	Fear of losing relevance in life and career	3.26	Agreed
	Grand Mean	3.01	Agreed

Table 2 reveals problems Home Economics teachers encounter in preparing for retirement. Apart from items 7 and 8, the remaining eight items in Table 2 have mean ratings above 2.5. The grand mean of 3.01 implies that the respondents generally agreed they encounter different challenges in preparing for retirement.

Table 3: Mean of Responses on ways to Ameliorate Retirement Problems (N = 47)

S/N	Ways to Ameliorate Retirement Problems	Mean	Remarks
1	Retirement savings should be made compulsory for Home Economics teachers	3.38	Agreed
2	Programmes should be organized on the proper utilization of retirement funds by teachers	3.00	Agreed
3	Teachers should be educated on management of post retired life.	3.17	Agreed
4	Teachers should be encouraged to engage in getting other source of income during service which can be continued after retirement.	2.96	Agreed
5	Teachers preparing for retirement should be educated on the effective utilization of retirement funds	2.85	Agreed
6	Investment decisions that pertains to retirement should not be taken without consulting an expert.	3.02	Agreed
7	Teachers should learn time management technique during service to enable them manage their time better after retirement	3.38	Agreed
8	General awareness and information on the relevance of retirees should be made to the public to reduce and eliminate the social stigma.	3.30	Agreed
9	Retired teachers should be made to take the place of mentors for newly inducted teachers	3.00	Agreed
10	Proper management of health during retirement can help reduce the chances of death after retirement.	3.32	Agreed
	Grand Mean	3.14	Agreed

Table 3 reveals the responses on ways to ameliorate retirement problems encountered by Home Economics teachers. The mean ranges from 2.85 to 3.38 indicating general agreement by all the respondents that the items 1 to 10 can help to ameliorate retirement problems.

Discussion of Findings

The findings in table one revealed that monthly contributory pension scheme, bank savings, skill acquisition, investing in shares and stocks regular attendance of pre-retirement programmes, discussion of my retirement plan with others, planning for post-retirement leisure activities and information gathering about retirement were among ways in which majority of the Home Economics teachers prepare for retirement. Ali (2014) also identified similar ways that workers adopt in preparation for retirement. He posits that retirement plans includes a home to retire, retirement financial plan, savings account, economics of healthcare in retirement and investment in small sideline business. Lusardi & Mitchell (2011); Okechuku & Chijioke (2011) and Githui & Ngare (2014) in different studies discovered that all the efforts made by teachers in preparing for retirement are towards ensuring financial security after retire. Kaur (2013) also proposed five similar ways in which teachers prepare for retirement. Ali (2014) also asserts that many retirees shy away from establishment of a skill acquisition centre for fear of not being capable to operate them effectively. In the same vein, Lusardi and Mitchell (2009) have demonstrated that discussion of retirement plans with others increase teachers' likelihood of effective planning for retirement. Atchley in Osuji and Nweze (2014) proposed that the three most important things that required planning if retirement is to be a successful phase in life are income, health and activities.

The findings in table two revealed that poor attitude of towards savings, inadequate knowledge on use of money and of management of post retirement life, over dependence on salary during service, anxiety on life after retirement, fear of social stigma which views retired people as economically useless individuals and fear of losing relevance in life and career were among the problems encountered by Home Economics teachers in preparation for retirement. Kwesi and Aggrey (2012) discovered that apart from compulsory savings, many teachers do not have a personal savings in preparation for retirement. Ubangha and Akinyemi (2005) in a similar study discovered that many teachers are afraid of losing their relevance after retirement. They also discovered that 65 percent of the teachers indicated willingness to continue teaching after retirement if given the chance. Collard (2009); Ode (2004) and Selnow (2003) in different studies discovered that a major challenge in retirement planning is lack of knowledge and understanding about pensions and investment choices. Oniye in Kwesi and Aggrey (2012) a major challenge that retirement planning suffered is the challenge of social stigma of being tagged a retiree. Difficulty in time management seems not to be a problem to the respondents in this study. This disagrees with the findings of Ode (2004), who found difficulty in time management as a challenge as far as retirement planning is concerned. Amune, Aidenojie and Obinyan (2015) also discovered that retirement from work often create a lot of problems for retirees. These problems range from sudden loss of income, financial insufficiency and anxiety, deteriorating health conditions, anxiety about suitable post-retirement accommodation to problem of learning new survival skills for post-retirement life.

The findings in table three revealed that compulsory retirement savings, training on the use of funds and management of post retirement life, creation of alternative source of income during active service, consulting with an expert on investment decisions, educating the public on the relevance of retirees, proper health management tips, and retirees serving as mentors are some of the ways to ameliorate the problems Home Economics teachers encounter in preparation for retirement. Agada in Ali (2014) posits that provision of some kind of pre-occupation (or vocation) removes the burden of idleness in post- retirement years. Ali (2014) suggested economics of healthcare in retirement such as good eating plan, self-care programme, acquisition of medical kits (blood pressure machine and glucometer) can aid the proper management of health during retirement. Asamoah (2012) suggested that the government should take the responsibility of preparing Home Economics teachers for retirement to adjust by organizing pre-retirement seminars/workshops for them to be able to prepare well to adjust towards retirement. Qualls and Abeles in Amune, Aidenojie and Obinyan (2015) discovered retirement challenges can be surmounted by engaging in different activities such as serving as mentors, volunteer work, exercise, and continuing education.

Conclusion

Based on the findings of this study, it was concluded that preparation for retirement is an important and requires strategic planning. Home Economics teachers adopt many strategies to help them effectively prepare for retirement but there are many problems encountered by Home Economics teachers as they prepare for retirement. The problems encountered in preparation for retirement can be ameliorated if the proposed strategies are adopted.

Recommendations

- ❖ The Ministry of Education at the state and federal levels, Nigeria Union of Teachers (NUT) and Home Economics Teachers Association of Nigeria (HETAN) should enlighten teachers on ways they can prepare for retirement.
- ❖ Retirement planning should begin early in life so that many of the challenges can be surmounted.
- ❖ Home Economics teachers should utilize the several options such as

retirement savings, programmes, investment decisions and guidance from experts to aid their preparation for retirement and amelioration of the challenges they might encounter.

