EDITORIAL NOTE

The Nigerian Journal of Home Economics (Nig-JHEC) is a publication of the Home Economics Professional Association of Nigeria (HEPAN) managed by Home Economics Council (HECON) which is the national body. Nigerian Journal of Home Economics (Nig-JHEC) brings together emergent issues and current trends on all aspects of Home Economics, and most importantly, how Home Economics teachers and practitioners might improve and renew the everyday work and lives of Home Economist, individual and households. It features quantitative and qualitative, disciplinary and trans-disciplinary, empirical and theoretical work and includes special editions on key developments. It aims to push the boundaries of theory and research to seek out new paradigms, models and ways of framing Home Economics.

The Journal welcomes contribution from members and non-members, from a variety of disciplinary and theoretical perspective. Manuscript should be sent electronically to Prof Lilian Salami via liliansalami@yahoo.com or hepan.ng@gmail.com.

The above notes are subjects to review by the editorial board from time to time.

Professor Lilian I. Salami
Editor-in-Chief
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Abstract
Healthy ageing and wellbeing are common goals in modern societies. The major demographic shift towards higher proportions of older people within the population in many countries worldwide, and the recognition that much of the costs of health and social care in economically-developed countries is concentrated in the last decade or two of life, have sharpened the research focus on ageing. There is growing interest in the identification of biomarkers which capture key features of healthy ageing but, given the biological complexity of the ageing process, there is no single, simple and reliable measure of the rate at which someone is ageing. A cardinal feature of ageing is loss of function which translates into wide-ranging consequences for the individual and for family, carers and society. List of biomarkers are addressed here, areas of function which decline during ageing including physical capability, cognitive function, physiological function, endocrine function, and immune function. These areas have causative role in the ageing process and therefore might be useful to characterise and to quantify ageing at the individual level. Adoption of healthy lifestyles has also been identified as determinants of graceful ageing.

Keywords: Determinants, Ageing, Biomarkers, Gracefully

Introduction
Ageing is immensely complex, an inevitable process of becoming older which often is irreversible. Ageing affects all cells, organs and tissues and majority of body systems, it is characterised by the gradual loss of function (Kuh, Cooper, Hardy, Richards, Ben-Shlomo, 2014). When extensive, such functional losses have profound effects which impact on the individual and on family members and carers and have wide-ranging consequences for society. According to Vaughn, Zurlo and Ravussin (2011) ageing is a gradual and progressive change in the organism and bodily composition which often lower the chance of survival with attendant reduction in physiological capability for self-regulation of body parts repair and adaptation to environmental demands both internal and external. The process is therefore associated with change and dynamics in biological, physiological, environmental, psychological, behavioural and social processes. The natural ageing process begins in early adulthood when function begins to gradually decline (Miller, 2012).

Healthy ageing and wellbeing are common goals in modern societies. The major demographic shift towards higher proportions of older people within the population in many countries worldwide, and the recognition that much of the costs of health and social care in economically-developed countries, have sharpened the research focus on ageing. (Vulpe, 2010)

The fast-growing numbers of older adults during the last few decades have impacted significantly on the political, economic, and social functions of societies in both industrialized and developing regions. According to the Population Division of the United Nations Department of Economic and Social Affairs Population Division (UNDESA) 2015, the proportion of older persons aged 60 years and above make up 12.3% of the global population, and by 2050 that proportion will rise to almost 22%. Between the years 2000 and 2050, the world wide proportion of persons over 65 years of age is expected to more than double from the current 6.9% to 16.4%. The proportion of oldest-old (those aged 80 years and older) will increase during this period from 1.9 to 4.2%. The population of centenarians in 2050 will be 16 times larger than that in 1998 (2.2 million compared to 135,000) with the male-to-female ratio of centenarians falling to approximately 1: 4. Premature ageing occurs against the background of socio-economic hardship, widespread poverty, the HIV/AIDS epidemic, (Adebanjoko & Ugwuoke, 2014) and generally lifestyle adopted which include smoking, drinking and inadequate feeding. Like any other country, Nigeria’s elderly too is increasing rapidly. In Nigeria, those aged 65 years and above (the elderly) make up 3.1% or 5.9 million of the total population of 191 million, which in crude
numbers represents an increase of 600,000 during the 5-year period 2012–2017 (PRB, 2015; NCA, 2016).

Researches on healthy ageing encompasses: the biological processes contributing to ageing, the socio-economic and environmental exposures across life which modulate ageing and the risk of age-related frailty, disability and disease, Langie, Lara & Mathers (2012). Such research needs measures of biological ageing at the individual level in addition to chronological age. Various approaches to define criteria for biomarkers of ageing, either in conjunction with or opposed to biomarkers of age-related disease have been published, Kuh et al (2014). The essential feature of a biomarker of ageing was defined by Baker and Sprott (2012) as ‘a biological parameter that either alone or better predict functional capability at some late age, than will chronological age. This paper addresses the objectives of biomarkers of healthy ageing in humans while healthy ageing is defined as the maintenance of function for the maximal period with adequate nutrition and healthy lifestyles adopted (Baker et al 2012)

Researches have shown that People live longer because of better nutrition, sanitation, health care, education, and economic well-being. Ageing population poses numerous social and economic challenges, but the right set of attitudes can equip individual to address these challenges in time. Ageing is an inevitable stage of life; however, the goal is to age gracefully. (Salami, 2019). There are three basic types of ageing, genetic, environmental, and hormonal ageing.

Genetics: is fact of life and is the normal ageing process, genetics playing a big role. When the body begins its natural loss of collagen and weakening of elastin, genetic ageing has begun. Signs of genetic ageing can be: Fine Lines, wrinkles, dehydration and loss of firmness. When the body begins its natural loss of collagen and weakening of elastin, genetics ageing has begun. Sign of genetics ageing can be Fine Lines, Wrinkles, and dehydrations ad loss firmness.

Environmental ageing: is when ageing symptoms are accelerated by environmental factors such as stress, pollution and sun damage. Studies have shown that 80% of premature ageing is caused by external factors from the environment. These signs of ageing can be manifested by dark spot, uneven texture and tone, hyperpigmentation, and fine lines wrinkles.

Hormonal ageing: is a result of the body's natural evolutionary process. It is associated with natural change in hormone levels during pregnancy, PCOS (Polycystic Ovary Syndrome) and menopause. Signs of hormonal ageing can be: Deep or medium wrinkles, loss of collagen, slowed cell regeneration, increased oil pollution, blemishes, breakouts or dryness. The paper focuses on biomarkers of ageing, factors that accelerate ageing process and factors that slows down ageing.

Biomarkers of Ageing

Ageing and Physiological Function: Ageing encompasses varied and complex changes at the structural, functional, and molecular levels of most cell, tissue and organ systems in the human body and a gradual loss of the homeostatic mechanisms necessary to maintain tissue function and physiological capacity is a hallmark of ageing (Lopez-Otin, Blasco, Partridge, Serrano, Kroemer, 2013). Such loss may translate, eventually, into metabolic dysregulation leading to the development of early signs of pre-disease which, if not identified and managed, will result eventually in functional loss, chronic disease and finally death. A well-recognised example is age-related loss of skeletal muscle mass and strength potentially leading to sarcopenia. Cruz-Jentoft, Baeyens, Bauer, Boirie, Cederholm, Landi) However, subtle changes in the function of most organs can occur by the third or fourth decades of life. (Timiras 2007).

Ageing and Bone Health: Bone mass declines with age in both men and women although whether the decline is greater in women is debated (Melton, Khosla, Atkinson, O'Connor, Ofallon, Riggs 2000). Techniques for measuring bone mass include dual x-ray absorptiometry (DXA), broadband ultrasound attenuation (BUA), and quantitative computed tomography and both site specific (hip or spine) DXA and heel BUA have been used extensively in epidemiologic studies. DXA is the most widely used method to assess bone mineral density and is the method of choice to diagnose osteoporosis. Bone mass or density predicts future fracture risk as well as

**Ageing and Body Mass Composition:** Ageing is associated with body composition changes including increased body fat, reduced muscle mass and with exception of the heart, reduced organ mass. Melton, Khosla, Atkinson, O Connor, Ofallon & Riggs. Greater abdominal adiposity is a risk factor for ageing and for age related diseases with the lowest mortality risk for those with waist circumferences (WC) below 94 and 77 cm for men and women, respectively (Hollander, Bemelmans, Boshuizen, Friedrich, Wallaschofski, Guallar-Castillón 2012). The relative risk of mortality is doubled for those with WCs above 132 and 116 cm in men and women, respectively. Body mass index (BMI) is a useful measure of overall adiposity since each 5 kg/m2 increase in BMI is associated with 30% higher overall mortality, 40% higher vascular mortality, 60–120% higher diabetic, renal, and hepatic mortality. Hollander et al (2012). High BMI, independent of gender and other confounding factors, is a risk factor for cognitive decline. In addition, weight gain in middle age is associated with substantially reduced likelihood of healthy survival after age 70 years in women, Okereke (2009). Evidence shows that muscle mass, such as leg muscle mass, declines with age. (Goodpaster, Park, Harris, Kritchevsky, 2006; Visser, Pahor, Tylavsky, Kritchevsky, Cauley, Newman, 2003). Cross sectional and prospective studies that have examined the relationship between regional muscle mass per se and health outcomes have reported that low skeletal muscle index (skeletal muscle mass/body mass percent) is associated with increased likelihood of functional impairment and disability.

**Ageing and Cardiovascular Function:** Ageing of the cardiovascular system is associated with ageing of both cardiac muscle and the vascular wall. Although there are many inflammation and haemostasis-related biomarkers of cardiovascular function, (Van Holten, Waanders, de Groot, Vissers, Hoefer, Pasterkamp, 2013) the classical, widely measured, and well documented physiological markers of risk of cardiovascular-related diseases remain the strongest biomarkers of ageing. Systematic reviews provide strong evidence that blood pressure (BP), lipid profile (including total cholesterol, low- and high-density lipoprotein cholesterol, and triglycerides concentrations) are predictors of morbidity and mortality. A difference of 20 mmHg in systolic BP (or 10 mmHg in diastolic BP) is associated with two fold difference in death from several vascular causes. (Matthias, Ignacio, John, Paul, Elie, Ping 2009). High BP in midlife is associated with lower cognitive function in later life. Birns & Kalra (2008). Among the components of the Metabolic Syndrome, high-BP and impaired fasting glucose are significant predictors of greater CV-morbidity and mortality. Glucose metabolism: Ageing is associated with alterations in several aspects of glucose metabolism, including insulin receptors and glucose transporters, leading to decreased glucose oxidation and increased liver gluconeogenesis, Timiras (2007). Biomarkers of dysregulated glucose metabolism including fasting blood glucose concentration and glycated haemoglobin (HbA1C) (an indicator of long-term average blood glucose concentration), are associated with age and predict future cardiovascular events and mortality, According to Newman, Sachs, Arnold, Fried, Kronmal, Cushman, (2009) cognitive impairment and dementia are also predictors of cardiovascular diseases. Favourable glucose metabolism has been identified as a central factor for familial longevity. Rozing MP, Westendorp RGJ, De Craen AJM, Fröhlich M, De Goeij MCM, Heijmans 2013),

**Ageing and Cognitive Function**

Some aspects of cognitive function change with age. Age-related impairment is observed frequently in functions such as speed of processing, some aspects of memory, attention and visuo-spatial abilities, whereas some abilities e.g. vocabulary may increase with age. (Salthouse, 2010) Decline in cognitive functions may limit independence and signal dementia, Jagger, Matthews, Matthews, Robinson, Robine, Brayne 2007. and although there is debate about the age of onset of cognitive decline (Abrams, 2009).

**Ageing and Endocrine Function**

Age-related changes in the endocrine system are very well established and many longitudinal studies and intervention studies, often focussing on the sex hormones and health, have helped to establish causal links with health outcomes. The best described age related endocrine changes include decline in the sex hormones estrogen
and testosterone (menopause and andropause), Cunningham 2013 changes in the hypothalamic-pituitary-adrenal (HPA)-axis due to reduced synthesis of dehydroepiandrosterone (DHEA) and dehydroepiandrosterone sulphate (DHEAS) (adrenopause; which occurs in both male and females from age 20-30 years) and the reduced production of growth hormone and IGF-1 (somatopause). The more recently discovered family of hormones, the adipokines, are key regulators of inflammation as well as of central functions such as appetite and altered serum adipokine levels have been linked with risk of obesity and metabolic syndrome. Ouchi, Parker, Lugus, Walsh, 2011.

**Ageing and Immune Function**

The immune system protects the organism from pathogens and from damaged or altered tissues and cells (as occurs with cancer or traumatic injury), whilst not damaging the organism's own tissues. In humans, the immune system develops a memory of exposure to a pathogen so that when the threat is encountered a second time the response is rapid and specific to that pathogen. This so-called adaptive immune system, based on lymphocytes, is also the basis of the vaccination response. It is clear that each of these aspects of immune function declines with age e.g. susceptibility to both bacterial and viral pathogens increase with age, the incidence of cancer is age-related as is loss of tolerance to one's own tissues, evidenced by increased autoimmunity. (Shaw and Goldstein, 2013). In addition the ability to mount an adequate, protective vaccination response also deteriorates with age. This age-related decline in immunity is termed immune senescence.

**Signs of Ageing**

Signs of ageing includes the followings.

- Higher susceptibility to infections
- Higher risk of heart stroke or hypothermia
- Joint changes from minor stiffness to severe arthritis
- Bone breaks easily
- Stooped postured Dull glows less skin
- Slight decrease in height as bone spine get thinner and lose some weight
- Dark spots (hyper pigmentation)
- Sagging skin
- Crow’s feet and dropping upper eye lids
- Fine lines around the nose and the upper lip begins to shrink
- Lines and wrinkle appear
- Dry skin leading to lose elasticity
- Patchy skin
- Open pores
- Begins grading hairs

**Factors That May Accelerate Ageing Process**

The following identified factors may accelerate ageing process

- Under-nutrition
- Losing weight leading to emancipate face
- Lack of physical exercise
- Inadequate sleep
- StressDepression
Factors that can slow down Ageing processes

- Avoid Smoking
- Avoid repetitive facial expression
- Eating healthy and well-balanced diet rich in vitamin and antioxidant
- Drink less alcohol
- Exercise most days of the week
- Good skin treatment (use oil and exfoliate a little)
- Sleep adequately
- Dress comfortably
- Avoid undue stress

Conclusion

The paper concludes that there is no gold standard tool for assessing healthy ageing at the individual or population levels but Chronological age is strongly associated with ageing-related functional losses. However, there is growing interest in the identification of biomarkers which capture key features of healthy ageing but, given the biological complexity of the ageing process, there is no single, simple and reliable measure of the rate at which someone is ageing. Review of literature also shows that good nutrition and healthy lifestyle adopted can help in aging gracefully.

Recommendations

The paper recommends that there is a need for an urgent policy refocusing on the issues of older persons. This can be done by restructuring the pension scheme and other social policies to favor the elderly people, including those who never worked in any government establishments to create awareness on the biomarkers of ageing processes. This can be achieved through seminars and workshops.

References


INFLUENCE OF PARENTING ON AGGRESSIVENESS IN SENIOR SECONDARY SCHOOLS ADOLESCENTS IN ORUMBA SOUTH EDUCATION ZONE, ANAMBRA STATE

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Abstract
The study determined the influence of parenting on aggressiveness and violent behavior in senior secondary schools in Orumba south local government (OSLGA) Anambra State. Six research questions guided the study. Correlational survey research design was adopted by the researcher. A total of 200 senior secondary school adolescents and their parents chosen through simple random sampling, formed the sample for the study. The instruments used for data collection were: “Buss-Perry aggression questionnaire (BPAQ)” and “Baumrid Parenting Styles Questionnaire Care Scale (BPSQ)”. The researcher used Cronbach alpha method to determine the reliability coefficient value of each and the values were r = 0.877 for BPAQ and r =0.934 for BPSQ. Percentage and Pearson Product Moment Correlations Coefficients was used for answering the research questions. The researchers concluded that both personal and social factors are related with aggressive behaviours of students. The practical implication of the finding is that counselling psychologists should mount cognitive-behavioural therapy to modify anger, impulsive and aggressive behaviours and also teach students how to cope when faced with stressful situation.

Keywords: Parenting, Child's Aggressiveness and Violent

Introduction
Aggression is generally a primary, natural, and mature emotion experienced by virtually all humans at times. Aggression has functional value for survival. Aggression can mobilize psychological resources for corrective action. The proponent of this line of argument sees aggression an instinctive response inherent in all animals, including humans, and that it is necessary for, or at least contributes to, survival.

However, uncontrolled aggressive behaviour can negatively affect personal or social wellbeing and impact negatively on those around them. It is equally challenging to be around an aggressive person and the impact can also cause psychological/emotional trauma if not dealt with. All over the world, aggressive behaviours among adolescents have been on the increase in recent time and there appear no restrictions where these behaviours are exhibited as it is witnessed in the work place, markets, recreational parks, railway stations, schools/universities, it is also experience in churches and mosques. Almost on daily bases, reports of aggressive acts grace newspaper headlines in Nigeria. Aggression represents physical and verbal assaults of different magnitudes. It refers to behavior between members of the same species that is intended to cause pain or harm (Ezekonka, Obi-Nwosu & Okoye, 2014). Whenever there is a conflict of interests between individuals there is a chance of aggressive behavior to be observed (Nelson, 2006). Generally the terms aggression and aggressive behavior are used to refer negative emotions and behaviors respectively. They are considered part of antisocial behavior; something morally, ethically or legally unacceptable (Moeller, 2001).

A variety of multidimensional factors have been attributed as the root causes of aggressive behavior, because of its complicated nature, including social factors which was the major focus of past researchers and biological factors an area which researchers are exploiting currently with the recent scientific and technological advancements. Gender has been implicated as a factor that has influence on the development of pre-social or...
One variable that is believed to influence aggressive behavior is parenting because the family is the first and most significant agent of socialization. Hence, inconsistent parenting and the inability to set clear limits are among the prominent indicators of child aggressive behaviors. The behaviors if not checked can lead to adolescence and adulthood (Sydney-Agbor, 2016). Parenting style is the control which parents exercise over their children (Ugoji and Ebenuwa Okoh, 2015). In Africa, parents expand beyond immediate mother and father to include members of the extended family, neighbours and every other person who in one way or the other is involved in upbringing of the child (Okpako, 2004). Parenting styles are categorized under three major forms: the authoritarian, the authoritative or democratic, and the permissive or laissez-faire or self-indulgence or uninvolved (Baumrind, 1991). The authoritarian parenting style constitutes of parents who are often strict, harsh (Ang. and Groh, 2006). While permissive or laissez-faire parents are those who impose few restrictions, rules or limits on their children (Okorodudu, 2010). There is controversy concerning the role parenting styles play on children aggressive behaviours. For instance some studies (Calvete, Gámez-Guadix & Orue, 2014; Llorca-Mestre, Malonda-Vidal & Samper-García 2017a; Llorca, Richaud & Malonda 2017) found that the type of style adopted by parents in bringing up their children is an important predictor of aggressive behaviors. They argued that children who have good relationships with their parents are less inclined to experience indirect or manifest aggression, upset others or get involved with deviant peers (Calvete, Gámez-Guadix and Orue 2014).

Studies have shown that adolescents, in which their parents are totally dependent and cannot determine right from wrong behaviour. Such adolescents no doubt will fall prey to their peers (Ugoji and Ebenuwa Okoh, 2015). One of the strongest predictors of delinquent behaviour in adolescence is affiliation with delinquent peers (Dishion, Bullock & Grove 2002). Individuals in society will usually make friends or have their closest associates from among their peer groups. Therefore, peer associates have a great influence on the lifestyle of their members. A peer group refers to persons that belong to the same age (or about the same age) and/or status. Examples of peer groups include, age peer group, school or educational peer group, social peer group, professional peer group and work peer group (Omogho, 2016).

In fact peer group association as an agent of socialization, determines to a large extent, what social codes an individual learns (Nsofor, 2013). This implies that individuals whose core group members believe and act criminal within norms will learn and internalize more of criminal codes than those that conform with the norms of the society (Omogho, 2016). It is evident that, poor parent-child relationships may enhance susceptibility to peer influence or increase the propensity of associating with deviant friends (Whitbeck, Conger & Ilao 1993). Thus, the influence of peers tends to increase as the influence of family decreases (Dishion, Patterson, Stoolmiller and Skinner 1991). Bingham, Raymond, Shope, and Raghunathan (2006) generally observed that men had greater numbers of offence than women. The outcome of their behaviour also shows that men had lower parental monitoring and greater parental permissiveness, less parental-oriented and had more substance use than women. The greater parental permissiveness and less parental monitor must increase men's juvenile delinquency (Okorodudu, 2010). The basis for good behaviour orientation and good

In Nigeria today, many adolescents are in problems simply because of how they were nurtured and what they were exposed to in the course of growing up. Growing up in Nigeria sometimes depends on the types of homes and parents one has (Ajidahun, 2011). Involvement of adolescents in delinquent activities is on the increase in Nigeria. The last two decades witnessed crimes ranging from minor stealing to major robbery and killing perpetuated by teens (Okorodudu, 2010). Peer group encourage conformity by thinking alike. Thus, members of a peer group are often under pressure to deviate. Such pressure may operate within formal peer networks (for example, gangs) or informal peer networks (for example, friends) (Omogho, 2016). According to United Nation report (2000) the result of self report studies indicate that majority of young people who participate in delinquent behaviours are about the same age and gender in most cases the offenders are male acting in groups. Also, there is lack of attention, love, acceptance, care, attachment to the child and really acting as a source of protection and
model for behaviour modification of the growing person in terms of the methods adopted by families in child upbringing (Anake & Adigeb, 2015).

Baumrind (1971) proposed a two-dimensional model of parenting styles based on two most important aspects: responsiveness and demandingness. Baumrind and others defines four parenting styles to include: authoritarian, authoritative, indulgent or permissive and neglectful (uninvolved). According to Baumrind (1991), authoritative Parenting Style is very sensitive and involved in their child’s activities; responsive to their needs; they encourage verbal conversation and allow their children to question parental requests. Authoritative parents are willing to negotiate with their children. Authoritarian parenting style has low acceptance and high control on their children. They use physical punishment or threats for wrong doings. They think that the child should obey all orders without asking any question. These parents always showed rigid behaviour and high control even when the child has grown up maturity or matured age. They are emotionally distant with their children and may be rejecting. The permissive parents make few demands, exhibiting non-controlling behaviour and use minimal punishment. They are indeed parents with very high affection towards their children, but with low expectations and discipline, making them sometimes more immature adults. And, there is a last of the parenting styles, neglectful (uninvolved). This style according to Cherry (2014) represents the parents that give their child the basic needs such as; food, clothes among others. In recent times in Nigeria, aggressive behaviour among secondary school students has received considerable public research attention with researchers like Egbochukwu (2017) who reported that four out of every five, secondary schools which participated in the research on aggression, 78% reported being bullied and 85% of the respondents admitted bullying others at least once. Anyikwa (2016) observed the devastating effect of aggression, stating that victims of aggression are unhappy, depressed and confused. They are anxious and insecure. Anyikwa (2016) went further to posit that students who exhibit tendency to aggressive behaviour are most likely to engage in antisocial delinquent behaviour such as bullying, vandalism, truancy and frequent daily use harmful substances like cigarettes and alcohol. Dodge (2006) also observes that adolescents who are prone to violence typically respond to frustrating events or situations with strong negative emotions. This makes them to go on with a lot of negative developmental consequence that persist and accumulated over time, including delinquency and criminality, peer rejection, poor school adjustment and development of mental health problem. Tendency to aggressive behaviour is therefore a challenge to many adolescents in schools; however, early parenting behaviour no doubt shapes the way a child perceives himself or herself. As young children tend to imitate things they observe, parenting style is also supposed to be a template of the child's later behaviours, exhibited both inside and outside the family. Therefore, it may not be far from the truth that rearing history may influence one's aggressive behaviour. This study therefore seeks to determine the influence of parenting styles on aggressiveness among senior secondary school adolescents in Orumba south education zone of Anambra State.

**Purpose of the Study**

The purpose of this study therefore is to determine the influence of parenting styles on child's aggressiveness and violent attitudes among senior secondary school in Orumba south education zone of Anambra State. The study will specifically examine:

1. Adolescents scores on aggressive tendency
2. Adolescents parents scores on parenting styles
3. The relationship between authoritarian parenting style and adolescents tendency to aggressive behaviour.
4. The relationship between authoritative parenting style and adolescent's tendency to aggressive behaviours.
5. The relationship between permissive parenting style and adolescents' tendency to aggressive behaviours in schools.

**Research Questions**

The following questions will serve as a guide for study:-

1. What are adolescents' scores on aggressive tendency?
2. What are the parents' scores on parenting styles?
3. What is the relationship between authoritarian parenting style and adolescents tendency to aggressive behaviour?
4. What is the relationship between authoritative parenting style and adolescent's tendency to aggressive behaviour?
behaviours?
5. What is the relationship between permissive parenting style and adolescents' tendency to aggressive behaviours in schools?
6. What is the relationship existing between adolescents' tendency to aggressive behaviour and neglectful parenting style.

Significance of the Study
Findings from this study will be beneficial to the parents, students, the guidance counsellors, the teachers, and the larger society. Findings from the study will help parents to understand different parenting styles and the implication of each style. This study will guide parents so that they can provide better guidance for their children's positive development, especially socially acceptable behaviour. Findings from this study will help them in choosing appropriate style that will guide their children to develop appropriate behavioural tendencies and be able to relate better with peers and others in the larger society. When this happens, both the parents, adolescents and others in the society will benefit. Also, findings from the study will open the door for researchers to conduct related studies parenting styles and its relationship to other variables in different locations and among different groups of people.

Methodology
The study adopted a correlational research design. A correlational survey design is deemed appropriate for this study because it seeks to establish a relationship between the variables of the study; parenting styles (authoritarian, authoritative and permissive) and aggressive behaviour among secondary school adolescents in Orumba South Education zone.

The population of the study is 3,634 secondary school adolescents (SS 1 – SS 3) in Orumba South Education zone, Anambra State. The sample size for the study is 200. This comprise of 100 secondary schools adolescents and parents of these adolescents.

The instruments for data collection are questionnaires. They include: “Buss-Perry aggression questionnaire (BPAQ)” and “Baumrid Parenting Styles Questionnaire Care Scale (BPSQ)”. Buss-Perry aggression questionnaire (BPAQ) was developed by Buss and Perry (1992). The instrument consists of 29 items that measure four aspects of traits; aggressiveness, anger, hostility, verbal- and physical-aggression; that are typically used both individually and/or combined to create an overall aggressiveness index. It has a six-point response options ranging from extremely uncharacteristic of me to extremely characteristic of me. For each response option, a score of 1, 2, 3, 4, 5, and 6 were to be given for responses with higher score indicating aggressive tendency. Items score for each scale for the respondents ranged from 29 to 174.

The Baumrid Parenting Styles Questionnaire Care Scale (BPSQ) was developed based on Robinson, Mandleco, Olsen and Hart (1995) authoritative, authoritarian, and permissive parenting practices. The instrument is a 39 item questionnaire with each of the style being measured with 13 items. The response option ranges from “Never” to “Always” on a 5-point scale. At the end of each section, the scores are added up and divided by the number of questions in that section. The calculated score becomes the total score for that category, with the highest score indicating the parenting style. The scores therefore range from 1 to 5.

The instruments (BPAQ & BPSQ) were duly scrutinised by experts in measurement and evaluation in Nnamdi Azikiwe University, Awka. The Cronbach alpha reliability states of each instrument was established, yielding coefficient alphas of 0.877 and 0.934 respectively.

Data collection was done using direct approach. Research instrument were distributed to the adolescents and collected back on the spot after they completed the filling of the questionnaire. However, the parents were giving one to two days to respond to the questionnaire before it was retrieved by the researcher and research assistants. The responses were collated and submitted for analysis.

The data where analysed using percentages and Pearson Product Moment Correlation Coefficients (Pearson r). For adolescents' aggressive tendency, Mean scaling was used in dividing the aggregated scores into equivalent score for the measures of aggressive tendency which are as follows:
1.00 – 2.49 ≡ 29.00 - 72.21 ≡ Very Low (aggressive tendency)
For parenting however, average score of 3.0 serves as the decision rule. Scores above 3 were accepted while those below were not accepted.

Results
In this section, data collected from the field for this study were analysed and the summaries were presented in tables to highlight the findings.

Table 1: showing the Distribution of Senior Secondary School adolescents on aggressive tendency scores

<table>
<thead>
<tr>
<th>Levels</th>
<th>Range of scores</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Low aggressive tendency</td>
<td>29.00 – 43.21</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Low aggressive tendency</td>
<td>43.50 – 72.21</td>
<td>13</td>
<td>13.8%</td>
</tr>
<tr>
<td>High aggressive tendency</td>
<td>72.50 – 101.21</td>
<td>81</td>
<td>86.2%</td>
</tr>
<tr>
<td>Total</td>
<td>29.00 – 116.00</td>
<td>94</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Table 1 reveals that the senior secondary school adolescents with high aggressive tendency constituted 81(86.2%) which representing majority of the adolescents. In addition, the adolescents with low aggressive tendency are 13(13.8%). The result as shown in the table further shows that the adolescents with very low aggressive tendency are 0(0.0%).

Table 2: showing the Distribution of Senior Secondary School adolescents parents’ scores on parenting styles

Table 2 reveals parents of senior secondary school adolescents' scores on parenting styles. The scores indicates that 43(45.7%) of parents choose authoritative style representing majority of the parents. In addition, 16 (17.0%) indicate authoritarian, 21 (22.3%) permissive, while 14 (14.9%) indicate Neglectful parenting style.

Table 3: Pearson Product Moment Correlation (PPMC) Analysis of adolescents' tendency to aggressive behaviour and authoritative parenting style

<table>
<thead>
<tr>
<th>Adolescents Tendency to aggressive Behaviour(x)</th>
<th>N</th>
<th>r_{xy}</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authoritative Parenting Styles (y)</td>
<td>94</td>
<td>-0.06</td>
<td>Very low negative relationship</td>
</tr>
</tbody>
</table>

Table 3 reveals that there is very low negative relationship of -0.06 existing between adolescents' tendency to aggressive behaviours in school and authoritative parenting style.

Table 4: Pearson Product Moment Correlation (PPMC) Analysis of adolescents' tendency to aggressive behaviour and authoritarian parenting style

<table>
<thead>
<tr>
<th>Authoritative Parenting Styles (y)</th>
<th>n_{xy}</th>
<th>w_{xy}</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>94</td>
<td></td>
<td></td>
<td>Very low negative relationship</td>
</tr>
</tbody>
</table>

The result in Table 4 revealed that the relationship between adolescents' tendency to aggressive behaviour and authoritarian parenting style is low and positive. The Pearson correlation coefficient (r) is 0.546 indicating a low positive relationship.
Table 5: Pearson Product Moment Correlation (PPMC) Analysis of adolescents' tendency to aggressive behaviour and permissive parenting style

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>r_{xy}</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adolescents' Tendency to aggressive Behaviour (x)</td>
<td>94</td>
<td>0.32</td>
<td>Low positive relationship</td>
</tr>
<tr>
<td>Authoritative Parenting Styles (y)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5 indicates that there is low positive relationship of 0.32 existing between adolescents' tendency to aggressive behaviour and permissive parenting style.

Table 6: Pearson Product Moment Correlation (PPMC) Analysis of adolescents' tendency to aggressive behaviour and neglectful parenting style

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>r_{xy}</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authoritative Parenting Styles (y)</td>
<td>94</td>
<td>0.205</td>
<td>Low positive relationship</td>
</tr>
</tbody>
</table>

The result in Table 6 revealed that the relationship between adolescents' tendency to aggressive behaviour and neglectful or uninvolved parenting style is low and positive. The Pearson correlation coefficient \((r)\) is 0.205 indicating a low positive relationship.

Discussion of Findings

Finding from the study reveals that majority of senior secondary school adolescents (85.6%) exhibit high tendency to aggressive behaviours. This finding from the study agrees with Egbochukwu (2007) who reported that four out of every five, secondary schools which participated in the research on aggression 78% reported being bullied and 85% of the respondents admitted bullying others at least once. The finding also agrees with Omoteso (2010) reporting that prevalence of aggressive behaviour among students was 67.2%. Finding from the study went further to affirm the report by Clean Foundation (2012) where it states that in the national survey of crime and society in Nigeria, it was discovered that aggressive behaviour is on the increase in Nigeria. The prevalence of aggressive and violent behaviour among adolescents today is sufficient to make it a social problem worthy of attention in Nigeria and the world over.

Findings also reveals that majority 43 (45.7%) of parents use authoritative parenting style while few admitted adhering to authoritarian, permissive and neglectful styles of parenting. This finding agrees with Darling (2007), Pratt, Skoe and Arnold (2004), Hastings, Rubin and DeRose (2005) and Lokoyi (2014) whose study revealed that different parenting styles were associated with aggressive behavioural problems one way or the other. Hastings, Rubin and DeRose (2005) study notes that maternal authoritative style predicted more pro-social behavioural responses in the research involving toddlers. Darling (2007) reported that parenting style predicts child well-being in the domains of social competence, academic performance, psychosocial development and problem behaviour. Children and adolescents whose parents are authoritative rate themselves and are rated by objective measures as more socially and instrumentally competent than those whose parents are non-authoritative. Therefore, the parenting styles as observed in this study finding will likely enhance and promote proper growth and development of adolescents in their environment.

Finding from the study also reveals that there is very low negative relationship existing between adolescents' tendency to aggressive behaviours in school and authoritative parenting style. This finding agrees with Garcia and Gracia (2009) who suggested that authoritative and indulgent styles of parenting were associated with equally low scores of self-reported hostility and aggression. Finding from the study also agrees with Yaman, Mesman, van IJzendoorn and Bakermans-Kranenburg (2010) whose finding reveal that mother's score on authoritative parenting had no effect on mother-reported toddler's aggression in the whole study sample. This finding is no doubt expected since it corroborates most of earlier research findings. For instance, in Steinberg (2001), developmental psychologists overwhelmingly endorse authoritative parenting as the optimal parenting style for raising adolescents. Authoritative parenting as Steinberg noted is associated with healthy adolescent development and provides a balance between affection and support and an appropriate degree of parental control in managing adolescent behaviour. This atmosphere provides opportunities for the adolescent to become self-
reliant and to develop a healthy sense of autonomy within a set of parental limits, guidelines and rules.

Moreover, finding from the study reveals that the relationship between adolescents' tendency to aggressive behaviour and authoritarian parenting style is low and positive. This finding shows that there is a connection between parenting style and adolescents tendency to aggressive behaviour in schools. This finding agrees with Hastings, Rubin and DeRose (2005) and Keshvarpanah, Karimi, and Amoopour (2014) showing that there is a positive relationship between aggressive tendency and authoritarian parenting style. Similarly, Utti (2006) in her research found that authoritarian parenting style may make adolescents rebellious and delinquent. This finding may not be unconnected with the fact that authoritarian parenting is associated with harshness, high demandingness and lack of responsiveness. Benzies, Keown and Magill-Evans (2008) in their study found that hostile/ineffective parenting was associated with physical aggression in children. Similarly, Benzies, Keown and Magill-Evans (2008) found harsh parenting predicted higher levels of child aggression.

Moreover, finding from the study reveals that there is a low positive relationship of existing between adolescents' tendency to aggressive behaviour and permissive parenting style. This finding agrees with Lokoyi (2014) and Casas et al. (2006) whose finding reveals that that mother's permissiveness was positively related to mother-reported aggression in children. Sandstrom (2007) study found that self-reported maternal permissiveness and authoritarianism were related to relational aggression in children ranging from 9 to 11 years of age. Although it can be argued that there may be other factors at play these instances, these studies nevertheless point to a link between parenting and tendency of a child becoming aggressive.

Finding from the study also reveals that the relationship between adolescents' tendency to aggressive behaviour and neglectful or uninvolved parenting style is low and positive. This finding agrees with Okpako (2004). He observes that the neglected adolescent gradually becomes a drug addict, hardened criminal, aggressive, restive, arm robber, cultist, ritualist, rapist among others. Also, Kopko (2013) state that children of uninvolved parents, learn that parents tend to be interested in their own lives and less likely to invest much time in parenting. As a result, adolescents generally show similar patterns of behaviour as adolescents raised in permissive homes and they may also demonstrate impulsive behaviours due to issues with self-regulation.

Conclusion
Parenting styles are complex and multifaceted, and measures often combine parenting behaviours with parental attitudes and emotions, such that it can be difficult to infer the likely processes or mechanisms that explain associations between parenting styles and child outcomes. A parenting style in the framework of this study therefore could be seen as providing the general context of the parent–child relationship and tendency to aggressive behaviours in schools. Findings reveal that:

Majority of the adolescents showed high tendency to aggressive behaviours while majority of parents indicated authoritative parenting style as their most preferred parenting style while few admitted adhering to authoritarian, permissive and neglectful styles of parenting. Findings also reveal that there is very low negative relationship existing between adolescents' tendency to aggressive behaviours in school and authoritative parenting style; that the relationship between adolescents' tendency to aggressive behaviour and authoritarian parenting style is low and positive among others.

Implications for Counselling
Findings of this study have implication for parents, counsellors, adolescents, school teachers, researchers and the larger society. When parents exhibit authoritarian parenting, they are very strict and their kids are not allowed to have much freedom. This leads them to be rebellious in their teenage years as they try to break away from their parents grasp. When parents are permissive their kids have so much love and freedom, but this results in no discipline and no punishment routine. As these kids grow older they become out of control and have no sense of the way they are supposed to behave

Recommendations
1. There is need for serious commitment of school guidance counsellors with teachers and parents to work in collaborations towards initiating and implementing programs that addresses the issues of adolescents' aggressive tendency as it relates to parenting styles.
2. Programs such as home visiting by the counsellor that assist parents in meeting the challenges of parenting in the early years of life are is highly recommended.
3. There is need for dialogue, communication, explanations and establishment of good and cordial relationships between parents and adolescents to enhance positive and effective parenting.

4. Finding from this study shows that authoritative parenting style may serve as a better way to raise disciplined and well-adjusted children. Since there is a positive relationship between authoritarian, permissive and uninvolved parenting styles and adolescents tendency to aggressive behaviour, parents therefore need to find a common ground with their children so that they are not too strict or too carefree. Dialogue, communication, explanations and establishment of good and cordial relationships between parents and adolescents could enhance positive and effective parenting.