References

Adjekophori, B. (2014). Pension fund: A veritable source of financing real estate development in Nigeria. *International Letters of Social and Humanistic Sciences*, *12*(1), 23-40. Retrieved on April 28th from http:// www.ceeol.com Z

Ali, M. (2014). Managing post-retirement conditions in Nigeria. *Journal of Good Governance and Sustainable Development in Africa,* **2(2):** 110-121. Retrieved 14 April, 2018, from http:// www.rcmss.com

Asamoah, N. (2012). Adjustment towards Retirement, Unpublished Masters' Thesis, Nkrumah University of Science and Technology, Ghana

Atchley in Osuji, C. U., & Nweze, T. (2014) A Review of Factors influencing Teachers' Perceptions and Attitudes towards Retirement. *Journal of Educational Policy and Entrepreneurial Research* (JEPER). Vol.1, N0.2, October 2014. Pp 130-143

Atchley, R. C. (1988). *Social forces and aging* (5th ed.). in Ali, M. (2014). Managing post-retirement conditions in Nigeria. *Journal of Good Governance and Sustainable Development in Africa,* **2(2):** 110-121. Retrieved 14 April, 2018, from http://www.rcmss.com

Collard, S. (2009). *Individual investment behaviour: A brief review of research*. Bristol: Personal Finance Research Centre, University of Bristol.

Federal Republic of Nigeria (2008), Public Service Rules. Abuja: Federal Government Printers, pp28-29

Githui, T.& Ngare, P. (2014). Financial Literacy and Retirement Planning in the Informal Sector in Kenya, *International Journal of Education and Research*, Vol. 2(1). Pp. 105 -113.

Hershey-Petkoska, J., & Earl, J. K. (2009). Understanding the influence of demographic and psychological variables on retirement planning. *Psychology and aging*, 24(1), 245.

Inaja, A. E., & Rose, C. I. M. (2013). Perception and Attitude towards Pre-Retirement Counseling among Nigerian Civil Servants. *Global Journal of Human-Social Science Research.* Retrieved on April 28th from *https://socialscienceresearch.org/insdex.php/GJHSS/article/download/ 636/583*

Jeon, G. Y., & Bae, M. J. (2010). Study on the perception and behavior for preparing their old age. Journal of Korean Home Management Association, 28(1), 13-24. Retrieved on April 28th from http://www. koreascience.or.kr/article/ArticleFull Record.jsp?cn=GJGRBW_2010_ v28n1 _ 13

Kahana, E., Kelley-Moore, J., & Kahana, B. (2012). Proactive aging: A longitudinal study of stress, resources, agency, and well-being in late life. Aging & Mental Health, 16(4), 438-451. Retrieved on April 28th from http://www. tandfonline. com/doi/abs/10.1080/ 13607863.2011.644519

Kaur, R. (2013). Financial Literacy and Retirement Preparedness: A Study of Non-Teaching Staff of Punjab Agricultural University and Guru Angad Dev Veterinary and Animal Sciences University Unpublished Doctoral dissertation, Punjab Agricultural University, India.

Kwesi, N. W. & Aggrey E.B.A. (2012). Retirement Planning and Counseling: Issues and Challenges for Teachers in Public Schools in the Sekondi Circuit.

US-China Education Review Vol. 8 (2012) 755-767.
Lusardi, A., & Mitchell, O. S. (2009). How ordinary consumers make complex economic Decisions: Financial literacy and retirement readiness. NBER Working Paper No. 15350.
Lusardi, A., & Mitchell, O. S. (2011). Financial literacy and planning: Implications for retirement wellbeing. In A. L. Lusardi & O. S. Mitchell (Eds.), *Financial literacy: Implications for retirement security and the financial marketplace* (pp. 17-39). U. K.: Oxford University Press
Nenty, N. I. (2004). *Personality Traits and Post Retirement Adjustment of Public Servant in Akwa-Ibom State of Nigeria*. Unpublished PhD Dissertation. Calabar: University of Calabar in Korb, K. A., & Akintunde, O. O. (2013) Exploring factors influencing teacher job satisfaction in Nigerian schools. Nigerian Journal of Teacher Education and Training, 11, 211-223. Retrieved on April 28th from http://www. korbedpsych. com/LinkedFiles/Nigerian_Teacher_Job_Satisfaction.pdf
Ode, J. A. (2004). Counselling for retirement adjustment. A paper presented at *the 28th Annual National Conference of counselling Association of Nigeria (CASSON) Maiduguri*
Okechukwu, E., & Chijioke, S. (2011). The laws and administration of retirement in Nigeria: A historical approach. *Kuwait Chapter of Arabian Journal of Business and Management Review.* Vol.1 (2), pp.1- 10.
Olatunde, A., & Onyinye, T. (2013). Problems and Prospects of Retirement Adjustment on Families of Retirees among Civil Servants in Ekiti State, Nigeria. *European Scientific Journal, ESJ*, *9*(19). Retrieved on April 25th from https://eujournal.org/index.php/esj/ article/viewFile/1252/1261
Oniye, O. A. (2001). Problem associated with retirement and implications for productive adult life. *Nigeria Journal of Gender and development, 2*(1), 55-64 in Kwesi and Aggrey (2012)
Onoyas, A. (2013). Financial planning strategies towards retirement as perceived by potential retirees in Universities in the Niger Delta, Nigeria, *International Journal of Business and Social Science*. 4(14): 2-8.
Oparanma, A. O. (2011). Challenges of Nigerian Civil Servants Retirees. *Journal of Management and Society, 1 (3)*, 30-32. Retrieved on April 28th from http://www.jmas.com/2011/Vol_1-Issue_3 /paper_114.pdf
Qualls, S., & Abeles, N. (Eds.). (2002). *Psychology and the aging revolution: How we adopt to longer life.in* Amune, J.B., Aidenojie, E.O. & Obinyan, O.O. (2015). Management of life after retirement and its implication on retired academic librarians in Edo State, Nigeria. *International Journal of Humanities and Social Science,* 5(10), 233-241.
Restudy Committees for Home Economics (1978). Competencies for Home Economics Teacher Certification in West Virginia: A Progress Report in Fox, W. S., Stewart, D., & Erickson, P. M. (2008). Development of the National Standards for Teachers of Family and Consumer Sciences. *Journal of Family & Consumer Sciences Education*, 26. pp
Rose Hewitt, A., Howie, L., & Feldman, S. (2010). Retirement: What will you do? A narrative inquiry of occupation-based planning for retirement: Implications for practice. Australian occupational therapy journal, 57(1), 8-16. retrieved on April 24th from

Selnow, G. W. (2003). *Motivating retirement planning: Problems and solutions*. Philadelphia: The Wharton School, University of Pennsylvania.

Ubangha, M. B., & Akinyemi, B. A. (2005). The relationship between attitude to retirement planning and retirement anxiety among teachers. *The Counsellor, 21*, 156-163

Wong, J. Y., & Earl, J. K. (2009). Towards an integrated model of individual, psychosocial, and organizational predictors of retirement adjustment. *Journal of Vocational Behavior*, *75*(1), 1-13. Retrieved on April 28th from https://www.researchgate.net/profile/Joanne_Earl/publication/222732824_Towards_an_integrated_model_of_individual_psychosocial_and_organizational_predictors_of_retirement_adjustment/

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Access of Rural Women Dwellers to Financial Services in Imo State of Nigeria

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Abstract

This study explored access of rural women to financial services in Imo State of Nigeria. Specifically, it examined the challenges faced by rural women in accessing financial instruments, the factors that influence rural women's access to financial instruments and the measures that can be taken to ameliorate the challenges faced by rural women in accessing financial services. The area of the study was rural areas of Imo State. A total of 350 female respondents were used for this study and structured questionnaire was the instrument for data collection. Results from the study show that lack of information and relative unavailability of formal financial institutions are challenges that limit rural women access to financial instruments. To ameliorate these challenges, financial education and introduction of rural financial services are needed.

Keywords: Financial Accessibility Financial Education, Gender, Services, Family, Finance.

Introduction

Financial inclusion is a situation which exists when there is access for people of all races, and classes who are of age to a full range of financial products and services such as savings, credit and insurance at reasonable costs. It can also be seen as a situation whereby individuals and families have access to useful and affordable financial products and services that meet their needs, and these products and services are delivered in a responsible and sustainable way (Vargas, 2011). According to Mbutor and Mba (2013), financial inclusion is generally defined at ensuring access to formal financial services at an affordable cost in a fair and transparent manner. Nwanne (2015) defines it as the provision of access to and usage of diverse, convenient, affordable financial services at an affordable price to the generality of the population.

There is a high level of attention on the part of economic policy makers in the pursuit of financial inclusion. This is due to the fact that countries with higher degrees of financial inclusion have higher rates of economic growth. Khan (2011) reported that empirical economic evidence shows that there is a distinct rise in the income level of countries with higher number of branches and deposits of commercial banks and higher number of banks per 100,000 adults as well as number of deposit accounts per 1000 adults. This is observed in high income countries than in the low and middle income countries. Financial inclusion therefore portends to positive developments, especially for developing economies. There is a tendency that people who are financially included tend to be more productive, consumer more and invest more. Furthermore, financial inclusion encourages investment and entrepreneurship, as credit is available to entrepreneurs and small business people. Okafor (2012) observed that financial inclusion encourages poverty reduction, especially in developing economies and it reduces rural to urban migration, since there are no geographical constraints to financial access. Financial inclusion also increases productivity and consumption, and these are needed for economic growth and development. Nigerian policy makers have identified financial inclusion as a veritable tool for attaining sustainable economic development and growth. Furthermore, financial inclusion is also one of Sustainable Development Goals (SDGs), and thus plays a vital role in attaining economic development. It increases access to credit facilities needed for start-up businesses, expansion and helps in financial intermediation, wherein the surplus sector of the economy is linked with the deficit sector of the economy. It also helps in savings mobilization. According to Zioklui (2001), savings mobilization in developing countries is vital for capital deepening, which enables countries to

There are challenges that militate against effective financial inclusion in spite of its advantages. Studies have shown that there are gender gaps in financial inclusion, especially in rural areas of developing countries. Fanta and Mutosonziwa (2016) mentioned that there is a significant difference in access to finance in SADC economies between male and female entrepreneurs. Furthermore, Nanziri (2016) explained that women in rural areas of less developed countries (LDCs) have lower level of access to financial services, and this is attributable to challenges not limited to lower level of education, lack of information and limited access to sources of funding. Also, Aterido, Beck and Iacovone (2013) opined that rural women have limited access to financial to financial services, especially credit facilities due to lack of information and knowledge about requirements for accessing such. This has made communities to forgo the output that would have been produced if there is unlimited access for women to credit facilities for entrepreneurial start up and expansion.

Access to financial services is an important direct and indirect contributor in achieving gender empowerment and entrepreneurship growth. Claessens and Feijen (2007) mentioned that better access to financial services helps to increase income and therefore the possibility of increasing the scope of entrepreneurship and also embarking on community development projects. Clamara, Pena and Tuesta (2014) also mentioned that financial inclusion of women, especially in formal credit and insurance organizations helps in improving female entrepreneurship and also improves overall formal finance coverage of rural areas. Furthermore, Pitt, Khander and Catwright (2006), access to credit leads to women taking a greater role in household decision making, having greater access to financial and economic resources, increased access to social networks, having greater freedom and mobility.

Limited access to financial instruments, especially on the part of rural dwellers brings herculean challenges, especially pertaining to economic development and capacity utilization. In rural areas of developing countries such as Nigeria, there is a limited access to formal credit facilities, especially for female entrepreneurs. Adigun and Kama (2012) mentioned that challenges such as low financial literacy, inadequate infrastructure and inefficient technology have contributed in causing a significant disparity in financial inclusion. They further mentioned that there is also significant gender disparity in financial inclusion in theses rural areas due to the fact that rural women engaged in entrepreneurship mainly make use of informal financial instruments such as savings groups and credit unions. They have limited to no access to formal financial instruments. In Nigeria, there is a need for sustainability of financial inclusion. Nwanne (2015) opined that sustained financial inclusion of rural dwellers is a catalyst for rural economic development and a veritable measure that can be used to reduce rural to urban migration. It is in the backdrop of this that this study aims ascertaining the challenges faced by rural women in accessing financial services as well as promulgate possible solutions to these challenges.

Women are more excluded than men both on firm and individual levels. According to Henderson, Hering, Horton and Thomas (2015), female owned businesses in South American countries are more likely to be financially constrained than other comparable firms. Furthermore, Beck and Honohan (2008) in their study of countries in East Europe also mentioned that female borrowers are less likely to secure a loan when the loan officer is a male. They further mentioned that men are more favourably treated when it comes to access to credit lines than women in these countries and women minority loan applicants are concerned that this treatment has nothing to do with their credit worthiness.

The reasons for gender disparities in financial inclusion, especially in Nigeria has been attributed to various factors which include, but are not limited to, low level of financial literacy, poverty, lack of information on funding opportunities, inadequate coverage of formal financial sector in rural areas and inability to provide collateral for loans. Abdu, Buba, Adamu and Muhammed (2015) in their study mentioned that there is a significant gender gap in financial inclusion in Nigeria. They further mentioned that only 44% of Nigerians are financially included, and that only 34% of these financially included people are women. This disparity, they mentioned, is brought about by socioeconomic variables such as income disparity, archaic traditional beliefs and lower level of education. Furthermore, Nwankwo and Nwankwo (2014) mentioned that sustaining financial inclusion of rural dwellers in Nigeria constitutes mainstream for economic development and growth. They further asserted that rural areas are disadvantaged in financial coverage in Nigeria, with female rural dwellers being more disadvantaged than their male counterparts. They opined that there is a need to educate rural dwellers, especially women, on the importance of banking in order to facilitate the Central Bank of Nigeria (CBN) financial inclusion policy.