5. Findings of this research on relationship between parenting styles and adolescents tendency to aggressive behaviour will contribute to the development of a serious collaboration and commitment of school counsellors, teachers and parents to the implementation and refinement of programs that will address the issues of choice of aggressive tendency and choice of parenting styles as identified in this paper. In addition, Parent Management Training (PMT) should be organized for parents to empower them with skills of observing, identifying maladaptive behaviours as well as using both negative and positive reinforcements, contracting and compromise for their children.

References


Influence of Parenting on Aggressiveness in Senior Secondary Schools Adolescents


http://psychology.about.com/od/developmentalpsychology/a/parenting-style.


EFFECT OF MOSQUITO REPELLENT HERBS (SCENT LEAF, MINT LEAF AND LEMON GRASS) ON TEXTILE FABRICS

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Abstract
The main purpose of the study was to determine the effect of mosquito repellent herbs (scent leaf, mint leaf and lemon grass) on textile fabrics in single and combined action against mosquitoes. The study adopted an experimental research design using five (5) cage nets of (18x18cm) width and (23x23cm) length at room temperature of 25°C., with each containing twenty (20) mosquitoes. Mosquitoes were starved for minimum of four hours before exposing them to the cotton fabric which was soaked in each of the herbs and the combination of the three herbs. The exposure of these mosquitoes was done for three (3) consecutive days. Scent leaf repelled 85%, 75% and 65% of mosquitoes for three consecutive days, mint leaf repelled 80%, 65% and 55% for three consecutive days while lemon grass repelled 80%, 65% and 55% for three consecutive days. The combined herbs repelled 100%, 95%, and 75% of mosquitoes for three consecutive days. The control (odomos repellent synthetic cream) repelled 100%, 100% and 100% of mosquitoes for three days. The observation made was analyzed using percentage. Chi-square was used to test the hypothesis of no significant difference in the repellent effect of the herbs (scent leaf, mint leaf and lemon grass) and the control. The result of the hypothesis confirmed that there was no significant difference in the repellent effect of the herbs (scent leaf, mint leaf and lemon grass) and (odomos repellent synthetic cream). The study concluded that mosquitoes can be repelled with the use of these herbs, and combination of the three herbs was more effective in repelling mosquitoes. It was recommended that awareness should be created by Home Economics practitioners, health practitioners, government and individuals on the use of these natural repellent herbs in treating mosquito net to compliment the use of chemically treated nets. This is considered very important as the use of natural mosquito repellent herbs is more environmental friendly than the chemically treated nets.

Key words: Textile fabrics, mosquito-repellent herbs, mint leaf, scent leaf, lemon grass

Introduction
Mosquitoes are small, midge like flies that constitute the family culicidae. Female of most species are ectoparasite, whose tube-like mouth part (also called a proboscis) pierce the hosts skin to consume blood. The word “Mosquito” is a Spanish word meaning “little fly.” Thousands of species feed on the blood of various kind of host mainly vertebrates, including: mammals, birds, reptiles, amphibians, and even some kinds of fish. Some mosquitoes also attack invertebrates, mainly other arthropods (Harbach, 2008).

Over three thousand, five hundred (3,500) species of mosquitoes have been described from various parts of the world (Freudenrich, 2013). Some mosquitoes that bite humans routinely act as vectors for a number of infectious disease affecting millions of people per year. Mosquitoes are found throughout all territories of the world, except for Antarctica. Most mosquitoes favour warm, moist environment. Since Mosquitoes rely on the blood meal of other wild life to reproduce, they are found in areas inhabited by animals and/or humans. Mosquito also require nearby source of standing water, on to which female mosquitoes lay their eggs. This can be anything from a pond to an old tyre filled with rainwater (Goreva, Greenwalt, Silvestrom, Rose & Harbach, 2013).
Dirty environment caused undisposed containers, used tyres and disposed of refuse along the road which are swept in by the cleaners into the water ways, thereby causing a blockage at the drainage which is mosquitoes breed in millions. Mosquitoes are vectors of many diseases, causing viruses and parasites infected mosquitoes carry these organisms from person to person without exhibiting symptoms themselves. Common mosquito transmitted illness include; Malaria found in Africa, Northern South America, South Asia and Northern Oceania; Chikungunya fever found in South America, and Sub-Saharan Africa; Dengue fever commonly found in South America, South East Asia; Canine Heartworm found in Southern Europe, India, China, Japan, Australia, North and South America and West Nile Virus found in Africa, Europe, Middle East, North America and West Asia (World Health Organization, 2009). Various species of mosquitoes are estimated to transmit different types of diseases to more than seven hundred (700) million people annually in Africa, South America, Central America, Mexico, Russia and Asia, with millions of results and deaths. At least two million people annually die of those diseases (Havahart, 2017). These mosquitoes can be repelled using some medical plants.

Medicinal plants are the gift of nature to cure limitless number of diseases among human beings. The abundance of plants on the earth surface has led to an increasing interest in the investigation of different extracts obtained from the traditional medicinal plants as potential source of mosquito repellents agents (Banupriya & Meheshwari, 2013). Most plants contain compounds that are used in preventing attack from phytophagous (plant eating) insects. These chemicals fall into several categories, including repellent, feeding deterrent, toxins and growth regulators. Most of them can be grouped into five major chemical categories; Nitrogen compounds (primarily alkaloids), terpenoids, phenolics, proteinase inhibitors and growth regulators. Primarily these compounds play important role in defence against phytophagous insects, many are also effective against mosquitoes and other biting diptera (Pictherisky & Gerrhenzon, 2002)

This repellency of plant material has been exploited for thousands of years by man, most simply by hanging bruised plants in houses, a practice that is still in wide use throughout the developing countries (Moore, Longlet & Hill, 2006). Plants have also been used for centuries in the form of crude fumigants where plants were burnt to drive away nuisance mosquitoes and later as oil formulations applied on the skin or clothes which was first recorded in writing by ancient Greek, Roman and Indian scholars. Plant-based repellents are still extensively used in this traditional way throughout rural communities in the tropics because for many of the poorest communities, they are the only available means of protection from mosquito bites (Moore, Hill, Ruiz & Cameron, 2007). These plants include scent leaf, (Ocimum gratissimum), mint leaf (Linear B-mi-ta) and lemon grass (cymbopagan citratus).

Scent leaf (ocimum gratissimum) originate from Africa and Southern Asia, although some countries like Bolivia, Mexico, India, Hawaii and Brazil cultivate this plant. Scent leaf is often found in the wild and around village gardens. It is cultivated for medicinal and culinary purpose. Scent leaf has a very strong aromatic odour. It is a perennial shrub, and belongs to the lamiaceae family (Christabel, 2017). In Nigeria, the plant is called “Effinrin-nia” by the Yorubas, “Nchuanwu” by Igbos and “Daidoya” by the Hausas, the Bini call it “Ebe-mwukhoe” (Effrain, Jacks, & Sodipo, 2001). The scent leaf has been reported to be rich in alkaloids, tannins, phytales, flavonoids, and oligosaccharrides (Ihej, Njoku & Ekenza, 2004). In trado-medical practice, scent leaf is extensively used throughout West Africa as Anti-malaria, mosquito repellent and anti-convulsant. Oil from the leaves has been shown to possess anti-septic, antibacterial and antifungal activities (Ezekwesili, Obiora & Ugwu, 2004).

Mint leaf (Linear B-mi-ta) came from a Greek word “Mintha.” It is a genus of plants in the family Lamiaceae. It is estimated that thirteen (13) to eighteen (18) species exist. Mint is a perennial herb with a widely unique aroma and colourfull history. There are many types of mint available and it is orderly grown. The leaves and stems are harvested for numerous culinary and medicinal uses (Golberg, 2017). Mint originated in Asia and the Mediterranean region. Mint has been known for its many benefits throughout history. Greeks used it to clean their banqueting table and added to the baths to stimulate their bodies while Romans used it in sauce as an aid to digestion and as a mouth freshener (Pine, 2016). It is used as a cure for respiratory tract infection, kidney stone, headache, neck and back pain. It also has high repellent activity against mosquitoes and insect. (Gupta & Singh, 2017).

Lemon grass (cymbopagan citratus) is a herb which is well known for its lemon flavor and citrus aroma. Lemon grass is a native to India, and other tropical regions in Asia, Africa and Austria. It has common names like barbed wire grass, silky heads, citronella grass, fever grass (Soenarko, 2000). It grows about 2m (6.6ft.) and has magenta
coloured base stems. Lemon grass is widely used as a culinary herb in Asia cuisine and also as medical herb in India. Lemon grass oil is used as a pesticide and preservative. Apart from its ability to repel some insects, such as mosquitoes, its oil is commonly used as a lure to attract honey bees. Lemon grass is used for the production of “citronella oil” which is used in soap as an insect repellent (especially mosquitoes) insect sprays and candles. Lemon grass is usually planted in homes and garden to ward off insect and enable growing of some vegetable such as tomatoes without applying pesticides (Shadab, Hanif & Chadhary, 2009). One of the ways people used to protect themselves from the attack of mosquitoes’ bite is by wearing clothes to cover their body. However, it has been observed that the proboscis of mosquito can pierce some fabrics materials to the body, thereby able to inflict their victims. Over the years, people have learnt to treat their fabrics with repellent gotten from herbs to discourage the attack of mosquitoes. All these herbs can be used to treat cotton fabrics to protect against mosquitoes.

Cotton is a natural soft fiber that grows with seeds of the cotton plant. After the cotton fiber is gathered from the plant, it can be made into thread. The cotton thread can then be made into fabrics. The cotton fabrics can be used to make clothes for people and many other things. Cotton fabrics are grown mostly in tropical and sub-tropical areas of the world such as Africa, Asia, Europe, Austria and America. Cotton soaks up to twenty-four (24) to twenty seven (27) percent of its own weight in water. Cotton is in the mallow family and produces delicate lovely flowers. Cotton is one of the oldest fibers under human cultivation, with traces of cotton over seven thousand (7,000) years old reserved from archaeological sites. Cotton is also one of the most used natural fibers in existence today with consumers everywhere wearing and using cotton for various purposes (Moulherat, Tengberg, Haquet & Mille, 2002).

The ever increasing interest on the investigation of different extracts obtained from traditional medicinal plants as potential source of new mosquito repellent agents necessitates this study on the effect of mosquito repellent herbs (scent leaf, mint leaf and lemon grass) on textile fabrics which include to assess the mosquito repellent effect of scent leaf, mint leaf and lemon grass on cotton fabric. Many preventive measures are being adopted for prevention of mosquitoes such as mosquito coil, insecticide and mosquito net. However, some of these insecticides are said to be harmful to human lungs when inhaled because they are made of synthetic product. The mosquito nets are sometimes harsh to the skin and choking when used. Despite the preventive measures above, the persistence of mosquito bite is still rampant leading to re-occurrence of malaria and in turns reduces the strength of the work force which can affect the economy. There is therefore need to devise more preventive approaches to mosquito bit.

This study thus investigated the use of eco-friendly herbs like scent leaf, mint leaf and lemon grass which are readily available, cheap, natural and mild to compliment the use of coil, insecticide and chemicals used in mosquito net.

The main purpose of the study was to determine the effect of mosquito repellent finishes using herbs on cotton fabric. Specifically the study was designed to:

1. Assess the influence of mint leaves as mosquito repellent on cotton fabric.
2. Assess the influence of scent leaves as mosquito repellent on cotton fabric.
3. Assess the influence of lemon grass as mosquito repellent on cotton fabric.
4. Evaluate the three herb with the highest effect as mosquito repellent on cotton fabric (mint leaf, scent leaf and lemon grass).
5. Assess the influence of the three herbs as mosquito repellent on cotton fabric.

Research Questions

This study was guided by the following research questions,

1. What is the effect of mint leaf as mosquito repellent on cotton fabrics?
2. What is the effect of scent leaf as mosquito repellent on cotton fabrics?
3. What is the effect of lemon grass as mosquito repellent on cotton fabrics?
4. Which of the three herbs (mint leaves, scent leaves and lemon grass) has the highest effect as mosquito repellent on cotton fabrics?
5. What is the effect of the three herbs combined together as mosquito repellent on cotton fabrics?
Hypothesis
There is no significant different between the effect of mint leaves, scent leaves and lemon grass as mosquito repellents on cotton fabrics

Methodology
Design of the Study
The study adopted an experimental research design. An experimental research is directed towards the discovering of basic relationship amongst and between phenomena as a means of predicting and controlling their occurrence (Iwu, 2017). This study involves laboratory analysis of scent leaf (Ocimum gratissimum), mint leaf (Linear B-mi-ta) and lemon grass (Cymbopagan Citratus), to ascertain the repellent effectiveness when applied on a cotton fabric.

Area of the Study
The research experiment was carried out in Owerri precisely in the Home Economics and Biology Research Laboratories, all in Alvan Ikoku Federal College of Education, Owerri.

Materials
Scent leaf (Ocimum gratissimum) and mint leaf (Linear B-mi-ta) used for the study was obtained from Relief Market in Owerri, Imo State, while lemon grass (Cymbopagan Citratus) was obtained from Federal Housing Number (14) Shell Camp in Owerri, Imo State. Chemicals used for the extraction was ethanol. Distilled water and filter paper was used.

Methods
1. Scent leaf, mint leaf and lemon grass used for the extraction was properly dried at 25°C room temperature for two weeks.
2. The leaves was grinded with aid of a grinder
3. Twenty (20) grams (g) of the grounded leaves was stuffed each into a thimble and the thimble was carefully placed in the extraction chamber.
4. Two hundred and fifty (250ml) of ninety-nine percent (99%) ethanol was poured into the extraction flask.
5. The soxhlet extractor was fixed, water inlet was connected from the condenser to the pump with the aid of a hose while the water outlet was connected to the sink.
6. The heating mantle was used to heat up the ethanol which was extract the active ingredient of the plant through reflux action.
7. The fabric was soaked into the extracted ingredient and placed in the cage net for repellency test through the number of mosquito that rested on the fabric, those that escaped and those are remaining in the cage net

Experimental Procedure
The materials (cotton fabric) were placed in mosquito cage net, the cage of 18x18cm width and length of 23x23cm at room temperature. Mosquito was deprived of all the nutrition and water for minimum of four (4) hours before exposing them to the fabric in the mosquito cage to ensure that only the experimental group of mosquitoes and control groups were used extremely. This is to get them hungry so that they will easily rest and feed on any available food. The anti-mosquito effectiveness was observed by counting number of mosquitoes that rested on the sample after two minutes, escaped specimen and those remaining inside the chamber. The experiment was repeated for three consecutive days using the different fabrics treated with different herbs for accurate reading.

Analytical Tool
The observation made was analyzed using percentage and chi-square. Percentage was used for all the research questions and chi-square for the hypothesis.
Table 1: Repellent effect of the Control (Odomos repellent synthetic cream)

<table>
<thead>
<tr>
<th>S/No</th>
<th>Days</th>
<th>No of mosquitoes used</th>
<th>No of mosquitoes repelled</th>
<th>Percentage of no of mosquito repelled</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Day one</td>
<td>20</td>
<td>20</td>
<td>100%</td>
</tr>
<tr>
<td>2</td>
<td>Day two</td>
<td>20</td>
<td>20</td>
<td>100%</td>
</tr>
<tr>
<td>3</td>
<td>Day three</td>
<td>20</td>
<td>20</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 1 above showed that the control (Odomos repellent synthetic cream) had 100% repellent effect for the three consecutive days.

Research Question One: What is the effect of mint leaf as mosquito repellent on cotton fabric?

Table 2: Repellent effect of mint leaf on cotton fabric

<table>
<thead>
<tr>
<th>S/No</th>
<th>Days</th>
<th>No of mosquitoes used</th>
<th>No of mosquitoes repelled</th>
<th>Percentage of no of mosquito repelled</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Day one</td>
<td>20</td>
<td>13</td>
<td>65%</td>
<td>The observed value agrees with the expected standard</td>
</tr>
<tr>
<td>2</td>
<td>Day two</td>
<td>20</td>
<td>10</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Day three</td>
<td>20</td>
<td>07</td>
<td>35%</td>
<td></td>
</tr>
</tbody>
</table>

Table 2 above showed that 65%, 50% and 35% of mosquitoes were repelled on the 1st, 2nd and 3rd day respectively by the mint leaf, indicating that mint leaf possesses good repellent properties.

Research Question Two: What is the effect of scent leaves as mosquito repellent on cotton fabric?

Table 3: Repellent effect of scent leaf on cotton fabric

<table>
<thead>
<tr>
<th>S/No</th>
<th>Days</th>
<th>No of mosquitoes used</th>
<th>No of mosquitoes repelled</th>
<th>Percentage of no of mosquito repelled</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Day one</td>
<td>20</td>
<td>17</td>
<td>85%</td>
<td>The observed value agrees with the expected standard</td>
</tr>
<tr>
<td>2</td>
<td>Day two</td>
<td>20</td>
<td>15</td>
<td>75%</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Day three</td>
<td>20</td>
<td>13</td>
<td>65%</td>
<td></td>
</tr>
</tbody>
</table>

Table 3 above showed that 85%, 75% and 65% of mosquitoes were repelled on 1st, 2nd and 3rd day respectively by application of scent leaf.

Research Question Three: What is the effect of lemon grass as mosquito repellent on cotton fabric?

Table 4: Repellent effect of lemon grass on cotton fabric

<table>
<thead>
<tr>
<th>S/No</th>
<th>Days</th>
<th>No of mosquitoes used</th>
<th>No of mosquitoes repelled</th>
<th>Percentage of no of mosquito repelled</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Day one</td>
<td>20</td>
<td>16</td>
<td>80%</td>
<td>The observed value agrees with the expected standard</td>
</tr>
<tr>
<td>2</td>
<td>Day two</td>
<td>20</td>
<td>13</td>
<td>65%</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Day three</td>
<td>20</td>
<td>11</td>
<td>55%</td>
<td></td>
</tr>
</tbody>
</table>

Table 4 showed that 80%, 65% and 55% of mosquitoes were repelled on the 1st, 2nd and 3rd day respectively using lemon grass.

Research Question Four: Which of the three herbs (scent leaf, mint leaf and lemon grass) has the highest effect as mosquito repellent on cotton fabric?
Table 5: Determination of the herb with the highest mosquito repellent effect

<table>
<thead>
<tr>
<th>S/No</th>
<th>Days</th>
<th>No of mosquitoes used</th>
<th>No of mosquitoes repelled</th>
<th>Percentage of no of mosquito repelled</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mint leaf</td>
<td>1</td>
<td>3</td>
<td>20</td>
<td>13</td>
<td>7</td>
</tr>
<tr>
<td>Scent leaf</td>
<td>1</td>
<td>3</td>
<td>20</td>
<td>17</td>
<td>13</td>
</tr>
<tr>
<td>Lemon grass</td>
<td>1</td>
<td>3</td>
<td>20</td>
<td>16</td>
<td>11</td>
</tr>
</tbody>
</table>

Table 5 showed that scent leaf had the highest repellent activity on 1st, 2nd and 3rd day respectively with 85%, 75% and 65% followed by lemon grass with 80%, 65% and 55% repellent level and lastly mint leaf with 65%, 50% and 35%.

Research Question Five: What is the effect of the three herbs combined together as mosquito repellent on cotton fabric?

Table 6: Repellent effect of the three herbs combined together

<table>
<thead>
<tr>
<th>S/No</th>
<th>Days</th>
<th>No of mosquitoes used</th>
<th>No of mosquitoes repelled</th>
<th>Percentage of no of mosquito repelled</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Day one</td>
<td>20</td>
<td>20</td>
<td>100%</td>
<td>The observed value agrees with the expected standard</td>
<td></td>
</tr>
<tr>
<td>2. Day two</td>
<td>20</td>
<td>19</td>
<td>95%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Day three</td>
<td>20</td>
<td>15</td>
<td>75%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 6 showed that on day one, 100% of mosquitoes were repelled, day two 95% of mosquitoes were repelled, and on day three 75% of mosquitoes were repelled. This means that the three herbs combined together has a higher repelling effect on mosquito than when used singly.

Figure 1: Graphical representation of repellent effect of mosquitoes on day one

The Figure 1 above shows a graphical representation of the repellent herbs on the first day. This reveals that 65% of mosquitoes were repelled using mint leaf, 85% of mosquitoes were repelled using scent leaf, 80% of mosquitoes were repelled using lemon grass and 100% mosquitoes repelled using the three leaves combined together.
Figure 2: Graphical representation of repellent effect of mosquitoes on day two

Figure 2 showed the representation of the repellent herbs on the second (2nd day). Mint leaf repelled 50% of mosquitoes, scent leaf repelled 75% of mosquitoes, lemon grass repelled 65% of mosquitoes and the combined herbs repelled 95% of mosquitoes.

Figure 3: Graphical representation of repellent effect of mosquitoes on day three

Figure 3 above showed the representation of the repellent herbs in the third day. Mint leaf repelled 35% mosquitoes, scent leaf repelled 65% of mosquitoes, lemon grass 55% of mosquitoes and combined herbs repelled 75% of mosquitoes.

Hypothesis:

There is no significant difference in the repellent effect of the herbs (scent leaf, mint leaf and lemon grass) and the control (odomos mosquito repellent cream).
Table 7: Chi-square Test of Significance different in the repellent effects of the herbs (scent leaf, mint leaf and lemon grass)

<table>
<thead>
<tr>
<th>Herbs</th>
<th>Day I</th>
<th>Day II</th>
<th>Day III</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>20(22.5)</td>
<td>20(20.2)</td>
<td>20(17.3)</td>
<td>60</td>
</tr>
<tr>
<td>Combined herbs</td>
<td>20(20.3)</td>
<td>19(18.2)</td>
<td>15(15.6)</td>
<td>54</td>
</tr>
<tr>
<td>Scent leaf</td>
<td>17(16.9)</td>
<td>15(15.1)</td>
<td>13(12.9)</td>
<td>45</td>
</tr>
<tr>
<td>Mint leaf</td>
<td>13(11.3)</td>
<td>10(10.1)</td>
<td>07(8.6)</td>
<td>30</td>
</tr>
<tr>
<td>Lemon grass</td>
<td>16(15.0)</td>
<td>13(13.4)</td>
<td>11(11.5)</td>
<td>40</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>86</strong></td>
<td><strong>77</strong></td>
<td><strong>60</strong></td>
<td><strong>229</strong></td>
</tr>
</tbody>
</table>

Table 8: Calculate Chi-square analysis of the repellent effect of the herbs (scent leaf, mint leaf and lemon grass)

<table>
<thead>
<tr>
<th>O</th>
<th>E</th>
<th>O – E</th>
<th>O – E²</th>
<th>(O-E)²/ E</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>22.5</td>
<td>-2.5</td>
<td>6.25</td>
<td>0.2778</td>
</tr>
<tr>
<td>20</td>
<td>20.5</td>
<td>-0.2</td>
<td>0.04</td>
<td>0.0002</td>
</tr>
<tr>
<td>20</td>
<td>17.3</td>
<td>2.7</td>
<td>7.29</td>
<td>0.4214</td>
</tr>
<tr>
<td>20</td>
<td>20.3</td>
<td>-0.3</td>
<td>0.09</td>
<td>0.0044</td>
</tr>
<tr>
<td>19</td>
<td>18.2</td>
<td>0.8</td>
<td>0.64</td>
<td>0.0352</td>
</tr>
<tr>
<td>15</td>
<td>15.6</td>
<td>-0.6</td>
<td>0.36</td>
<td>0.0231</td>
</tr>
<tr>
<td>17</td>
<td>16.9</td>
<td>2.1</td>
<td>2.41</td>
<td>0.1426</td>
</tr>
<tr>
<td>15</td>
<td>15.1</td>
<td>-0.1</td>
<td>0.01</td>
<td>0.0007</td>
</tr>
<tr>
<td>13</td>
<td>12.9</td>
<td>0.1</td>
<td>0.01</td>
<td>0.0008</td>
</tr>
<tr>
<td>13</td>
<td>11.3</td>
<td>1.7</td>
<td>2.89</td>
<td>0.2558</td>
</tr>
<tr>
<td>10</td>
<td>10.1</td>
<td>-0.1</td>
<td>0.01</td>
<td>0.0009</td>
</tr>
<tr>
<td>07</td>
<td>8.6</td>
<td>-0.6</td>
<td>2.56</td>
<td>0.2977</td>
</tr>
<tr>
<td>16</td>
<td>15.0</td>
<td>1</td>
<td>1.00</td>
<td>0.0667</td>
</tr>
<tr>
<td>13</td>
<td>13.4</td>
<td>-0.4</td>
<td>0.16</td>
<td>0.0119</td>
</tr>
<tr>
<td>11</td>
<td>11.5</td>
<td>-0.5</td>
<td>0.25</td>
<td>0.0217</td>
</tr>
</tbody>
</table>

**Total** 1.5609

Level of significance = 0.05; Degree of freedom = 8; O=observed value; E = expected value

Chi-square (χ²) = Σ[(O−E)²]/E = 1.5609

Table 8 above showed that the calculated chi-square of 1.5609 is lower than the critical value of 13.36 at 8 degree of freedom and 0.05 significance level. Hence, the null hypothesis is accepted which states that there is no significant difference in the repellent effect of the herbs (scent leaf, mint leaf and lemon grass) and the control (odornos mosquito repellent cream).

Discussion of Findings

The findings on research question one on the mosquito repellent effect of mint leaves on cotton fabric showed that on the first day, 65% of mosquitoes were repelled, 50% of mosquitoes were repelled on the second day and on the third day, 35% of mosquitoes were repelled. This shows that mint leaf has a good repellent level on mosquitoes. This is in line with the duty of Gupta and Singh (2017), who stated that mint leave extract treated fabric was found to have good mosquito repellent property by direct application method.

The findings on research question two in Table 3 on the mosquito repellent effect of scent leaves on cotton fabric showed that on the day one, 85% of mosquitoes were repelled, 75% of mosquitoes were repelled on the second day and on day three 65% of mosquitoes were repelled. This corresponds with the finding of Ezeike, et. al. (2015) which showed that scent leaf has a high repellent effect on mosquitoes which protect people from mosquito borne diseases.

The findings in Table 4 on research question three on the mosquito repellent effect of lemon grass cotton fabric revealed that on day one, 80% of mosquitoes were repelled, on day two, 65% of mosquitoes were repelled and on the day three, 55% of mosquitoes were repelled. This agrees with the finding of Ojewumi, et. al. that lemon grass is an active ingredient found to be effective in repelling mosquitoes.
The findings in Table 5 on research question four with regards to herb with the highest mosquito repellent property herbs showed that scent leaf had the highest repellent activity on first, second and third respectively with 85%, 75% and 65% followed by lemon grass with 80%, 65% and 55% repellent level and lastly mint leaf with 65%, 50% and 35%. This is in contrast with the work of Gupta and Singh (2017), that mint leaf extract treated fabric was found to have good mosquito repellent property by direct application method.

The findings in Table 6 on research question five regarding the mosquito repellent effect of the three herbs combined together showed that on the day one, 100% of mosquitoes were repelled, day two 95% of mosquitoes were repelled, and on day three 75% of mosquitoes were repelled. This means that the three herbs combined together has a higher repelling effect on mosquito than when used singly. Drop in the effectivess of these herbs applied on clothing is due to reduction in its strength after being applied in the 1st, 2nd and 3rd days.

**Conclusion**

From the study, it was concluded that mosquitoes can be repelled with the use of herbs, scent leaf (*ocimum gratissimum*), mint leaf (*linear B-me-ta*) and lemon grass (*cymbopogan citratus*) combination of the herbs was also more effective in repelling mosquitoes. Mosquitoes can be avoided by using these herbs which are very safe, ecofriendly and cheap.

**Recommendations**

Based on the findings, the following recommendations are made:

1. Awareness should be created by health practitioners, government and individuals on the use of these natural repellent herbs in treating mosquito nets to compliment the use of synthetic chemicals nets.
2. Health practitioners/individuals concerned should be informed about the use of these repellent herbs through workshop, seminars and conferences.
3. Further research should be carried out to know how effective and safe direct application of the herbs on the skin will be.
4. Further studies on how to increase the effectiveness of the functions of these herbs for a layer period of time could be carried out.

**References**


Abstract
This study was carried out to investigate the capacity building needs of home makers in family clothing management using Lagos State, Nigeria as case study. Four research questions guided the study. The study employed descriptive survey research design. The population for the study was 3,042. The sample for the study was 222 respondents from two Local government areas in Lagos State. The instrument for data collection for the study was a 64-item structured questionnaire. Data were analysed using mean improvement need index (INI). Findings include 8 mending skills, 11 laundry skills, 15 ironing skills and 13 clothes de storage skills which home makers need for capacity building for effective management of the family clothing in the study area. It was recommended among others that Lagos state government should help package the identified clothing management skills into programmes for training and capacity building of home makers in Lagos State.

Keywords: Clothing, Home makers, Capacity Building, Family, Lagos State.

Introduction
Home makers are very significant in the growth and development of any society. According to Supprakit (2014), home makers contribute significantly to economic life of Nigerian society. Home makers' participation in the labour force has increased greatly since the turn of the 20th century (Ajayi, 2013) and the percentage of home maker engaged in the paid labour force to support their family has increased rapidly (Onyeonoru, 2005). Home makers both in rural and urban communities contribute greatly to raising the standard of living of their families. Home makers play major roles in the families. For instance, home makers take responsibilities for child bearing and rearing, manage household resources to meet relevant needs and reach set goals also strive hard to improve and develop the resources available to the family (Supprakit, 2014). The role played by family in societal development is championed by the home makers who constitute the human and material resource managers among families. One of the major family resources managed by home-makers is the clothing.

Clothing is anything placed on the body to adorn, protect or communicate intention. Similarly, Weber (2009) described clothing as one of the basic necessities of any human being which is used for protection, decoration, beautification, adornment, self expression, status symbol and to express one's personality. Anyakoha and Eluwa (2015) submitted that clothing constitutes visual communication, which gives varied impressions about the wearer which includes clothes, accessories, hair do, make ups, shoes and others. Clothing generally includes dresses such as blouses, trousers, shirts, under wears, handbags and other related body accessories.

According to Oluah (2007), clothing management deals with how the homemaker can effectively manage the clothing with the family resources allotted to it. Oluah 2007 stated further that clothing management demands that homemakers have adequate knowledge and skills needed for the effective management of clothing so that these clothes will be readily available as and when needed. The management of clothing includes those activities and practices involved in the provision and maintenance of clothes and other related articles such as shoes, stockings and hats. A good knowledge and skill in clothing management will help in planning wardrobe well, buy the right type of clothes within the family's resources and will also enable them maintain the clothes. The management practices relating to provision includes wardrobe planning and malting purchases of clothing items while those relating to maintenance include laundering, storage and mending the clothes when they spoil (Oluah, 2007). According to Anyakoha and Eluwa (2015), clothing care activities include: laundering, storage and mending the clothes when they are torn or when they develop faults. In the context of this study, clothing management responsibilities of women in their families include mending, laundry, ironing/pressing and storage of clothing.

Mending of clothing involves repairs on some parts of the clothes that are torn or worn out and replacement of such things as spoilt zippers and buttons that fell off. Other processes involved in mending include darning,
patching and re-enforcement (Oluah, 2007). When mending of clothing is effectively carried out, washing or laundering of clothes can be more successful. Washing is the actual removal of dirt or stains from clothes with the mixture of soap or detergent in water. Iwuoha (2013) stated that washing of clothes or laundry generally involves the use of soap, detergents and water to clean clothes. A well-launched cloth can be ironed for improved outlook. Readers Digest (2005) described clothes ironing as a means of smoothing and shaping garments or articles with heat, moisture, and pressure with hot iron. Ironing gives a smooth and well-made look to clothing. A well-launched and ironed clothes need to be properly stored for improved life span of the clothing. Storage of clothes provides protection from dust, dirt, insects, fungus and dye transfer (Marshal, Suzanley, Stannely, Kafgan and Spetch, 2000). Adequate storage space for clothing and the way it is used, however are management considerations (WoodWord, 2006). Everyone needs suitable places to store clothes, a closet or place to hang some garments and shelves or other articles (Marshal, et al 2000). In addition, Anyakoha and Eluwa (2015) shared that hanging clothes in a wardrobe prevents them from getting creased or rumpled so that they can retain their original shape.

It is very unfortunate to note that most homemakers lack basic family clothing management education and skills thereby resulting in damage and quick worn-out of family clothing even despite the huge financial resources commit to clothing by families. This situation is very common in Lagos State considering the busy and tight schedule of the people, proper attention is not given to effective management of family clothing. The effects of poor clothes management often result to spoilt zippers, loosened elastic bands, buttons that fell off, loosened seams and dirty clothes. A dirty, torn and worn-out clothing is not suitable for use by the owner. This is because, dirty and torn clothes expose the wearer to irritation and harsh weather condition which may result to serious health problem and cause illness. It should also be noted that clothes are quite expensive (Oluah, 2007). It therefore follows that family clothes, should be properly taken good care of by home makers who are the major family resource managers so that the clothes could last and give better service. For the home makers to be able to effectively carryout their roles of managing family clothing amidst other family responsibilities, they need capacity building.

Capacity building according to Olaitan, Alaribe and Nwobu (2009) refers to efforts geared towards improving the level of knowledge, skills and attitudes possessed by an individuals for proficiency in a given task or job. Capacity building is an attempt aimed at increasing an individual's ability to perform a job or task; it is geared towards making improvement on what an individual is already doing to increase productivity. Eade (2007) described capacity building as a planned development of (or increase in) knowledge, output rate, management, skills, and other capabilities of an organization through acquisition, incentives, technology, and/or training. In the context of this study, capacity building is a planned developmental effort towards enhancing the capabilities of home makers in effective management of their family clothing in order to ensure that the clothing last long and give the best satisfaction to the wearers. It was based on this background that this study was carried out to identify capacity building needs of women in family clothing management using Lagos State as case study.

**Purpose of the Study**
The major purpose of the study was to evolve capacity building skill needs of home makers in family clothing management in Lagos State, Nigeria. Specifically, the study identified capacity building needs of home makers in:

1. Mending family clothing.
2. Laundry (sorting and washing) family clothing.
3. Ironing family clothing.
4. Storing family clothing.

**Research Questions**
Based on the specific purposes of the study, the study answered the following research questions:

What are the capacity building needs of home makers in:

1. Mending family clothing?
2. Laundry (sorting and washing) family clothing?
3. Ironing family clothing?
4. Storing family clothing?
Methodology

Area of Study: This study was conducted in Lagos State. Lagos State was made up of 20 Local Government Areas (LGAs). The population of Lagos State is 10,694,915 people (National Bureau of Statistics, 2012).

Design of the Study: The study adopted descriptive survey research design.

Population for the Study: The population for the study was made up of two groups which are 62 Home economics lecturers in tertiary institutions in Lagos State and 2,980 homemakers from 2,980 households in Agege and Ikorodu Local Government Areas of Lagos State (National Bureau of Statistics, 2012).

Sample for the study: Random sampling technique was used for selecting the respondents for the study. The first stage involved random selection of two local government areas (Agege and Ikorodu) out of the existing 20 LGAs in Lagos State. At second stage, the entire 62 lecturers of Home Economics in tertiary institutions in Lagos State were selected due to their manageable size. The third stage involved random sampling of 80 households from each of Agege and Ikorodu LGAs making 160 households for the study. At the fourth stage, one married woman representing the home maker was selected per each of the 160 households making a total of 222 respondents for the study; that is, 62 Home Economics Lecturers and 160 home makers.

Instrument for Data Collection: The instrument for data collection was a 64-item structured questionnaire. It was structured into two response categories of 'Needed' and 'Performance'. The needed category was further structured into 4-point rating scale of Highly Needed (HN); Averagely Needed (AN); Less Needed (LN) and Not Needed (NN) with corresponding values of 4, 3, 2, and 1 respectively. Similarly, the performance category was also structured into 4-point rating scale of High Performance (HP), Average Performance (AP), Low Performance (LP) and No Performance (NP) with corresponding values of 4, 3, 2, and 1 respectively. The Needed category of the instrument was responded to by both the women and Home Economics lecturers while the Performance category was responded to by the women only. The instrument was face-validated by three experts.

The internal consistency of the instrument was ascertained by administering 15 copies of the instrument to 10 married women and 5 Home Economics lecturers in tertiary institutions in Ogun State. Data collected were analysed using Cronbach Alpha reliability technique which yielded a coefficient of 0.75.

Method of Data Collection: Data for this study were collected with the help of four research assistants that joined the researcher making five enumerators for data collection. Out of the 222 copies of the questionnaire administered to the respondents, 209 were retrieved and completely filled representing 94.1% rate of return.

Method of Data Analysis

Data were analysed using mean and improvement need index (INI) for answering the research questions. The Practice Gap (PG) was used to identify specific areas in family clothing management where women need capacity building.
Results
The results for the four research questions were presented on Tables 1, 2, 3 and 4 respectively.