This study therefore aims at not only ascertaining the causes of existing gender disparities in financial inclusion, but also promulgating remedial measures in order to reduce these disparities.

Purpose of the Study

This study explored the access of rural women to financial instruments in rural areas of Imo State. Specifically, the study determined;

(i) challenges that rural women in Imo State face in accessing financial instruments;

(ii) factors that contribute to women's low level of access to financial instruments in rural areas of Imo State and;

(iii) possible solutions that could reduce the challenges of accessing financial instruments by rural women in Imo State.

Research Questions

1. What are the challenges that rural women of Imo State have in accessing financial instruments?
2. What are the factors that contribute to the low level of access of rural women's access to financial instruments?
3. What possible solutions can be promulgated to ameliorate the challenges that rural women in Imo state face in accessing finance?

Methodology

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

Area of study: The study area was Imo State, located in the South East of Nigeria. The state is made up of twenty seven (27) local government areas. There are three senatorial zones in the state namely Imo North, Imo East and Imo West. It is made up of urban and rural areas.

Population for the study: The population for the study consisted of 2,142 female entrepreneurs in the area. These were made up of 622 in the business of food processing, 728 engage in farming and 798 in petty trading (Small and Medium Enterprise Development Agency of Nigeria, 2016). These women operated mainly micro small enterprises with capitalization of less than N300,000 (three hundred thousand naira). These women were mostly married with family, and engaged in these businesses to support their families financially. Furthermore, these businesses employed direct and indirect relations of the business operators, most times not paying them in formal wage, in order to reduce operation cost. These businesses were also registered in their respective Local Government Areas with relevant permits. These businesses are sole proprietorships owned and fully operated by rural women, and the businesses served their immediate rural and some urban communities.

Sample and Sampling Technique: Simple random sampling technique was used for this study. Yaro Yammane formula was adopted for a sample of 350 female entrepreneurs in order to make for a 5% margin of error and 95% confidence interval, with 103 in food processing enterprise, 115 in farming and 130 engaged in petty trading. The number of entrepreneurs selected in each type of business was determined by sample ratio.

Instrument for Data Collection: The instrument used for data collection was a structured questionnaire and secondary data. The title of the questionnaire was "Gender and Financial Inclusion". The questionnaire was face validated three experts from the University of Nigeria Nsukka, from Business Education and Educational Foundations. The reliability of the instrument was determined using the Cronbach Alpha reliability method and reliability coefficient of 0.93 was obtained.

Method of Data Collection and Analysis: Data was collected with the help of two trained research assistants by hand within five weeks, coordinated by the researcher. Out of the 350 copies of the questionnaire distributed, a total of 320 were filled and returned, indicating a 94% return rate. Mean and percentage were used to answer the research questions, while T-test was sued in testing the null hypothesis at a 0.05 level of significance.

Findings of the study

Table 1: Mean ratings of challenges faced by rural women of Imo State in accessing finance

S/N	Financial Instrument	$\overline{X}$	SD	Remarks
1	inadequate information about financing opportunities	3.91	.84	S
2	lack of proper financial records	3.21	.65	NS
3	gender bias of financial institutions	3.12	.68	NS
4	improper documentation of financing needs	3.94	.82	S
5	limited formal financing opportunities	3.82	.79	S

Key: X = Mean for female respondents. SD = standard deviation for respondents.
S = significant lack of access. NS = non-significant lack of access.

Table 1 indicates that inadequate information, improper documentation of financing needs and limited financing opportunities for rural dwellers are significant challenges rural women face in accessing financial instruments. However, lack of proper records and gender bias are not significant challenges faced by rural women in accessing financial instruments.

Table 2: **Mean rating of factors contributing to low level access of rural female dwellers to financial inclusion.**

S/N	Contributing Factor	$\overline{X}$	SD	Remarks
1.	Lack of information on funding opportunities	3.92	.74	S
2.	Bias on the part of potential outside investors	3.97	.55	S
3.	Traditional beliefs about female-owned enterprise	3.56	.52	S
4.	Non-availability of collateral for loans	3.62	.72	S
5.	Low level of financial literacy	4.01	.64	S
6.	Inability to maintain minimum bank account balance	3.22	.82	NS
7.	Geographical distance from a financial institution	3.51	.54	S

Table 2 indicates that inability to maintain a minimum bank account balance was not a significant factor contributing to gender disparity in financial inclusion, as highlighted by the mean score of 3.22. However, there is significant gender bias on the part of potential external investors and a non-availability of collateral for loans. The lack of information on funding opportunities significantly impeded the success of female entrepreneurs. Furthermore, investors in developing economies like Nigeria are still negatively biased towards funding business organizations owned and operated by women (Bayero, 2015). This has also significantly limited funds available for female entrepreneurs, especially those in rural areas. Lack of financial literacy has also had a significantly adverse on the accessibility of formal financing on the part of many women entrepreneurs. This also limits their knowledge of available funding opportunities (Nanziri, 2016).

Table 3: Measures for ameliorating challenges faced by rural women in accessing financial services

S/N	Possible solution	$\overline{X}$	SD	Remarks
1.	Financial education geared towards rural women	3.76	.72	S
2.	Introducing agency banking in rural areas	3.56	.51	S
3.	Introduction of innovative savings products	3.61	.65	S
4.	Digitization of financial products delivery channels	3.32	.74	NS

Table 3 indicates that almost all the solutions promulgated for ameliorating gender disparity in financial inclusion in Imo State.

However, digitization of financial products delivery channels was not a significant measure, as indicated by its mean score of 3.32. The introduction of rural banking and creation of innovative savings products significantly contribute in ameliorating the funding challenges that female entrepreneurs encounter. This rural banking brings formal financial instruments nearer to the rural dwellers and increases their access to credit facilities and savings instruments. Also, theses financial institutions by situating in rural areas help bring about business growth and development as well as improved capacity utilization. Furthermore, financial education geared towards female rural entrepreneurs also improves their knowledge level and thus accessibility to formal financial instruments (Zins and Weil, 2016).

Discussion of Findings

The findings of this study were in consonance with the findings of Mbutor and Mba (2013) who were of the view that lack of information about funding opportunities is a significant challenge militating against rural women's access to funding. Furthermore, the findings agreed with Okoye, Adetiloye, Erin and Modebe (2010) who mentioned that access of rural entrepreneurs to credit facilities is limited as a result of limited access to information and also lack of proper documentation. In addition, the findings of the study are in agreement with the postulations of Abdu *et.al*. (2015) who mentioned that financial education is needed for rural women in order for them to utilize the available formal financial sources that are available to them.

The forms of funding that are available for female entrepreneurs include (but not limited to) loans and non-refundable grants). In order to effectively utilize these facilities, adequate information flow is vital, and this makes it imperative that female entrepreneurs have unfettered access to information about funding opportunities. Furthermore, access to information on formal financial instruments also increases the likelihood of increased inclusion of female entrepreneurs. Furthermore, there is a strong link between financial inclusion and entrepreneurial success. According to Bayero (2015), in order to improve the entrepreneurial propensity of women, there is a need to increase their level of access to financial instruments. The study further mentioned that financial institutions need to promulgate gender friendly policies in areas of product design, marketing and delivery; also, financial literacy programs aimed specifically for women in order to make them informed of financial management skills and funding opportunities that are available to them.

Conclusion

From the findings of the study, it was concluded that inadequate access for financial instruments is a major challenge for rural women as it adversely affects their entrepreneurial propensity and also reduces their spending power. Furthermore, increased access to financial services helps in empowering of women, as it enables them to be able to expand the scope of their enterprise and thus increase their purchasing power. It is therefore vital that bottlenecks militating against rural women's access to financial instruments be removed in order for them to contribute to economic development and growth. The non-availability of rural baking is also another challenge that reduces rural women access to financial instruments. This is because there is a relatively low level of banking coverage for rural dwellers, and this also in turn reduces their access to formal financial services, which also includes savings and credit facilities.

Recommendation

Based on the results of the study, the following recommendations were made:

- Financial education and literacy programmes that are geared towards women, especially rural female dwellers on financial management tips and enlightening them on the benefits of using the formal financial sector.
- Introduction of agency banking and mobile banking in rural areas will help females in rural communities who are excluded from owning a bank account due to remoteness of their areas of habitation.
- Creation of innovative financial instruments geared towards women via its marketing, implementation and accessibility in order to get female entrepreneurs better informed of funding opportunities available to them.

References

Aterido, R.; Beck, T. And Iacovone, I. (2013). Access to Finance in Sub-Saharan Africa: Is there a Gender Gap? *World Development*, 47(3), 102-120.

Bayero, M. (2015). Exploring the Link between Financial Inclusion and Women Entrepreneurship. *Lapai Journal of Management Sciences, 3(6), 247-259.*

Beck, T. And Honohan, P. (2008). Finance for All? Policies and Pitfalls in Expanding Access. *World Bank Policy Research Paper,* 41792.

Clamara, N.; Pena, X. And Tuesta, D. (2014). Factors that Matter for Financial Inclusion. Evidence from Peru. *Madrid. BBVA Research*, 16(3), 86-99.

Fanta, B. And Mutosonziwa, K. (2016). Gender and Financial Inclusion of Women in the SADC Region. *FinMark Trust Policy Research Paper,* 11.

Henderson, L; Herring, C; Horton, H. And Thomas, M. (2015). Credit Where Credit is Due? Race, Gender and Discrimination in the Credit Scores of Business Start-ups. *The Review of Black Political Economy,* 42(4), 459-479.

Khan, H. (2011). Financial Inclusion and Financial Stability: Are they two sides of the same coin? *Address delivered at the Indian Banks Association Conference*, Chenna; 4th November.

Mbutor, M. And Mba, I. (2013). The Impact of Financial Inclusion on Monetary Policy in Nigeria. *Journal of Economics and International Finance* 5 (8), 318-326.

Nanziri, E. (2016). Financial Inclusion and Welfare in South Africa: Is there a Gender Gap? *Journal of African Development* 18 (2), 109-134.

Nwankwo, O and Nwankwo, N. (2014). Sustainability of Financial Inclusion to

Rural Dwellers in Nigeria: Problems and Way Forward. *Research Journal of Finance and Accounting 5(5), 24-31.*

Nwanne, T. (2015). Relationship Between Financial Inclusion and Economic Growth in Nigerian Rural Dwellers. *International Journal of Small Business and Entrepreneurship Research* 3(7), 17-27.

Okafor, F. (2012). Financial Inclusion: An Instrument for Economic Growth and Balanced Development in Rural Areas. *Journal of the Chartered Institute of Bakers of Nigeria*, 6(8, 34-45.

Okoye, L; Adetiloye, K; Erin, O. and Modebe, N. (2010). Financial Inclusion. A Panacea for Balanced Economic Development. *Innovation Management, Development Sustainability and Competitive Economic Growth* 11 (6), 4384-4396.

Pitt, M; Khandler, S. And Catwright, J. (2006). Empowering Women With Micro Finance: Evidence From Bangladesh. *Economic Development and Cultural Change* 54 (4), 791-831.

Small and Medium Scale Enterprise Development Agency of Nigeria (2016). SurveyReport on Micro Small and Small Scale Enterprises in Nigeria.

Vargas, A. (2011). Assessing the Contribution of Financial Innovations to the Production of Implicit Services of Financial Intermediation in Costa Rica. *International Financial Corporation Bulletin, 31.*

World Bank (2016). *World Bank Economic Review*. Washington. 7(1), 11-19.

Zinns, A. and Weill, L. (2016). The Determinants of Financial Inclusion in Africa. *Review of Development Finance*, 6 (2), 46-57.

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Production and Chemical Analysis of Hand Sanitizer Produced from Garlic, Aloe Vera and Ethyl Alcohol for Family Use

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Abstract

The study produced and analysed hand sanitizer made from garlic (Allium Sativum), aloe vera (Aloe Barbadensis Miller) and ethyl alcohol for family use and income generation. It was an experimental research. Three research questions were raised to generate answers for the study. The major findings of the study among others include identification of materials for the for production of local hand sanitizer using local raw materials; garlic, aloe vera, 30% alcohol and other inactive additives, hand sanitizer was produced using local raw materials. The chemical analysis performed to determine the sanitizing properties showed that the hand sanitizer produced had the characteristics of a good hand sanitizer. The following recommendations among others were made; copies of the findings of the study should be made available to researchers to read and gain additional knowledge on other local raw materials that have antibiotic effects for producing hand sanitizers. The production of locally made hand sanitizers should be encouraged instead of relying on the importation of foreign products. The government should encourage unemployed graduates by providing soft loans to enable them to establish cottage industries that will be producing hand sanitizer using local raw materials.