Table 1: Need Gap Analysis (NGA) of Mending Skills Needed by Women in Family Cloth Management and their Present Level of Performance (N = 209)

<table>
<thead>
<tr>
<th>SN</th>
<th>MENDING SKILLS</th>
<th>$\overline{X}_N$</th>
<th>$\overline{X}_P$</th>
<th>$\overline{NG}$</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Repair as soon as possible even if it's just a temporary fix</td>
<td>3.60</td>
<td>3.52</td>
<td>0.08</td>
<td>CBN</td>
</tr>
<tr>
<td>2</td>
<td>Iron cloth first to align the fabric before sewing or stitching</td>
<td>3.55</td>
<td>3.53</td>
<td>0.02</td>
<td>CBN</td>
</tr>
<tr>
<td>3</td>
<td>Avoid washing before mending a turn cloths because this is likely to make the damage worse</td>
<td>3.51</td>
<td>3.64</td>
<td>-0.13</td>
<td>CBNN</td>
</tr>
<tr>
<td>4</td>
<td>Choose thread that is the same colour or a shade darker because thread usually ends up looking lighter than it does on the spool.</td>
<td>3.44</td>
<td>3.54</td>
<td>-0.10</td>
<td>CBNN</td>
</tr>
<tr>
<td>5</td>
<td>Always carry out sewing or mending work under good lighting</td>
<td>3.52</td>
<td>3.41</td>
<td>0.11</td>
<td>CBN</td>
</tr>
<tr>
<td>6</td>
<td>Pass threads on the needle for stitching or mending cloth</td>
<td>3.65</td>
<td>3.25</td>
<td>0.40</td>
<td>CBN</td>
</tr>
<tr>
<td>7</td>
<td>Operate hand or foot sewing machine to sew or mend torn cloths</td>
<td>3.68</td>
<td>3.10</td>
<td>0.58</td>
<td>CBN</td>
</tr>
<tr>
<td>8</td>
<td>Replace button with colour that match the colour of the cloths</td>
<td>3.56</td>
<td>3.62</td>
<td>-0.06</td>
<td>CBNN</td>
</tr>
<tr>
<td>9</td>
<td>Fix damaged zippers, hooks using good colour judgement</td>
<td>3.73</td>
<td>3.10</td>
<td>0.63</td>
<td>CBN</td>
</tr>
<tr>
<td>10</td>
<td>Avoid using long lengths of thread because long thread pulled back and forth in a darn can pull and stretch the area out of shape</td>
<td>3.57</td>
<td>3.39</td>
<td>0.18</td>
<td>CBN</td>
</tr>
<tr>
<td>11</td>
<td>Using a fusible interfacing for a tear or cut within fabric</td>
<td>3.49</td>
<td>3.27</td>
<td>0.22</td>
<td>CBN</td>
</tr>
</tbody>
</table>

Note: $\overline{X}_N =$ Mean Needed; $\overline{X}_P =$ Mean Performance; $\overline{NG}$ = Need Gap; CBN = Capacity Building Needed; CBNN = Capacity Building Not Needed.

Table 1 reveals that 8 out of the 11 items had their need gap (NG) values ranged from 0.02 to 0.63 which are all positive. This showed that home makers needed capacity building on the 8 identified cloth mending skills for effective family clothing management in Lagos State. The need gap values of the remaining 3 items in the table, specifically, items 3, 4 and 8 were -0.13, -0.10 and -0.06 respectively which are negative. This indicated that the women do not need capacity building on the 3 cloth mending skills for effective family clothing management in Lagos State. This is because, the level at which the women are performing the 3 cloth mending skills is greater than the level at which the 3 skills are needed by the women for family clothing management.
Table 2: Need Gap Analysis (NGA) of Laundry Skills Needed by Women in Family Cloth Management and their Present Level of Performance  (N = 209)

<table>
<thead>
<tr>
<th>SN</th>
<th>SORTING SKILLS</th>
<th>$\bar{X}_N$</th>
<th>$\bar{X}_F$</th>
<th>NG</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sort cloth by colour e.g White t-shirts, white underwear, white socks</td>
<td>3.66</td>
<td>3.27</td>
<td>0.39</td>
<td>CBN</td>
</tr>
<tr>
<td>2</td>
<td>Sorting clothes by fabric weight</td>
<td>3.68</td>
<td>3.56</td>
<td>0.12</td>
<td>CBN</td>
</tr>
<tr>
<td>3</td>
<td>Dealing with stains while sorting cloths</td>
<td>3.40</td>
<td>3.08</td>
<td>0.32</td>
<td>CBN</td>
</tr>
<tr>
<td>4</td>
<td>Sorting newborn outfits separately because of their common pastel colours</td>
<td>3.33</td>
<td>3.40</td>
<td>-0.07</td>
<td>CBNN</td>
</tr>
<tr>
<td>5</td>
<td>Use knowledge of clothing labels and sort clothes in preparation for washing</td>
<td>3.61</td>
<td>3.48</td>
<td>0.13</td>
<td>CBN</td>
</tr>
<tr>
<td>6</td>
<td>Empty all pockets to ensure no object is hidden.</td>
<td>3.50</td>
<td>3.65</td>
<td>-0.15</td>
<td>CBNN</td>
</tr>
<tr>
<td>7</td>
<td>Close zippers, hooks, button and eyes, etc</td>
<td>3.38</td>
<td>3.46</td>
<td>-0.08</td>
<td>CBNN</td>
</tr>
<tr>
<td>8</td>
<td>Remove belts, trims or pins that are not washable</td>
<td>3.36</td>
<td>3.47</td>
<td>-0.11</td>
<td>CBNN</td>
</tr>
<tr>
<td>9</td>
<td>Turn shirts with beads or decorations inside out before washing to prevent damage to the design.</td>
<td>3.53</td>
<td>3.31</td>
<td>0.22</td>
<td>CBN</td>
</tr>
</tbody>
</table>

Washing of clothing

| 10 | Prepare laundry detergent according the cloths to launder.                     | 3.51        | 3.26        | 0.25 | CBN       |
| 11 | Tie strings and sashes loosely to avoid tangling                               | 3.74        | 3.47        | 0.27 | CBN       |
| 12 | Avoid the use of acidic detergent for laundering clothes                        | 3.70        | 3.44        | 0.26 | CBN       |
| 13 | Identified and follow washing sequences for a given process or product         | 3.50        | 3.35        | 0.15 | CBN       |
| 14 | Put on protective clothing when handling soiled product                         | 3.60        | 3.48        | 0.12 | CBN       |
| 15 | Avoid washing cloth with hard water to avoid wastage of soap and detergent     | 3.53        | 3.20        | 0.33 | CBN       |
| 16 | Drain water from the basing after the water gets dirty.                        | 3.47        | 3.63        | -0.16| CBNN      |
| 17 | Remove cloths and rinse from the washing basin.                                | 3.53        | 3.68        | -0.15| CBNN      |
| 18 | Squeeze out water from the cloth gently to avoid damage to the zippers, hooks and buttons | 3.51        | 3.60        | -0.09| CBNN      |

Note: $\bar{X}_N$ = Mean Needed; $\bar{X}_F$ = Mean Performance; NG = Need Gap; CBN = Capacity Building Needed; CBNN = Capacity Building Not Needed.

Table 2 reveals that 11 out of the 18 items had their need gap (NG) values ranged from 0.12 to 0.39 which are all positive. This showed that home makers needed capacity building on the 11 identified laundering (sorting and washing) skills for effective family clothing management in Lagos State. The need gap values of the remaining 7 items in the table, specifically, items 4, 6, 7, 8, 16, 17 and 18 were -0.07, -0.15, -0.08, -0.11, -0.16, -0.15 and -0.09 respectively which are negative. This indicated that the women do not need capacity building on the 7 laundering (sorting and washing) skills for effective family clothing management in Lagos State. This is because, the level at which the women are performing the 7 laundering skills is greater than the level at which the 7 skills are needed by the women for family clothing management.
Table 3: Need Gap Analysis (NGA) of Ironing Skills Needed by Women in Family Cloth Management and their Present Level of Performance

<table>
<thead>
<tr>
<th>SN</th>
<th>IRONING SKILLS</th>
<th>$\bar{X}_N$</th>
<th>$\bar{X}_P$</th>
<th>NG ($\bar{X}_N - \bar{X}_P$)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Spread cloths of same colours together</td>
<td>3.48</td>
<td>3.21</td>
<td>0.27</td>
<td>CBN</td>
</tr>
<tr>
<td>2</td>
<td>Spread cloths of the same weight together.</td>
<td>3.51</td>
<td>3.05</td>
<td>0.46</td>
<td>CBN</td>
</tr>
<tr>
<td>3</td>
<td>Spread clothes in tight and secure place to avoid theft.</td>
<td>3.35</td>
<td>3.40</td>
<td>-0.05</td>
<td>CBNN</td>
</tr>
<tr>
<td>4</td>
<td>Clip spread clothes to avoid falling to mud or stain</td>
<td>3.48</td>
<td>3.51</td>
<td>-0.03</td>
<td>CBNN</td>
</tr>
<tr>
<td>5</td>
<td>Create enough space for spreading clothes for fast drying.</td>
<td>3.57</td>
<td>3.24</td>
<td>0.33</td>
<td>CBN</td>
</tr>
<tr>
<td>6</td>
<td>Remove dried cloths from the sun to avoid fray due to excess sun</td>
<td>3.35</td>
<td>3.54</td>
<td>-0.19</td>
<td>CBNN</td>
</tr>
<tr>
<td>7</td>
<td>Prepare ironing board ready for pressing cloths</td>
<td>3.48</td>
<td>3.40</td>
<td>0.08</td>
<td>CBN</td>
</tr>
<tr>
<td>8</td>
<td>Moist cloths lightly before ironing to ensure smoothness of the cloths</td>
<td>3.65</td>
<td>3.24</td>
<td>0.41</td>
<td>CBN</td>
</tr>
<tr>
<td>9</td>
<td>Regulate the iron temperature according the content of the fabric e.g cotton, polysters, nylon, linen, wool, silk etc.</td>
<td>3.54</td>
<td>3.24</td>
<td>0.30</td>
<td>CBN</td>
</tr>
<tr>
<td>10</td>
<td>Spread cloths on the ironing board to avoid being squeezed</td>
<td>3.40</td>
<td>3.19</td>
<td>0.21</td>
<td>CBN</td>
</tr>
<tr>
<td>11</td>
<td>Apply light pressure pressing the cloths</td>
<td>3.50</td>
<td>3.37</td>
<td>0.13</td>
<td>CBN</td>
</tr>
<tr>
<td>12</td>
<td>Lower and lift iron carefully by keeping most of the weight of the iron in the hand.</td>
<td>3.68</td>
<td>3.12</td>
<td>0.56</td>
<td>CBN</td>
</tr>
<tr>
<td>13</td>
<td>Avoid pressing over pins as it may leave a mark in the fabric.</td>
<td>3.50</td>
<td>3.53</td>
<td>-0.03</td>
<td>CBNN</td>
</tr>
<tr>
<td>14</td>
<td>Use the edges of hot iron to press around button, hook etc.</td>
<td>3.65</td>
<td>3.79</td>
<td>-0.14</td>
<td>CBNN</td>
</tr>
<tr>
<td>15</td>
<td>Clean the soleplate of the iron when becomes necessary</td>
<td>3.50</td>
<td>3.44</td>
<td>0.06</td>
<td>CBN</td>
</tr>
<tr>
<td>16</td>
<td>Ironing dull-finished fabrics on the wrong side to avoid shining</td>
<td>3.57</td>
<td>3.17</td>
<td>0.40</td>
<td>CBN</td>
</tr>
<tr>
<td>17</td>
<td>Ironing napped, sueded and brushed fabrics on the wrong side on a softly padded board</td>
<td>3.32</td>
<td>3.24</td>
<td>0.08</td>
<td>CBN</td>
</tr>
<tr>
<td>18</td>
<td>Press velvet with large amounts of steam and very little pressure</td>
<td>3.54</td>
<td>3.06</td>
<td>0.48</td>
<td>CBN</td>
</tr>
<tr>
<td>19</td>
<td>Leave a steam-pressing area of cloth to dry before handle it again</td>
<td>3.65</td>
<td>3.38</td>
<td>0.27</td>
<td>CBN</td>
</tr>
<tr>
<td>20</td>
<td>Fold ironed cloth neatly to avoid being rumpled before storage</td>
<td>3.57</td>
<td>3.40</td>
<td>0.17</td>
<td>CBN</td>
</tr>
</tbody>
</table>

Note: $X_N = \text{Mean Needed}; X_P = \text{Mean Performance}; NG = \text{Need Gap}; CBN = \text{Capacity Building Needed}; CBNN = \text{Capacity Building Not Needed}.$

Table 3 shows that 15 out of the 20 items had their need gap (NG) values ranged from 0.06 to 0.56 which are all positive. This revealed that home makers needed capacity building on the 15 identified drying and ironing skills for effective family clothing management in Lagos State. The need gap values of the remaining 5 items in the table, specifically, items 3, 4, 6, 13 and 14 were -0.05, -0.03, -0.19, -0.03 and -0.14 respectively which are negative. This indicated that the women do not need capacity building on the 5 drying and ironing skills for effective family clothing management in Lagos State. This is because, the level at which the women are performing the 5 skills is greater than the level at which the skills are needed by the women for family clothing management.
Table 4: Need Gap Analysis (NGA) of Storing Skills Needed by Women in Family Cloth Management and their Present Level of Performance (N = 209)

<table>
<thead>
<tr>
<th>SN</th>
<th>CLOTHING STORAGE SKILLS</th>
<th>$\bar{X}_N$</th>
<th>$\bar{X}_P$</th>
<th>NG = $(\bar{X}_N - \bar{X}_P)$</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Store well laundered cloths in tight wrappers</td>
<td>3.49</td>
<td>2.26</td>
<td>1.23</td>
<td>CBN</td>
</tr>
<tr>
<td>2</td>
<td>Clean all storage outfits thoroughly before packing clothes into them for storage</td>
<td>3.52</td>
<td>3.30</td>
<td>0.22</td>
<td>CBN</td>
</tr>
<tr>
<td>3</td>
<td>Preserve stored cloth with insect repellent such as camphor</td>
<td>3.48</td>
<td>3.44</td>
<td>0.04</td>
<td>CBN</td>
</tr>
<tr>
<td>4</td>
<td>Store under clothes, night garments in drawers</td>
<td>3.48</td>
<td>3.13</td>
<td>0.35</td>
<td>CBN</td>
</tr>
<tr>
<td>5</td>
<td>Using cupboard boxes can be used for temporal storage of clothes</td>
<td>3.56</td>
<td>3.39</td>
<td>0.17</td>
<td>CBN</td>
</tr>
<tr>
<td>6</td>
<td>Store tops and shirt hanged in hangers</td>
<td>3.52</td>
<td>3.55</td>
<td>-0.03</td>
<td>CBNN</td>
</tr>
<tr>
<td>7</td>
<td>Adopt the use of new clean boxes to avoid staining and breeding of insects</td>
<td>3.46</td>
<td>3.35</td>
<td>0.11</td>
<td>CBN</td>
</tr>
<tr>
<td>8</td>
<td>Store folded shirts in drawers</td>
<td>3.65</td>
<td>3.51</td>
<td>0.14</td>
<td>CBN</td>
</tr>
<tr>
<td>9</td>
<td>Fold knitted, items and place into storage container</td>
<td>3.51</td>
<td>3.36</td>
<td>0.15</td>
<td>CBN</td>
</tr>
<tr>
<td>10</td>
<td>Store sweaters in closet shelf</td>
<td>3.58</td>
<td>3.28</td>
<td>0.72</td>
<td>CBN</td>
</tr>
<tr>
<td>11</td>
<td>Store daily used articles in top drawers</td>
<td>3.66</td>
<td>3.09</td>
<td>0.57</td>
<td>CBN</td>
</tr>
<tr>
<td>12</td>
<td>Use the dust free cover for seldom worn garments</td>
<td>3.47</td>
<td>3.08</td>
<td>0.39</td>
<td>CBN</td>
</tr>
<tr>
<td>13</td>
<td>Wrap the clothing in something breathable i.e. fabric</td>
<td>3.44</td>
<td>3.12</td>
<td>0.32</td>
<td>CBN</td>
</tr>
<tr>
<td>14</td>
<td>Do not store clothes in plastic bags to avoid bug larvae</td>
<td>3.49</td>
<td>3.51</td>
<td>-0.02</td>
<td>CBNN</td>
</tr>
<tr>
<td>15</td>
<td>Storage area must be clean, cool, dark and dry to protect clothes</td>
<td>3.46</td>
<td>3.17</td>
<td>0.29</td>
<td>CBN</td>
</tr>
</tbody>
</table>

Note: $\bar{X}_N$ = Mean Needed; $\bar{X}_P$ = Mean Performance; NG = Need Gap; CBN = Capacity Building Needed; CBNN = Capacity Building Not Needed.

Table 4 shows that 13 out of the 15 items had their need gap (NG) values ranged from 0.04 to 1.23 which are all positive. This revealed that home-makers needed capacity building on the 13 identified cloths storing skills for effective family clothing management in Lagos State. The need gap values of the remaining 2 items in the table, specifically, items 6 and 14 were -0.03 and -0.02 respectively which are negative. This indicated that homemakers do not need capacity building on the 2 cloth storing skills for effective family clothing management in Lagos State. This is because, the level at which the women are performing the 2 skills is greater than the level at which the skills are needed by homemakers for family clothing management.

Discussion of Results
The findings of this study showed that home makers in Lagos State generally need capacity building in 8 cloths mending skills, 11 cloth sorting and washing skills, 15 drying and ironing skills and 13 storing skills for effective management of family clothing in Lagos State. The findings of this study is in line with that of Onah (2002) who investigated attitudes of mothers towards their children (0-9 years) clothing in Ede-Oballa Community in Nsukka Local Government Area where the author found that about 66.67% of the sampled mothers neither meet up with the clothing management need of their children nor do they take good care of their children's clothes due to lack of time and lack of clothing education. Similarly, Ohwovoriole and Ugeru (2001) in a study they carried out to find out the problems of clothing management practices of home makers in Delta State and found that majority of the homemakers used as respondents lack clothing management skills and that culture of the people has a lot of influence on families clothing decisions.

The findings of this study also agreed with the result of Okoroafor (2014) who carried out a study on competency areas in family clothing laundry to include: sorting cloth by colour, sorting clothes by fabric weight, sorting newborn outfits, use knowledge of clothing labels in sorting, turn shirts with beads or decorations inside out before laundering, tieing strings and sashes loosely to avoid tangling, avoid the use of acidic detergents, remove stains from clothes before laundering among others. Similarly, the findings of this study corroborated that of Makinde and Ojo (2011) who investigated required garment storage practices by working class women in Ondo State and found that working class women required skills in cleaning all storage outfits before storing clothes into...
them for storage, preserve stored cloth with insect repellent such as camphor to keep insects and rodents away from the wardrobe, fold knitted, items and place into storage wardrobe, store sweaters in closet shelf for safe keep, use the dust free cover for seldom worn garments, avoid the practice of storing clothes in plastic bags to avoid bug larvae, the wardrobe and other clothes storage area must be clean, cool, dark and dry to protect clothes to avoid unnecessary breeding of insects.

The findings of this study also conformed with that of Imafidon (2017) who identified major clothing storage and management practices to include: preservation of stored cloth with insect repellents, use of new clean boxes to avoid breeding of insects, use the dust free cover for seldom worn garments and wardrobe hygiene of making storage area to be clean and free of moisture. In addition, the findings of this study corroborated that of Oluah (2007) who investigated the strategies for improving the clothing management practices of mothers in Enugu State where the author found that ignorance and lack of knowledge of children's clothing needs, lack of time as a result of competing household chores and inadequate finance for the family need are major challenges facing home makers in their family clothing management in Enugu State.

Conclusion
This study investigated the capacity building needs of home makers in family clothing management in Lagos State, Nigeria. Specifically, the study identified capacity building needs of home makers in mending, sorting, washing, drying, ironing and storing cloths for effective management of family clothing in Lagos State. Structured questionnaire was used to collect data from married women and Home Economics lecturers in tertiary institutions in Lagos State. The data collected were analysed using mean and improvement need index. Based on the data collected and analysed, the study found that home makers needed capacity building on 47 out of the 64 identified items in family clothing management; whereas, on the remaining 17 clothing management, the home makers did not need capacity building.

Recommendations
The following recommendations were made.

i. Lagos state government should help package the identified clothing management skills into programmes for training and capacity building of women in Lagos State

ii. The state government should organise workshops and seminars in order to sensitise and educate women on skills involve in family clothing management.

iii. Women should be trained by government and NGOs on the correct and best methods, techniques and practices for effective clothing management.

iv. The result of this study should be used to organise specific capacity building for women in areas where their level of performance in family clothing management seems to be very low.

References


EMPOWERMENT OF YOUTHS FOR SUSTAINING NATIONAL STABILITY IN NIGERIA: THE ROLE OF HOME ECONOMICS

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Abstract
This paper investigated empowerment of youths for sustaining national stability: the role of Home Economics. It dealt with measures presently adopted by Home Economics in empowerment of youths and the role Home Economics should further play in empowerment of youths for sustaining National stability. The population was 288 students and 40 lecturers. Two research questions were answered. Survey research design was adopted in the study area. The sample for the study was made up of 144 students and 20 lecturers who were randomly selected from two Colleges of Educations in Kaduna State. A self-developed questionnaire with 11 questions and 16 questions items using five Likert Scale was used as instrument for data collection. The results of the findings were analyzed using mean (x). The findings revealed inter alia nine measures presently adopted by Home Economics in empowering youths and 16 roles Home Economics should further play in empowerment of youths for sustaining national stability. It was recommended inter alia that Home Economics programme should evolve in empowerment programme initiative that target youths.

Key words: Empowerment, Youths, Sustaining, Stability, Home Economics

Introduction
The socio economic growth and national stability of any nation depends on how well the citizens are empowered. Sustainable national development and stability is the only useful if it leads to the improved welfare of ordinary people. Generally more decent jobs that provide the living wage, social protection and workers right is the best way to promote the three component of sustainable development, economic growth social cohesion and environmental sustainability. One of the challenges faced by a changing world of today is unemployment which has led to depressed, unfulfilled, miserable life giving rise to evil vices that have wrecked many especially youths. Teline (2010) noted that some of the effects of unemployment include increase poverty and political instability. Gerald (2010) also identified security challenges currently facing the country as follows: (a) Political violence (b) Extremism -Religions intolerance (c) Communal violence.

Alabi (2013) further noted that unemployment leads to poverty and it manifest itself in violence, kidnapping, hired assassins, child trafficking, insurgency, robbery, cultism among others. Abubakar (2010) also noted that unemployment is a treat to security and stability of the country.

Over sixty percent of Nigerian population is made up of young people below age 35 (Read and Mberu, 2019). Nigeria has the largest army of unemployed and under employed youths in Africa. One out of every three Nigerian is either underemployed or unemployed (Adeyemo and Branfalt 2010). Youths are traditionally defined as a period of transition from childhood to adulthood. In Nigeria and Swaziland youth are defined as those between 12 to 30 years United Nations Economic Commission for Africa (UNECA, 2009). The youth in any society are the engine of growth and development because they provide the labour force for production of goods and services to take effect (Odoh and Okechukwu 2014). Many of the youths rely on white collar jobs which government and companies offer youth. Government had to design youth empowerment programmes in order to assists the youths. Youth empowerment is an initiative with a view to re-engineering the youths potential and energies for peace and stability to reduce poverty, unemployment and criminality. Empowering youths is the process of encouraging youths is the process of encouraging youths to be active citizens in their community. Youth mentoring can provide young people with positive role, model support and encouragement and is thus considered one of the most effective ways of helping them reach their fullness potentials as productive members of the society (Olabiyi 2013).

Good standard of education can empower youths to understand the importance of the country. When a youth is empowered, he understands the importance of education and help uplift the sector integral for developing nation such as Nigeria. As a nation, Nigeria has various empowerment programmes both at Federal, State and Local government levels, some of these empowerment programmes include among others:- Youth
Empowerment and Development Initiative (YEDI), Subsidy Reinvestment and Empowerment Program (SURE P), Youth Entrepreneurs of Nigeria (YEN), Youth Enterprise with Innovation in Nigeria (YOUWIN) and Npower www.inforguidenigeria.com Ma'aji and Hassan (2012) reported that among the youth empowerment programmes and poverty reduction programmes set up by the government, since independence till date, there exist a high rate of unemployment and poverty looming in the Nation. Ma'aji et al (2012) further attributed this to the inappropriateness of these programmes, inconsistency in the running of the programmes, poor administration, poor and unsuitable programme content, that is not consistent with employer's needs. These are responsible for the looming poverty and unemployment in the nation which results in youths engaging in numerous social vices thus disrupts national security. When youths are empowered national stability is maintained. Stability is attainment of national cohesion and integration for wholistic development, in a changing world.

The challenges of a changing world can only be met by a programme that is skilled oriented, and Home Economics Education is one of such programme that offers several opportunities and privileges. Home Economics is both a body of theoretical knowledge based on exact science and humanities and forms of practicals backed up by appropriate technologies, it area of activity is the development, use and management of human society International Federation of Home Economics (IFHE 2003).

Home Economics unifies and uses knowledge, it draws from many disciplines, to equip the individuals with skills required to meet needs skills foe employment and self-reliance. McGregor (2006) asserted that Home Economics is interdisciplinary and transdisciplinary. It is a field of knowledge and practice that enables an individual to be self-reliant. Home Economics teaches how to utilize available resources both human and material to achieve individual as family objectives (Mikailu, 2004). Home Economics Education is very crucial professions that produce skills manpower positive attitude, knowledge and personality upon which National stability and existence depend.

Okonjo Iwela (2011) noted that one of the challenges we have in Nigeria is creating jobs for empowering youths. Youth empowerment is the process whereby young people gain the ability and authority to make informed decision and implement change in their own lives and the lives of other people. One of the greatest challenges of Nigeria economy today is the episode of unemployment that has maintained a rising trend over the years. Teaching Home Economics skills to youths will help boost sustainable national stability and coping with the emerging challenges of both youths and the economy at large. The reality on ground right now is that vocational subject such as Home Economics seems to have been able to attain laudable goals for skilled manpower that provides self-employment (Alabi, 2004). This is evident in the substantial number of youths that still lack work skills which often results to unemployment, insecurity, loss of lives and properties and chaos (Chinedu and Olabiyi, 2015). There is therefore the need for this study to be carried out to unravel the empowerment of youths for sustaining national stability with respect to the measures presently adopted by Home Economics in empowering youths and the roles Home Economics can further play.

**Research Questions**

The following research questions guided the study.

1. What are the measures presently adopted by Home Economics in empowerment of youths for sustaining national stability in Nigeria?

2. What are the roles that Home Economics should further play in empowerment of youth for sustaining national stability?

**Methodology**

**Research Design and Area of the Study**

The study adopted descriptive survey research design, to find out the role of Home Economics on empowerment of youths for Sustainable National Stability. Descriptive survey research design is useful in describing the characteristics of a large population. Descriptive survey research design focused on the people, facts about people their belief, opinion, attribute, motivation and behaviour (Gall, Gall and Borge, 2007). The area of study was Kaduna State. Kaduna State is located in North West geo-political zone of Nigeria with Kaduna as its capital. Kaduna is divided into three senatorial zones only, Kaduna North, Kaduna Central and Kaduna South. Kaduna State is bounded in the north by Katsina and Kano State, in the east by Plateau State and in the south by Federal Capital Territory (FCT) Abuja, while in the west by Niger State.
Population of the study
The population comprised 288 students studying Home Economics at the B.Ed and N.C.E. levels, in colleges
of Education in Kaduna State. The study also included 40 Lecturers from these colleges of Education.

Sample and Sampling Technique
The two Colleges of Education offering Home Economics were purposively selected. The schools are Federal
College of Education, Zaria and Gidan Waya, Kafanchan, Kaduna State. Considering time and cost a sample
of 50 percent of the total population of the study were randomly selected for the study which was 144 students
and 20 lecturers. 72 students were randomly selected from each of the colleges and 10 lecturers from each
college.

Instrument for Data Collection
A five point scale of “Strongly Agreed” = (5) “Agreed” = (4) “Neutral” = (3) “Disagreed” = (2) “Strongly
Disagreed” = (1). The questionnaire was developed with various sections according to the various purposes
of the study. The instrument was validated by two experts from Home Economics Department of Federal College
of Education, Zaria. The reliability of the instrument was determined using Cronbach Alpha. A reliability
coefficient of 0.88 was obtained.

Method of Data Collection and Analysis
164 copies of questionnaire were distributed by the researcher and two research assistants. The filled
questionnaires were retrieved by hand and 158 copies were retrieved and analyzed.
Data collected were analyzed using mean. In this study a mean of 3.00 and above was agreed while a mean of
lower than 3.00 was disagreed.

Findings

Table 1: Mean response on measure presently adapted by Home Economics in empowerment of youths
for sustaining national stability.

<table>
<thead>
<tr>
<th>SN</th>
<th>Measures presently adopted by Home Economics</th>
<th>Mean (x)</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Learning is based on knowledge creation and application</td>
<td>4.58</td>
<td>Agreed</td>
</tr>
<tr>
<td>2</td>
<td>Teach youth’s salable skills such as food processing.</td>
<td>4.62</td>
<td>Agreed</td>
</tr>
<tr>
<td>3</td>
<td>Teach youth salable skills on food preservation of food items</td>
<td>2.48</td>
<td>Disagreed</td>
</tr>
<tr>
<td>4</td>
<td>Teach youth’s salable skills such as handcraft and clothing construction.</td>
<td>4.82</td>
<td>Agreed</td>
</tr>
<tr>
<td>5</td>
<td>Provision of practical manuals</td>
<td>4.85</td>
<td>Agreed</td>
</tr>
<tr>
<td>6</td>
<td>Encouraging creativity by students</td>
<td>4.76</td>
<td>Agreed</td>
</tr>
<tr>
<td>7</td>
<td>Individual learning plans as well as teamwork and collaborative learning is encouraged</td>
<td>4.21</td>
<td>Agreed</td>
</tr>
<tr>
<td>8</td>
<td>Strengthening students industrial work experience.</td>
<td>4.85</td>
<td>Agreed</td>
</tr>
<tr>
<td>9</td>
<td>Curriculum inclusion of new types of knowledge and skills required for standard-based reforms.</td>
<td>3.50</td>
<td>Agreed</td>
</tr>
<tr>
<td>10</td>
<td>Students are actively involved in practicals</td>
<td>4.54</td>
<td>Agreed</td>
</tr>
<tr>
<td>11</td>
<td>Students are taught the procedure to seek for loans</td>
<td>2.40</td>
<td>Disagreed</td>
</tr>
</tbody>
</table>

From table 1 reveals that items 1, 2, 4, 5, 6, 7, 8, 9 and 10 agreed on by the respondents. This shows respondents
agreed on those items as measures presently adopted by Home Economics for empowering youths for
sustaining national stability while items 3 and 11 where disagreed on by the respondents.
Table 2: Mean responses on the role of Home Economics should further play on empowerment of youth for sustainable national stability.

<table>
<thead>
<tr>
<th>SN</th>
<th>Role that Home Economics should further play</th>
<th>Mean(x)</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Students should be involved more in real life problem solving through practical work</td>
<td>3.86</td>
<td>Agreed</td>
</tr>
<tr>
<td>2</td>
<td>Students should have full experience on laundry services especially dry cleaning</td>
<td>3.94</td>
<td>Agreed</td>
</tr>
<tr>
<td>3</td>
<td>Students should be taught clothing merchandising</td>
<td>3.96</td>
<td>Agreed</td>
</tr>
<tr>
<td>4</td>
<td>Students should be taught the modern practice of outdoor catering services</td>
<td>3.88</td>
<td>Agreed</td>
</tr>
<tr>
<td>5</td>
<td>Students should be taught the modern way of carrying out event planning</td>
<td>3.92</td>
<td>Agreed</td>
</tr>
<tr>
<td>6</td>
<td>Students should be taught details of commercial food processing and preservation</td>
<td>3.79</td>
<td>Agreed</td>
</tr>
<tr>
<td>7</td>
<td>Students should be taught how to practical ways on care for old people and manage old people home</td>
<td>4.29</td>
<td>Agreed</td>
</tr>
<tr>
<td>8</td>
<td>Home Economics should be able to run television shows so as to teach other various skills to the youths</td>
<td>4.08</td>
<td>Agreed</td>
</tr>
<tr>
<td>9</td>
<td>Students of Home Economics should be able to teach other youths part of the skills they learnt</td>
<td>4.16</td>
<td>Agreed</td>
</tr>
<tr>
<td>10</td>
<td>Promote the use of locally available resources in any production</td>
<td>4.35</td>
<td>Agreed</td>
</tr>
<tr>
<td>11</td>
<td>Enhance income generating initiatives among youths</td>
<td>3.64</td>
<td>Agreed</td>
</tr>
<tr>
<td>12</td>
<td>Upgrading equipment in the various area of specialization in Home Economics to modern ones</td>
<td>4.37</td>
<td>Agreed</td>
</tr>
<tr>
<td>13</td>
<td>Home Economist to provide justified feedback for learners and graduates online so as to defect areas that need improvement in the training programme</td>
<td>4.33</td>
<td>Agreed</td>
</tr>
<tr>
<td>14</td>
<td>Learning should be initiative based</td>
<td>4.01</td>
<td>Agreed</td>
</tr>
<tr>
<td>15</td>
<td>Students learning should be adequately motivated with incentives</td>
<td>4.22</td>
<td>Agreed</td>
</tr>
<tr>
<td>16</td>
<td>Long-life learning activities and opportunities to be encouraged</td>
<td>4.42</td>
<td>Agreed</td>
</tr>
</tbody>
</table>

Table 2 shows that all the sixteen items were agreed on as roles Home Economics should further play on empowerment of youths for sustaining national stability.

**Discussion of Findings**

The study shows that Home Economics are already playing some role in empowerment of youths for sustaining national stability. Findings from the study revealed in Table 1 that though greater percentage of the respondents agreed on the issues of measures presently adopted by Home Economics in empowerment of youths for sustainable national stability, out of the items in table 1, two items had mean respondents indicating disagreement. They are to teach youth salable skills on commercial food preservation of food items, students are taught the procedure to seek for loans. The study reveals that they are not strong reasons on measures presently adopted by Home Economics in empowerment of youth for sustainable national stability. Other items on the table are in agreement with Anyakoha (2010) who confirmed that Home Economics helps with the development, use and management of human and material resources, for greater welfare of individuals, families and human society in its entirety.
Home Economics teaches salable skills such as food processing, hand crafts and clothing construction. The students are actively involved in practicals. This is in line with Nsubuga (2008) on the fact that Home Economics Education improves labour and skills which in turn increase opportunities for productive employment and enable citizens of any nation to fully exploit the potential positively. Bassey (2003) statement is also in line with the above findings he noted that Home Economics Education serves as a veritable tool in curbing insecurity facing the nation by providing notable skills such as dress making and clothing construction, cake making, food processing, handcrafts. Finding from table 2 revealed that all the 16 items which revealed that Home Economics should further play in empowerment of youth for sustainable national stability. These findings are in line with UNESCO (2004) which noted that technologies provide open learning environment where students collaborate in a team to increase their knowledge through life-long learning activities.

Also Chen and Magaji (2011) statement is in line by noting that educators/ facilitators should increase and create more opportunities from modern VTE through networking with colleagues, students and graduates. Onah (2008) is also in agreement with table 2 by the statement that VTE should be enhanced through input and output analysis, curriculum, evaluation creation and strengthening of the linkage between training supply and market. Lemchi (2001) further stated that Home Economics in Nigeria needs to be attuned to changes and innovations.

Recommendaions

Based on the findings of the study, the following recommendations were made:
1. Government should encourage Home Economist to use their professional skills to teach youths.
2. Non-Governmental Organizations (NGOs) should be made to participate in institutional programes for employment of youths.
3. Home Economics programme should evolve empowerment programmes initiative that target youths.

Conclusion

The study reveals that some measures are already adopted by Home Economics in empowerment of youths for sustaining national stability. The role that Home Economics should further play in empowerment of youth for sustainable national stability in Kaduna State, include among others that students should have full experience on laundry services especially dry cleaning, they should be taught: merchandising practice of outdoor services, event planning, commercial food processing and preservation, how to care for old people and promote the use of locally available resources in any production.

References


Teline, J. (2010), *What are the effects of unemployment in our society?* India, news Letter JA Template


Abstract
The study developed self-instructional manual in clothing and textile for learning Bead-craft in Home Economics in Colleges of Education in South-East and South-South States, Nigeria. The study adopted Research and Development (R and D) design. The study was conducted in twelve colleges of education that offer Home Economics in the area of study. A total of 103 Home Economics lecturers, 10 professional bead makers, and 105 final year Home Economics students, grand total 218 responded to the three instruments used for the study. The instrument for data collection was face validated by five experts. 20 copies of the questionnaire were administered on twenty lecturers of Home Economics from people not connected in the area of study. The overall reliability coefficient obtained was .939. Data was analyzed using mean, standard deviation and t-test. The study revealed among other things that student that learn bead-craft skills using bead-jewelry techniques manual performed better without any help from neither the lecturers nor anybody. This will in turn build a strong and peaceful Nation across boundaries using bead-craft skills in all skill oriented learning in Nigeria thereby eradicating unemployment and poverty among youths in the family/society. Teaching series; Making Twist-design beaded Necklace and Dangle.

Keywords: Clothing, Bead-craft, learning, Instruction, Self-instructional Manual and development.

Introduction
Bead-craft is the art of using beads to make decorative household articles generally by hand using tools. It is concerned with application of knowledge, skills and attitude needed to designs, select beading materials and manipulate tools to make beaded articles (National Commission Colleges of Education, 2012). Bead making involves using a set of instruction to produce desired articles. Bead-craft utilizes bead, thread/strings, stoppers, head pin, among others to make various beaded items. According to Adeote (2009), bead-craft is labor intensive, and it involves making of hats, brooches, beaded ladies garments among others, but it is recognized as lucrative area where Home Economics students can engage in for gainful employment (Beck, & Harue, 1991). Nwachukwu, (2013) pointed out that, bead-craft empowers students for entrepreneurial opportunities such as making sets of beaded jewelries

Beaded-jewelries refer to articles designed with beads to adorn the body (Reymond, 2009 and Wheeler, 1980). In making beaded-jewelries, the style can be single-string-design method, double or triple-strings-design method, cluster-design method or combination of both methods. They are made from beads using strings, threads, stoppers, hairpins, claws, tools, and techniques. Making sets of beaded-jewelries can be learnt by students in school for employment and for wealth creation for one's economic survival. Thus, effective acquisition of job skills in bead-crafts will lead to production of skilled man power and gainful employment for self-reliance. For this to occur effectively, the students have to learn the various processes of bead-craft.

Learning is an activity which we undergo in our everyday life. It usually comes in stages. Learning is a process of acquiring knowledge by studying through experience, information or teaching to enable students acquire skills that could provide them with employment (Hughes & Carter, 2000). Learning helps students to acquire much useful information on any given task in instruction, hence, the need for proper instructions. Instruction is detailed information on how to accomplish task.

Instruction is a guide towards the achievement of a task. It involves step by step procedures of doing task (Olse, Teare & Gummeso 1997). The components of instruction include; objectives, content, learning experiences and
evaluation (Hughes, and Carter2000). Gibb, (2008), listed two major types of instruction; teacher instruction and self-instruction. Teacher instruction is the formal teaching and learning situation in school under the guidance of the teacher. While self-instruction, is self-directed and self-regulated learning. Self-instruction is very important in learning. It focuses upon giving students direct responsibilities on instruction. It helps student to gain freedom to learn without relying on the teacher. It also helps Nigeria Certificate in Education students to study at private times inside and outside the classroom at individual pace to learn and master any chosen task (Hughes, 1997). Self-instruction is most effective when self-instructional materials are used in addition. Self-instructional material make instruction more real, lively and understandable to the learner. It removes boredom and adds life to instruction. An example of self-instructional materials is self-instructional manual.