Keywords: Production, Hand sanitizer, Garlic, Aloe vera, income, family use

Introduction

Most Nigerian families, despite their level of education and exposure, still do not practice proper hygiene as it is expected to curb infection and food contamination. This seems to contribute to poor health conditions being experienced in various homes and communities today. In order to curb the spread of bacteria related diseases, good personal hygiene that requires regular hand washing after every activity is needed. Hygiene means proper cleanliness of oneself and its surroundings to prevent the spread of diseases. Hygiene is of great importance in the prevention of many kinds of infections, for example infections of the gut, the skin, the eye, the lungs and the whole body. Many infections of the gut are spread from one person to another because of poor hygiene. Washing of the hands regularly reduces to the barest minimum the increase of the germs in human hands. Effective washing of hands require the use of soap and good water. This may however not be available at all times; hence hand sanitizer becomes a veritable alternative for cleaning hands when soap and water are not available. Using hand sanitizer that can easily be carried along, will go a long way in not only killing germs and bacteria in our hands, but will minimize the transmission of germs.

The importance of hygiene in the world today is quite significant to human survival. Seeing the havoc caused by the outbreak of diseases in recent times, the worst of these diseases was the outbreak of Ebola virus in 2014. In the year, 2014 Nigerians witnessed an era of outbreak of Ebola virus, which claimed many lives before it was put under control. During the Ebola period, the major emphasis was the cleaning of hands with hand sanitizers as a form of control. This brought to lime light the need and necessity for frequent cleaning of hands with hand sanitizers to prevent the spread of micro- organisms.

Hand sanitizer is a liquid substance that is applied by rubbing it on hands to kill germs. U.S Department of Health and Human Services (2016) further stated that hand sanitizer is effective hand cleaners that kill germs and bacteria. The chemical component of typical hand sanitizers is made up of active and non - inactive additives. The active ingredients in a typical hand sanitizer is ethyl alcohol while other inactive additives such as tricosan,, sodium lauryl, ether sulphate, aqua, sodium chloride, citric acid, cocamide, diethanolamine, colour preservative, propylene glycol and essential oil of plants and fragrances (Center for Disease Control and Prevention, 2016). Alcohol is one of the active ingredients in producing hand sanitizer, has been known to kill germs hence; it is used to destroy germs in a body environment before introducing an injection into the patient's body and also cleaning up a body surface before an operation (Yeh, Eisenberg, and Philips 2003, Watkins, Chriwaterguy and Joshua 2012). Stressing further, Sherwood (2013 and Rogers 2015) noted that hand sanitizer with at least a 60 percent inclusion of alcohol are effective in killing bacteria, including the Streptococcus bacteria, as well as the bacteria that cause tuberculosis.

There are other active ingredients that can be used in producing hand sanitizer. They are plant extracts - garlic (*allium sativum*) and Aloe Vera (*aloe barbadensis miller*). Garlic and aloe vera are one of the earliest documented plants used by human for the treatment of diseases and maintenance of health (Natural Health Publications 2010 and Food, Drug and Administration (2014). Aloe Vera plant has been known and used for centuries for its health, beauty, medicinal and skin care properties. The chemical components of hand sanitizer produced using local agricultural materials are garlic, aloe vera and 30% ethyl alcohol as the active ingredients with other inactive additives such as treated water, carbopol, triethanolamine, glycerine , frangrance, and colouring.

The typical hand sanitizer must possess certain antiseptic properties such as the ability to kill germs, that is, it has to be anti – bacteria, anti - fungal and anti – viral properties. In fact, it must have ability to control various species of ill - causing micro-organism. According to Safespace (2017) a typical hand sanitizer must possess certain antiseptic properties such as ability to kill germs, active and stable, safe for people and animals, environmentally safe, leaves no damage or corrode faucets beyond recognition, affordable, dry quick and must have detailed instruction for proper usage. Aloe–Vera, garlic extracts and alcohol can kill micro organisms by denaturing their proteins and dissolving their lipids and so were all effective against bacteria, fungi and viruses. The hand sanitizer produced from garlic, aloe vera and 30% ethyl alcohol has all the above sanitizing properties of a typical hand sanitizer as it was subjected to test and was found to be very effective in denaturing many micro organisms tested, it was found to be safe, cheaper, effective and dries up quickly. It would enable families to prevent the spread of diseases and infection for healthy living and would aid in income generations by family members.

The hand sanitizer produced have inhibitory action on fungi, bacteria and viruses Productions of local hand sanitizer will ensure prevention of diseases and infections but unfortunately observations and studies have revealed that most of the hand sanitizers used in the country are imported and as such they are very expensive to buy. The production of local hand sanitizer will involve using agricultural materials such as ethyl alcohol, garlic and aloe vera to generate the necessary anti biotic effects for tackling the spread of diseases.

The roles hand sanitizers played in preventing the spread of Ebola disease increased the demand of hand sanitizers in the market. Most hand sanitizers used in Nigeria at this period were imported and were quite expensive and scarce. The need to produce hand sanitizer using locally agricultural materials that will be more effective, cheaper and available to curb the spread of diseases has led to this research, Therefore combining ethyl alcohol, garlic and Aloe Vera in producing hand sanitizer will have more effective control of various species of germs and viruses in the body, considering the properties of the two raw materials (garlic and aloe vera). The production of hand sanitizer will take care of volumes of the products that will be used by the populace.

The Objective of the Study

The general objective of the study was to produce and test hand sanitizer from locally available materials for family use and income generation. Specifically, the study:

1. identified locally available materials for production of hand sanitizer,
2. prepared hand sanitizer from locally available materials,
3. tested the hand sanitizer (chemical analyses).

Methodology

***Design of the study*: The study was an experimental study. It involved the following steps:

Procurement of materials (active and non active) ingredients

The following materials were procured:

Garlic	700g
Aloe vera leaves	700g
Ethyl alcohol	1.5 litres
Activated carbon	400g
Treated Water	2.5 litres
Thickner (Carbopol 940)	15g
Triethanolamine (neutralizer)	20 ml
Glycerin (moisturizer)	10 ml
Fragrance	12 ml
Colour	to taste (optional)

Procedures for the Preparation of Garlic Juice (Extraction): The following procedures were evolved in the extraction:

i. A sizeable amount of garlic was purchased from the market, out of which 700g was weighed, peeled and washed in deionizer water.
ii. 419g was weighed out of it, then grinded using newly purchased electric blender to avoid contamination.
iii. The mixture was poured into mixing bowl, this was followed by the addition of 0.75 litres of alcohol, this was mixed together by stirring and left for 20 minutes for maximum extraction
iv. The mixture was sieved in a 40-mesh sieve of 0.420mm opening to filter and separate the solid particles from the extract
v. The extract was passed through an activated carbon column to remove the odour and colour of garlic to a reasonable extent. The odour was a bit offensive while the colour was a light cream colour.
vi. At this point the resultant premix was 0.85 litres of the garlic extract ready for use.