Self-instructional manual is a reference book that contains step by step procedure on how to accomplish a given task. It is very useful in learning skills in schools. In bead-craft, identification of the skills required in each activity and the specific objectives for each activity is of basic importance to attainment of the set goal. Essentially, objectives provide information on what is to be evaluated. Therefore, for any objective to be achieved, learning must be vigorously and effectively carried out. Self-instructional manual is very useful in learning because it bridges the gap in abstract experiences or ideas by concretizing such experiences or ideas. It stimulates the learner's natural gateways to learning; it increases and stimulates the learner's interest and motivation. Self-instructional manual will help to attain effectiveness and efficiency in learning (Hughes, 1997).

Bead-craft, an aspect of clothing and textile in entrepreneurship education in Home economics is one of the new areas introduced into colleges of education to address the issue of unemployment after graduation. Bead-craft involves a lot of skills such as making of beaded brochure, hats, and beaded-jewelries, among others (Wigwig, 2010). Student's acquisitions of these skills in bead-craft require more time allocation than is obtainable in the college thereby, posing serious challenges. Home economics lecturers that teach these courses bead-crafts are very few. Many of the available ones lack the competencies in imparting the skills to the students. Bead-craft local textbooks which could help students to learn are not easy to come by and the foreign ones available are very expensive in the market thereby making it difficult for students to lay hands on them.

However, Home economics as a multi-disciplinary subject requires that, the students take some courses in Home management, Arts, Food and Nutrition, Chemistry, Biology, Education, among others. These students are therefore faced with many subjects competing for their time and this makes them have no other option than to give little time to bead-craft practical to enable them acquire skills in other course areas in the school. Furthermore, bead-craft is not easily learnt within a short period by students, thus, contributing to their poor ability to acquire the skills within the short period. The time allocated to bead-work practical is inadequate, so there is need for practical manual to convey the skills appropriately. With these challenges of inadequate time, skilled lecturers, and self-instructional materials for learning bead-craft in colleges of education, skills can never be adequately acquired without sufficient practice. Therefore, this study developed self-instructional manual for learning selected bead-crafts within Home economics programme in colleges of education.

**Purpose of the Study**

The major purpose of the study was to develop a self-Instructional manual for learning selected bead-crafts within Homes Economics Programme in Colleges of Education. Specifically, the study;

1) Developed twist-design beaded necklace for entrepreneurship for NCE Home Economics students/graduates.

2) Developed twist-design beaded bangle for entrepreneurship for NCE Home Economics students/graduates.

**Research Questions**

1) What are the materials and steps required for developing twist-design beaded Necklace for entrepreneurship?

2) What are the materials and steps required for developing twist-design beaded Bangle for entrepreneurship.

**Methodology**

**Design of the Study**: This study adopted Research and Development (R&D) design. Research and Development is a Model in which the findings of research are used to design new products and procedures which are
Development of Self-instructional Manual for Learning Selected Bead-crafts in Home Economics Programme

systematically field-tested, evaluated and refined until they meet specification criteria of effectiveness, quality, or similar standard (Gall, Gall & Borg, 2007).

**Area of Study:** The study was carried out in South-east South- south geopolitical Zones in Nigeria.

**The population for the Study:** The population for the study was 355. These Constituted 133 Home Economics lecturer in colleges of education in the area of study. 10 Professional bead makers in the area of study, and 212 final year Home Economics students in colleges of education in the area of study.

**Sample and Sampling Techniques:** The samples for the study was 248 participants were in three sets; Stage I: Home Economics lecturers, who determined the need assessment questionnaire for the bead-craft. Owing to the manageable size, the entire population of 133 subjects constituted the respondents for the study. Stage II: Snowball technique was used to sample 10 professional bead makers who validated the items clarity, appropriateness and adequacy of the developed self-instructional manual. Stage III: Simple random sampling techniques were used to select 105 NCE final year Home economics Students in colleges of education from each college, who were used to test the effectiveness of the developed manual.

**Instrument for Data Collection:** The instrument used was a questionnaire, Titled: Development of Self-instructional Manual for Learning Selected Bead-craft in Home Economics Programme in Colleges of Education. Three sets of instruments were used: they are:

1. Bead-jewelry Techniques Assessment Questionnaire (BTAQ).
3. Practical Skills Test Items in Bead-jewelry Techniques (PSTIBT)

Instrument for data collection from the respondents for Phase I titled: Bead-jewelry Techniques Assessment Questionnaire (BTAQ), Developed by the researcher from literature reviewed for the study. It contained two Sections: A and B. Section A: was used to obtain information on the components of personal data. Section B: was used to obtain information on the component from respondents on Bead-jewelry Self-instructional Manual.

The second set of instrument was the Questionnaire that was developed for validation in draft Bead-jewelry Self-instructional Manual in bead-craft.

The third set of instrument was the students Practical Skill Test Items in Bead-jewelry Techniques (PSTIBT). It contained four methods of designing sets of bead-jewelry which were used to evaluating students on making different sets of bead-jewelries using (i) Single-string design method, (II) Double –strings design method, (3) Triple-strings design method and (4) Cluster –design method in developing the instrument. The researcher prepared table of specification to guide the achievement of test items.

**Reliability of the Instrument:** Twenty (20) copies of questionnaire were administered and data collected were analyzed using Cronbach's Alpha. The internal consistency reliability coefficient obtained where as follows: .920 for cluster one (specific objective), .834 for cluster two (content), .749 for cluster three (instructional materials), .822 for cluster four (instructional methods), .766 for cluster five (evaluation activities), .939 for grand total. The overall reliability coefficient obtained was .939 for the entire instrument.

**Data Collection Techniques and Analysis:** The instruments were administered through personal contact with the help of two research assistants. Two hundred and nine practical skill test items were collected with correct responses. Data for the study were analyzed using mean and standard deviation and criterion mean of 2.50 was used for decision making.
Results

Research Question 1: What are the materials and steps required for developing Twist-design beaded Necklace for entrepreneurship?

Table 1: Mean and Standard Deviation of Responses on making Twist-design beaded Necklace by Professional Bead-Makers in South-East and South-South Geopolitical Zones

<table>
<thead>
<tr>
<th>S/N</th>
<th>Steps: required for Making Cluster Design twist Beaded Necklace</th>
<th>( \bar{X} )</th>
<th>SD</th>
<th>RMK</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pick ( \frac{3}{4} ) pack of sand-bead in a string for cluster design twist necklace for beaded-jewelry</td>
<td>3.50</td>
<td>.527</td>
<td>HR</td>
</tr>
<tr>
<td>2</td>
<td>Fold the beaded string into 4 and twist till very short</td>
<td>3.60</td>
<td>.516</td>
<td>HR</td>
</tr>
<tr>
<td>3</td>
<td>Release the twisted beaded string</td>
<td>3.70</td>
<td>.483</td>
<td>HR</td>
</tr>
<tr>
<td>4</td>
<td>Fold the beaded strings again till the desired neck size is gotten</td>
<td>3.90</td>
<td>.316</td>
<td>HR</td>
</tr>
<tr>
<td>5</td>
<td>Tie the 2 ends with strings</td>
<td>3.50</td>
<td>.707</td>
<td>HR</td>
</tr>
<tr>
<td>6</td>
<td>Add cap to it through the string</td>
<td>3.90</td>
<td>.316</td>
<td>HR</td>
</tr>
<tr>
<td>7</td>
<td>Add hooks and stopers and press till flat to secure strings</td>
<td>3.60</td>
<td>.527</td>
<td>HR</td>
</tr>
<tr>
<td>8</td>
<td>Repeate hook fixing on the other side of the neck lace to complete the cycle</td>
<td>3.70</td>
<td>.483</td>
<td>HR</td>
</tr>
<tr>
<td>9</td>
<td>Store in a good jewelry package for safe keeping</td>
<td>3.90</td>
<td>.316</td>
<td>HR</td>
</tr>
<tr>
<td>10</td>
<td>Organizing exhibition to show set of beaded-jewelry made</td>
<td>4.00</td>
<td>.000</td>
<td>HR</td>
</tr>
</tbody>
</table>

Note: \( \bar{X} = \text{Mean, SD=Standard Deviation, RMK= Remark, N=103=Number of Respondents, R=required and HR =Highly required} \)

Table 1 shows the mean and standard deviation of professional bead-makers rating on the materials and steps required for making cluster design beaded necklace. The results reveal that, the professional bead-makers rated the developed self-instructional manual on cluster twist design beaded necklace materials and steps to be highly required for learning bead-crafts within Home Economics programme in Colleges of Education. This is due to the fact that, the mean rating values of all the procedures listed in the items are greater than the criterion mean of 2.50 (\( \bar{X} > 2.50 \)). Therefore, all the procedures are accepted to be highly required. The standard deviation shows less variation in the responses of the professional bead-makers due to the closeness of the values.

Research Question 2: What are the materials and steps required for developing Twist-design Beaded Bangle for entrepreneurship?
Table 2: Mean and Standard Deviation of Responses on Making Twist-Design Necklace by Professional Bead-Makers in South-East and South-South Geopolitical Zones

<table>
<thead>
<tr>
<th>S/N</th>
<th>Required for Making Cluster Design Twist Beaded Bangle</th>
<th>Mean (M)</th>
<th>SD</th>
<th>RMK</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Pick 1/3 pack of sand-bead in a string for cluster twist design bangle</td>
<td>3.80</td>
<td>.421</td>
<td>HR</td>
</tr>
<tr>
<td>2.</td>
<td>Fold the beaded string into 4 and twist till very short. Release the twisted beaded strings</td>
<td>3.60</td>
<td>.516</td>
<td>HR</td>
</tr>
<tr>
<td>3.</td>
<td>Fold the beaded string again till the desired wrist size is gotten</td>
<td>3.70</td>
<td>.483</td>
<td>HR</td>
</tr>
<tr>
<td>4.</td>
<td>Tie the 2 ends with strings</td>
<td>3.70</td>
<td>.483</td>
<td>HR</td>
</tr>
<tr>
<td>5.</td>
<td>Add cap to it through the strings</td>
<td>4.00</td>
<td>.000</td>
<td>HR</td>
</tr>
<tr>
<td>6.</td>
<td>Add stopper and hook</td>
<td>3.80</td>
<td>.421</td>
<td>HR</td>
</tr>
<tr>
<td>7.</td>
<td>Store in a safe jewelry-container</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: \( \text{Mean, SD=Standard Deviation, RMK= Remark, } N=103=\text{Number of Respondents, } R=\text{required and HR-Highly required.} \)

Table 2 reveals the mean and standard deviation of professional bead-makers rating on the materials and steps required for making twisted design beaded bangle.

The results reveal that, the professional bead-makers rated the developed self-instructional manual on Cluster Twist Design Beaded Bangle materials and steps to be highly required for learning bead-crafts within Home Economics programme in Colleges of Education. This is due to the fact that, the mean rating values of all the procedures listed in the items are greater than the criterion mean of 2.50 (\( >2.50 \)). Therefore, all the procedures are accepted to be highly required. The standard deviation shows less variation in the responses of the professional bead-makers due to the closeness of the values.

Discuss of Findings

Result revealed that all the identified materials for making selected beaded jewelries for learning bead-craft within Home Economics programme in Colleges of Education for improved high quality bead jewelry making were required. They are as follows:

In research question one:

Discussion of findings based on research question one showed all the entire items for Making Twist-Design Beaded Necklace by Professional Bead-Makers in South-East and South-South geopolitical Zones were required. This revealed that, instructional materials and steps are crucial element in the learning of any skill competency. Ogwo & Oranu (2006) noted that instructional materials and steps determine largely the extent the learning effectiveness of students during learning. The produced self-instructional manual for learning bead-craft produced will help students to see learning as real, concrete and verbal. N.P.E. (2008), Opined that instructional materials and steps will help students to learning better.

In research question two:

Discussion of findings based on research question two, revealed that, all the items for Making Twist-Design Beaded Bangle by Professional Bead-Makers in South-East and South-South geopolitical Zones were required.

Discussion of findings based on the table: 2 on research question two; the study equally revealed that the
developed self-instructional manual for learning bead-craft within Home Economics programme in Colleges of Education was found to be very effective when practical skill-test with the final year students of Home Economics in Colleges of Education was conducted. The manual was effective because the materials and steps used considered certain factors like shapes of materials and steps, colours of materials and step, sizes of materials and steps, quality of materials and steps among others. Therefore, the beads were picked by the students according to the choice of their work (Wood, 2010). This implies that the manual was simplified for the students use in all the areas of making the beads-craft. The scoring on, twist-design bangle among others gave a minimum of 69% in all the colleges of education which is greater than 50% average. Therefore, it reveals that the effectiveness of this self-instructional manual for learning bead-crafts within Home economics in colleges of education was high.

Conclusion
Bead-craft is a competency based skill acquisition learning process that, involves the art of using beads to make decorative articles such as beaded neck-laces, dangles, earrings, garments, among others. In other words, bead-craft is concerned with intellectual curiosity, ability to think in a logical way and acknowledges things that exist and employ them to satisfy human wants. It is expected that students/learners would be encouraged to adopt the use of self-instructional manual to stimulate meaningful achievement in skill acquisition

Recommendations
Based on the findings, the following recommendations were made:
1) Retraining of Home Economics lecturers (experts) that can successfully implement the developed bead-craft self-instructional manual in Colleges of Education for effective skill acquisition practice among students in colleges of education is needed.
2) Introduction of entrepreneurship training programme in Colleges of Education in Nigeria.

References


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**APPENDIX**

**Bead-jewelries Stringed Work on Self-instructional Manual.**

**Goal:** The students and learners should be able to design and make different types of bead-jewelries using strings.

**Instruction:** Bead-craft is the art of using beads to make decorative household articles generally by hand using tools. Examples; beaded-shoes; hair-pins, jewelries among others

Bead-jewelries refer to articles designed with beads to adorn the body. Making sets of beaded-jewelries can be learnt by students in school and other interested peoples for employment and for wealth creation for economics survival. Thus; effective acquisition of job skills in bead-craft will lead to production of skilled man-power and gainful employment for self-reliance.

**Objectives for Developing Self-instructional Manual for Learning Selected Bead-craft in Home Economics Programme in Colleges of Education.**

The objective for developing the manual is to prepare today's students for success and eventual leadership in new global market-place. This is the most important responsibility in education today. It is important tools available to provide students with opportunities to explore and fulfill potentials. Thus, knowledge should be sustained in the students by creating a good and conducive learning environment in bead-craft among others, to create self-confidence and worth in them and discourage inferiority complex.

**Method: Making Cluster Design Beaded Necklace (Twist design method)**

Materials needed; sand beads, fish-lines, needles, hooks, caps, cuter, pliers, tape measure stoppers,

**STEP 1;** Take half bag of red sand beads and put them in a fish-line. (Put all of them in one fish-line)
STEP 2: Cut the fish-line and tie the two ends together.

STEP 3: Strengthen the stringed sand bead with the help of someone (or hang it on a hook) and fold it 4 times.

STEP 4: Twist the stringed bead as much as possible and hold it for sometime for the string to twist.

STEP 5: Release one side of the two ends and fold it to the size of the neckline and tie the two ends separately.

STEP 6: FIXING THE CAP AND NECK-HOOK.
1) Put cap on the tied end by passing the excess fish-lines through the hole on the cap.
2) Drop 2 sand beads and 2 stoppers in the lines.
3) Pick neck-hook and pass the fish-lines through the hole in the neck hook.
4) Pass the fish-lines from the neck hook through the 2 stoppers and the 2 sand beads and draw lines very tight.
5) Use pliers to press the stoppers till very flat to secure. Cut off the fish-lines with cutter.

These are completed cluster necklaces that can be done with the same method.

NOTE: This method can be used to make more sets of beaded jewelries using different colors, and sizes

Self-Evaluation for Learner
1) Follow the instructions in the procedure for making twist design beaded necklace and make a necklace.
2) Put the completed work on a "Wooden Neck" to display it.
3) Check; (i) the neatness of the twisted beaded ropes (10mark)
   (ii) the arrangement of the twisted beaded ropes (10mks)
4) Check; (i) the fixing of the caps (10mks)
   (ii) the lapping/fitting on the wooden neck (5mks)
5) Check; (i) the finishing of the thread (5mks)
   (ii) the fixing of the hook (5mks)
   (iii) the final lapping of the necklace. (10mks). Total=55marks

Method 2: Making Cluster Beaded Bangle (Twist-design method)
Materials and tools needed; Sand beads, fish-lines, cap, hooks, stoppers, pliers, cutter, beads, beads.
STEP 1: Take 1/4 bag of red sand beads and put them in a fish-line. (Put all of them in one fish-line).

STEP 2: Cut the fish-line and tie the two ends together.

STEP 3: Strengthen the stringed sand bead with the help of some one (or hang it on a hook) and fold it 3 times.

STEP 4: Twist the stringed bead as much as possible and hold it for sometime for the string to twist.

STEP 5: Release one side of the two ends and fold it to the size of the wrist and tie each end with fish-line.

STEP 6: FIXING THE CAP AND NECK-HOOK.
1) Put cap on the tied end by pasing the excess fish-lines through the hole on the cap.

2) Drop 2 sand beads and 2 stoppers in the lines.
3) Pick wrist-hook and pass the fish-lines through the hole in the wrist hook.

4) Pass the fish-lines from the wrist-hook. Pass through the 2 toppers and the 2 sand beads and draw lines very tight

5) Use pliers to press the stoppers till very flat to secure.

Cut off the fish-lines with cutter.

Do same in the other side

Completed bangle.
Self-Evaluation for Learners

1) Follow the instructions in the procedure for making spiral design beaded bangle and make a bangle.
2) Put the completed work on a "Wooden Neck" to display it.
3) Check; (i) the neatness of the beaded work (10 mark)
4) Check; (i) the finishing of the thread (5 mks)
   (ii) the fixing of the hook (5 mks)
5) Check the fitting on the wrist (5 mks) Total = 25
AN ASSESSMENT OF NUTRITIONAL KNOWLEDGE AND FOOD PRACTICES OF HOMEMAKERS IN AYAMELUM LOCAL GOVERNMENT AREA, ANAMBRA STATE

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Abstract
Healthy eating habits among family members play a key role in the physical, social and economic development of any nation and also promote growth and reduce risks associated with both immediate and long-term health problems. This study assessed the nutritional knowledge and food practices of homemakers in Ayamelum local government Area of Anambra State. A descriptive survey design was adopted. A sample of 240 homemakers was drawn from a population of 53,496 homemakers, using a multi-stage sampling technique. Questionnaire was used for data collection. The data was analyzed using descriptive statistics such as frequency and mean. According to the responses, the major findings were that there is fair nutritional knowledge among the homemakers as they agreed that fruits and vegetables are healthy foods and eating proteins and vegetables helps you lose weight with mean score of 3.03 and 3.12 respectively. The respondents also agree that drinking milk help strengthen bones with a mean rating of 3.14. The food practices revealed that food should be eaten once daily, vegetables eaten only in rainy season and that meat and fish are given to the head of the family only, with a mean rating of 3.08, 3.12 and 3.08 respectively. Some of the factors that affect homemakers nutritional knowledge and food practices includes: low social-economic status, culture, and food choice and preferences of certain foods with a mean rating of 3.16, 2.98, 3. and 2.98 respectively. The study concludes that the homemakers have fair nutritional knowledge but were not aware of the importance of this knowledge which was revealed through their food practices. This paper recommended that there is need for nutrition education and other nutrition interventions in order to improve the nutritional status of families in Ayamelum.

Keywords: Assessment, Nutrition, Nutritional knowledge, Food practices and Homemakers

Introduction
Healthy eating habits among family members play a key role in the physical, social and economic development of any nation and also promote growth, sustainable development and reduce risks associated with both immediate and long-term health problems. Nutrition is an important aspect of human life. According to World Health Organization (2019) Nutrition is the intake of food, considered in relation to the body's dietary need. Zimmerman and Snow (2012) also defined nutrition as the sum of all process involved in how organism obtain nutrients, metabolize them and use them to support all of life's processes.

Nutrition knowledge is one of the factors that affect nutritional status and nutritional habits of individuals, families, and societies. Nutrition knowledge is an important tool in assessing nutritional status of an individual, group or community (Rabar, 2015). According Rosenbloom, Jonnalagadda& Skinner (2002) Nutritional knowledge presumably influence attitudes, practice and eating behavior. Appropriate nutritional knowledge is essential for families to transfer their nutritional needs into food or dietary practice (Torres-Mgehee, Prntchett, Kilo, Zipple, Cellamate&Sibilia 2012). Food practices have been the subject of many research studies, reviews and papers. People's food practices are motivated by learned and habitual taste preferences, cultural influences, social economic and circumstantial situations and physiological and emotional states (Kabir, Miah & Islam 2018). For instance, in the report of Saeidlou, Babae & Ayrembou (2016), they reported that the respondents in their study were aware that the intake of vitamins is associated with the consumption of fruits and vegetables. They also reported that their respondents know that high consumption of fast foods were the main risk factor for overweight and obesity. Abraham, Brook, Nornegu & Shin (2018) equally reported that majority of the students in their study have formed the habit of staying well hydrated. Apart from body hydration, poor dehydration can affect brain structure and function (Melntosly 2018). Eating practices are significantly affected by early food behavior patterns, cultural and social traditions and attitudes. Numerous studies have shown that there is a gap between nutrition knowledge and food practices, and that many consumers have very limited knowledge of nutrition.
According to Anyasor and Hamdalat (2017), some of the factors that hindered nutritional practice include low social-economic status, inadequate knowledge about food item, ignorance. Studies have also revealed that most populations studied have positive attitude toward nutrition and understand the importance of diet but lack appropriate level of nutritional knowledge and fail to transfer information into practice (Caliendo, 2011 & Spendlove, Heaney, Gifford, Prvan, Denyer & O'Connor, 2012).

Ayamelum Local Government Area of Anambra State is made up of agrarian communities producing both food crops and cash crops but malnutrition is still endemic in this area among families especially the vulnerable groups. Although most of the homemakers may have positive attitude toward nutrition and understand the importance of food or diet, many lacks appropriate level of nutritional knowledge to transfer knowledge to practice. Therefore, the study assessed nutritional knowledge and food practices of homemaker in Ayamelum L.G.A

The main purpose of the study was to assess nutritional knowledge and food practices of homemakers in Ayamelum local government area of Anambra State. The study specifically assessed:

1. Nutritional knowledge of homemakers in Ayamelum local government area.
2. Food practices of homemakers in Ayamelum local government area.
3. Identify the factors affecting the nutritional knowledge and food practice of homemaker in Ayamelum local government area.

Methodology

Area and design of the study: The study was carried out in Ayamelum local government area (LGA) of Anambra State; the local government area 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 descriptive survey.

Population of the Study: This comprised of 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 famers and few civil servants.

Sample and sampling technique: 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 town 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 group. Finally, 40 homemakers from each of the six groups were randomly sampled which totaled 240 homemakers.

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

Data Collection and Analysis: Two hundred and forty (240) copies of the instrument were administered to the respondents personally 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 were administered by hand. Data collected were analysed using descriptive statistics such as frequency and 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

Table 1: Mean responses of Homemakers on Nutritional Knowledge of Households of Ayamelum L.G.A

<table>
<thead>
<tr>
<th>S/No</th>
<th>Items</th>
<th>Mean (x)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Fruits and vegetables are healthy foods</td>
<td>3.03</td>
<td>Agree</td>
</tr>
<tr>
<td>2.</td>
<td>Eating lots of sugary foods is good for our health</td>
<td>2.06</td>
<td>Disagree</td>
</tr>
<tr>
<td>3.</td>
<td>Eating proteins and vegetables makes you lose weight</td>
<td>2.98</td>
<td>Agree</td>
</tr>
<tr>
<td>4.</td>
<td>Fresh salads are healthier than meat products</td>
<td>3.12</td>
<td>Agree</td>
</tr>
<tr>
<td>5.</td>
<td>Vegetables and fruit contain vitamins and minerals for fighting diseases</td>
<td>2.92</td>
<td>Agree</td>
</tr>
<tr>
<td>6.</td>
<td>It is unhealthy to eat processed foods always</td>
<td>3.16</td>
<td>Agree</td>
</tr>
<tr>
<td>7.</td>
<td>Drinking milk help strengthen bone</td>
<td>3.14</td>
<td>Agree</td>
</tr>
<tr>
<td>8.</td>
<td>Excess calories in food are harmful to health</td>
<td>3.10</td>
<td>Agree</td>
</tr>
<tr>
<td>9.</td>
<td>Drinking water help in keeping the body hydrated</td>
<td>3.12</td>
<td>Agree</td>
</tr>
<tr>
<td>10.</td>
<td>It is unhealthy to eat fast food always</td>
<td>3.15</td>
<td>Agree</td>
</tr>
<tr>
<td>11.</td>
<td>Eating fruit and vegetables causes diarrhea</td>
<td>2.02</td>
<td>Disagree</td>
</tr>
</tbody>
</table>

Table 1: Show that nine items out of eleven items had mean score of 2.5 and above which were accepted by the homemakers. Only two items were below the accepted mean score of 2.5 and were rejected. Item number 6 which is that it is unhealthy to eat processed foods had the highest mean score of 3.16 while item number 2 which is eating lots of sugary foods is good for our health had the lowest mean score of 2.06.

Table 2: Mean Scores of Responses of Homemakers on Food Practices of Households of Ayamelum L.G.A

<table>
<thead>
<tr>
<th>S/No</th>
<th>Items</th>
<th>Mean (x)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Food is eaten once daily</td>
<td>3.08</td>
<td>Agree</td>
</tr>
<tr>
<td>2.</td>
<td>Vegetables and fruits were eaten daily</td>
<td>1.95</td>
<td>Disagree</td>
</tr>
<tr>
<td>3.</td>
<td>We eat eggs daily</td>
<td>1.10</td>
<td>Disagree</td>
</tr>
<tr>
<td>4.</td>
<td>Carbohydrate give food is consumed occasionally</td>
<td>3.12</td>
<td>Agree</td>
</tr>
<tr>
<td>5.</td>
<td>Meat and fish were consumed daily</td>
<td>2.18</td>
<td>Disagree</td>
</tr>
<tr>
<td>6.</td>
<td>Fish and meat are given to head of the family only</td>
<td>3.08</td>
<td>Agree</td>
</tr>
<tr>
<td>7.</td>
<td>Milk, cheese or yoghurt were eaten daily</td>
<td>2.10</td>
<td>Disagree</td>
</tr>
<tr>
<td>8.</td>
<td>Fruits and vegetables are eaten only when in season</td>
<td>3.12</td>
<td>Agree</td>
</tr>
<tr>
<td>9.</td>
<td>Snacks were eaten daily</td>
<td>1.98</td>
<td>Disagree</td>
</tr>
<tr>
<td>10.</td>
<td>Fast food, carbonated drinks were taken daily</td>
<td>2.26</td>
<td>Disagree</td>
</tr>
<tr>
<td>11.</td>
<td>Sugar were taken daily</td>
<td>3.16</td>
<td>Agree</td>
</tr>
<tr>
<td>12.</td>
<td>We eat legumes everyday</td>
<td>3.12</td>
<td>Agree</td>
</tr>
</tbody>
</table>

Table 2 show that homemakers adopted six items out of twelve items as food practices of households in Ayamelum local government area as these items met the mean score of 2.5 and above while six items were not adopted as food practices of households with a mean score less than 2.5. The table revealed that sugar was taken daily had the highest mean acceptance with mean score of (3.16) while food is eaten once daily and fish and meat are given to head of the family had the lowest mean acceptance with mean score of (3.08) respectively.

Table 3: Mean Scores Responses of Homemakers on Factors Affecting the Nutritional Knowledge and Good Practice of Homemakers in Ayamelum L.G.A

<table>
<thead>
<tr>
<th>S/No</th>
<th>Items</th>
<th>Mean (x)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Low social-economics status of the family</td>
<td>3.16</td>
<td>Agree</td>
</tr>
<tr>
<td>2.</td>
<td>Cultural makes it difficult to assess rarity of food.</td>
<td>2.98</td>
<td>Agree</td>
</tr>
<tr>
<td>3.</td>
<td>Food facts and fallacies, makes it difficult to assess rarity of foods</td>
<td>2.92</td>
<td>agree</td>
</tr>
<tr>
<td>4.</td>
<td>Religious belief like “pork” meat is unclean makes difficult to assess certain foods</td>
<td>3.08</td>
<td>Agree</td>
</tr>
<tr>
<td>5.</td>
<td>Poor nutrition education affects food choices and preferences in consumption of certain foods</td>
<td>3.03</td>
<td>agree</td>
</tr>
<tr>
<td>6.</td>
<td>Medical condition of members of the family</td>
<td>2.98</td>
<td>Agree</td>
</tr>
<tr>
<td>7.</td>
<td>Inadequate knowledge about nutrient in food item</td>
<td>3.04</td>
<td>Agree</td>
</tr>
<tr>
<td>8.</td>
<td>Lack of husbands support and get fulness</td>
<td>2.96</td>
<td>Agree</td>
</tr>
</tbody>
</table>

Table 3 revealed that all the items on the table were considered as factors affecting the nutritional knowledge and
food practices of homemakers in Ayamelum local government area. This is because all the eight items had a mean score of 2.50 and above while item number 1 had the highest mean score of 3.16 and item number 3 had the lowest mean acceptance of 2.92.

Discussion of Findings

Table 1 shows that nine items out of eleven items were considered by the homemakers on level of nutritional knowledge. It is unhealthy to eat processed foods had a mean score acceptance of (3.16) while fruits contain vitamins and minerals for fighting diseases had a mean score of (2.92). This is in line with the finding of Saeiabou et al., (2016) who reported that their respondents were aware that the intake of vitamin is associated with fruits and vegetable consumption. The respondents also agree that it is unhealthy to eat processed foods, the respondents knew that consumption of fast food always is also unhealthy and this agree with the finding of Saeiabou et al., (2016) who reported that the respondents in their study area knew that high consumption of fast foods were the main risk factor for overweight and obesity. They also agree that drinking water help in keeping the body hydrated. This is in line with the finding of Abraham et al., (2018) were majority of the students studied have formed the habit of staying well hydrated. Apart from body hydration, poor dehydration can affect brain structure and function (Melntosly, 2018). The result also revealed that excess calories in food are harmful to health. This is in line with the recommendation of world health organization that energy intake (Calories) should be in balance with energy expenditure, to avoid unhealthy weight gain (WHO, 2018).

The result revealed in table 2 that the nutritional practices of homemakers were inadequate as the result revealed that fish and meat are given to head of the family only and fruits and vegetables are eaten only when in season. This shows a gap between knowledge and practice and is in line with the report of Abraham et al., (2018) which revealed a negative correlation between eating habit and knowledge. In their report more than half of the participants (63.3%) indicated that they consume processed food either every day or more than once a day. However, 89.3% agree or strongly agree with the statement that it is unhealthy to eat processed food.

The finding in Table 3 revealed that all the items on the table were considered as factors affecting the nutritional knowledge and food practices of homemakers in Ayamelum local government area. The key factors that affect nutritional knowledge and food practices of households as revealed in the finding were low social-economic status; religious belief like “pork” meat is unclean, inadequate knowledge about nutrient in food item and poor nutrition education with a mean score of 3.16, 3.08, 3.04 and 3.03 respectively. This in line with the finding of Anyasor et al., (2017) who reported that factors that hindered women from maintaining adequate nutritional practices includes low social-economic status, inadequate knowledge about food item, ignorance, lack of husbands support and forgetfulness. The finding also revealed that households forbid certain foods due to culture, food fads and fallacies and even religious belief.

Conclusion

The following conclusions were drawn based on the findings of the study that homemakers have a fair nutritional knowledge but the knowledge was not in tandem with their food practices and that a number of factors were identified to affect their food practices which includes low social-economic status, culture, religious belief and poor nutrition education etc. This paper concludes that there is need for nutrition education and other nutrition interventions in order to improve the nutritional status of families in Ayamelum.

Recommendations

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

- Nutrition education should be giving to homemaker to improve their nutritional knowledge and food practices
- Government, ministry of education, Home Economists and dietitians and non-governmental agencies should see the need for sponsoring nutrition education programmes in communities and including nutrition education in academic curriculum from primary to secondary school to inculcate good nutrition knowledge and food practice early in our society.
References


WHO (2018). Healthy Diet (Key Facts) www.who.int


IMPERATIVES OF USING HOME ECONOMICS TO CURB THE MENACE OF DOMESTIC VIOLENCE AND CHILD TRAFFICKING IN NIGERIA

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Abstract
International and local policies/legislations exist on Domestic Violence and Child Trafficking. However, it remains a serious public health concern in many parts of the world particularly in developing countries like Nigeria. This paper explores the problem in Nigeria and proffers appropriate solutions. It involves illegal recruitment and movement of children for the purpose of exploitation, as well as rising incidence of domestic violence and abuse across the two genders. Different factors predispose to domestic violence and child trafficking in the country, mainly due to social, political or economic reasons. While Trafficking occurs either locally within the country or internationally through various routes, across all the geopolitical zones of Nigeria, domestic violence is more internalized. Various health implications associated with domestic violence and trafficking exist; these include physical, mental or sexual consequences, this notwithstanding, the effects and consequences of both in Nigeria is still having its toll on men, women and children. The study further defines the concept of Home economics, the role it can play in eradicating domestic violence and child trafficking. This paper is based on a desk, literature review and a web based research. It concludes that home economics is indispensable to economic development and no country would be able to curb both evils without advancement in home economics. Recommendations were made based on findings.

Keywords: Trends, Domestic Violence, Child, Trafficking, Home Economics, Situation, Nigeria.

Introduction
The history of human trafficking, including trafficking cannot be completely jettisoned from the phenomenon of slavery. This is because both involve the acquisition and transportation of humans across local, national and international borders for servitude, with or without the consent of the trafficked person(s) (Linus & Akor 2011).

Trafficking is not an alien phenomenon in Nigeria. It comes with a new trend that is hard to quantify; children are trafficked within and outside Nigeria for many purposes (Adesina, 2014). Furthermore, internally most of the victims are less privileged children whose numbers are not known. Bale and Soodater (2009) are of the opinion that the total number of trafficked victims is on the rise, hence the need to review its impact on the population.

Trafficking children is an exploitative act that jeopardizes child survival. Child trafficking is a multi-dimensional social problem caused by socio-economic challenges as well as demand for the exploitative use of children. There is a reason behind the emphasis on poverty as one of the fundamental causes of child trafficking, simply because most victims are trafficked from poor countries to rich countries. It is important to mention that for child trafficking to continue, there should exist some socio-legal environment which encourages the menace. It is for this reason that all aspects contributing to the vulnerability of children to trafficking recruitment must be carefully analysed.

The definition of domestic violence varies depending on the context in which the term is used. A clinical or behavioural definition is “a pattern of assaultive and/or coercive behaviours, including physical, sexual, and psychological attacks, as well as economic coercion, that adults or adolescents use against their intimate partners, according to (Siemienuk. R.A., Krentz, H.B., Gish, J.A. and Gill, M.J., 2010). Domestic violence and child trafficking are intrinsically linked as the presence of domestic violence in the home is an important factor to be considered when analysing causes of Child Trafficking and its effect on the society.

The development of any nation hinges on the social and economic contributions of her citizens. All attributes of
sustainable development are deprived by poverty. Poverty causes hunger, it brings about poor education, low self-esteem, lack of adequate health facilities, housing, land and inability to cloth oneself/family. Abject poverty, widespread hunger and illiteracy are the main problems which the Nigerian governments past and present has not been able to address. Various programmes were initiated and implemented by the governments, billions of Naira was spent on these programmes, yet Nigerians have been increasingly living in a sorry situation of poverty hunger and illiteracy.

However, the national policy on education places emphasis on inculcation of National consciousness and unity in diversity on the acquisition of appropriate knowledge, ability, skills, competence and self-reliance.

To achieve these, focus must be shifted to families' development participation in sustainable capacity building which can be attained through Home Economics Education and Vocational Education. This paradigm shift in focus can go a long way in addressing the menace of domestic violence and child trafficking.

Admittedly, Domestic Violence and child trafficking with all its ramifications are tantamount to a debasement of childhood and the family structure. Given the dehumanizing treatment which victims receive, the twin phenomenons are beginning to attract attention from several quarters. The concern and attention which the menace of domestic violence and trafficking of children has begun to attract stems from the realization that the phenomenon, being national and international crimes, means that no one country or government has the power and the resources to eradicate them all alone.

EkiIgbinedion, chairperson of India Renaissance, an NGO involved in the fight against the trafficking of children and domestic violence, argues that the trafficking of children and incidence of domestic violence began recently as an economic arrangement/reaction, a simple survival strategy adopted by families desperate for a reprieve from biting economic hardships (Muhammed, 2004).

Similarly, Robert, (2002) observed the reality that in most poor homes parents can barely meet the legitimate needs of their children. He added rather painfully that the financial distress of most poor parents makes them vulnerable to the deceit of traffickers who promise their children juicy and supposedly rewarding jobs only to cajole them into prostitution and forced labour abroad. A poor man can therefore do anything possible to break away from the shackles of poverty including trading off their daughters to traffickers.

Beside poverty, rampant cases of domestic abuse make the illegal trade of children an attractive option for reprieve for most victims. Many of the girls and women trafficked abroad are ignorant of the fate that await them in their country of destination. With little or no formal education some of the victims are easily carried away by the picture of Eldorado painted by their dubious sponsors. Agbo & Choji (2014) noted that many such victims have paid dearly for their ignorance while in Europe. Some scholars have also blamed trafficking on family size. One of scholar, Doddy (2009) asserted that adolescents from larger families are more likely to feel neglected and rejected by their parents than those from smaller family backgrounds. He argued that rejected and neglected adolescents strive to find solace outside the home, thereby making them vulnerable to the tactics of traffickers.

Fighting the menace of domestic violence and child trafficking of women requires a co-coordinated and concerted push from all stakeholders. This probably explains why in Nigeria, there appears to be a collaborative effort between the government on the one hand and civil society, on the other hand, to nip them in the bud. Former President Olusegun Obasanjo for example, openly decried the practice of the trafficking in women, which he said was disgraceful, and called for concerted efforts to rout it out of the Nigerian society (Rotimi, 2001).

**Conceptual Clarification**

Child: The word “Child” has been defined specifically in both the local and international instruments dealing with the rights and welfare of the child. In Nigeria, there are different types of definition given to a child depending on which law and for what purpose. A child is statutorily defined as a person under the age of 14 years,
while a young person is a child under the age of 17 years but who has attained the age of 14. This age ceiling in Nigerian law is lower than the age standard in the relevant international instruments. A child under International Instrument is every human being below the age of 18 years.

Child trafficking according to article 3a of the United Nations, trafficking encompasses the recruitment, transportation, transfer, harbouring or receipt of persons, by means of threat or use of force or other forms of coercion, of abduction, of fraud, of deception, of the abuse of power of a position of vulnerability or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the purpose of exploitation. Exploitation shall include, at a minimum, the exploitation of the prostitution of others or other forms of sexual exploitation, forced labour or services, slavery or practices similar to slavery, servitude or the removal of organs.

This means that for an act to constitute trafficking, the following three elements must cohabit.

i. The Act (What is done) Recruitment, transportation, transfer, harbouring or receipt of persons

ii. The Means (How it is done) Threat or use of force, coercion, abduction, fraud, deception, abuse of power or vulnerability, or giving payments or benefits to a person in control of the victim

iii. The Purpose (Why it is done) For the purpose of exploitation, which includes exploiting the prostitution of others, sexual exploitation, forced labour, slavery or similar practices and the removal of organs.

Child adoption is a process whereby a person assumes the parenting of another, usually a child, from that person's biological or legal parent or parents, and, in so doing, permanently transfers all rights and responsibilities, along with affiliations, from the biological parent or parents. It is a legal procedure in which all parental responsibility is transferred to the adopters. Once an adoption has been granted, it cannot be reversed. An adopted child loses all legal ties with their birth parents and becomes a full member of the adoptive family, usually taking the family's name.

Domestic violence is a pattern of abusive behaviour in any relationship that is used by one partner to gain or maintain power and control over another intimate partner. Domestic violence can be physical, sexual, emotional, economic, or psychological actions or threats of actions that influence another person. This includes any behaviour that intimidate, manipulate, humiliate, isolate, frighten, terrorize, coerce, threaten, blame, hurt, injure, or wound someone.

Home economics according to James (2003) Home Economics is a broad field of knowledge and services concerned with all phases of family life. Home Economics is a skill oriented subject which is capable of equipping the individuals with basic skills and knowledge that will help them to be self-reliant and thereby contribute to the social and economic development of the individual, the family and the nation at large.

Causes of Domestic Violence and Child Trafficking in Nigeria

The factors that facilitate domestic violence and child trafficking in Nigeria are extremely complex and interconnected but can be broadly divided into two, namely: the push and the pull factors. Garba, (2016), highlighted on the following:

- **Poverty**: Poverty is a major factor responsible for domestic violence child trafficking in Nigeria. It cannot be denied that abject poverty, unpleasant economic environment, unemployment, massive retrenchments, non-payment of salaries, under employment and poor quality of life has made parents who would otherwise, have been most caring and loving, to neglect and even sometimes, abuse their children. It has also led to the rising incidence of spousal abuse and domestic violence in the country. Some families are living from hand to mouth as a result of insufficient income to cater for their families. They are out of job or business either as a result of retirement or insufficiency of the income to settle the children school fees, rents and feeding. That is a perfect situation of parents and children to fall victim of bogus promises of a good time abroad with the prospect of earning foreign exchange that will convert into tons of naira (Nigerian currency) back home in Nigeria (Adesina, 2014)
Illiteracy: Illiteracy generally tend to increase individual vulnerability to domestic violence and child trafficking as it makes one not to benefit from any practical step taken to address the twin menace. Nearly a billion people entered the 21st century unable to read and write. In Nigeria, there are about eight (8,000,000) Million children who are vulnerable to trafficking and have no access to education. If one is educated he is enlighten and this will make him to understand the nature of any event or occurrence. In most countries including Nigeria where these phenomena are rife, illiteracy is a common causative factor (Garba, 2016).

Unemployment: According to Adesina, (2014) lack of employment is one of the greatest factors which force many people in Nigeria to pursue insecure and unreliable employment in other places. Somebody who has no economic resources can easily be lured by the dream of better livelihood and may easily be trapped by traffickers. Unaware of the possible consequences such people will often consent to travel through undocumented migration routes to affluent cities and countries and are in the process caught up either domestic or International child trafficking. Unemployment in Nigeria has always been on high. Every year many young people graduate from secondary and high school institutions with no employment. After years of working the street in search of non-existent jobs they are ready to go anywhere to do anything, just as long as they can be gainfully employed. The negative impact of unemployment is far worse for those young Nigerians who have or no academic qualification (Garba, 2016).

Corruption: The high level of corruption in Nigeria makes it possible for unscrupulous persons to use official channels to secure bogus travel documents for new recruit into prostitution abroad. Sometimes there is corruption even within the foreign missions themselves making it possible for criminal minded persons to procure visa for a fee. Nigeria has attained a global status in corruption.

Greed: According to Garba, (2016) this is an excessive desire to acquire or possess more than what one need or desires, especially with respect to material wealth. It can also be described as being controlled by material things such as power, food, cloth, money etc. Due to greed and the quest for better lifestyles, young people easily fall prey to traffickers who promise them better jobs away from home. There are reported cases in Nigeria where out of greed parents or guardians sell their children for money. One good example of this is the case of Jennifer Ogbonna from Aba area of Abia state of Nigeria. The report has shown that Jennifer was sold by her sister to one Ismail Yusuf, a man from Abeokuta, Ogun state of Nigeria, for the sum of One hundred thousand Nigerian naira (N100, 000). This incidence was confirmed by the victim, where she stated “I was sold by my sister in Aba for the sum of N100, 000 naira and brought to Abeokuta by the trafficker. I don't know that they had already paid money on my head. I only got to know in Abeokuta when I overheard the trafficker and her husband talking about me.”

Peer group pressures: Peer group pressure is also one of the factors that influence domestic violence and child trafficking in Nigeria. Children fall victim to child trafficking because of peer pressure and lack of alternative opportunities within their impoverished home communities. They often seek out traffickers on their own initiative and are thus recruited.

Demand for female prostitution: One of the factors that strives child trafficking is the readily available market for customers of a trade in humans for sexual purposes. It is obvious that child trafficking would not have been on the raise if there exist no increase demand for it. Traffickers are kept in the business of child trafficking because there is high demand for it, and every product is associated with profit. When there is demand, the supply increases. This is usually associated with a situation where there is abundant male demand for sex but insufficient supply has resulted in aggravating commercial sex industry (Garba, 2016).

Broken Home: A broken home is a serious and recurrent issue emanating from the home environment and as well, facilitates domestic/spousal abuse and trafficking of children in contemporary societies like Nigeria. Thus, the issue nowadays requires much attention and further investigation in order to tackle their escalation. Profiles of victims of domestic violence and trafficked children interviewed revealed that most of them were products of broken homes and/or orphaned children. An estimate reveals that from Northern part of Nigeria alone, about 9.5 million children; who are between the ages of 6 to 15, and
who are mostly orphans and are not exposed to western education, are said to have been trafficked from one place to another (Adesina, 2014).

- **Family size:** Child trafficking is more likely to occur in a crowded home with a large family. The size of the family may therefore, be a potential source of child trafficking especially where the family is large and poor. Demographically, the growth rates and the densities are of such magnitude that available social amenities cannot go round or are too expensive for the average families. When the family cannot afford the basic necessities of life, either as a result of income insecurity due to unemployment or retirement, the children are made to engage in some form of work such as hawking, begging, domestic servant. Although the purpose of this is to make up for this shortage, the child is likely to fall victims of trafficking (Adesina, 2014).

Other factors that causes Domestic Violence includes Psychiatric disorders, extreme traditional viewpoint, exposure to domestic violence in the past, alcohol abuse and drug addiction.

**The Role of Home Economics in Eradicating Domestic Violence and Child Trafficking**

Through the ages, education has remained the panacea for ignorance and its attending complicated problems. Adewuyi (2007) opined that by equipping the individual with information resources, education enriches and fortifies him against the oddities of life. According to McGregor (2006) Home Economics is inter-disciplinary, multi-disciplinary, trans-disciplinary and it is better equipped to handle any societal problem. It is a field of knowledge with numerous marketable skills that make for self-reliance and self-employment.

Home economics was founded for the purpose of helping individuals and families relate to change. Its uniqueness lies in the holistic view of daily living of individuals and families. Issues are approached both from its physical or material and relational dimension of life and their interaction. Home Economics is a diversified field of knowledge that involves education and research in many areas including: food and nutrition, clothing and textiles, family life and Human Development, Household and Institutional resource management and community Health (Ikeme, 2007).

Home Economics education has always stressed the preservation of family values in its subject matters in all levels. It realizes and emphasizes that values formation and education start at the home with the family members serving as primary socializing agents. It aims to promote this through parent education, family counselling and other support services. This can go a long way to arresting domestic violence and child trafficking if the first primary socializing agent leaves up to its expectation of inculcating family values into every family (Aishatu 2015).

Home Economics is a course that has a greater role to play in curbing the evils of domestic violence and child trafficking. Households and the individuals living in the society are the main focus of Home economics. Education and knowledge in Home economics empowers individuals to fulfil their fundamental needs and to manage scarce resources effectively and efficiently.

Since poverty is one of the main causes of domestic violence and child trafficking, education in home economics skills, like resource management and household finances in combination with psychosocial stabilization of the family leads to productive and regeneration capacity of the otherwise poverty disenfranchised individual. The well-being and the regeneration of the private home is a basic social goal for a full use of one's potential for education and paid work. Home economics education provides knowledge in food production, poultry and animal rearing nutrition skills. Home economics education does not only ensure self-sufficiency for the individual, families and communities but also to income generating opportunities. By selling the excess food produced, animals reared; eggs and birds from poultry in the family setting from a sustainable income generation activity. Opportunity is opened for families and individuals (ibid).
Home economics as a catalyst can provoke or initiate positive changes in individual or family life thus speeding up the rate of exchange toward national development. They set new directions for their families for the improvement of their lives. “Change is derived from a rational decision to directly affect family living. If the conditions of individual families are positively improved, the tendency for parents to send their children for hard labour will be greatly reduced. Home economists have initiated changes in individual and family conditions by:

A. Providing knowledge and skills which can be used by families to improve living conditions (income, health and nutrition);
B. Improving household technology in order for women to have opportunities to earn a living; and
C. Campaigning for the recognition of the value and capabilities of women.

It is essential for home economists to become intimately involved in empowering women and children, i.e., in demanding their rights as citizens to economic security through productive activities. Home economists must recognize that the condition of children must be improved, particularly the lack of power of children over their own destinies. Home economists must be intimately involved with the issues and concern of children. This includes documenting the conditions of families, of advocating change and in ultimately conducting the research and in practicing the profession to the end of helping men, women and children to a better quality of life (Badir, 2008).

Researches on families provide baseline data for designing realistic solutions to these problems. Home economics courses address these issues and concerns. Home production is the key to rural development. Home economics help rural families add much needed value to primary production and generate income based on all the principles of good home management translated into small-scale, home-based, rural enterprises (Stephens, 2009).

One of the main causes of child trafficking is the quest for good quality food, thus Home economics, with its understanding of the properties and quality of food as well as its understanding of the preservation, storage and preparation of food is needed if food security is to become a reality. New crop varieties, new technologies of storage and preservation require some understanding of the cultural meaning of food, the likes and dislikes of individuals, the consequences of change in established methods of preparing food. Home economists' knowledge and understanding of the wants and needs of their families will ultimately make or break the success of a new product.

Home economics performs another important role as a link among the other catalysts and the individuals and families. Home economics is not the sole catalytic agent for national development. The primary change agent is the government which sets the national direction and strategies for curbing child trafficking, promulgates public policies and programmes geared towards progress, and the complete overhaul of the child trafficking menace. Home economics therefore serves as a bridge that links government and other institutions to families and vice versa. This is a challenge open to home economists to take responsibility in working with the government and organizations in policy planning and execution. There is a need to forge partnership with planners and policymakers on local values, local needs, and local processes of participatory planning (Umali, 2008). Home economists are the ideal persons to draft programmes of action to solve problems on neighbourhood and community, housing, management of family resources, homemaking and family and child development and human trafficking; as well as counselling families and communities on how to prevent or eradicate incidences of domestic violence (Hopkinson, 2008).

Home economists also serve as coordinator of the implementing team of community development programmes. Policy decisions on the national level can only have far-reaching effects when these reach the home and community level. Having a broad view of family and community needs, they can assist in identifying areas of cooperation with other fields and sectors in solving the problems of child trafficking and domestic violence in Nigeria. There is no more appropriate person who can assist the policy maker in drafting and implementing plans.
to improve the life of families in rural and urban areas other than the home economist who studies the basic needs and problems of families.

Home economics education can improve skills and competencies of families and individuals in a changing world (where child trafficking and domestic violence is on the rise), education and best practice in home economics includes gender equality, safe sanitation and water use, generation skills, sustainable household production and resources management as well as food production, nutrition skills and health. Home economics is a field of study that offers various occupations for individuals. It is a skill base course which has the capacity of equipping young people and adult with sustainable skills, for self- reliance, employment and wealth creation thereby reducing or eliminating poverty and other leading causes of child trafficking and domestic violence.

Home economics education at all perimeters of life is aimed at improving and providing knowledge and skills to individuals for family living. The success of any nation is dependent on the happiness, health and comfort of its families. Roberts (2011) also assert that the primary determinant of a country's standard of living is how well it succeeds in developing, utilizing skills, furthering the health and educating the majority of its population.

Conclusion
Domestic Violence and Child trafficking has been identified as both a crime and disease which have eaten deep into the fabric of the Nigeria society with diverse consequences both on the victim and the society at large. This is despite numerous institutional and policies frame work put in place by the Nigerian government to fight the menace. Education is indispensable to economic development and poverty alleviation which are the root causes of these social anomalies. No country would experience economic development without education. Conclusively, this study emphasized on Home Economics education as an important tool for family survival and towards acquisition of sustainable skills for human capacity building. This can only be achieved if young people and adult are exposed to the knowledge of technical and vocational training necessary for human development which accelerate job opportunities and alleviate poverty amongst Nigerians.

Recommendations
Based on the discussion of finding the following recommendations were made:

- Corporate bodies and non-governmental organisation should adopt and implement Home economics training as part of their social responsibility programme.
- Government should establish more vocational centres across the county where informal instructions are given to those that could not afford formal education.
- Also, Guidance and Counselling centres run by trained professionals should be established where families or individuals who are/have been victims of child trafficking and domestic violence can be counselled and/or rehabilitated.
- Perpetrators of both domestic violence and child trafficking should be encouraged to embrace the programme/training offered by this vocational centres as this will make them self-reliant, thereby accelerating the country's human capital development rate.

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CONSUMERS' ACCEPTABILITY OF INDIGENOUS BLACK SOAP ENHANCED WITH MIXTURE OF ALOE VERA, CAMWOOD, HONEY, LEMON AND TUMERIC

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Abstract
The paper assessed the consumers' acceptability of Black soap enhanced with mixture of Aloe Vera, Camwood, Honey, Lemon and Tumeric. Four research questions were raised and three null hypotheses were formulated and tested at 0.05 level of significance. Research and development design were adopted. Five coded samples (ASN, CTH, TCH, LTH and STH.) with different proportions of a mixture of Aloe Vera, Cam wood, Honey, Lemon and Tumeric as additives were formulated and used for the study. Thirty respondents were used for assessment of the acceptability of the formulated product. Mean, standard deviation and one-way analysis of variance were used data analysis. The findings revealed that there was a significant change in the colour and fragrance of Black soap as the percentage of additives increased. Also all samples were acceptable except sample ASN, while sample LTH is the most acceptable and the three null hypotheses were rejected. This implied that there was significant difference among the samples. Conclusively, Black soap can be produced from unripe plantain skin and palm kernel oil, enhancement of this soap with mixture of Aloe Vera, Cam wood, Honey, Lemon and Tumeric increased the fragrance, health benefits and acceptability. It is recommended that; accuracy should be ensured during measurement of the additives for good result and stronger fragrance. Awareness should be created on using unripe plantain peels to save money, and this information should be included in Home management curriculum and other related subjects.

Keywords: Consumer, Black soap, Enhance, Acceptable and Additive.

Introduction
A consumer is one who determines personal wants, buys product and uses them. The traditional viewpoint describes consumer strictly in terms of economic goods and services (Loudon, and Bitta, 2004). The term consumer is typically used to refer to one who regularly purchases items from a particular store or company. In this context, individual and family that uses black soap for bathing, shampoo or any other purposes are referred to as consumers of black soap (Neeraj and Kokil, 2008).

In Southwest Nigeria, indigenous black soap is typically made from either grilled cassava peels or dried waste cocoa pods and oil (vegetable oil, palm oil or palm kernel oil) (Ikpoh, Lennox, Agbo, Udoekong, Ekpo and Iyam, 2012), it can also be produced from unripe plantain peels (Bashua and Oladunmoye, 2017). Palm kernel oil is an edible plant oil derived from the kernel of the oil palm: *Elaeis guineensis* (Poku, 2012). It does not contain cholesterol or trans fatty acids (Rakel, 2012). Cocoa (*Theobroma cacao*) pod is the shell of the cocoa fruit and it also possesses natural healing properties.

Soap is made by the reaction between fats/oils of animal/vegetable origin, and Alkali, chiefly caustic soda or caustic potash. Fats and oils are composed of triglycerides; three molecules of fatty acids are attached to a single molecule of glycerol. Caustic soda is used because it is cheap and the process is called Saponification. Soap and Glycerine are usually end-products of the saponification process (Anyakoha 2015). Soap is a common cleansing agent well known to everyone. Many authors defined soap in different ways. According to Warra (2013), soap is regarded as any cleaning agent, manufactured in granules, bars, flakes, or liquid form obtained from the reaction of salt of sodium or potassium of various fatty acids that are of natural origin; salt of non-volatile fatty acids. According to Betsy, Jilu, Reshma and Jaya, (2013), the alkali used in soap making was obtained from ashes of plants, but they are now made commercially. The alkali mainly used is a soluble salt of an alkali metal like sodium or potassium. The alkalis used in soap making are Sodium hydroxide (NaOH) and Potassium hydroxide (KOH).

Okeke (2009), opined that Soap can also be said to be any water-soluble salt of fatty acids containing eight or
more carbon atoms which are produced for varieties of purpose ranging from washing, bathing, medication etc., the cleansing action of the soap is due to the negative ions on the hydrocarbon chain attached to the carboxylic group of the fatty acids. The affinity of the hydrocarbon chain to oil and grease, while carboxylic group to water is the main reason soap is being used mostly with water for cleaning purposes (Adaku and Melody, 2013).

In addition to basic raw materials, other substances are added to the composition in order to improve its application, for example soap made for medicinal purposes is supplemented with ingredients e.g Triclosan is added to the basic composition to produce medicated soaps (Antezana, Beccaccia, Ferrer, Blas, Bollt and Cerasudo 2015). Soap can be made into liquid, semi-solid or dried into bar which are mainly used as surfactants for washing, bathing and cleaning, but they are also used in textile spinning and are important components of lubricants (Musa, 2009). Soaps for cleansing are obtained by treating vegetable oil or animal oils and fats with a strong alkaline solution, (Beetseh and Anza, 2013).

Black soap, or African black soap, also known as (Alata samina or Alata) originated from West Africa. The attribute of this soap include: gentleness on the skin, rich lather, protection against skin disorders (including rashes, eczema, scabies), treatment of skin infection (such as ringworm), promotion of even skin toning and smoothness of the skin (Getradeghana, 2000).

Considering the materials required in its production, it may be perceived that the production of African black soap is simply a conversion of waste to wealth; it is made from the ashes of plantain skin, cocoa pod, palm leaves and palm oil from kernels (Olufumuniso, Morenike and Otunola, 2017). The soap originates from the Yoruba word “ose dudu,” and is composed of palm kernel oil, cocoa pods, and other ingredients produced in a traditional manner. In Ghana, it is called 'Anago soap, In Nigeria, it is known as 'Sabilom salo' by the Hausas, the Yorubas call it 'ose dudu'. Its methods of preparation and secrets have been passed down from generation to generation to keep the soap close to Mother Nature and avoid exploitation and imitation (Aliyu, Tijjani, Doko, Gaba, Ibrahim and Abdulkadir (2012); Bella (2011); Getradeghana (2000); Summers (2016).

According to Treehugger (2018), Black soap made with plantains contains a high concentration of iron along with vitamins A and E. The skin of the plantain is dried to a specific texture in order to achieve a particular colour, texture and smell, the grilling of the plantains determines the colour of the soap (Oyekamini, Adebayo and Farombi, 2014), Denre, (2003) opined that the colour of black soap was influenced by the presence of additives. The colour pigment in camwood is Santalin and Santarubin (Omomunwi, Benard, Afolabi, Fowotade, and Olutunde, (2018).

Black soap has high phenolic content, this is the benefit of curing skin rashes. For centuries, the traditional manufactured black soap otherwise known as African black soap has been used in Nigeria, Ghana, to help relieve acne, oily skin, clear blemishes and various other skin issues (Getradeghana, 2000). Black soap has been employed to get rid of skin rashes, ringworm, measles and body odour and for treating many infections caused by microorganisms as well as for exfoliating and deep cleansing. Olufumuniso, Morenike and Otunola, (2017) sees black soap as a valuable medicinal output derived from organic waste product that could be converted to wealth, whose production, utilization and commercialization have tremendous economic potentials and shows significant antibacterial activity which has natural antiseptic properties and being a natural shampoo to avoid dry itchy scalp; it is useful for showering, bathing, washing hair and faces and helps to keep the skin clear of premature facial lines.

Production of black soap can serve as source of entrepreneurial opportunity to people and it can also increase the national income as some well-packaged black soap can be sold both in and out of the country. Also, the material required for the production of black soap is readily available in the area which makes the production process less expensive and easier. The making of black soap using vegetable matter has been an age old craft, unfortunately the soaps that were made then, were soft, black, smelly and corrosive to the hands, so there is need for improvement (Umeh-Idika and Adaku, 2013). Of this soap

Statement of the Problem
It was observed that in Ilorin and some parts of Nigeria, consumers use Black soap for bathing infants. As the children advance from childhood to adolescent and to adulthood, the utilization of this soap for bathing reduces or totally stopped due to the color, fragrance as well as the appearance. Also, they complain that this soap is used among the rural dwellers and illiterates only. Black soap is also perceived as a poor man's soap that is produced
locally. It is on this basis that the study sought to investigate if additives such as; Aloe Vera, Cam wood, Honey, Lemon and Turmeric could be added to its production and investigate if acceptability and prolonged use of this soap can exist.

Specifically, the study sought to:

i) produce black soap from unripe plantain peels
ii) enhance the soap with a mixture of Aloe Vera, Cam wood, Honey, Lemon and Turmeric
iii) examine the physical attributes of Black soap enhanced with a mixture of Aloe Vera, Cam wood, Honey, Lemon and Turmeric
iv) determine the chemical composition of the samples of Soap produced.
v) assess the importance of Aloe Vera, Cam wood, Honey, Lemon and Turmeric on the Soap produced.
vi) determine the overall acceptability of the samples of the soap produced

Research Questions
The following research questions were raised:

I) What are the physical attributes of Black soap enhanced with mixture of Aloe Vera, Camwood, Honey, Lemon and Turmeric?
ii) What are the chemical composition of the samples of Black soap produced?
iii) Does the mixture of Aloe Vera, Cam wood, Honey, Lemon and Turmeric have importance on Black soap?
iv) What is the overall consumers' acceptability of the sampled soap produced?

Hypotheses

HO₁ There is no significant difference between the physical composition of Black soap and Enhanced Black Soap.
HO₂ There is no significant difference between the chemical composition of black soap and enhanced mixture of additives of Aloe Vera, Camwood, Honey, Lemon and Turmeric on the black soap.
HO₃ There is no significant between consumers' acceptability of the enhanced samples of soap produced and the locally produced Black soap

Significance of the Study
A well-packaged, labelled black soap can be used by individual, family, society and also it can be exported to other countries thus providing job opportunities, increasing the nation's income and creating economic diversity. The enhanced Black soap will benefit consumers as it might be used as a remedy for certain skin conditions such as; oily skin, acne cleansing and other skin related issues. In addition, awareness on the utilization of unripe plantain peels for the production of black soap

Materials and Methods

Materials: Dried unripe plantain peels and palm kernel oil were purchased at Ogbomosho market, Nigeria. The equipment's and tools used for the experiments include; Pot, Stirring rod, Weighing scale, Mortal and Pestle, Heat source which were provided at the Department of Home Economics and Food Science University of Ilorin, Ilorin, Kwara State.

Methods: 20 pieces of whole unripe plantain was gotten from the market and the skin were peeled and dried. The dried plantain peel was incinerated to complete ash which was gathered and added to water in a basin in order to leach the alkali contents of the ash. The resulting solution was filtered with the aid of Muslin cloth to obtain lye without particulate matters. The mixture was filtered and the filtrate was collected. A pot was placed on a burner prepared from charcoal, 1.0 litre of palm kernel oil was poured into the pot and it was allowed to boil. 0.5 litre of the ash filtrate from unripe plantain peel was measured in a bowl. 0.3 litre of the filtrate was poured gradually with the hand well above the pot into the boiling oil. As the filtrate was poured into the boiling oil, the mixture began to lather. The mixture was left to heat at a regulated temperature. The remaining 0.2 litres of the filtrate was poured gradually into the mixture and allowed to boil at a regulated temperature. This process was repeated till the ash filtrate was used up. 10 min later, the mixture was stirred and as the stirring continued, the mixture began to solidify. 50 ml of water was added to the solid mixture and stirred thoroughly to form a dark brown soap. The solid soap was melted to obtain a much softer and lighter weight soap, while the heat source was maintained at a very low temperature to avoid burning or charring of the soap (Ikotun, Awosika, and Oladipo, 2015).
Development of Products: The Black soap produced (sample codes) was made into composite by mixing the samples in different proportions with the natural additives; the additives were mixture of Aloe vera, camwood, lemon, honey and turmeric. Thereby five samples of 100-0% additives which served as control (ASN), 90-10% (CTH), 80-20% (TCH), 70-30% (LTH), and 60-40% (STH) were made. Each of these samples weighs 60g.

Validity of Instrument: In order to determine the validity of the instrument, it was validated by three experts from the Department of Home Economics and Food Science, and Chemistry Department, University of Ilorin.

Data Collection: The instrument used for data collection was score card, which was adapted for this study, with a rating scale of 1-9 with 9: Like Extremely, 8: Like Very Much, 7: Like Slightly, 6: Like Moderately, 5: Neither Like Nor Dislike, 4: Dislike Slightly, 3: Dislike Moderately, 2: Dislike Very Much, 1: Dislike Extremely. Data was collected from the respondents during the assessment sessions. The researcher with one trained research assistant, carried out the distribution of the samples to the respondents and distribution of the Score Card. The research assistant was trained on the basis of test panelists' session, viz-a-viz; distribution and collection of completed assessment sheet and checking to ensure their completeness by the participants.

Evaluation session was conducted in University of Ilorin, Department of Home Economics and Food Science. The respondents comprised of thirty students from the Department of Home Economics and Food Science, University of Ilorin, Ilorin South, Kwara State. The Panelists were on the basis of evaluation of the five samples of black soap, which are; ASN: 100% Black soap and 0% additives, CTH: 90% Black soap and 10% additives, TCH: 80% Black soap and 20% additives, LTH: 70% Black soap and 30% additives, STH: 60% Black soap and 40% additives. The scores for overall acceptability were recorded on the score card.

Data Analysis: The data collected was analyzed using mean and standard deviation of the five samples. A decision rule of 5.0 was chosen and depicts that all the samples are acceptable except ASN which is the control. Hypotheses 1 and 2 were tested using Analysis of variance (ANOVA) at a 0.05 level of significance, when the
probability value was greater than 0.05 the hypotheses were retained otherwise, they were rejected. All statistical analyses were performed using the SPSS software package, Version 16.0 (SPSS Inc., Chicago, IL, USA).

**Chemical Analysis of Samples:** the samples analyzed were carried out according to the methods described by A.O.A.C. (2007).

### Results and Discussions

**Table 1: Mean and Standard Deviation of physical attributes of Black soap enhanced with mixture of Aloe Vera, Camwood, Honey, Lemon and Turmeric**

<table>
<thead>
<tr>
<th>Samples</th>
<th>Colour</th>
<th>Fragrance</th>
<th>Foamability</th>
<th>Texture</th>
<th>Acceptability</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASN</td>
<td>3.67±1.06</td>
<td>3.53±1.11</td>
<td>6.73±1.53</td>
<td>6.30±1.18</td>
<td>4.33±1.32</td>
</tr>
<tr>
<td>CTH</td>
<td>6.70±1.06</td>
<td>6.23±1.04</td>
<td>5.33±1.21</td>
<td>7.03±0.99</td>
<td>7.37±0.85</td>
</tr>
<tr>
<td>TCH</td>
<td>7.80±0.81</td>
<td>7.63±0.56</td>
<td>7.53±0.90</td>
<td>7.60±0.81</td>
<td>8.13±0.63</td>
</tr>
<tr>
<td>LTH</td>
<td>7.37±1.22</td>
<td>8.17±0.79</td>
<td>7.07±1.05</td>
<td>7.27±1.31</td>
<td>8.43±0.57</td>
</tr>
<tr>
<td>STH</td>
<td>7.30±1.26</td>
<td>8.30±0.70</td>
<td>7.17±1.37</td>
<td>7.13±1.19</td>
<td>8.37±0.72</td>
</tr>
</tbody>
</table>

**Source:** Field Survey (2019)

**Key:** ASN: 100% Black soap (Control), CTH: 90% Black soap and 10% additives TCH: 80% Black soap and 20% additives LTH: 70% Black soap and 30% additives STH: 60% Black soap and 40% additives. Additives = (Aloe vera+ Cam wood+ Honey+ Lemon + Turmeric)

Table 1 shows mean and standard deviation with different superscript in the same row are significantly different (p<0.05) while mean with the same superscript in the same row are not significantly different (p>0.05). The table also shows consumer's acceptability of attributes such as colour, fragrance, texture and overall acceptability. For color, sample TCH is the most accepted with mean score of 7.80 while ASN is the least accepted with mean value of 3.67. For fragrance, sample STH is the most accepted with a mean value of 8.30 while ASN is the least accepted with the mean value of 3.53. For Foamability, TCH is the most accepted with a mean value of 7.53 while CTH is the least accepted with the mean value of 5.73. For the Texture, TCH is the most accepted with a mean value of 7.60 while ASN6 is the least accepted with the mean value of 6.30. For the Overall Acceptability, LTH is the most accepted with a mean value of 8.43 while ASN is the least accepted with the mean value of 4.33. From the table it can be concluded that all the samples are acceptable except ASN, whose mean value is below 5.0 which is the decision rule.

**Table 2: Chemical Composition of Black soap enhanced with mixture of Aloe vera, Camwood, Honey, Lemon and Turmeric**

<table>
<thead>
<tr>
<th>Samples</th>
<th>MST (±SD)</th>
<th>TFM (±SD)</th>
<th>FCA (±SD)</th>
<th>TA (±SD)</th>
<th>pH (±SD)</th>
<th>UF M (±SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASN</td>
<td>24.1±0.07</td>
<td>53.1±0.14</td>
<td>0.21±0.002</td>
<td>11.6±0.06</td>
<td>8.71±0.014</td>
<td>0.82±0.002</td>
</tr>
<tr>
<td>CTH</td>
<td>17.1±0.07</td>
<td>51.8±0.07</td>
<td>0.19±0.0014</td>
<td>12.8±0.07</td>
<td>8.92±0.03</td>
<td>0.93±0.02</td>
</tr>
<tr>
<td>TCH</td>
<td>16.3±0.14</td>
<td>49.6±0.14</td>
<td>0.17±0.0007</td>
<td>14.8±0.21</td>
<td>9.05±0.07</td>
<td>0.98±0.02</td>
</tr>
<tr>
<td>LTH</td>
<td>14.2±0.07</td>
<td>49.3±0.07</td>
<td>0.17±0.0002</td>
<td>15.2±0.06</td>
<td>9.30±0.14</td>
<td>1.20±0.14</td>
</tr>
<tr>
<td>STH</td>
<td>13.5±0.11</td>
<td>48.8±0.07</td>
<td>0.15±0.0007</td>
<td>16.8±0.07</td>
<td>9.40±0.14</td>
<td>1.23±0.02</td>
</tr>
</tbody>
</table>

**Source:** Laboratory Work, (2019).

**Key:** MST: Moisture Content, TFM: Total Fatty Matter, FCA: Free Caustic Alkali, TA: Total Alkali, pH: Hydrogen Ion Concentration, UF M: Unsaturated Fatty Matter

Table 2 shows the moisture content, total fatty matter, free caustic alkaline, total alkaline, pH, foam stability and unsaturated fatty matter in percentage (%). From the table 3 above, mean (±SD) with different letter superscript in the same row are significantly different (P<0.05) while means with the same letter superscript in the same row are not significantly different (P>0.05).

The table revealed that Black soap enhanced with Aloe Vera, Camwood, Honey, Lemon and Turmeric has Moisture content value ranging from 13.5 to 24.1. Sample ASN (100% Black soap) has the highest moisture
content of 24.1% while Sample STH4 (60% Alata Samina, 40% additive) has the lowest moisture content of 13.5%. The Moisture content of the Enhanced Black Soap was found to be lower than that of the un-enhanced Black soap.

Total Fatty Matter ranged from 53.1 to 48.8%, Sample ASN (100% Alata Samina) has the highest total fatty matter content of 53.1% while Sample STH (60% Alata Samina, 40% additive) has the lowest total fatty matter content of 48.8. Sample CTH has 51.8%, Sample TCH has 49.5%, Sample LTH has 49.2%.

Free Caustic Alkaline ranged from 0.21% to 0.15%, Sample ASN (100% Alata Samina) has the highest total fatty alkali content of 0.21% while Sample STH (60% Alata Samina, 40% additive) has the lowest value of 0.15. Sample CTH has 0.19%, Sample TCH has 0.17%, Sample LTH has 0.17%.

Total Alkali ranged 11.6% to 16.8%, Sample ASN (100% Alata Samina) has lowest total alkali content of 11.6% while Sample STH (60% Alata Samina, 40% additive) has the highest value of 16.8%. Sample CTH has 12.7%, Sample TCH has 14.8%, Sample LTH has 15.2%.

pH ranged from 8.71 to 9.4, Sample ASN (100% Alata Samina) has lowest pH value of 8.71 while Sample STH (60% Alata Samina, 40% additive) has the highest value of 9.4. Sample CTH has 8.92, Sample TCH has 9.05, Sample LTH has 9.3.

Unsaponified Neutral Fat ranged from 0.80 to 1.83, Sample ASN (100% Alata Samina) has lowest value of 0.82 while Sample STH (60% Alata Samina, 40% additive) has the highest value of 1.23. Sample CTH has 0.93%, Sample TCH has 0.98%, Sample LTH has 1.20%.

**Research Question Three**: What is the Overall Consumer Acceptability of the Black Soap enhanced with mixture of Aloe vera, Camwood, Honey, Lemon, Tumeric?

![Figure 3](image.png)

**Figure 3**: Mean score of the Acceptability of samples of Black soap produced
For the Overall Acceptability, ASN has the mean value of 4.33, CTH has the mean value of 7.37, TCH has the mean value of 8.173, LTH has the mean value of 8.43, STH has the mean value of 8.37. LTH is the most accepted with a mean value of 8.43 while ASN is the least accepted with the mean value of 4.33.
Table 3: ANOVA on acceptability of Black soap enhanced with mixture of Aloe vera, Camwood, Honey, Lemon and Tumeric.

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
<th>Significance</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>30</td>
<td>357.560</td>
<td>4</td>
<td>89.390</td>
<td>120.647</td>
<td>.000</td>
<td>Significant</td>
<td>Rejected</td>
</tr>
<tr>
<td>Within groups</td>
<td>145</td>
<td>107.433</td>
<td></td>
<td>0.741</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>149</td>
<td>464.933</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

α = 0.05
Source: Field Survey (2019)

Table 4: ANOVA on Total Fatty Matter enhanced with mixture of Aloe vera, Camwood, Honey, Lemon and Turmeric

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
<th>Significance</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>30</td>
<td>28.026</td>
<td>4</td>
<td>33.406</td>
<td>7107.752</td>
<td>.000</td>
<td>Significant</td>
<td>Rejected</td>
</tr>
<tr>
<td>Within groups</td>
<td>5</td>
<td>0.055</td>
<td></td>
<td>0.005</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>9</td>
<td>28.081</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

α = 0.05
Source: Field Work (2019)

Discussion
The study investigated the production, acceptability and enhancement of Black soap with Aloe Vera, Camwood, Honey, Lemon and Turmeric. The study revealed that the Black soap can be produced using unripe plantain peel and palm kernel oil this in line with Bashua and Oladunmoye, (2017), They extracted lye from the burnt plantain peel and saponified it, he then enhance the soap with honey only. In this Study, the Black Soap produced was mixed with different proportions of Aloe Vera, Camwood, Honey, Lemon and Turmeric. It was observed that there was a change in the colour of the black soap after mixing it with different proportion of additives, this may be due to the presence of colour pigment in turmeric and camwood which is in agreement the report of Denre (2009). The major colour pigment in turmeric is the curcumin (Louay, 2014), the colour pigment in camwood is Santalin and Santarubin according to Omowumi, Benard, Afolabi, Fowotade, and Olutunde, 2018.

The result of the physical attributes in research Question One revealed that all the samples are acceptable in terms of physical attributes except ASN with mean value =3.67(which is lower than 4.5 which is the decision rule), however the level of acceptability differs. For Colour, the sample TCH – 80% Black soap. 20% additive mean =7.80 was the most accepted while the sample ASN6 = 100% Black soap was the least accepted with mean = 3.67.