Procedure for the Preparation of the Aloe Vera gel (Extraction)

i. A sizeable amount of aloe vera was purchased from the market, washed, out of which 700g was weighed using a weighing balance.
ii. This was peeled to remove the green colouring matter leaving the gel and weighed to obtain. 480g.
iii. It was grinded with the use of an electric blender and pour into mixing bowl
iv. 0.75 litres of alcohol was added, mixed together and left for about 20 minutes for maximum extraction
v. The mixture was sieved in a 40-mesh sieve of 0.420mm opening to filter and separate the solid particles from the extract
vi. The extract was passed through an activated carbon column to remove any possible odour and the green colouring matter to a reasonable extent.
vii. At this point the premixed which were 1.1 litres of the aloe vera extract ready for use.

Procedures for the Formulation of Locally Made Hand Sanitizer

A large plastic bowl of about 10 litres was obtained and cleaned properly.

2.5 litres of treated water was poured into the cleaned bowl, Fifteen (15) grammes of thickner (Carbopol 940) was added to the treated water and left for 24 hours to dissolve properly, it was stirred to obtain a homogenous mixture. This was followed by the gradual addition and simultenous stirring of trietholamine to turn the mixture into a semi viscous gel. This was followed immediately by gradual addition and stirring of glycerine to remove any lumps that might have been formed and to achieve a homgenos mixture. The premixed Aloe vera extract and garlic extract were added to the resulting homogenous mixture with continous stirring in a clock wise direction to entrap more air for the formation of bubbles on the hand sanitizer. Fragrance was then added to produce a desirable odour.

Little quantity of colour (if required) which has been dissolved in 5ml of treated water was added to the resulting hand sanitizer to enhance the aesthetic value of the product. Finally, the resulting hand sanitizer was then poured into 60 pieces of 80ml of properly labeled containers.

Findings

Procedure for the Chemical Analysis:

To find out the chemical analysis, the following were determined:

Determination of Ash Content

Ash determination was carried out according to AOAC (2010) procedure. Two grams of sample was placed in silica dish which had been ignited, cooled and weighted. The dish and sample were ignited first gently and then 550°C in a muffle furnace for 3 hours, until a white or grey ash was obtained. The dish and content were cooled in a dessicator, and weighed.

$$\% \text{ Ash} = \frac{(W_3 - W_1)}{(W_2 - W_1)} \times \frac{100}{1}$$

Where

W_1 = weight of dish
W_2 = weight of dish + sample before ashing
W_3 = weight of dish + sample after ashing

Determination of Fat

The fat content was determined according to AOAC (2010) soxhlet extraction method. A 500ml capacity round bottom flask was filled with 300ml petroleum ether and fixed to the soxhlet extractor. Two grams of sample was placed in a labeled thimble. The extractor thimble was sealed with cotton wool. Heat was applied to reflux the apparatus for six hours. The thimble was removed with care. The petroleum ether was recovered for reuse. When the flask was free of ether it was removed and dried at 105°C for 1 hour in an oven. The flask was cooled in a dessicator and weighed.

Calculation:

$$\% \text{ fat} = \frac{\text{Weight of fat}}{\text{Weight of sample}} \times \frac{100}{1}$$

Determination of Crude Fibre

Crude fibre was determined using the method in AOAC (2010). Three (3) grams of the sample was weighed into a 50ml beaker and fat was extracted with petroleum ether by stirring, settling and decanting three times. The extracted sample was sir dried and transferred to a 600ml dried beaker. Then 200ml of 1.25% sulphuric acid and few drops of anti-foaming agent were added to the beaker. The beaker was placed on digestion apparatus with pre-adjusted hot plate and boiled for 30 minutes, rotating beaker periodically to keep solid from adhering on the sides of the beaker. At the end of 30 minutes period, the mixture was allowed to stand for one minute and then filtered through a Buchner funnel. Without breaking suction, the insoluble matter was washed with boiling water until it was free of the acid. The residue was washed back into the original flask by means of wash bottle containing 200ml of 1.25% sodium hydroxide solution. It was again boiled briskly for 30 minutes with similar precautions as before. After boiling for 30 minutes, it was allowed to stand for one minute and then filtered immediately under suction. The residue was washed with boiling water, followed by 1% hydrochloric acid and finally with boiling water until it was free of acid. It was washed twice with alcohol and then with ether for three times. The residue was transferred into ash dish and dried at 100°C to a constant weight. Incineration to ash was done at 600°C for 30 minutes, cooled in a desiccator and weighed. The difference in weight between oven dry weight and the weight after incineration was taken as the fibre content of the sample. This was expressed as a percentage weight of the original sample taken for analysis.

$$\text{Crude Fibre (\%)} = \frac{\text{Oven dried sample} - \text{Weight of sample incineration}}{\text{Weight of sample taken}} \times 100$$

Table: Shows the chemical Analysis of hand Sanitizer Produced and Result

LAB NO	SAMPLE	% DM	% MC	% CF	% FAT	% ASH
1	HS	0.80	99.20	0.001	1.32	0.99
		0.80	99.20	0.002	1.30	0.96
		0.82	99.18	0.001	1.30	0.96
2	CHS	1.00	99.00	0.002	1.32	0.99
		0.82	99.20	0.001	1.31	0.97
		0.91	99.09	0.001	1.30	0.99

Key DM: Dry Matter, MC: Moisture Content, CF: Crude Fibre, ASH: Ash Content

The result shows the percentage moisture content of the hand sanitize observed in the table range from 99.18 to 99.20 and did not differ significantly from the control which range from 99.00 to 99.20. The percentage crude fibre, fat and ash content of the hand sanitizer as observed in the table range from 0.001 to 0.002, 1.30 to 1.32 and 0.96 to 0.99 respectively and did not also differ significantly from the control which range from 0.001 – 0.002, 1.30-1.32 and 0.97 – 0.99 respectively.