For Fragrance, the sample STH - 60% Black soap and 40% additive was the most accepted with mean = 8.30 while the sample ASN6 100% Black soap was the least accepted with mean = 3.53.
For Foamability, the sample TCH = 80% Black soap and 20% additive was the most accepted with mean = 7.53 while the sample CTH = 90% Black soap and 10% additive was the least accepted with mean = 5.33.

For Texture, the sample TCH = 80% Black soap and 20% additive was the most accepted with mean = 7.60 while the sample ASN6 = 100% Black soap was the least accepted with mean = 6.30.

For Overall Acceptability, the sample LTH - 70% Black soap and 30% additive was the most accepted with mean = 8.43 while sample ASN6 = 100% Black soap was the least accepted with mean = 4.33.

The result of the chemical analysis in Research Question Two revealed that the values are within the range reported by previous studies however, there are some differences as previous studies did not combine all the additives rather, each of the additive was added to each sample of black soap. Moisture content value ranging from 13.6 to 24.0, Sample ASN (100% Black soap) has the highest moisture content of 24.0% while Sample STH (60% Black soap, 40% additive) has the lowest moisture content of 13.6%. The moisture content of the enhanced black soap was found to be lower than that of the Ordinary Black soap, this result is in line with the standard given by Encyclopedia of Industrial Chemical Analysis, (2007). This could be as a result of the absorbent nature of the additives (Dunn, 2010). Implication of high moisture content in soap is that the excess water could possibly react with any unsaponified neutral fat to give free fatty acid and glycerol in a process called hydrolysis of soap on storage (Tewari, 2004).

Total fatty matter ranged from 53.0 to 48.7%, Sample ASN (100% Black soap) has the highest total fatty matter content of 43.8% while Sample LTH (60% Black soap, 40% additive) has the lowest total fatty matter content. Sample CTH has 51.8%, Sample TCH has 49.5% and Sample LTH has 49.2%. The measure of the suitability of any soap for bathing and washing of material is its Total Fatty Matter, the recommended values are 20.0% and 50.0% for laundry and toilet soaps respectively (Encyclopedia of Industrial Chemical Analysis, 2005). The values obtained for all the soaps indicated that the black soaps generally would be most suitable for bathing rather than for laundry due to its high Total Fatty Matter. This is in line with the value of 48-72% reported by Bashua and Oladunmoye (2017).

Free Caustic Alkaline ranged from 0.21% to 0.90%, Sample ASN (100% Black soap) has the highest total fatty alkali content of 0.21% while Sample LTH (60% Black soap, 40% additive) has the lowest value of 0.9. Sample CTH has 0.15%, Sample TCH has 0.13%, Sample LTH has 0.12% Free caustic alkali is one of the parameters that determine the abrasiveness of any given soap, (Ogunsuyi and Akinnawo, 2012). This mostly results from improper or incomplete saponification. The recommended value is 0.25% for laundry soap and 0.2% for toilet soap (Encyclopedia of industrial chemical analysis, 2005). The low free alkali content of the soaps revealed that due to the palm kernel oil used for its production, it was highly Saponified (Poku, 2002) and (Getradeghana, 2000).

Total Alkali ranged 11.6% to 18.5%, Sample ASN (100% Black soap) has lowest total alkali content of 11.6% while Sample LTH (60% Black soap, 40% additive) has the highest value of 18.5%. Sample CTH has 13.8%, Sample TCH has 15.2%, Sample LTH has 16.1% pH ranged from 8.7 to 9.3, Sample ASN (100% Alata Samina) has lowest pH value of 8.7 while Sample LTH (60% Alata Samina, 40% additive) has the highest value of 9.3. Sample CTH has 8.9, Sample TCH has 9.0, Sample LTH has 9.2. This showed that all the samples were alkaline in nature. Tarun et al., (2014) stated that majority of soaps have a pH value between 9 and 10. It is also in line with the value 8.5-9.1 reported by Adebomi et al., (2018).

Unsaponified Neutral Fat ranged from 0.80 to 1.83, Sample ASN (100% Black soap) has lowest value of 0.80 while Sample LTH (60% Black soap, 40% additive) has the highest value of 1.83. Sample CTH has 0.94%, Sample TCH has 0.97%, Sample LTH has 1.10% (Ikotun, Awosika and Oladipo, 2015).

The Overall Acceptability of the five samples have a great level significance as sample ASN has the mean value of 4.33, CTH has the mean value of 7.37, TCH has the mean value of 8.13, LTH has the mean value of 8.43, STH has the mean value of 8.37, this shows the level of significant differences, while sample LTH with a mean value of 8.43 is the most acceptable of the five samples. The mean scores show the significance difference in the level of the Acceptability of the five Samples.

The findings of Hypothesis Two reveals that there is a significant difference in the Total Fatty Matter content of the different samples of Black Soap produced (p<0.05).
Total fatty matter ranged from 53.0 to 48.7%, Sample ASN (100% Black soap) has the highest total fatty matter content of 43.8% while Sample LTH (60% Black soap, 40% additive) has the lowest total fatty matter content. Sample CTH has 51.8%, Sample TCH has 49.5% and Sample LTH has 49.2%.

Conclusion
The study concludes that black soap can be produced from unripe plantain skin and palm kernel oil which has high content of vitamin A and E and soothes the skin. However, enhancement of this soap with mixture of additives such as Aloe Vera, Cam wood, Honey, Lemon and Tumeric increases the health benefits as well as acceptability of the soap as the additives improve the Colour, Texture, Fragrance, Foamability and Overall Acceptability of the soap. This can be produced in large quantity and sold in the local markets and export. The acceptability might increase patronage and hence bring self-reliance that can reduce unemployment.

Recommendations
Based on the findings, the following recommendations were made;
1. Accuracy should be ensured during measurement of the additives so as to get a good result.
2. Awareness should be made on importance of converting waste (unripe plantain peel) to wealth (Black soap) as its decreases the amount of waste products in the environment and aids maximum utilization to produce highly beneficial products (black soap).
3. The knowledge of Black soap production should be included to the curriculum of Home Management and saponification in courses like Home Economics and chemistry, as these will broaden the knowledge of students in the practical aspect of soap production.
4. Government should sponsor more research work on black soap exploration as this would help in creating standardized recipe and increased awareness on the production and utilization of Black soap. This will help in a long way to eradicate the belief that black soap is for fetish people or illiterates in the society.

References


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DEVELOPMENT OF TEXTILE AND APPAREL SECTOR IN NIGERIA FOR JOBS AND WEALTH CREATION

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Abstract
This paper examined the need and how textile and apparel sector can be developed in Nigeria as a way of providing employment, foreign exchange, and contribution to Gross Domestic Products (GDP) for national stability of Nigeria as the main objective. Some of the challenges in the sector in Nigeria among others are the use of obsolete machine, sourcing for quality materials and accessories, inadequate skilled workers, especially the tailors and poor marketing network. The sector, if well developed, can create more employment, increase the GDP and be a good source of foreign exchange. This can be achieved by coordinated steps from both public and private sectors by conducting studies of countries that are successful in the area of Textile and apparel production and that can be used as a template to build on. It is recommended that since it requires a long term planning, the government should have a consistent policy, and constitute a team of professionals' saddle with the responsibility of carrying out the studies based on specified term and reference and make a recommendation to the government, which will serve as a guide for effective take off.

Key words: Textile, Garment, National Stability, Employment, Foreign Exchange.

Introduction
Among the three basic necessities of life are food, clothing and shelter. Therefore, clothing is indispensable to man life. Textile and clothing is an integral part of human life. The acquisition and the use of clothing and textiles materials is very cardinal to the family and Nigerian economy. For many countries, the textile and clothing sectors provide one of the first stages of economic upgrading or diversification. The sector provides vital clothing commodities which no country can do without such as shirts, trousers, suits, dresses, hats, stockings, underwear's, blankets and towels. Tongesai, (2013). Nigeria, being a monolithic economy with over dependence on crude oil for export, could also make money in Textile and clothing sector and could be developed for export. This could also be a good opportunity to diversify the Nigeria economy and significant foreign exchange earning.

Nigeria unemployment rate appears to be growing on yearly basis, (fig. 3) the sector if well developed, being labour intensive, the apparel value chain would create direct and indirect jobs for skill and unskilled workers. This paper is to sensitize the government on the importance and the need to develop Clothing and Apparel sector in Nigeria, as a way of creating employment opportunities, increase in Gross Domestic Product (GDP) and a veritable source of foreign exchange for national stability and development.

Lesson from Other Countries
Textiles and clothing manufacture has been a means for economic development for many Asian economies. South Korea and Japan, for example, became developed in a 30-year period largely due to the initial establishment of textiles and clothing industries. East Asian apparel manufacture initially depended solely on the assembling imported inputs in export processing zones with low labour costs. However, they then moved from mere assembly to higher value added export through export-import substitution policies and they develop to manufacture original equipment that led to finally owing brand name manufacturing. Gereffi (2002) has cogently argued that developing countries that have been most successful are those who have made this transition.

The labour intensive nature of clothing (and to a far lesser extent textiles) production provides low-wage countries with a comparative advantage. Furthermore, it is generally perceived that the clothing industry is more suited to developing countries because it offers entry-level jobs for semi-skilled labour and relatively modern technology can be adopted at a comparatively low investment cost. Therefore, clothing is suited as a first rung on the industrialization ladder in poor countries, and many developing countries have used clothing (and textiles) exports as a way of accelerating growth. Roberts and Thoburn, (2002). Textile and apparel production, particularly apparel production, are labour intensive activities so production tends to move to
countries with low labour costs. China has long dominated the production of these goods due to its large workforce and relatively low labour costs. However, as labour costs in China have increased in recent years, production is shifting to lower cost production centres such as Bangladesh, India, Vietnam and Cambodia.

Among the countries that have succeeded in apparel production is Bangladesh. The Ready Made Garment (RMG) industry has become one of the life lines of Bangladesh economy, sharing a major part of the country's export earnings; it makes a significant contribution to the national economy by creating generous employment opportunities and reducing poverty through socioeconomic development. Islam et al (2016). Bangladesh is the second largest apparel exporting country in the world, 81% of the total export earning comes from RMG, it also contributed about 16% of the total Gross Domestic Product (GDP).

![Figure 1: Ready Made Garment Export in Bangladesh. Source: World Bank. (2015)](image)

The industry employs about 3.6 million workers in Bangladesh (fig 1) which directly support 40 million livelihood in the country.

![Figure 2: Ready Made Garment Employment in Bangladesh. The success of RMG in Bangladesh can be attributed to three main factors, (a) low wage rate (2) good and consistence government policies (3) good export incentives. Mohammed &Tatsufumi  (4) advanced production technique.](image)
Present State of Textile and Apparel Industry In Nigeria

Most of garment/apparel industry in Nigeria are located in major cities of Lagos, Kaduna, Calabar and Aba. They are however, small-scale apparel production and distribution of clothing items mainly for local consumption, except Cross River garment factory if put to full capacity utilization, can make impact in export and Aba garment market can easily be upgraded to a textile park as the activities is well established. Nigerian production in Clothing/Apparel production in quality and quantity fell short of the demand and as such there is a good market for both local market and export. There are four major problems of clothing and apparel production in Nigeria: (1) obsolete and outdated machine (2) sourcing for quality materials and accessories (3) inadequate skills of workers, especially the tailors (4) marketing.

Government Intervention in Developing Textile and Apparel Industry

It is an undisputed fact that the industry drives any economy in the world. A healthy manufacturing sector is a fundamental path to economic growth and development, a stable future depends on the development of labour-intensive sectors like manufacturing, services and agriculture, which Clothing and Apparel sector is one of such. To encourage the effective take off of the industry, government interventions is important and are advised to set up a committee or a consultant to carry out a survey on the following terms and reference, which may not be limited to the following;

1. to study the Technology needed in the production of garment/apparel industry of international standards.
2. the study the Machines needed for the entire production line, the durability and availability of spare parts.
3. study where and how to source for raw materials (clothing and accessories) considering local sourcing as the best option, with the view of developing Textile value chain in the country.
4. study the domestic market and potential of garment export line wise for different countries, and examines all the available treaties and suggest the best for the country.
5. examine all government policies as related to manufacturing to encourage both local and foreign investors including taxes and waivers.
6. study the skills required by technical staff of the industry and suggest the educational requirement and types of training needed.
7. survey how government can partner with investors and the level of the commitment to be defined.
8. recommend health and safety of international standard to cater for live and properties in the industry.
9. to advice the government on setting up of Textile Park(s), the location and the facilities and the structural design and the running of the park should be taking into consideration.

The results of these will be a guide for the investors for both foreign and local and this will set the industry on the right path.

What Would Nigeria Gain?

1. The development of this sector will provides employment for both skilled and unskilled workers, most especially the Women.
Unemployment and poverty level in Nigeria has been a major concern, increase in all kinds of crime rates are linked to it. Scholars have identified causes of unemployment which include lack of vibrant industrial sectors which has the capacity to absorb unemployed youths in the country. Development of this sector would lead to the growth of apparel value chain hence other areas will come back to life, even the conventional textile industry (ginnery, spinning weaving, knitting and processing) would be revived, the cotton farmers, artisans, technicians, exporters and the marketers. The sector value chain should be able to provide up to 2 million direct and indirect jobs within a period of five years if fully harnessed.

Figure 3: Unemployment in Nigeria.
Source: Nigeria Bureau of Statistics

Figure 4 (Apparel value chain)
2. The development of this sector will increase the gross domestic product; more money will be available for developmental projects. The manufacturing industries in Nigeria contributes 14.82% in fourth quarter 2017 to the country GDP, as the textile, apparel and footwear sub-sector which is the second largest contributor to Nigeria’s manufacturing (after food, beverage and tobacco). It posted total output of N383bn (US$1.3bn) in Q4 2017 or 23.3%, Q1 2018=23.95%, Q2 2018=23.18%, Q3 2018=21.97, Q4 2018=20.24 and Q1 2019=23.45. (NBS, 2019). In Bangladesh, RMG contributed US$249.7 billion in 2017, (GDP and GNP of Bangladesh.pdf, 2019)
Figure 5: Nigeria Gross Domestic products
Source: Nigeria bureau of statistics

The sector contribution, which comprises of textile, clothing and footwear, is too low. From indication, the apparel contribution may be less than 8% compare to other countries like Bangladesh it contributed about 16% of the total GDP.

3. Nigerian foreign exchange is dominated by oil export, and it is an opportunity to diversify from monolithic economy which has been persistently threatened by the instability in crude oil prices in the international market. The sector if developed helps to diversify the economy, and if geared towards exports, it a potential source of foreign exchange and the era of Nigerian going into recession during the drop in the price of crude oil will be over.

Some African countries, Ethiopia for example, has a target to generate $30 billion in exports from the textile and apparel sector by 2030 and the government has been building industrial parks to enhance the textile investment and productivity of the country. It's no wonder that Ethiopia has attracted textile manufacturing giants like Hennes and Mauritz (H&M) and Primark. Moungar & Gregorio. (2018). In Bangladesh 81% of the total export earning comes from Ready Made Garment.

Conclusion
The overall effect of these is economic stability and development. Nigeria must have consistent and appropriate policies for long term planning to enhance the dynamic effects of textiles and clothing. Nigeria needs to diversify from crude oil to other areas like Agriculture and industry, while there is a progress in agriculture, the government needs to focus on the industrial sector especially in labour intensive sector like Textile and apparel and this can develop other areas of the economy in the same value chain. Development of the sector can revive our Textile industry (which in the 80s is the biggest employer of labour after government) as it will be a ready make market for them. The monies voted for the revival of textile industries can be used to develop apparel sector and this will automatically revive the industry and other industries that produces the garment accessories, since the biggest problem of textile industry in Nigeria is market.
References


YOUTH EMPOWERMENT AS A TOOL FOR SUSTAINING NATIONAL STABILITY

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Abstract
Youths are central to Nigeria’s social and economic development. The size, energy, enthusiasm, innovation and dynamism of youths are assets that can be harnessed for Nigeria's development with appropriate policies that deal adequately with the issues facing them. However, majority of Nigerian youth have been disconnected from basic resources that can trigger their innovative capability for sustaining national stability. Nigerian state has not been fair to youths in the provision of employment opportunities and enabling environment that promotes self-employment. This development contributes partially to youth restiveness and insecurity. Empowering Nigeria youth is therefore necessary to bring out their full potentials in the quest for national stability. It is against this background that this paper discusses youth empowerment and sustaining national stability. It examines how youth empowerment can serve as effective tool for sustaining national stability. It recommended among others that government at all levels should establish youth friendly centers at every geo-political ward across the country, federal government should decentralize power generation and distribution, the federal and state government should ensure the security of farmlands and farmers and death sentence for anyone found guilty of embezzling the fund meant for youth empowerment programme.

Keywords: Youth, Youth Empowerment, National Stability, Sustaining

Introduction
The poor development status of Nigeria no doubt breeds atmosphere of frustrated expectations and foster widespread indignation on the part of youth that are trapped in poverty (Umaru, Pate & Haruna, 2015). The condition of hopelessness of many Nigerian youth is aggravated by impotent poverty eradication programmes by successive administration. In the face of this predicament, individuals and groups respond differently depending on situational factor and capacity (Umaru, Pate & Haruna, 2015). These responses are crystallized and find expression in various shades of antisocial behaviours including armed robbery, kidnapping, terrorism, ethnic crisis and insurgency among others. In the midst of all these, Nigeria is confronted with daunting national stability.

According to Nmodu (2014), the fact that the Nigerian government is unable to provide white collar jobs to every Nigerian youth (educated or uneducated) is the major cause of the social problems steering and tearing the nation apart in her quest to achieve national stability. National stability could mean the attainment of national cohesion and integration for wholistic development (Nmodu, 2014). To promote national stability however, the Nigerian government has over the years adopted several strategies that include the constitution of inter-religious advisory council, establishment and equipment of security agencies to combat crimes, establishment of National Youth Service Corp (NYSC) and introduction of pockets of youth empowerment programmes, among others.

Unfortunately many of these strategies have not really solved the problems affecting national stability. In fact, majority of the youth empowerment programmes embarked upon by successive governments has yielded little or no positive results. Some of these youth empowerment programmes include Graduate Internship Scheme (GIS), Youth Initiative for Sustainable Agriculture in Nigeria (YISA), Subsidy Reinvestment and
Empowerment programme (SURE-P), Youth Enterprise with Innovation in Nigeria (YouWIN), National Directorate of Employment (NDE) scheme and N-power (Kalogbor and Deinibiteim, 2018). These various youth empowerment policies, projects and programmes aimed at empowering the youths economically so as to make them contribute meaningfully to the development of the nation have not achieved their objectives. According to Orah and Odei (2011), self – reliance and self–employment are very vital to the teeming Nigeria youths because government jobs or paid employment are not easy to come by. Thus to attain a viable economy, the youths must be knowledgeable and skilled sufficiently to face the challenges of peace, stability and development. It is against this background that this paper examines youth empowerment as a tool for sustaining national stability. At first, the paper explains the concept of youth empowerment as well as national stability. It discusses the problems affecting national stability, enumerates the objectives of youth empowerment, highlights some viable youth empowerment initiatives that can make the youth to become economically independent and contribute their quota to the sustenance of national stability.

Conceptual Clarifications
Some of the major concepts that feature in this paper are explained for proper understanding as used in the context of this paper.

Youth empowerment: The United Nations Organization (UNO), for statistical consistency across regions, defines youth as those persons between the ages of 15 and 24 years, and this view is without prejudice to other definitions by member states. Similarly, the Nigeria's National Population Commission officially defines a youth or young adult as persons between the ages of 18 and 24 years (NPC, 2002). Empowerment means the granting of political, social or economic power to an individual or group. Youth empowerment on the other hand refers to the outcome by which youths, as change agents, gain relevant skills to impact their own lives and the lives of other individuals, organizations and communities (Youth Empowered Solutions, 2015). According to Jimba (2006), youth empowerment involves different ways the youth can be facilitated to cause changes in their life style. He maintained that youth empowerment means a way of inculcating into the youths the spirit of transformation of ideas into creativeness. Youth empowerment can also be seen as a means of exposing the youths into skills or training that makes them productive.

National stability: Assurance and sustenance of national stability has been a major concern of countries all over the world especially since the end of World War II. National stability denotes a condition of a country being steady in position or balance. It means a predictable political environment, which in turn attracts investment and encourages growth. National stability could also be referred to the protection of a nation from attack or other danger so as to ensure peaceful environment. According to Iredia (2011), it is the ability of a state to overcome any of its challenges no matter what the challenges are to maintain peaceful social-economic environment. National stability is absent of all forms of threats to the survival of a nation (Dokubo in Asuquo, 2013). Threats like external aggression to threats of economic, political and environmental insecurities are detrimental to national stability.

Problems Affecting Sustenance of National Stability
Nigeria as a nation has peculiar security problems that affect her quest for national stability. Insecurity, militancy, insurgency, and terrorism are eminent in the country. These problems are in parts connected to the linkages with economic, social, political and governance activities, with spiraling effects on regional and international relations. Indeed, Nigeria has been exposed to so many issues that threaten her national stability. These issues cut across different facets of the nation's life and the different regions or states of the federation. Most of these threats to national stability however come from internal rather than external sources.

The fact still remains that sustenance of national stability in Nigeria is still being affected by terrorist activities of Boko Haram insurgency in the North East, Niger Delta Militancy, Piracy and Oil bunkering in the South-South region. Others include the Biafra secessionist agitation in the South East, kidnapping across the country, armed robbery, violent crimes, ethno-religious crises, election-induced violence in different parts of the country and the widespread herdsmen rampage in the Middle Belt, North Central, South East and some North Eastern states.

Emordi (2012) and Osakwe (2013) agreed that conflict, poverty and social disarray continue to plague the country, creating a vicious circle of instability that inhibits economic development. Bad governance by political leaders, socio-economic and legal injustice creates room for these problems affecting the sustenance of national
stability. Regrettably, majority of the victims of bad government policies and programmes are youths. Some of these youths, in their quest for survival actively involved in the acts that threaten the sustenance of national stability. This is the case because these youths have not been properly empowered.

**Objectives of Youth Empowerment**

Nmodu (2014) highlights some of the objectives of youth empowerment to include the following:

i. To provide equal opportunity and access to gainful employment either government or self-employment.

ii. To provide second chance opportunity for school dropouts to develop.

iii. To encourage skill acquisition among youths by providing vocational/ professional and technical training.

iv. To generate employer of labour (mentoring) and creating entrepreneurial spirit in them.

v. To reduce poverty, jettison vices and enhance peace, stability and development.

**Viable Youth Empowerment Initiatives for Sustaining National Stability**

High rate of unemployment and underemployment among the youth in Nigeria has hindered their participation in the economic and social sectors of nation building (Kalogbor & Deinibiteim, 2018). Notwithstanding the fact that successive governments over the years have embarked on various youth empowerment/development policies, projects and programmes aimed at empowering the youths in the country so as to make them contribute meaningfully to the development of the nation, yet these youth empowerment programmes have not really achieved their objectives. The reasons for failure of these youth empowerment initiatives might be connected to their ill-conceived, corruption, and the elitists' nature of the programmes. Example of such elitist youth empowerment programme is the Youth Enterprise with Innovation in Nigeria (YouWIN) while others that were either ill-conceived or eroded by corruption are Graduate Internship Scheme (GIS), Subsidy Reinvestment and Empowerment programme (SURE-P) and National Directorate of Employment (NDE) scheme. The N-power initiative of the President Buhari administration is less elitists because many indigent youth were able to get empowered.

To sustain national stability, the youth must be seen to have been empowered in practical sense and devoid of party politicking. When the youth that constitute majority of the national population are actively engaged economically, the less they will constitute nuisance to the society, the less will be crime rate and the better for national stability. In real sense, there is need for re-orientation of the youth towards vocational skill acquisition. This is practical individual empowerment initiative for sustenance of national stability. Individual youth could be economically empowered in the following areas:

1. **Home management/Housing furnishing:** For any individual to be gainfully employed and fight poverty, he/she must acquire some skills, knowledge and relevant attribute. The youth need to undergo training in the field that will make them to become economically relevant and that will motivate them to sustain national stability (Gamawa, 2015). When the youth are economically active, there is high probability of them working towards peaceful society. In practical sense, the youth can be economically empowered in the area of interior decoration, hall and venues decorations for events, production of artificial/natural flowers, soup making (shampoo, liquid soap, abrasive), cream and pomade making.

2. **Clothing and Textiles:** Clothing and textile equip individuals for enormous employment opportunities in occupations relating to clothing and textile namely: Dress making/clothing construction, Designing, Dry cleaning and laundering, Tie-dying and batiking, beauty care and hair dressing, fashion merchandising, pattern illustration, among others (Nwaokaomah, 2016). These are saleable skills that could help the youth to become self-reliant and economic empowered for national stability.

3. **Food and Nutrition:** This area of youth empowerment is made up of food processing, preservation, food preparation, meal management and services. Everyone eats food every day, meaning that food business have already made market. An unemployed youth could be economically empowered in the area of food processing, cooking and cattery services. Running a restaurant, production of snack like pies, burns, doughnuts, chin-chin, cake, and engaging in outdoor catering services and event planning are not bad ideas for any youth that want to be self-reliance and contribute his/her quota to the sustenance of national stability.

4. **Skills in Information and Communication Technology:** ICT knowledge is very useful in the
contemporary modern world today. The world has become a global village in the sense that, at a tab on computer keyboard, distance countries are brought closer through the internet. Commerce and other consultancy services are carried out on the internet. It is thus necessary for youth to get adequate knowledge about legal uses of internet for income generation. Other areas of ICT, that the youth can be economically empowered include: Networking; Programming; Repairing and maintenance; Computer sales; Computer training; Phone sales; Parts and accessory sales; Document processing; and Phone calls, etc.

5. **Agriculture**: There is money in the land. Nigeria has large mass areas that are fertile for agricultural activities. The youth can be economically empowered in this sector of the economy. Agriculture employs large number of labour. Every branches of agriculture is lucrative therefore, empowerment programme that focuses on agriculture is not a bad idea. The fact that Nigeria has the highest population in African and the most black populated country in the World makes the country a good market for agricultural outputs. The point is, an empowerment in the area of agriculture can generate income for the youth, which by implication will motivate them to contribute their quota for sustenance of national stability.

**Conclusion**

It is necessary to improve the educational and entrepreneurial capacities of the youths so as to empower them to earn a livelihood as well as enable them to contribute to the upliftment of their society. The young adult population is the live wire of any country and must, indeed be empowered appropriately with relevant knowledge and skills in order to enable them to be job creators instead of job seekers and wealth creators instead of wealth consumers. This tends to suggest that youths can initiate the empowerment processes by acquiring relevant vocational knowledge and skills for self-employment.

**Recommendations**

The study elicits the following recommendations:

1. Government at all levels should establish youth friendly centers at every geo-political ward across the country. This youth friendly centers should be well equipped with state of the art machines and equipment and other facilities, with qualified staff for training of the youth with relevant vocational skills for economic empowerment.

2. Any empowerment programme that does not focus on stability of power supply is likely bound to fail. Constant power supply is very important for business growth. Cost of production is likely to reduce if there is constant power supply. It is on this premise that it is suggested that the federal government should decentralize power generation and distribution. The state government should be granted the power to generate and sell energy to consumers. Also, alternative energy sources like solar and wind should be pursued to bring power to every home in the country.

3. Youth cannot be encouraged to go into agriculture if the sector is not made attractive. Although the government led by President Muhamodu Buhari is doing great in this sector, especially in rice production. But the issue of herdsmen insecurity is a threat especially to farming activities. The federal and state government should therefore ensure the security of farmlands and farmers in order to encourage the youth to go into farming.

4. No meaningful youth empowerment programme can succeed in the environment that is full of dishonest and corrupt officials. The fight against corruption is a welcome idea because corruption if not fought to a standstill can kill a nation. Therefore, the fight should be total. This paper does advocates death sentence for anyone found guilty of embezzling the fund meant for youth empowerment programme.
Youth Empowerment as a Tool for Sustaining National Stability

References


Abstract

Family life which is the interaction among members of the family can be debilitating such that a worker's total output in the workplace could be negatively affected. Therefore, counselling measures is eminent in family life and work performance. This study investigated family life as it influences work performance of workers in Akwa Ibom State. Two objectives and two research questions guided the study. Likewise, two hypotheses were tested. Stratified random sampling technique was used for selecting 1056 respondents from the population of 5,277 married workers. Family Life and Work Performance Questionnaire (FLWPQ) was administered to respondents to collect data. The instrument was face and content validated by three experts in Test and Measurement and Guidance and Counselling respectively from the University of Uyo. Using Cronbach's Coefficient Alpha, the reliability index of .953 was obtained. The data obtained were analyzed using Mean to answer two research questions and t-test was used to test two null hypotheses at 0.05 alpha level of significance. The findings showed that dual-career in marriage influences workers work performance while marital infidelity does not influence workers' work performance in Akwa Ibom State. Based on these findings, it recommended among others that dual-career couples need counseling intervention in order to cope with stress at home and work.

Key Words: Family Life, Dual – career, Marital Infidelity, Work-performance

Introduction

Family life and work are most important aspects of human needs. Family life refers to the interaction among members of the family while work is what one does to earn a living. These two are a universal phenomenon in every society. The literate and the illiterate alike; the rich and the poor all yawn for these crucial needs. Maslow (1908-1970) Hierarchy of Needs theory grouped family life and work as safety and social needs. These needs are similar to instincts and play a major role in motivating behaviours.

Family life and work are basic needs, yet family life and work balance is a matter that affects individuals positively or negatively. Imbalance interaction between these needs could enhance sorrows and pains. Likewise, a balance could motivate positive behaviors in the family and effective work – performance. It is a serious issue that has cause disharmony in families. Some people have abandoned their marital homes because of their inability to cope with family life and work. Some chose work over marriage while others chose family life over work.

The problems in family life could bring psychological and emotional upheavals on a worker. Besides working effectively at work, the married worker must also work towards having family life stability. This study therefore seeks to determine the influence of family life on workers' work performance in Akwa Ibom State.

Literature Review

Concept of Work Performance

Work performance is the accomplishment of a task or a set objective by an employee in the work place. A teacher is one of the workers in Akwa Ibom State. He is an employee in a school. He has professional efficiency and effectiveness in the teaching learning process. In order to attain the goals and objectives of the curriculum, the teacher is expected to accomplish specified tasks and set objectives in the school such as lesson preparation, quality teaching with suitable teaching materials, marking and giving students feedback in time, cooperation with colleagues, accepting change, obeying the school rules and teaching on time. A teacher that is able to accomplish these tasks and set objectives to meet the learners' needs has performed efficiently in his work.

On the contrary, there could be many life situations that may hinder teacher's work performance. Cox and Brockley (1984) noted that a combination of factors at work and outside the work place are often responsible for bringing individuals closer to the point where they can no longer cope efficiently with work. One particular common factor could be the interaction between work and marriage. A worker that is experiencing problems in...
the family may be affected at the workplace negatively resulting in poor job performance. This is supported by Hertzberg’s (1968) motivation Hygiene theory who observed that the factors that determine whether there is satisfaction or no satisfaction are not part of the work itself, but rather, are external factors. These external factors could be marital infidelity and dual career in marriage.

The Concept of Infidelity and Work Performance

Marital infidelity also referred to as cheating, adultery or having an extra marital affair. It is the subjective feeling that one's partner has violated a set of marital relationship rules. This results in a feeling of sexual jealousy and rivalry in the other partner. What constitutes an act of marital infidelity is the concept of exclusivity in marital sexual relationship. This expectation when it is not met could cause psychological damage to a worker. It could manifest as feelings of rage and betrayal, lowering of sexual and personal confidence at work and damage to self-image. Infidelity accounts most for marital unhappiness (George, 2009). Olson and Defrain (2000) cited infidelity as one reason for divorce. It can occur as physical intimacy and emotional intimacy (Jayson, 2008).

What constitutes an act of marital infidelity varies between and within cultures and depends on the types of relationship that exists between people. In Nigerian marital context, it is a situation in which a spouse will have an attachment to another person outside a marriage relationship. Most families have failed due to infidelity. Undiyaundeye & Akpanke (2009) stressed that the act of infidelity has deprived families of dignity. The authors recommended counselling programmes such as marriage enrichment skills as options that can mend couples differences such as infidelity.

Any sexual intercourse outside the culturally approved form is regarded as a perversion. This includes adultery (Otite & Ogionwo, 2006). Adultery in the society is considered as an abnormal sexual intercourse especially for women while men are hardly labeled as adulterers, even when they deal sexually with many women (Otite & Ogionwo, 2006). Likewise, Amadi (1991) stressed that the Nigerian society accepts men's infidelity. On the other hand, some women are also being unfaithful to their husbands to get even with them. There is always a crisis in family life whenever infidelity is discovered. Odemelam, Ikechukwu, Osuagwu, Oparadike, Igboanusi, Ukanyiroha & Nwamkwo (2005) observed that the injured spouse often feels emotionally abandoned by the other spouse and usually has a sense of loss coupled with recurrent and persistent thoughts about the situation. These thoughts often times interfere with the worker's ability to functions effectively. Individuals may have difficulty working, taking care of themselves and the family. It could be worst if the other woman or the other man is from the place of work.

Adulterous office romance according to Losee & Olen (undated) is considered to be unhelpful to business and work relationships. Office romance is enhanced by the excessive time co-workers spend together. Characteristics of sexual involvement in the workplace include seductive statements, seductive touch or hug, sexual advances, sexual bribery and sex linked behaviour. A victim of infidelity may have negative self-esteem. Mayer (undated) stressed that infidelity has major negative effects such as damaged self-esteem, lack of trust, sense of instability, roller-coaster of emotions and the ripple effect. These, according to the author make victims look differently on their job performances.

Infidelity is one of the variables that affect the family well-being. Adegoke & Oladeji (2008) in their study in Ibadan Nigeria found that there is a significant relationship between infidelity and psychological well-being of family members. The participants were 500 abused partners randomly selected from five local government areas of Ibadan metropolis.

Likewise, National Opinion Research Center (1994) conducted a national survey of sexual behaviour in the United States and found that about 21 percent of men and 11 percent of women have been involved in infidelity across one's lifetime and further stressed that the rate of infidelity range from 7 percent to 37 percent for men and from 11 percent to almost 20 percent for women with exception of women ages 54 to 63 due to their religious values. The implication of this finding is that marital counselling should be made available to couples that are unfaithful to their partners.

The Concept of Dual-Career in Marriage and Work - Performance

Dual career in marriage refers to the families where the husbands and wives are employed. The couples face challenges in trying to discharge their responsibilities at home and the place of work which results in role overload. Workers encounter family problems when the home or the work-place is neglected for the other

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because of lack of planning. In most cases, the office work is taken home and the family time is used for office work and vice versa. Having a husband and a wife on the provider role could affect family life. On the negative side, working so hard at work often results in less companionship, less husband-wife contact due to working different hours, less communication, less sexual satisfaction and more stress (Grandon, 1999). Oneugbu (2009) observed that a wife in a dual-career family is a worker whose services are required compulsorily. She bears the burden of the demands from children, husband, work-place, a housekeeper and she is the welfare officer of the family. The entry of women into the workplace is seen as the most dramatic social change in recent times. Igube & Ejaro (2003) observed that this phenomenon reduces the time the mother devotes to the home thereby creating instability in the family such as marital problems, juvenile delinquency, poor academic performance of their children, ineffectiveness in work-place and may lead to increase in the divorce rate among dual-career families.

The combination of career and marriage is viewed by Weiler and Yancy (1989) as being of advantage to men and a problem to women. Traditionally wives are seen as people whose main place is the home. But due to changes in the economy in recent times, majority of working mothers do house work and office work on daily bases. They continue to work after official work without any help from the husbands. Otile & Ogionnwo (2006) stressed that husbands in a patriarchal society like ours hardly work at home after official work but wives hardly ever rest as mothers and wives. In most situations some husbands may try to stop the wife from her career; but the wife will not succumb to him. This subsequently may lead to separation or divorce.

The phenomenon of dual-career has reduced the time a wife devotes to the home thereby creating instability in the family. Igube & Ejaro (2003) study has confirmed this fact. They studied on working mothers and family instability. They used 134 sampled working mothers from three Local Government Areas in Abuja, the Federal capital Territory. In response to the question as to the type of violence experience from the husband of working mothers, 8.2 percent reported quarreling, 1.5 percent shouting while 55.2 percent had not given it a thought. In the overall analysis, there was a negative impact on childcare arrangement, the health of children, children's academic performance and family problems interference with work life.

Furthermore, Olorunfemi's (2009) study on family-work conflict, information use and work competence has indicated that managing the conflict between family and work obligations pose critical challenges to dual – career families. Olorunfemi (2009) conducted a study in the University of Ibadan using a sample of 799 married postgraduate students in all Department of the Faculty of Education in 2002 to 2003. The findings of this study revealed that there is significant correlation between information use, family-work conflict and work competence. Therefore, the positive use of counselling information may lessen family-work conflict, but the negative perception and use of information might have the opposite result.

In another study on dual – career families, Khan (2002) investigated on the effects of married women involvement in job market on the marital harmony. The researcher sampled 30 married women from Dhaka in Bangladesh. The study revealed that: the home roles and non-home roles of working women frequently bring about conflict between competing role demands and the consequence in sub-standard performance and a host of dysfunctional affective and behavioural outcomes at work. Despite the role conflict, Sarantakos (1996) rightly observed that careers are attractive to both men and women because their works offer financial rewards, status and excitement. Therefore, to investigate the influence of family life on work-performance of workers in Akwa Ibom State of Nigeria, the following purpose of the study, research questions and hypotheses were raised to guide the investigation.

**Purpose of the Study**
Specifically the objectives of this study were to:
1. Assess the influence of marital infidelity on work performance of workers.
2. Establish the influence of dual- career in marriage on work performance of workers.

**Research Questions**
1. What is the difference between workers with marital infidelity and workers without marital infidelity in work performance?
2. What is the difference between workers with dual- career in marriage and workers without dual – career in marriage in work performance?
Hypotheses
2. There is no significant difference between workers with marital infidelity and workers without marital infidelity in work performance
3. There is no significant difference between workers with dual-career in marriage and workers without dual-career in marriage in work performance.

The hypotheses were tested at 0.05 level of significance.

Methodology
Design
The design for this study was the Ex-post facto design. This was used because the researcher was only interested in finding the influence of the independent variables (family life) on the dependent variable (work performance) without manipulating the independent variables.

Population
The population of respondents was 5,277 married workers from 228 public secondary schools in Akwa Ibom State. There were 3,044 males and 2,233 females.

Sample and Sampling Technique
A total of 1056 married teachers were randomly selected from 50 sampled public schools. Stratified random sampling method was used in selecting subjects for the study.

Instrument
A researcher made instrument, “Family Life and Work Performance Questionnaire (FLWPQ)” was the instrument for data collection. The instrument had two parts. Part one was made up of general instruction and a bio-data. Part two was made of sections A and B. Section A covered 10 items on family life problems. Section B consisted of 10 items that covered the areas of teachers' work performance. The instrument had a 4-point rating scale and was face and content validated by three experts in Test and Measurement and Guidance and counselling. Cronbach’s coefficient Alpha reliability test was conducted using 50 respondents that were not part of the sample. The reliability estimate was .953 which was considered reliable to guarantee the reliability of responses.

Data Analysis
The statistical package used for the analysis of data collected was a t-test. The t-test was used because in each hypothesis tested, only two variables were compared. Additionally, the item mean scores were used to enable the research questions to be answered. Item mean score below 2.5 were regarded as not having family life problem.

Results and Discussion
Research Questions 1: The first research question is to find the difference between workers with marital infidelity and workers without marital infidelity in work performance. To answer the question, the result of the analysis of response is presented in Table 1.

Table 1: Descriptive analysis of marital infidelity of workers (n=1056).

<table>
<thead>
<tr>
<th>Infidelity</th>
<th>N</th>
<th>X</th>
<th>Mean Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marital Infidelity</td>
<td>210</td>
<td>23.56</td>
<td>0.20</td>
</tr>
<tr>
<td>No Infidelity</td>
<td>846</td>
<td>23.36</td>
<td></td>
</tr>
</tbody>
</table>

Data in Table 1 shows work performance of workers with marital infidelity (X=23.36) with the mean difference of 0.20. Therefore, this indicates the prevalence of marital infidelity in Akwa Ibom State.

Question 2
The question seeks to find out the difference between workers with dual-career in marriage and workers without dual-career in marriage in work performance. The result is presented in Table 2.
Data in Table 2 reveals that the work performance of workers with no dual – career in marriage (X = 24.12) is higher than that of their counterparts with dual- career in marriage (X = 20.57) with the mean difference of 3.55. It is inferred therefore, that there is influence of dual – career in marriage.

Hypothesis Testing
Hypothesis 1 states that there is no significant difference between workers with marital infidelity and workers without marital infidelity in work performance.

Table 3: t – test analysis of marital infidelity of workers (n = 1056)

<table>
<thead>
<tr>
<th>Infidelity of dual – career influence</th>
<th>N</th>
<th>X</th>
<th>Mean Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dual – career influence</td>
<td>214</td>
<td>20.57</td>
<td>3.55</td>
</tr>
<tr>
<td>No dual – career influence</td>
<td>842</td>
<td>24.12</td>
<td></td>
</tr>
</tbody>
</table>

P < .05, df = 1055; critical t = 1.96
From Table 3, the hypothesis on marital infidelity was retained for there was no statistical difference at 0.05 level. Hypothesis 2 states that there is no significant difference between workers with dual – career in marriage and workers without dual – career in marriage in work performance. The result testing the hypotheses is presented in Table 4.

Table 4: t – test influence of infidelity of dual – career in marriage on work performance (n = 1056)

<table>
<thead>
<tr>
<th>Infidelity of dual – career influence</th>
<th>N</th>
<th>X</th>
<th>Mean Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dual – career influence</td>
<td>214</td>
<td>20.57</td>
<td>3.55</td>
</tr>
<tr>
<td>No dual – career influence</td>
<td>842</td>
<td>24.12</td>
<td></td>
</tr>
</tbody>
</table>

P < .05, df = 1055; critical t = 1.56
Results in Table 3 reject the hypothesis because the value of t - calculated 5.619 is greater than the value of t-critical (1.96) with 1055 degree of freedom at .05 level of significance. This implies that dual-career in marriage influences work-performance of workers in Akwa Ibom State.

Discussion
The finding of this study has confirmed the fact that workers experienced marital infidelity as supported by the study of National Opinion Research Center (1994) that twenty-one percent of men and eleven percent of women in the United States have been involved in infidelity at least once in their life. Also, Adegoke & Oladeji (2008) study has confirmed that there is a significant relationship between infidelity and psychosocial well-being of family members. Despite the situation of infidelity in families, it has no influence on work performance of workers. The reason may be because Nigerian society accepts men's infidelity as supported by Amadi (1991) and some couples strengthen the act of infidelity because of their unavailability for each other as confirmed by George (2009). Likewise, the view of Otite & Ogionwo (2001) has supported the findings of this study. The authors do not see anything wrong with infidelity. They believed that men need more copulation in order to release tension. The release of tension may enable them to work effectively as revealed in this study.

Consequently, the findings on dual – career in marriage has shown that there is a significant influence of dual – career on workers' work performance. This finding is in line with the study of Olorunfemi (2009) which revealed that managing the conflict between families and work pose critical challenges to dual – career couples. For this reason dual – career family need to be adjusted in order to cope with the stress at home and work. They need to
condition themselves to be in harmony with their work and marital physical and social environment, so that the interplay of these aspects of their lives will not bring family life instability.

Also, Khan (2002), Igube & Ejaro (2003) studies corroborate the findings of this study. They all revealed positive influence of dual – career on work performance. On the contrary, Sarantakos (1996); Weiler & Yancey (1989) views do not agree with the findings of this study. They viewed that it is necessary that both couples should work and provide for the family and gain financial rewards, status and excitement. Therefore, couples especially women should be sensitised through counselling so that they can manage the interrelatedness and interdependency of family and work.

Implications of the Study for Counseling
Counseling relationship is capable of affecting lives positively, thus counseling intervention is eminent in the management of family life and work performance of workers. As stressed by Kolo (2012) counseling is the relationship that is qualitative enough to change or affect people's life positively. In considering the influence of dual – career in marriage on work performance, dual – career families should be given counsel on how to work out a convenient division of domestic duties. Husbands should be encouraged to give support to their wives. They should reject stereotypical roles and work together at home as they function effectively at work.

The counselors should develop intervention programmes in order to secure high job performance. The provision of marital counseling services to employees would enhance job efficiency. Therefore, counselors should identify the areas of influence of family life on work performance and use this knowledge in providing pre-marital enrichment and adjustment counseling to their clients especially workers.

Conclusion/Recommendations
On the basis of the findings of this study, it is concluded that dual – career in marriage has significant influence on worker's work performance while marital infidelity does not influence workers work performance in Akwa Ibom State. Hence, the following recommendations are made;
1. All married workers should be encouraged by counselors to undergo seminars and workshops on factors that are capable of influencing their work performances. This will give them the understanding of how family life interferes with work performance.
2. The State Secondary Education Board should consider the married teachers during postings. They should be posted to where they can go to work from their homes. Except where it is absolutely unavoidable, a partner should not be posted away from his spouse as an encouragement to dual – career families.
3. Counselors should recognize the family life variables in this study and use these findings for pre-marital, marital and occupational counseling of married and would be married workers in Nigeria.
4. Counseling intervention should be given specifically to dual – career couples to enable them cope with stress at home and work.

References
Herzberg, F. (1968). One more time: How do you motivate employees? Harvard business review (Jan-Feb.) pp. 53-62


ASSESSMENT OF A MANUAL FOR EVALUATING THE QUALITY OF READY-TO-WEAR APPARELS PRODUCED IN SOUTH-EAST, NIGERIA

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Abstract
The major purpose of the study was to assess a manual for evaluating the quality of ready-to-wear apparels produced in South-East Nigeria. Specifically, the study assessed the appropriateness of the developed draft of the apparel manual by experts and determined the effectiveness of the assessed manual. Two research questions were formulated to guide the study. The study adopted research and development (R&D) design. The study was conducted in South-East Nigeria. The population was 483 and in phases as follows: 66 Home Economics lecturers, 351 Home Economics students and 66 registered apparel manufacturers making a total of 483. These answered research questions and their responses were utilized to assess the manual. There was no sample due to manageable size of the population. Two sets of instruments were used for data collection. Data were collected using Validation Assessment Questionnaire (VAQ) from 9 experts to establish the appropriateness of the manual, while data were also collected using Manual Effectiveness Assessment Questionnaire (MEAQ) from 20 consumers or users to ascertain the effectiveness of the manual. The data were analyzed using percentage, mean for answering the research questions. Based on the findings of the study, it was recommended among others that consumers should make use of the assessed manual for evaluating the quality of ready-to-wear apparels produced in South-East Nigeria.

Key words: Assessment, Manual, Evaluation, Quality, Ready-to-wear, Apparels.

Introduction
Apparel as one of the basic human needs has attracted considerable attention globally. This is attributed to its functional performance ability to satisfy human need. Anikweze (2005) defined apparel as a body covering or actual garment constructed from fabric and produced in form of ready-to-wear and custom made. Brown and Rice (2009), described apparel as a generic class for clothing and other devices worn by mankind for the purpose of covering nakedness, adorning, and protecting the body from various environmental hazards and chemical irritants. Igbo (2012) stated that apparel serves as a means of recognizing ones position in the society, enhances beauty, helps in easy identification and social interaction. An apparel as a form of clothing can be described as a sewn fabric that covers or adorns the body with perception of comfort, fit, style, enhancing individuals' appearance and providing an expression of personal taste. Apparels include dresses, blouses, shirts, pants, shoes, jewelry, handbags and other related body accessories. Apparels therefore are worn for a perfect fit, stylistic uniqueness, special materials preference, and for physical performances. Physical performance role of clothing can be classified into four, namely: modesty, immodesty, adornment and protection. For apparel to perform these roles, it must be well made to fit the wearer properly, provide attributes such as comfort, durability, self-confidence and aesthetic pleasure. However, apparels can be customized or produced as ready-to-wear.

Customized (Custom-made) apparel is personalized and unique and made according to individuals request based on fabric type, styles/design and body measurement. Frank and Piller (2004) defined custom-made apparel as a product made according to the needs of an individual customer. Customization of apparel is about making a choice; giving consumers a unique end product according to consumers' expectation. The industrial revolution and the development of mass-production methods provided conditions conducive to the creation of ready-to-wear apparels.

Ready-to-wear is the term used to describe factory-made apparel that is, sold in finished condition. La Bat and De Long (2006), defined ready-to-wear apparel as items produced in advance using standard measurements obtained from a size chart for a specific market sector. A size chart comprises body measurement recorded at a specific range of sizes for a specific target population. The size charts are compiled from measurements taken
from a large population using various techniques that would influence the quality of the size and consequently the fit of ready-to-wear apparel (Ohaka 2016). Such apparels are sold in finished conditions and ready to be worn at the time of purchase without any significant alteration. Marketti (2007), stated that ready-to-wear apparels are designed to be provided to consumers with pre-assembled apparel, in a range of standard sizes, designed to fit the average consumers.

Consumer is a person who buys products or services of a manufacturer for personal use and individual satisfaction. According to Hugo (2014), apparel consumers choose apparel items based on their physical characteristics which are expected to cause specific 'behaviour' or performance during use. Abraham-Murali and Littrell (2015) stated that consumers consider the construction of fabric, and the fit of an apparel items important apparel attributes of perceived quality while evaluating an apparel items before purchase, whereas the fabric, care requirements and the fit are used to judge apparel quality during use. Therefore, the evaluation of apparel quality is a continuous process where the performance of apparel items is judged against consumers' initial expectations (Abraham-Murali & Littrell 2015). The author further stated that the apparel items appearance specifically its attractiveness and the care requirements are important attributes of apparel quality evaluation.

Quality is defined as the extent to which the textile products satisfy the consumer's expectations which include both physical and performance features of the product (Retief & De Klerk, 2003). Apparel quality implies a wide range of characteristics which may indicate superiority, excellence or perceived level of value. According to Rosenau & Wilson (2006), the quality concerns of manufacturers and merchandisers focus mainly on how to meet the consumer's needs and expectations. This implies that the merchandiser has to analyze and understand the quality demands of the consumers to determine consumer's satisfaction. Quality of ready-to-wear apparels can be measured either from producer's perspectives or consumer's perspectives or both (Chutter, 2002). Thus, for apparel produced by any factory to be of good quality, it has to meet the characteristic components of the apparel specifications when assessed by specialists in the clothing and textile area with a manual.

A manual is a guideline indicating how to make use of something. In the view of Marshal (2000), an apparel manual is a reference document that assists consumers and producers of apparels in understanding the construction details, apparel quality and fit. The manual can be designed to be used as work books, job aids or to provide detailed information on the processes, procedures and instructions to be used in the work place (Idris, 2014). However, a standard apparel manual does not attempt to set a rigid standard. Rather, the content provides one with guidelines to the requirements for producing high quality ready-to-wear apparels that will be accepted by fashion conscious consumers. Presently no such manual especially those for evaluating quality of ready-to-wear apparels are available to consumers which include designers, Lecturers/Home Economics students in tertiary institutions in South-East Nigeria. Most of the domestic ready-to-wear apparels produced experience low patronage in the fashion market, hence the derogatory name “Aba-made” with customers craving for foreign ready-to-wear apparels instead of the domestically produced ones (Ugba & Ugba, 2013). This may be due to the inability of the domestic apparel manufacturers to satisfy the Nigerian apparel consumers in terms of quality; fitness, design, fabric type, patterns, construction details and durability. Consumers continuously complain of poor designs, fitness and untidy finishing in areas such as pocket, neckline, sleeve, waistline, hem and closures. The low patronage in Nigerian made ready-to-wear apparel is in no doubt as a result of the obvious poor quality and fits of the products (Olua, 2013).

Hence, the quality and durability of apparel produced in Nigeria may not be compared with the imported ones. This is a challenge that can be addressed by assessing a standard manual which will serve as a guideline for evaluating the quality of ready-to-wear apparel produced in South-East Nigeria.

**Purpose of the Study**
The main purpose of the study was to assess a manual for evaluating the quality of ready-to-wear apparels produced in South-East Nigeria. Specifically, the study;

1. validated the appropriateness of the assessed manual by experts .
2. determined effectiveness of the manual in evaluating the quality of the ready-to-wear apparels as assessed by apparel consumers/users.

**Research Question**
The following research questions were raise to guide the study
1. How appropriate is the assessed manual for evaluating the quality of ready-to-wear apparels produced in South-East Nigeria.

2. How effective is the assessed manual for evaluating the quality of ready-to-wear apparels produced in South-East Nigeria.

Methodology

Research Design

Research and Development (R &D) design was adopted for the study. This was considered suitable for the study as it has steps that could be followed sequentially for developing a new program which is the manual for evaluating the quality of ready to wear apparels produced in South east Nigeria.

Area of the Study

The study was conducted in South-East Nigeria. This comprised five states, Abia, Anambra Ebonyi, Enugu and Imo States. The researchers' choice of the area was due to the commercial activities in these states. There are clusters of small and medium scale garment industries or sewing centres. However, majority of the garment industry are located in Aba and Onitsha. They are known for their entrepreneurship in production which makes it a driving force to reckon with. South-East Nigeria therefore, was chosen because of garment production industry available in the area and as a result, has attracted merchandise personnel from all works of life.

Population for the Study

The population for the study was 483 consumers comprising 66 lecturers, 351, Home Economics Students, 66 Apparel manufacturers in the South-East Nigeria.

Instrument for Data Collection

Two sets of instruments were used for data collection. A Validation Assessment Questionnaire (VAQ) was used to assess the appropriateness of the assessed manual by experts (Home Economics Lecturers and Apparel Designers). The second instrument was Manual Effectiveness Assessment Questionnaire (MEAQ) to determine the effectiveness of the assessed manual for evaluating the quality of ready-to-wear apparels produced in South-East Nigeria. The instruments were face validated by three Home Economics Lecturers. Two from Department of Home Economics and Hospitality Management Education UNN and one from Home Science Department University of Nigeria, Nsukka. Reliability of the instrument was established using Cronbach Alpha. A reliability coefficient of 0.83 was obtained.

Method of Data Collection and Analysis Techniques

Four hundred and eighty three (483) copies of the instruments were produced, distributed to consumers of ready-to-wear apparels and collected by hand. Out of the 483 copies of the questionnaire administered, 461 copies were completely filled and returned representing 95.4% rate return and used to assess the manual for evaluating the quality of ready-to-wear apparels produced in South-East Nigeria. The validations Assessment Questionnaire (VAQ) for the assessed manual were given to experts (4 Home Economics Lecturers and 5 Apparel Manufacture for ascertaining the appropriateness of the developed manual. All the 9 copies were returned. The decision rule in answering the research question I (VAQ) was used, real limit of numbers were;

<table>
<thead>
<tr>
<th>Score Range</th>
<th>Appropriateness</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.00 - 1.49</td>
<td>Not Appropriate (NA)</td>
</tr>
<tr>
<td>1.50 - 2.49</td>
<td>Less Appropriate (LA)</td>
</tr>
<tr>
<td>2.50 - 3.49</td>
<td>Appropriate (A)</td>
</tr>
<tr>
<td>3.50 - 4.00</td>
<td>Very Appropriate (VA)</td>
</tr>
</tbody>
</table>

The research questions on effectiveness of the developed manual was answered using a developed 32 multiple choice Yes/No question items. Frequency, percentage and mean was used to answer the research questions which was based on table of specification.

Findings

The following findings emerged from the study;

1. All the 12 indicators of appropriateness listed for assessment by experts (Lecturers and Apparel Manufacturer) in evaluating quality of ready-to-wear apparels produced in South-East Nigeria were very appropriate and accepted for the study.

2. 54 quality requirements of assessed manual for evaluating the quality of ready-to-wear apparels produced in South-East Nigeria were perceived by judges and consumers as very effective.
Presentation Of Results

Research Question One: How appropriate is the assessed manual for evaluating the quality of ready-to-wear apparel produced in South-East Nigeria as rated by the experts?

The data for answering research question one is presented.

Table 1: Mean Responses of the Appropriateness of the Assessed Manual in Evaluating the quality of Ready-to-Wear Apparels produced in South-East Nigeria. (n = 9)

<table>
<thead>
<tr>
<th>S/N</th>
<th>Appropriateness Indices</th>
<th>X</th>
<th>SD</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Originality of the manual</td>
<td>3.64</td>
<td>0.65</td>
<td>VA</td>
</tr>
<tr>
<td>2</td>
<td>The simplicity in the use of the manual for evaluating ready-to-wear apparel</td>
<td>3.31</td>
<td>0.70</td>
<td>A</td>
</tr>
<tr>
<td>3</td>
<td>The comprehensiveness of the contents of the manual</td>
<td>3.55</td>
<td>0.66</td>
<td>VA</td>
</tr>
<tr>
<td>4</td>
<td>The suitability of the objectives of the manual</td>
<td>3.69</td>
<td>0.55</td>
<td>VA</td>
</tr>
<tr>
<td>5</td>
<td>The achievement of the objectives</td>
<td>3.58</td>
<td>0.48</td>
<td>VA</td>
</tr>
<tr>
<td>6</td>
<td>The assessed step-by-step procedure for evaluating ready-to-wear apparel</td>
<td>3.73</td>
<td>0.51</td>
<td>VA</td>
</tr>
<tr>
<td>7</td>
<td>The users friendliness of the manual</td>
<td>3.40</td>
<td>0.68</td>
<td>A</td>
</tr>
<tr>
<td>8</td>
<td>The overall relevance of the manual to clothing and textile industry</td>
<td>3.59</td>
<td>0.70</td>
<td>VA</td>
</tr>
<tr>
<td>9</td>
<td>Appropriateness of the identified areas to evaluate in the apparel using the manual</td>
<td>3.52</td>
<td>0.67</td>
<td>VA</td>
</tr>
<tr>
<td>10</td>
<td>Identification of the construction details in the apparel using the developed manual</td>
<td>3.41</td>
<td>0.81</td>
<td>A</td>
</tr>
<tr>
<td>11</td>
<td>Suitability of the guidelines for judging quality of the apparel</td>
<td>3.64</td>
<td>0.54</td>
<td>VA</td>
</tr>
<tr>
<td>12</td>
<td>Appropriateness of operational measurement of the manual</td>
<td>3.43</td>
<td>0.66</td>
<td>A</td>
</tr>
</tbody>
</table>

Cluster Mean

<table>
<thead>
<tr>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>VA</td>
</tr>
</tbody>
</table>

Note: X = Mean; SD = Standard Deviation; VA = Very Appropriate; A = Appropriate.

The data presented in Table 1 showed that the mean ratings of the responses of experts (Home Economics Lecturers and Apparel makers) on 8 out of the 12 items ranged from 3.52 – 3.73 which fell within the boundary limit of 3.50 – 4.00 on 4-point rating scale. This indicated that the experts rated the 8 identified items as very appropriate in the assessed manual for evaluating the quality of ready-to-wear apparels produced in South-East Nigeria. The mean values of the remaining 4 items in the Table ranged from 3.31 – 3.43 which fell within the boundary limit of 2.50 – 3.49 on 4-point rating scale. This indicated that the experts rated the remaining 4 items as appropriate in the assessed manual for evaluating the quality of ready-to-wear apparel produced in South-East Nigeria. The standard deviation values of the 12 items in the Table ranged between 0.48 to 0.70 which indicated that the responses of the respondents were close to one another and to the mean.

The overall grand cluster mean for the appropriateness indices of the manual is 3.54 with standard deviation of 0.63 which indicated that the respondents strongly agreed that the entire 12 identified items are appropriateness indices of apparel manual for evaluating quality of ready-to-wear apparels produced in South-East Nigeria.
**Research Question Two:** How effective is the assessed manual for evaluating the quality of ready-to-wear apparels produced in South-East Nigeria?

Table 2: Frequency and Percentage Ratings of the Effectiveness of the Assessed Manual in Evaluating the Quality of Ready-to-Wear Apparel (Gown) as Assessed by the Consumers/Users. (n = 20)

<table>
<thead>
<tr>
<th>SN</th>
<th>Did information on the manual help you to judge the ready-to-wear gown in terms of:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>COLLAR:</td>
</tr>
<tr>
<td>1</td>
<td>Firmness</td>
</tr>
<tr>
<td>2</td>
<td>Equal shapes and sizes on both sides</td>
</tr>
<tr>
<td>3</td>
<td>The two edges of the collar being properly shaped</td>
</tr>
<tr>
<td>4</td>
<td>Smoothness of the collar</td>
</tr>
<tr>
<td>5</td>
<td>Bulk free seams</td>
</tr>
<tr>
<td>6</td>
<td>FACINGS:</td>
</tr>
<tr>
<td>7</td>
<td>Uniformity in grains with main garment</td>
</tr>
<tr>
<td>8</td>
<td>Compatibility of facing to apparel fabrics, weight, collar</td>
</tr>
<tr>
<td>9</td>
<td>Right seam finish</td>
</tr>
<tr>
<td>10</td>
<td>SLEEVES:</td>
</tr>
<tr>
<td>11</td>
<td>Sleeve matched to the bodice and shoulder head</td>
</tr>
<tr>
<td>12</td>
<td>Gathered sleeves evenly distributed</td>
</tr>
<tr>
<td>13</td>
<td>Underarm areas sleeves reinforced</td>
</tr>
<tr>
<td>14</td>
<td>Sleeves are appropriately finished</td>
</tr>
<tr>
<td>15</td>
<td>Plaids, stripes are marched within sleeves itself and garment</td>
</tr>
<tr>
<td>16</td>
<td>SLEEVE PLACKET</td>
</tr>
<tr>
<td>17</td>
<td>Corners of fabric not fraying</td>
</tr>
<tr>
<td>18</td>
<td>Evenness in the two sides and length</td>
</tr>
<tr>
<td>19</td>
<td>Smoothness without gathers and ripples</td>
</tr>
<tr>
<td>20</td>
<td>Appropriateness of placket laps</td>
</tr>
<tr>
<td>21</td>
<td>CUFFS</td>
</tr>
<tr>
<td>22</td>
<td>The cuffs well trimmed</td>
</tr>
<tr>
<td>23</td>
<td>Well positioned and firm cuffs</td>
</tr>
<tr>
<td>24</td>
<td>Flat fitted to make the seam allowance not visible</td>
</tr>
<tr>
<td>25</td>
<td>Interfaced for body support</td>
</tr>
<tr>
<td>26</td>
<td>Appropriate and evenness of stitch length</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>%</th>
<th>NO</th>
<th>%</th>
<th>Rmk</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SN</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Firmness</td>
<td>18</td>
<td>90</td>
<td>2</td>
<td>10</td>
<td>Eff</td>
</tr>
<tr>
<td>2 Equal shapes and sizes on both sides</td>
<td>20</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>Eff</td>
</tr>
<tr>
<td>3 The two edges of the collar being properly shaped</td>
<td>16</td>
<td>80</td>
<td>4</td>
<td>20</td>
<td>Eff</td>
</tr>
<tr>
<td>4 Smoothness of the collar</td>
<td>19</td>
<td>95</td>
<td>1</td>
<td>5</td>
<td>Eff</td>
</tr>
<tr>
<td>5 Bulk free seams</td>
<td>8</td>
<td>40</td>
<td>12</td>
<td>60</td>
<td>Ineff</td>
</tr>
<tr>
<td>6 Firmness to prevent facing invisible on right seam finishes</td>
<td>13</td>
<td>65</td>
<td>7</td>
<td>35</td>
<td>Eff</td>
</tr>
<tr>
<td>7 Uniformity in grains with main garment</td>
<td>20</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>Eff</td>
</tr>
<tr>
<td>8 Compatibility of facing to apparel fabrics, weight, collar</td>
<td>5</td>
<td>25</td>
<td>15</td>
<td>75</td>
<td>Ineff</td>
</tr>
<tr>
<td>9 Right seam finish</td>
<td>18</td>
<td>90</td>
<td>2</td>
<td>10</td>
<td>Eff</td>
</tr>
<tr>
<td>10 Sleeve matched to the bodice and shoulder head</td>
<td>8</td>
<td>40</td>
<td>12</td>
<td>60</td>
<td>Ineff</td>
</tr>
<tr>
<td>11 Gathered sleeves evenly distributed</td>
<td>18</td>
<td>90</td>
<td>2</td>
<td>10</td>
<td>Eff</td>
</tr>
<tr>
<td>12 Underarm areas sleeves reinforced</td>
<td>16</td>
<td>80</td>
<td>4</td>
<td>20</td>
<td>Eff</td>
</tr>
<tr>
<td>13 Sleeves are appropriately finished</td>
<td>19</td>
<td>95</td>
<td>1</td>
<td>5</td>
<td>Eff</td>
</tr>
<tr>
<td>14 Plaids, stripes are marched within sleeves itself and garment</td>
<td>20</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>Eff</td>
</tr>
<tr>
<td>15 Sleeve placket securely stitched</td>
<td>17</td>
<td>85</td>
<td>3</td>
<td>15</td>
<td>Eff</td>
</tr>
<tr>
<td>16 Corners of fabric not fraying</td>
<td>15</td>
<td>75</td>
<td>5</td>
<td>25</td>
<td>Eff</td>
</tr>
<tr>
<td>17 Evenness in the two sides and length</td>
<td>7</td>
<td>35</td>
<td>13</td>
<td>65</td>
<td>Ineff</td>
</tr>
<tr>
<td>18 Smoothness without gathers and ripples</td>
<td>20</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>Eff</td>
</tr>
<tr>
<td>19 Appropriateness of placket laps</td>
<td>18</td>
<td>90</td>
<td>2</td>
<td>10</td>
<td>Eff</td>
</tr>
<tr>
<td>20 The cuffs well trimmed</td>
<td>20</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>Eff</td>
</tr>
<tr>
<td>21 Well positioned and firm cuffs</td>
<td>20</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>Eff</td>
</tr>
<tr>
<td>22 Flat fitted to make the seam allowance not visible</td>
<td>6</td>
<td>30</td>
<td>14</td>
<td>70</td>
<td>Ineff</td>
</tr>
<tr>
<td>23 Interfaced for body support</td>
<td>19</td>
<td>95</td>
<td>1</td>
<td>5</td>
<td>Eff</td>
</tr>
<tr>
<td>24 Appropriate and evenness of stitch length</td>
<td>20</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>Eff</td>
</tr>
</tbody>
</table>

**Note:** *Eff* = Effective; *Ineff* = Ineffective; Benchmark = 50%

The result of the percentage distribution of 19 out of the 24 items in table 2 above ranged from 65 to 100% which are greater than 50%. This indicated that the consumers rated the developed manual effective in evaluating the identified 19 items to determine the quality of ready-to-wear apparel (gown). The percentage values of the remaining 5 items specifically items 5, 8, 10, 17 and 22 were 40%, 25%, 40%, 35% and 30% respectively which are less than the benchmark of 50. This implied that the consumers rated the assessed manual ineffective in evaluating the remaining 5 items to determine the quality of ready-to-wear apparel (gown).
Table 3: Frequency and Percentage Responses of the Effectiveness of the Manual in Evaluating the Quality of Ready-to-Wear Apparels (Blouse/Shirt) as Assessed by the Consumers/Users. (n = 20)

<table>
<thead>
<tr>
<th>SN</th>
<th>Did the information in the manual help you to assess the ready-to-wear apparel in terms of:</th>
<th>YES</th>
<th>%</th>
<th>NO</th>
<th>%</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Firmness of the armhole curves</td>
<td>16</td>
<td>80</td>
<td>4</td>
<td>20</td>
<td>Eff</td>
</tr>
<tr>
<td>2</td>
<td>Evenness of all the sides and length</td>
<td>20</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>Eff</td>
</tr>
<tr>
<td>3</td>
<td>Appropriateness of edges</td>
<td>19</td>
<td>95</td>
<td>1</td>
<td>5</td>
<td>Eff</td>
</tr>
<tr>
<td>4</td>
<td>Smoothness of the armholes without gathers and ripples</td>
<td>19</td>
<td>95</td>
<td>1</td>
<td>5</td>
<td>Eff</td>
</tr>
<tr>
<td>5</td>
<td>Appropriateness of darts</td>
<td>20</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>Eff</td>
</tr>
<tr>
<td>6</td>
<td>Firmness of the darts</td>
<td>20</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>Eff</td>
</tr>
<tr>
<td>7</td>
<td>Smoothness of the darts without gathers and ripples</td>
<td>17</td>
<td>85</td>
<td>3</td>
<td>15</td>
<td>Eff</td>
</tr>
<tr>
<td>8</td>
<td>Evenness of all the sides and length of the darts</td>
<td>18</td>
<td>90</td>
<td>2</td>
<td>10</td>
<td>Eff</td>
</tr>
<tr>
<td>9</td>
<td>Darts are appropriately finished</td>
<td>19</td>
<td>95</td>
<td>1</td>
<td>5</td>
<td>Eff</td>
</tr>
<tr>
<td>10</td>
<td>Firmness of the seams to prevent gather and ripples</td>
<td>20</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>Eff</td>
</tr>
<tr>
<td>11</td>
<td>Uniformity in the finishing of the seams</td>
<td>19</td>
<td>95</td>
<td>1</td>
<td>5</td>
<td>Eff</td>
</tr>
<tr>
<td>12</td>
<td>Compatibility of seams to apparel fabrics</td>
<td>17</td>
<td>85</td>
<td>3</td>
<td>15</td>
<td>Eff</td>
</tr>
<tr>
<td>13</td>
<td>Seams are appropriately fixed</td>
<td>20</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>Eff</td>
</tr>
<tr>
<td>14</td>
<td>Seam finishes are appropriately sown</td>
<td>8</td>
<td>40</td>
<td>12</td>
<td>60</td>
<td>In eff</td>
</tr>
<tr>
<td>15</td>
<td>Firmness of the seam finishes to prevent gather and ripples</td>
<td>17</td>
<td>85</td>
<td>3</td>
<td>15</td>
<td>Eff</td>
</tr>
<tr>
<td>16</td>
<td>Uniformity in the finishing of the seam finishes</td>
<td>18</td>
<td>90</td>
<td>2</td>
<td>10</td>
<td>Eff</td>
</tr>
<tr>
<td>17</td>
<td>Compatibility of seam finishes to apparel fabrics</td>
<td>13</td>
<td>65</td>
<td>7</td>
<td>35</td>
<td>Eff</td>
</tr>
<tr>
<td>18</td>
<td>Evenness of all the sides and length of the seam finishes</td>
<td>17</td>
<td>85</td>
<td>3</td>
<td>15</td>
<td>Eff</td>
</tr>
<tr>
<td>19</td>
<td>Button holes are well fixed</td>
<td>16</td>
<td>80</td>
<td>4</td>
<td>20</td>
<td>Eff</td>
</tr>
<tr>
<td>20</td>
<td>Firmness of the button holes to prevent further expansion</td>
<td>5</td>
<td>25</td>
<td>15</td>
<td>75</td>
<td>In eff</td>
</tr>
<tr>
<td>21</td>
<td>Smoothness of the button holes</td>
<td>19</td>
<td>95</td>
<td>1</td>
<td>5</td>
<td>Eff</td>
</tr>
<tr>
<td>22</td>
<td>Firmness of the hook and eye to prevent pulling</td>
<td>15</td>
<td>75</td>
<td>5</td>
<td>25</td>
<td>Eff</td>
</tr>
<tr>
<td>23</td>
<td>Well positioned hook and eye</td>
<td>16</td>
<td>80</td>
<td>4</td>
<td>20</td>
<td>Eff</td>
</tr>
<tr>
<td>24</td>
<td>Hook and eye are appropriately fixed</td>
<td>17</td>
<td>85</td>
<td>3</td>
<td>15</td>
<td>Eff</td>
</tr>
<tr>
<td>25</td>
<td>Compatibility of press studs to apparel fabrics</td>
<td>16</td>
<td>80</td>
<td>4</td>
<td>20</td>
<td>Eff</td>
</tr>
<tr>
<td>26</td>
<td>Smoothness of the press studs</td>
<td>15</td>
<td>75</td>
<td>5</td>
<td>25</td>
<td>Eff</td>
</tr>
<tr>
<td>27</td>
<td>Smoothness of shanks and buttons</td>
<td>19</td>
<td>95</td>
<td>1</td>
<td>5</td>
<td>Eff</td>
</tr>
<tr>
<td>28</td>
<td>Firmness of shanks and buttons</td>
<td>15</td>
<td>75</td>
<td>5</td>
<td>25</td>
<td>Eff</td>
</tr>
<tr>
<td>29</td>
<td>Well positioned shanks and buttons</td>
<td>9</td>
<td>45</td>
<td>11</td>
<td>89</td>
<td>In eff</td>
</tr>
<tr>
<td>30</td>
<td>Compatibility of shanks and buttons to apparel fabrics</td>
<td>16</td>
<td>80</td>
<td>4</td>
<td>20</td>
<td>Eff</td>
</tr>
</tbody>
</table>

Note: Eff = Effective; Ineff = Ineffective; Benchmark = 50%
The result of the percentage distribution of 27 out of the 30 items in table 3 above ranged from 75 to 100% which are greater than 50%. This showed that the consumers rated the developed manual effective in evaluating the identified 27 items to determine the quality of ready-to-wear apparel (blouse/shirt). The percentage values of the remaining 3 items specifically items 14, 20 and 29 were 40%, 25% and 45% respectively which are less than the benchmark of 50%. This indicated that the consumers rated the developed manual ineffective in evaluating the remaining 3 items to determine the quality of ready-to-wear apparel (blouse/shirt).

Discussion of Findings
Appropriateness of the Manual Assessed for Evaluating the Quality of Ready-to-Wear Apparels
This study on research question one identified 12 indicators that described the appropriateness of the assessed manual for evaluating ready-to-wear apparels produced which include: originality of the manual, simplicity in the use of the manual for evaluating ready-to-wear apparels, comprehensiveness of the contents of the manual, suitability of the objectives of the manual, achievement of the objectives, assessed step-by-step procedure for evaluating ready-to-wear apparels, users friendliness of the manual, overall relevance of the manual to clothing and textile industry, appropriateness of the identified areas to evaluate in the apparels using the manual, identification of the construction details in the apparel using the developed manual, suitability of the guidelines for judging quality of the apparel and appropriateness of operational measurement of the manual.
The findings of this study conformed to the report of the study of Agbo (2013) that the appropriateness of the garment for physically challenged on the different sizes is determined by testing for: fit, comfort, ease of mobility, acceptability. The findings of this study also supported that of Stamper (2005) who identified the indicators of appropriateness of an operational manual to include originality, simplicity in the use of the manual, suitability of the objectives of the manual, user’s friendliness of the manual, appropriateness of the manual and suitability of the guidelines. In addition, Mohammed (2005) conducted a study on acceptability of designed and constructed maternity wears for pregnant women teachers and found that textile industry should make textile materials locally available so as to make production of wears that are appropriate with socio-cultural setting. The study concluded that maternity wears appropriately designed and constructed would be accepted by pregnant women because it makes them comfortable and decent. Agbo (2013) also found that appropriate garment needs for satisfaction of emotional, psychological and physical independence. Preferred garments design must be loose garments, short sleeve, lengths, cotton garments, and dull floral colours with aesthetic and expressive features for appropriateness and quality.

Effectiveness of the Assessed Manual in Evaluating Ready-to-Wear Apparels
This study on research question two established the effectiveness of the manual in assessing the quality of specific garment areas. From the responses of the consumers, the manual is effective in evaluating the quality of garment areas such as collars, facing, sleeve placket, cuffs, darts, seams and seam finishes, closures and closure mechanisms, underlying, hemlines, waistline seams and overall fitness of apparel.

The findings of this study supported that of Iloeje (2007) who found that 21 pieces of block patterns were developed for the three sizes (small, medium and large size categories), the fits of the garments were rated satisfactory and effective based on quality of collars, facing, cuffs, darts, seams and seam finishes, closures, and hemlines. Similarly, the findings of this study agreed with that of Ohaka (2016) where six pieces of garment were constructed for the school age boys using size chart established and fit of garments rated satisfactory in respect to the collars, cuffs, seams and seam finishes, hemlines, waistline and overall fittings of the garment.

Conclusion
In conclusion, the study assessed the appropriateness of a manual for evaluating the quality of ready-to-wear apparels produced in South-East Nigeria. The study has shown that the assessment of the manual was appropriate and unique in a sense that it relied solely on promoting the quality and fits of ready-to-wear apparels produced in South-East Nigeria.