The following findings were made from the study. This includes:

- Hand sanitizer was formulated using locally sourced materials garlic, aloe vera, 30% alcohol and other inactive additives
- A recipe of hand sanitizer was made from extracted garlic and aloe vera using 30% alcohol.
- The chemical analysis show that the hand sanitizer produced from local raw materials have good sanitizing properties such as ability to kill germs, active and stable, safe for people and animals, environmentally safe, leaves no damage or corrode faucets beyond recognition, affordable ,dry quick and must have detailed instruction for proper usage. In fact, it must have ability to control various species of ill - causing micro-organism.

Discussion of Findings

The study shows that hand sanitizer can be produced from locally material (garlic, aloe vera, 30% alcohol with other inactive ingredients such as treated water, thickner, triethanolamine, glyerine, fragrance and colour). From the above, it can be seen that the use of garlic, aloe vera as the active ingredients are derived from the fact that, garlic and aloe vera have anti microbial, anti fungal and anti bacterial properties that can attack the effect of micro organism (National Research Institute 2010 and Saini 2016). Plant extracts *(Allium Sativum* and Aloe *Vera barbadensis miller)* are viable part of the active ingredients in the hand sanitizer utilizing the anti bacterial properties of these plants. From the above, it can be deduced that garlic for the production of hand sanitizer must be processed to obtain garlic juice for use and it is very essential ingredient for the production of local hand sanitizer because of its healing properties. The use of garlic juice has since been recognized by man all over the world as a valuable condiment for flavouring of various vegetarian and non- vegetarian dishes. Aloe vera gel is also produced in a similar way From the above, it can be deduced that aloe vera leaf must be processed to obtain aloe vera gel for use and it forms essential ingredient for the production of local hand sanitizer because of its healing properties. Aloe vera has since been recognized by man all over the world as valuable ingredients for maintenance of health and treatment of diseases. Garlic and Aloe vera are usually extracted with alcohol and deodorized before using them in the formulation. The findings of the study with regards to the production of hand sanitizer made from local raw materials (garlic, aloe vera and 30% alcohol) showed that hand sanitizer can be locally produced from garlic, aloe vera, 30% alcohol with other inactive ingredients. The extraction of garlic and aloe vera is in line with the findings of Singh and Singh (2008) who noted that garlic has since long been recognized all over the world as a valuable condiment and a popular remedy for various ailments and physiological disorders. *Allium Sativum* and *Aloe Barbadensis Miller* are one of the earliest documented plants used by man for the treatment of diseases and maintenance of health; they all have inhibitory action on bacteria, virus and fungi. This inhibitory action is in consonant with the findings of Food and Drug Administration (2014) which noted this antiseptic effect; that aloe Vera contains 6 antiseptic agents: Lupeol, salicylic acid, urea nitrogen, cinnamonic acid, phenols and sulphur. Ezeoguine (2015) noted that home Economics encourages the expansion of knowledge and development of skills in many areas. Production of hand sanitizer is very essential for skill development in Home Economics related areas.

The result shows the chemical analysis of the hand sanitizer produced, the crude fibre is negligible, whereas the ash and fat content are significantly low on the contrary, its content was significantly high hence, low dry matter. It implies that when the hand sanitizer produced is applied on the hand, there will be no friction. That is, the hand sanitizer produced is smooth and safe to be used. The fat content tested was not gumming that is, it can dry quickly when applied. This is in line with the findings of Safespace (2017) who noted that a typical hand sanitizer must possess certain antiseptic properties such as ability to kill germs, active and stable, safe for people and animals, environmentally safe, leaves no damage or corrode faucets beyond recognition, affordable ,dry quick and must have detailed instruction for proper usage.

Recommendations

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

- ❖ The findings of this study should be made available to individuals, families, future learners, researchers, consumers in all works of life through organizing seminars and workshop at the local and state government levels to educate the public on the importance of producing and using hand sanitizer made from local raw materials.
- ❖ The manufacturers of hand sanitizer should continually engage in more research to update themselves on other ways of improving their products.
- ❖ Hand sanitizers should be developed using available local materials instead of relying heavily on the importation of foreign products.
- ❖ The government should encourage the unemployed graduates by providing soft loans to enable them to engage in small scale production of hand sanitizer using our local raw materials.

References

Center for Disease Control and Prevention (2016). Hand Sanitizer. Retrieved from: *https://www.cdc/gov/hand washing/show-me- the science –hand-sanitizer html, on 21/2/2015.*

Chriswaterguy, C.W.B. & Joshua M. P. (2012). Ethanol-based. Retrieved from: *http://www.appropedia.org/Ethanol-basedd_hand_sanitizer hand sanitizer on 12/5/2017.*

Ezeoguine, J.A (2015). Developing students' skill in the production of homemade cosmetics and household disinfectant for sustainable economic development in Nigeria. Nigeria Journal of Home Economics(Nig JHEC) 5(1):63 -71

Food, Drug and Administration (2014). What is Aloe vera? .Retrieved from www.medical.news today com / articles on 14/5/2015.

Hurley, T. (2015). How To Make Your Own Gel. Retrieved from: love-to-know.com on 14/5/2015.

Mbah, P.E (2004). *A Course Text on Education Healthy Living and National Development.* Ibadan: Tunsy publication.

McFarland E. & Maven, K. (2015). A holistic approach to healthy lifestyle choices Retrieved from: *www.my health maven.com/diyl personacare products/hand sanitizer receipt, on 23/2/2017.*

National Health Publication (2010). Garlic history. Retrieved from: *www allcifacta. Com/garlic/ history, on 20/2/2017.*

Safespace (2017).Characteristics of good disinfectant.retrieved from https://www. Safespaceco. Com/ characteristics –of-c-good- disinfectant.

Saini S, (2016) 7 surprising Health benefits of garlic. Retrieved from: *food. ndv.com/food/ drinks/ power house- of-medicine- and- flavour – surprising health – benefits -of –*

Sherwood, C. (2013). How alcohol kills bacteria .Retrieved from. *www. livestrong.com /article/ 88193 – hand sanitizer- kill bacteria on 18/12/16.*

Singh, V.B & Singh, K (2008). *Spices.* New Delhi: New Age International Publishers Limited

Tanner, B.D. (2015). Anti microbial test laboratories. Retrieved from: *http// www.antimicrobialtest laboratories. Com/term on 23/2/2017.*

U.S Department of Health & Human Services (2016). Show me the science when and how to use hand sanitizer. Retrieved from: *https:// www. Cdc/cdc/gov/ hand sashing/show – me - the – science – hand sanitizer.html on 2/2/2016.*

Yeh G.Y; Eisenberg D.M; Kaptchuk T.J, & Phillips R.S. (2003) Systematic review of herbs and dietary supplements for glycemic control in diabetes. *Diabetes Care; 26:1277–94.*