The manual is generally effective for assessing the quality of specific areas of ready-to-wear apparels produced in South-East Nigeria as assessed by specialists in the clothing and textiles area. Further, the manual will assist the consumers of ready-to-wear apparels in knowing the construction details, fabric quality and fits that will make a creative and exciting dimensions for ready-to-wear apparels produce in South-East Nigeria.

Recommendations
Based on the findings made and the conclusion drawn, the following recommendations were made:
1. Consumers should make use of the assessed manual for evaluating the quality of ready-to-wear apparels produced in South-East Nigeria. This will help to step up the production of high quality apparels and bring the Nigerian made products up to international standard.
2. The Federal and state ministries of education should make policy that will integrate the findings of the study into the programmes of Home Economics Nigerian schools and colleges.
3. Curriculum planners should endeavour to integrate the use of the developed manual into the methodology course for training Home Economics teachers with special reference to Clothing and Textiles in Home Economics programmes.
References


FIGURE FAULTS, GARMENT SELECTION PRACTICES AND CLOTHING PROBLEMS OF BUSINESS WOMEN IN OSISIOMA NGWA LOCAL GOVERNMENT AREA OF ABIA STATE, NIGERIA

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&
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Abstract
The study determined figure faults, garment selection practices and associated clothing problems of business women in Osisioma Ngwa Local Government Area of Abia State. Specifically the study sought to: correlate figure faults and garment preferences to ascertain their association and to identify clothing problems encountered by the business women in Osisioma Ngwa Local Government Area of Abia State. From a population of 450 registered business women with Blessed Line Ariaria International market, a total of 100 women were purposively selected to respond to a 70-item structured questionnaire that dealt with such figure faults as heavy/extra large bust, protruding abdomen, heavy/extra large hip and narrow hip. Clothing preferences were determined through fabric type, design elements of colour, texture and garment fit. Data collected were analyzed using frequencies and percentages and test of significance difference of the association was done using Chi-square inferential statistics. Two major figure faults including heavy/extra-large busts and heavy/extra-large hips were identified by the study. For fabric/garment preferences, fabric type was cotton (96%), fabric design was plain/structural design (82%), fabric colour was very bright colours such as red and blue (87% respectively), texture was smooth textured fabric (88%), garment fit was over blouses and peplums (81%) There was no significant association between figure faults and clothing preferences (p > 0.05) of the business women in the study area, indicating that the business women in Osisioma Ngwa Local Government Area of Abia State do not consider their figure faults when selecting their garments. Three major problems encountered in garment selection were identified, they include: Locally made/custom sewn garments available are expensive, lack of preferred garments that suit bust and hip line measurements in the local market. Based on the above findings, business women in the study area should be well educated, among others, on appropriate garment selection practices to camouflage their figure faults to improve their appearances.

Key words: Figure faults, Garment selection practices, Design elements, Clothing Problems

Introduction
Human bodies occur in a range of figures. Figure refers to the shape of an individual particularly with regards to its slimness or attractiveness. The general shape or figure of a person is defined mainly by the molding of skeletal structures, as well as the distribution of muscles and fat (Saukko and Knight, 2004). Female figure is the cumulative product of a woman's skeletal structure and the quantity and distribution of muscle and fat on the body. As with most physical traits, there is a wide range of normality of female body shapes.

Female figures are typically narrower at the waist than at the bust and hips. The bust, waist, and hips are called inflection points, and the ratios of their circumferences are used to define basic body shapes. Independent of fat percentage, weight or width, female body shapes are categorized in some western cultures into four elementary geometric shapes including rectangle, inverted triangle, spoon and hourglass shapes (McCormack, 2005). Though there are wide ranges of actual sizes within each shape, there are differences in what should be considered an ideal or preferred body shape both for attractiveness and for health reasons. An ideal, average or perfect figure exist where the difference between the waist and the hips is 9-11 inches thus producing a figure '8'or 'hourglass' shape. The hips and bust are almost of equal size with a narrow waist. In this figure, body fat distribution tends to be around both the upper body and lower body. This figure type also enlarges the arms, chest, hips, and rear before other parts, such as the waist and upper abdomen (Rasband, 2006; Lee, 2007). A deviation from the ideal body shape is termed figure fault and may be evident in rectangular, spoon and inverted triangle figure types.
In the Rectangular shape, the waist measurement is less than 9 inches, smaller than the hip and bust measurement. Body fat is distributed predominantly in the abdomen, buttocks, chest, and face. This overall fat distribution creates the typical ruler, straight or banana figure type. In the inverted triangle shape also known as the apple shape, women with this shape have broader shoulders compared with their narrower hips (Rasband, 2006; Lee, 2007). The legs and thighs tend to be slim, while the abdomen and chest look larger compared with the rest of the body. Fat is mainly distributed in the abdomen, chest and face. For the Spoon shaped female figure, the hip measurement is greater than the bust measurement (McCormack, 2005). The distribution of fat in this figure varies, with fat tending to deposit first in the buttocks, hips, and thighs. As body fat percentage increases, an increasing proportion of the fat is distributed around the waist and upper abdomen. The women of this body type tend to have a relatively larger rear, thicker thighs, and a smaller bosom. The rectangle shape, inverted triangle and spoon shapes are in the categories of figure faults (McCormack, 2005). Other figure faults include: protruding abdomen (Tootal Sewing Products, 1984), protruding derrière, narrow or heavy hips, flat, small or heavy busts, plump upper arm, knock knee, k and bow legs.

Figure faults are increasingly creating great concerns for the female population especially those in adolescent and early adult years and these negatively affect their psychological, social and general wellbeing. Some figure faults can be corrected while others may be impossible but can only be managed. Thus, many fashion conscious professional and non professional ladies have used activities ranging from minor to rigorous exercises, all sorts of fad diets and other more life risking plastic surgeries and silicon implants to correct figure faults just to look good but without success. Often times, the type of clothes worn by those females with figure faults indicate lack of knowledge of figure faults and effective strategy in the management of those faults.

One sure way of proper management of figure faults is the ability to select clothing that fits, conceals, camouflages and flatters figure/body shape irrespective of figure faults. The clothing should call attention to the attractive parts, camouflage the bad ones and above all give a psychological lift to the wearer. The selection and utilization of those becoming clothes invariably depends largely on the individual’s knowledge of elements and principles of design.

Design elements are the building blocks used by designers to create good and pleasing designs. They are also important for wearers to create illusions that can reshape the body to achieve beautiful looks by emphasizing, enlarging, minimizing, concealing or camouflaging figure types. They include colour, line, shape/form, space and texture. Colour communicates mood. For instance bight colours (red, orange, yellow, pink) create illusions of warmth and make wearers appear cheerful and also increase the apparent size of figure or objects. Dark colours such as blues and greens are cool and create illusion of calmness, seriousness and mourning (black), and make figure or objects smaller. Line is a thin narrow mark. It influences eye movement to establish shape and form mood. Structural lines in clothing formed by seams, darts, edges or folds in garment forms the silhouette and creates illusions. Vertical lines go up and down in a fabric or garment, create illusion of tallness or slenderness and make figure appear taller or thinner and so looks good on fat or short figures. Horizontal lines go across and tend to make objects or figures fatter, wider, bulkier or shorter (Marshal, Jackson, Stanley, kefgen and Touchie-specht, 2000). Curved lines such as circles and closed lines stop the eyes, add softness and make a person appear shorter and rounded. Texture determines how a fabric feels, looks and moves when it is worn. It can be soft or crisp, smooth or nubby, dull or shinny (Marshal et all, 2000). Soft or clingy fabrics hug the body and emphasize any irregularities while nubby fabrics add dimension and can make one appear larger. Shinny fabrics reflect light and give impression of added size. The form of a garment is its overall shape. Four basic shapes or form in garment design include natural, tubular, bell and full shapes. The application of form depends on the shape of the human body itself, the external shape or silhouette of the garment and the outline of the figure. According to Jonson and Foster (1990), a design is beautiful when there is a relationship among these three features and ones clothing is able to camouflage body contours which are not pleasing or beautifying thereby adding a graceful of its own. Space is the area inside and between garments. Narrow spaces cause the eyes to move side by side along the width of the space. Too much spaces within a garment make the wearer look like a blob with very uninteresting appearance. Application of design elements considering the design principles produces attractive figure.
The principles of design are artistic guidelines for using the various design elements within a garment (Weber, 1990). They include proportion, balance, emphasis, rhythm and harmony. Proportion is the size relationship of each of the internal space within a garment to one another and to the total look. Proportion principle requires all parts to be related to one another in size, length and bulk and garment to the size of the wearer. Emphasis principle means attracting the eye to one feature and subordinating all others. It highlights the best features and draws attention away from figure faults. It can be created by contrast in texture and colours. Balance is achieved by maintaining equal amounts of interest in either direction from the natural centre of interest. Rhythm is created by the eyes moving smoothly and easily connecting points of interests without jerking from points to point. Harmony is the pleasing arrangement of the parts of a garment. It is the feeling of unity. Harmony is achieved when all the design elements work well together. The colour, line, shapes, space and textures look together. Design equation for good appearance and garment fit irrespective of figure type or fault demands that individuals apply design elements considering design principles to create pleasing designs and looks.

It is imperative that individuals gain consciousness of particular figure types possessed to appropriately select becoming clothes to conceal or camouflage whatever fault so as to look beautiful, acceptable and attractive irrespective of figure faults. Proper clothing commands respect to the wearer but poor clothing leads to clothing problems.

Objectives of the Study
The main objective of the study is to identify figure faults and garment selection practices of business women in Osisioma Ngwa local government area of Abia state. Specifically, this study determined:

1. the types of figure faults among business women in Osisioma Ngwa local government area of Abia state;
2. garment selection practices of business women in Osisioma Ngwa local government area of Abia state women;
3. the association between figure faults and clothing preferences of business women in Osisioma Ngwa local government area of Abia state; and
4. Challenges of garment selection by the business women in Osisioma Ngwa local government area of Abia state.

Research Questions
The following research questions guided the study

1. What are the types of figure faults among business women in Osisioma Ngwa local government area of Abia state?.
2. What are the garment selection practices of business women in Osisioma Ngwa local government area of Abia state women?
3. What are the significant associations between figure faults and clothing preferences of business women in Osisioma Ngwa local government area of Abia state?.
4. What are the challenges of garment selection by the business women in Osisioma Ngwa local government area of Abia state?

Research Hypothesis
One Null hypothesis was tested by the study at 0.05 level of probability.

Ho1: There is no significant association between figure faults and garment preferences of business women in Osisioma Ngwa Local Government Area of Abía State.

Methodology
Design of the Study
The study is survey research. This design was considered appropriate for this study because data were collected from sampled women with questionnaires and large population of respondent.
Area and scope of the of the Study
The study was carried out in Osisioma Ngwa Local Government Area of Abia State. Osisioma Ngwa Local Government Area is one of the 17 local government areas in Abia state which is renowned for its commercial activities. Its occupants are predominantly business people. This is the reason for the choice of business women as the subjects of this study.

Population of the Study
The population for the study was 450 registered business women at Ariaria International market. The cross section of the women was selected from the haberdashery, fabric, textiles and baby-wears registered with blessed line at the International Market.

Sample and Sampling Technique
Purposive sampling technique was used to select business women whose figures were viewed by the researcher and research assistants to be faulty and who volunteered to be part of the study. Prior arrangement was made with the Chairman of the line so visits were made two consecutive times within three weeks for data collection during their meetings and emergency meetings. A total of 100 business women participated in the study and responded to the questionnaire items.

Instrument for Data Collection
A structured questionnaire based on extensive review of related literature was used for data collection. The questionnaire was made up of two parts. Part A elicited information on the personal data of the respondents such as age, marital status, educational background, years of experience in business while part B was structured into three clusters according to the three specific purposes of the study.

Method of Data Collection
The researcher, with the help of a research assistant, adopted on-the-spot method of data collection. The questionnaires were handed out to the respondents to fill, and were collected on the spot. About 80% were collected on the spot while the rest were collected latter at respondents' convenience. Anthropometric measurements using pliable measuring tape was conducted to determine fat adiposity of the bust, waist and the hip circumference following body measurement guide (BMG). The measurements were taken on single layers of fabrics on the women. Measurement scores obtained were used to categorize them into heavy/extra-large bust, protruding abdomen, heavy/extra-large hip, narrow hip and small bust.

Method of Data Analysis
Data collected for this study were analyzed with descriptive statistics (Percentages, and Pearson Product Moment Correlation Coefficient, PPMCC) using Statistical Package for Service Solution (IBM-SPSS version 21). The cut off point for any item with 50% and above was regarded as 'Preferred' while items with percentages less than 50 % was regarded as 'Not Preferred'. Chi-square was used to determine significant association between the respondent's figure and their clothing preferences at 0.05 level of significance.
Results

Table 1: Personal data of the respondents

<table>
<thead>
<tr>
<th>Variables</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age (years)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30-35</td>
<td>39</td>
<td>39.0</td>
</tr>
<tr>
<td>36-46</td>
<td>38</td>
<td>38.0</td>
</tr>
<tr>
<td>46 and above</td>
<td>23</td>
<td>23.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Marital status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>60</td>
<td>60.0</td>
</tr>
<tr>
<td>Single</td>
<td>21</td>
<td>21.0</td>
</tr>
<tr>
<td>Widow</td>
<td>15</td>
<td>15.0</td>
</tr>
<tr>
<td>Separated/divorced</td>
<td>4</td>
<td>4.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Educational level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No formal education</td>
<td>9</td>
<td>9.0</td>
</tr>
<tr>
<td>Primary education</td>
<td>10</td>
<td>10.0</td>
</tr>
<tr>
<td>Secondary education</td>
<td>46</td>
<td>46.0</td>
</tr>
<tr>
<td>Tertiary education</td>
<td>35</td>
<td>35.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Business experience (Years)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-5</td>
<td>38</td>
<td>38.0</td>
</tr>
<tr>
<td>6-10</td>
<td>27</td>
<td>27.0</td>
</tr>
<tr>
<td>11-15</td>
<td>16</td>
<td>16.0</td>
</tr>
<tr>
<td>16 and above</td>
<td>19</td>
<td>19.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Key: F = frequency, % = percentage

Table 1 presents the personal data of the business women in Osisioma Ngwa L.G.A of Abia state. The results showed that about (39.0%) of the women were between the age range of 30 – 35 years old; majority (60.0%) of them were married, about (46.0%) of them had secondary education and (38.0%) of them had spent up to 1 – 5 years in clothing business.

Table 2: Identified figure faults of the Business Women in Osisingwa LGA of Aba (N= 100)

<table>
<thead>
<tr>
<th>Variables</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy/extra-large bust</td>
<td>32</td>
<td>32.0</td>
</tr>
<tr>
<td>Protruding abdomen</td>
<td>14</td>
<td>14.0</td>
</tr>
<tr>
<td>Heavy/extra-large hip</td>
<td>31</td>
<td>31.0</td>
</tr>
<tr>
<td>Narrow hip</td>
<td>12</td>
<td>12.0</td>
</tr>
<tr>
<td>Small bust</td>
<td>11</td>
<td>11.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Key: F = frequency, % = percentage, N= total number of respondents

Table 2 presents the figure faults of the respondents. The Table showed that about majority (32.0%) of the figure faults identified were heavy/extra-large bust followed by heavy/extra-large hip. Small bust was the least figure fault identified among the respondents (11.0%)
Table 3: Fabric fibre type preferences of the Business Women in Osisioma Ngwa (N= 100)

<table>
<thead>
<tr>
<th>Fabric type</th>
<th>Preferred</th>
<th></th>
<th>Not preferred</th>
<th></th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f</td>
<td>%</td>
<td>f</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>Cotton</td>
<td>96</td>
<td>96.0</td>
<td>4</td>
<td>4.0</td>
<td>Preferred</td>
</tr>
<tr>
<td>Silk</td>
<td>83</td>
<td>83.0</td>
<td>17</td>
<td>17.0</td>
<td>Preferred</td>
</tr>
<tr>
<td>Wool</td>
<td>70</td>
<td>70.0</td>
<td>30</td>
<td>30.0</td>
<td>Preferred</td>
</tr>
<tr>
<td>Mohair</td>
<td>48</td>
<td>48.0</td>
<td>52</td>
<td>52.0</td>
<td>Not preferred</td>
</tr>
<tr>
<td>Cashmere</td>
<td>46</td>
<td>46.0</td>
<td>54</td>
<td>54.0</td>
<td>Not Preferred</td>
</tr>
<tr>
<td>Cotton blends</td>
<td>77</td>
<td>77.0</td>
<td>23</td>
<td>23.0</td>
<td>Preferred</td>
</tr>
<tr>
<td>Silk blends</td>
<td>75</td>
<td>75.0</td>
<td>25</td>
<td>25.0</td>
<td>Preferred</td>
</tr>
<tr>
<td>Wool blends</td>
<td>61</td>
<td>61.0</td>
<td>39</td>
<td>39.0</td>
<td>Preferred</td>
</tr>
<tr>
<td>Rayon</td>
<td>50</td>
<td>50.0</td>
<td>50</td>
<td>50.0</td>
<td>Undecided</td>
</tr>
<tr>
<td>Acetate</td>
<td>46</td>
<td>46.0</td>
<td>54</td>
<td>54.0</td>
<td>Not preferred</td>
</tr>
<tr>
<td>Nylon</td>
<td>68</td>
<td>68.0</td>
<td>32</td>
<td>32.0</td>
<td>Preferred</td>
</tr>
<tr>
<td>Acrylic</td>
<td>41</td>
<td>41.0</td>
<td>59</td>
<td>59.0</td>
<td>Not preferred</td>
</tr>
<tr>
<td>Polyester</td>
<td>58</td>
<td>58.0</td>
<td>42</td>
<td>42.0</td>
<td>Preferred</td>
</tr>
<tr>
<td>Rayon blends</td>
<td>39</td>
<td>39.0</td>
<td>61</td>
<td>61.0</td>
<td>Not preferred</td>
</tr>
<tr>
<td>Acetate blends</td>
<td>34</td>
<td>34.0</td>
<td>66</td>
<td>66.0</td>
<td>Not preferred</td>
</tr>
<tr>
<td>Nylon blends</td>
<td>51</td>
<td>51.0</td>
<td>49</td>
<td>49.0</td>
<td>Preferred</td>
</tr>
<tr>
<td>Acrylic blends</td>
<td>45</td>
<td>45.0</td>
<td>55</td>
<td>55.0</td>
<td>Not preferred</td>
</tr>
<tr>
<td>Polyester blends</td>
<td>67</td>
<td>67.0</td>
<td>33</td>
<td>33.0</td>
<td>Preferred</td>
</tr>
</tbody>
</table>

Key: F = frequency, % = percentage, N = total number of respondents

Table 3 shows the clothing preference (fabric type) of the business women in Osisioma Ngwa L.G.A of Abia state. The results showed that about (96.0%), (83.0%), (70.0%), (77.0%), (75.0%), (61.0%), (50.0%), (68.0%), (58.0%), (51.0%) and (67.0%) of the women preferred cotton, silk, wool, cotton blends, silk blends, wool blends, rayon, nylon, polyester, nylon blends and polyester blends when compared to those who did not prefer.

Table 4: Fabric design preferences of the Business Women in Osisioma (N= 100)

<table>
<thead>
<tr>
<th>Fabric design</th>
<th>Preferred</th>
<th></th>
<th>Not preferred</th>
<th></th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f</td>
<td>%</td>
<td>f</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>Horizontal lines</td>
<td>75</td>
<td>75.0</td>
<td>25</td>
<td>25.0</td>
<td>Preferred</td>
</tr>
<tr>
<td>Vertical lines</td>
<td>75</td>
<td>75.0</td>
<td>25</td>
<td>25.0</td>
<td>Preferred</td>
</tr>
<tr>
<td>Diagonal design</td>
<td>73</td>
<td>73.0</td>
<td>27</td>
<td>27.0</td>
<td>Preferred</td>
</tr>
<tr>
<td>Small floral designs</td>
<td>81</td>
<td>81.0</td>
<td>19</td>
<td>19.0</td>
<td>Preferred</td>
</tr>
<tr>
<td>Circular/curved designed</td>
<td>63</td>
<td>63.0</td>
<td>37</td>
<td>37.0</td>
<td>Preferred</td>
</tr>
<tr>
<td>Geometrical design</td>
<td>43</td>
<td>43.0</td>
<td>57</td>
<td>57.0</td>
<td>Not preferred</td>
</tr>
<tr>
<td>Abstract/irregular design</td>
<td>43</td>
<td>43.0</td>
<td>57</td>
<td>57.0</td>
<td>Not preferred</td>
</tr>
<tr>
<td>All of the above</td>
<td>57</td>
<td>57.0</td>
<td>43</td>
<td>43.0</td>
<td>Preferred</td>
</tr>
<tr>
<td>Border design</td>
<td>76</td>
<td>76.0</td>
<td>24</td>
<td>24.0</td>
<td>Preferred</td>
</tr>
<tr>
<td>Plain/structural designs</td>
<td>82</td>
<td>82.0</td>
<td>18</td>
<td>18.0</td>
<td>Preferred</td>
</tr>
<tr>
<td>Bold floral design</td>
<td>66</td>
<td>66.0</td>
<td>34</td>
<td>34.0</td>
<td>Preferred</td>
</tr>
<tr>
<td>Small shape design</td>
<td>36</td>
<td>36.0</td>
<td>64</td>
<td>64.0</td>
<td>Not preferred</td>
</tr>
<tr>
<td>Bold shape design</td>
<td>50</td>
<td>50.0</td>
<td>50</td>
<td>50.0</td>
<td>Undecided</td>
</tr>
</tbody>
</table>

Key: F = frequency, % = percentage, N = total number of respondents

Table 4 presents the garment/apparel fabric design of the business women in Osisioma Ngwa L.G.A of Abia state. The Table showed that majorities (75.0%), (75.0%), (73.0%), (81.0%), (63.0%), (57.0%), (760%), (82.0%), (66.0%) and (50.0%) of the women preferred horizontal lines, vertical lines, diagonal design, small floral designs, circular design, all over pattern, border design, plain design, bold floral design and bold shape design when compared to those who did not prefer.
Table 5: Fabric texture preferences of the Business Women (N= 100)

<table>
<thead>
<tr>
<th>Preferred</th>
<th>Not preferred</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smooth textured fabrics</td>
<td>88</td>
<td>88.0</td>
</tr>
<tr>
<td>Crisp/coarse fabric</td>
<td>50</td>
<td>50.0</td>
</tr>
<tr>
<td>Light weight fabric/cling fabrics</td>
<td>70</td>
<td>70.0</td>
</tr>
<tr>
<td>Bulk fabrics</td>
<td>49</td>
<td>49.0</td>
</tr>
<tr>
<td>Shiny surface fabrics</td>
<td>74</td>
<td>74.0</td>
</tr>
<tr>
<td>Dull surface fabrics</td>
<td>37</td>
<td>37.0</td>
</tr>
</tbody>
</table>

Key: F = frequency, % = percentage, N= total number of respondents

Table 5 shows the garment/apparel (fabric texture) of the business women in Osisioma Ngwa L.G.A of Abia State. The Table showed that majorities (88.0%), (50.0%), (70.0%), and (74.0%) of the women preferred Smooth textured fabrics, crisp/coarse fabric, light weight fabric/clingling fabrics, and Shiny surface fabrics, respectively contrary to those who did not prefer.

Table 6: Garment fit preferences of the Business Women (N= 100)

<table>
<thead>
<tr>
<th>Preferred</th>
<th>Not preferred</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flare skirt or pants</td>
<td>81</td>
<td>81.0</td>
</tr>
<tr>
<td>Full sleeves</td>
<td>59</td>
<td>59.0</td>
</tr>
<tr>
<td>Pleated skirts/blouses</td>
<td>68</td>
<td>68.0</td>
</tr>
<tr>
<td>Coat with a slight flare</td>
<td>54</td>
<td>54.0</td>
</tr>
<tr>
<td>Tight/close fitted dress or skirts</td>
<td>65</td>
<td>65.0</td>
</tr>
<tr>
<td>Straight skirts</td>
<td>76</td>
<td>76.0</td>
</tr>
<tr>
<td>Jackets</td>
<td>81</td>
<td>81.0</td>
</tr>
<tr>
<td>Over blouses and peplums</td>
<td>83</td>
<td>83.0</td>
</tr>
<tr>
<td>Full gathered or shirred waistline skirts</td>
<td>60</td>
<td>60.0</td>
</tr>
<tr>
<td>Sash of flying panel over derrière</td>
<td>44</td>
<td>44.0</td>
</tr>
<tr>
<td>A-line gowns, skirts or tops</td>
<td>61</td>
<td>61.0</td>
</tr>
<tr>
<td>Pleated pants</td>
<td>45</td>
<td>45.0</td>
</tr>
<tr>
<td>Two piece outfits of different color</td>
<td>50</td>
<td>50.0</td>
</tr>
</tbody>
</table>

Key: F = frequency, % = percentage, N= total number of respondents

Table 6 presents the garment/apparel (garment fit) of the business women in Osisioma Ngwa L.G.A of Abia state. The Table showed that majorities (81.0%), (59.0%), (68.0%), (54.0%), (65.0%), (76.0%), (81.0%), (83.0%), (60.0%), (61.0%) and (50.0%) of the women preferred flare skirt or pants, full sleeves, pleated skirts/blouses, coat with slight flare, close fitted skirt/dress, straight skirt, jackets, over blouses/peplums, full gathered skirt, A-line skirt/dress and two piece outfit with different colors respectively contrary to those who did not prefer.

Table 7: Fabric color preferences of the Business Women (N= 100)

<table>
<thead>
<tr>
<th>Preferred</th>
<th>Not preferred</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red</td>
<td>87</td>
<td>87.0</td>
</tr>
<tr>
<td>Yellow</td>
<td>86</td>
<td>86.0</td>
</tr>
<tr>
<td>Pink</td>
<td>73</td>
<td>73.0</td>
</tr>
<tr>
<td>Orange</td>
<td>75</td>
<td>75.0</td>
</tr>
<tr>
<td>Blue</td>
<td>87</td>
<td>87.0</td>
</tr>
<tr>
<td>Black</td>
<td>83</td>
<td>83.0</td>
</tr>
<tr>
<td>Green</td>
<td>56</td>
<td>56.0</td>
</tr>
<tr>
<td>Brown</td>
<td>38</td>
<td>38.0</td>
</tr>
<tr>
<td>Purple</td>
<td>64</td>
<td>64.0</td>
</tr>
<tr>
<td>Neutral colors</td>
<td>45</td>
<td>45.0</td>
</tr>
</tbody>
</table>

Key: F = frequency, % = percentage, N= total number of respondents

Data in Table 7 indicate with the exception of blue (87%) and black (83%) the most preferred colours by the respondents were brighter colours such as red (87%), yellow (86%), pink (73%), and orange (75%) respectively. Other cool or neutral colours were less desired.
Table 8: Challenges encountered in garment selection of clothing by the Business women (N= 100)

<table>
<thead>
<tr>
<th>S/N</th>
<th>Challenges encountered</th>
<th>Yes</th>
<th>No</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Not aware that I have figure fault</td>
<td>48</td>
<td>52</td>
<td>52.0</td>
</tr>
<tr>
<td>2</td>
<td>Low income to buy garment that suits body figure</td>
<td>30</td>
<td>70</td>
<td>70.0</td>
</tr>
<tr>
<td>3</td>
<td>Varieties of appropriate garments are not available in the local market</td>
<td>41</td>
<td>59</td>
<td>59.0</td>
</tr>
<tr>
<td>4</td>
<td>The culture and tradition of the environment prevents me from wearing certain garments</td>
<td>26</td>
<td>74</td>
<td>74.0</td>
</tr>
<tr>
<td>5</td>
<td>Locally made/custom sewn garments available are expensive</td>
<td>65</td>
<td>35</td>
<td>35.0</td>
</tr>
<tr>
<td>6</td>
<td>The nature of my occupation prevents me from wearing varieties of garment</td>
<td>25</td>
<td>75</td>
<td>75.0</td>
</tr>
<tr>
<td>7</td>
<td>Age prohibits me from wearing certain garments</td>
<td>39</td>
<td>61</td>
<td>61.0</td>
</tr>
<tr>
<td>8</td>
<td>Lack of preferred garments that suit my bust line measurement in the local market</td>
<td>51</td>
<td>49</td>
<td>49.0</td>
</tr>
<tr>
<td>9</td>
<td>Lack of preferred garment that fit my waistline</td>
<td>37</td>
<td>63</td>
<td>63.0</td>
</tr>
<tr>
<td>10</td>
<td>Difficulty in locating preferred garments that fit my hip in the local market</td>
<td>51</td>
<td>49</td>
<td>49.0</td>
</tr>
</tbody>
</table>

Key: F = frequency, % = percentage, N= total number of respondents

Table 9: Association between the figures fault and clothing preferences of business women in Osisioma Ngwa L.G.A, Abia State

<table>
<thead>
<tr>
<th>Clothing preferences</th>
<th>Figures Faults</th>
<th>Decision</th>
<th>HELB</th>
<th>PA</th>
<th>HELH</th>
<th>NH</th>
<th>SB</th>
<th>X^2</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fabric type</td>
<td></td>
<td>Preferred</td>
<td>28(35.0)</td>
<td>12(15.0)</td>
<td>23(28.8)</td>
<td>9(11.3)</td>
<td>8(10.0)</td>
<td>2.615</td>
<td>0.624</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Not preferred</td>
<td>4(20.0)</td>
<td>2(10.0)</td>
<td>8(40.0)</td>
<td>3(15.0)</td>
<td>3(15.0)</td>
<td>2.615</td>
<td>0.624</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Non sig</td>
<td>28(35.0)</td>
<td>12(15.0)</td>
<td>23(28.8)</td>
<td>9(11.3)</td>
<td>8(10.0)</td>
<td>2.615</td>
<td>0.624</td>
</tr>
<tr>
<td>Fabric design</td>
<td></td>
<td>Preferred</td>
<td>4(28.6)</td>
<td>2(14.3)</td>
<td>7(50.0)</td>
<td>1(7.1)</td>
<td>0(0.0)</td>
<td>4.067</td>
<td>0.397</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Not preferred</td>
<td>4(28.6)</td>
<td>2(14.3)</td>
<td>7(50.0)</td>
<td>1(7.1)</td>
<td>0(0.0)</td>
<td>4.067</td>
<td>0.397</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Non sig</td>
<td>28(35.0)</td>
<td>12(15.0)</td>
<td>23(28.8)</td>
<td>9(11.3)</td>
<td>8(10.0)</td>
<td>2.615</td>
<td>0.624</td>
</tr>
<tr>
<td>Fabric texture</td>
<td></td>
<td>Preferred</td>
<td>28(30.1)</td>
<td>14(15.1)</td>
<td>28(30.1)</td>
<td>12(12.9)</td>
<td>11(11.8)</td>
<td>4.613</td>
<td>0.329</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Not preferred</td>
<td>4(57.1)</td>
<td>0(0.0)</td>
<td>3(42.9)</td>
<td>0(0.0)</td>
<td>0(0.0)</td>
<td>4.613</td>
<td>0.329</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Non sig</td>
<td>28(30.1)</td>
<td>14(15.1)</td>
<td>28(30.1)</td>
<td>12(12.9)</td>
<td>11(11.8)</td>
<td>4.613</td>
<td>0.329</td>
</tr>
<tr>
<td>Garment fit</td>
<td></td>
<td>Preferred</td>
<td>25(29.4)</td>
<td>11(12.9)</td>
<td>27(31.8)</td>
<td>12(14.1)</td>
<td>10(11.8)</td>
<td>4.166</td>
<td>0.384</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Not preferred</td>
<td>7(46.7)</td>
<td>3(20.0)</td>
<td>4(26.7)</td>
<td>0(0.0)</td>
<td>1(6.7)</td>
<td>4.166</td>
<td>0.384</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Non sig</td>
<td>25(29.4)</td>
<td>11(12.9)</td>
<td>27(31.8)</td>
<td>12(14.1)</td>
<td>10(11.8)</td>
<td>4.166</td>
<td>0.384</td>
</tr>
<tr>
<td>Fabric color</td>
<td></td>
<td>Preferred</td>
<td>29(30.5)</td>
<td>13(13.7)</td>
<td>30(31.6)</td>
<td>12(12.6)</td>
<td>11(11.6)</td>
<td>2.841</td>
<td>0.585</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Not preferred</td>
<td>3(60.0)</td>
<td>1(20.0)</td>
<td>1(20.0)</td>
<td>0(0.0)</td>
<td>0(0.0)</td>
<td>2.841</td>
<td>0.585</td>
</tr>
</tbody>
</table>

Key: F = frequency, % = percentage, **= no association (p > 0.05), HELB = heavy/extra-large bust, PA = protruding abdomen, HELH = heavy/extra-large hip, NH = narrow hip and SB = small bus, Non Sig = Non significant

Table 9 presents data on association between identified figure faults and clothing preferences of business women in Osisioma Ngwa L.G.A, Abia State. Data from the Table indicate that there was no significant association (p > 0.05) between the figure faults and clothing preferences of business women in the study area in fabric type (p= 0.62), fabric design (p= 0.39), fabric texture (p= 0.32), garment fit (p= 0.58) and fabric color (p=0.58)

Summary of Major Findings
1. The major figure faults among business women in Osisioma Ngwa Local Government Area in Abia State include: Heavy/Extra large bust, (32.0%) heavy hips (31.0%)
2. Eleven out of 17 fabric fibre types preferred by the business women were identified.

3. Ten Fabric design preferred by business women in Osisioma Ngwa Local Government Area in Abia State include were identified. They include; horizontal lines, vertical lines, diagonal lines, small floral designs, circular/curved design, all over pattern, border design, plain/structural design, bold floral design, bold shape design.


5. Eleven garment fits preferred by business women in Osisioma Ngwa Local Government Area in Abia State include: flare skirts or pants, full sleeves, pleated skirts/blouses, coat with a slight flare, tight/close fitted dress or skirts, straight skirts, jackets, over blouses and peplum, full gathered or shirred waistline, A-line gowns, skirts or tops, two piece outfit of different colors.

6. Eight Fabric color preferred by business women in Osisioma Ngwa Local Government Area in Abia State include: red, yellow, pink, orange, blue, black, green, purple.

7. Three Problems Encountered by Women in Garment Selection in Osisioma Ngwa Local Government Area in Abia, difficulty in locating preferred garments that fit my hip in the local market. The association between the figure faults and the garment selection practices, of business women in Osisioma Ngwa; figure faults/Fabric type (p = 0.62), figure faults/Fabric design (p = 0.39), figure faults/Fabric texture (p = 0.32), figure faults/Garment fit (p = 0.58), figure faults/Fabric color (p = 0.58).

8. There was no association (p > 0.05) between the figure fault and clothing preferences of business women in the study area.

Discussion

The findings of this study revealed that the major types of figure faults among business women in Osisioma Ngwa LGA include: large bust, small bust, narrow hip, heavy hip, narrow hip. The findings of this study is in support of the report of Whitlock, Ayres and Ryan (1999) who found that most of the common figure problem among women are large bust, small bust, low bust, flat chest, narrow shoulders, thick waist, large stomach. In addition, the findings are in line with the submission of Skelly, Goldberg and Yvonne (2008) that large bust, narrow shoulder, large stomach and plump upper arm are common figure defects among women.

The findings also determined clothing preferences of business women in Osisioma Ngwa LGA through fabric type, fabric design, fabric texture, garment fit and fabric colour. The findings revealed that the women did not consider figure types while selecting their arments. Skelly (2008), investigated women's attitudes toward cotton and other fibers used in weaving apparels and found that most women select their clothing without proper consideration for their body size and shape, color of the clothes, weather of the environment, size of the stomach and bust. Wylie, Crown and Norris (2007) found out that color and design on garments are important factors but which are often times not considered before selection most especially among women. The texture of the garment fabric is important in concealing figure faults or emphasizing good one. The visual aspect of texture is perceived by the eye because of the degree of light absorption and reflection on the surface of the material and can be hard or soft, rough or smooth, hot or cold. Such impressions are the result of sensory impression understood by sight and other sense organs (Bartley, 1996, Hobbs and Rush, 1997).

The findings of this study also revealed that problems encountered by business women in Osisioma Ngwa Local Government Area in Abia State which include: locally made/custom sewn garments available are expensive, lack of preferred garments that suit the bust line measurement in the local market and lack of preferred garments that fit the hip in the local market.

The findings of this study agree with the findings of Apunda (2012) who stated that related problems which affected the women's garment selection and buying practices were amount of money available, uniform style of dressing, rapid rate of fashion change, exorbitant prices on clothing items, which are otherwise unique, sale of imitation clothing for original ones by clothing producers and retailers.

Conclusion

Based on the findings of this study, the overall conclusion drawn is that most of these business women had secondary school education, they were between the ages of 30-35 years old, they were married and had experience of 1-5 years in the business. They indicated that they preferred mostly cotton fabrics, small floral
designs, smooth textured fabrics, over blouses and peplums. The major figure fault of business women in Osisioma Ngwa Local government area were heavy/extra-large bust and heavy/extra-large hip. There was no association between figure faults and clothing preferences of the business women in Osisioma Ngwa L.G.A. The business women in Osisioma Ngwa Local government area also experience some problems with selecting clothes that suit their figures. Beside problems, they have also indicated the clothing preferences they would like to have in clothes sold in local market. 51 Most of these respondents indicated that locally made garments are expensive and lack of preferred garments that suit their bust and hip line measurement were not available in the market. This inability to get well-fitting clothes from these affordable retail outlets creates a lot of challenges for these business women. This means they have to spend a lot of time scouting for clothes that fit well, from one clothing outlet to the other, while also doing a lot of fitting, which can always be frustrating and time consuming.

**Recommendations**

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

9. Women should be well educated on appropriate garment selection practices for hiding their figure faults in order to enhance their appearance

10. There should be regular enlightenment campaign by clothing experts on figure faults among women and the need to manage such faults with becoming clothes that camouflage such faults.

11. There should be periodic organization of garment selection workshops for women by clothing experts in the area.

**References**


Robertson C., (2008). How to match Prom Dresses to Figure Types. New York: Perfect Fit Publishing Company.


PERSONAL HYGIENE PRACTICES OF STUDENTS IN ALVAN IKOKU FEDERAL COLLEGE OF EDUCATION, OWERRI, IMO STATE

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Abstract
The study investigated personal hygiene practices of students in Alvan Ikoku Federal College of Education (AIFCE) Owerri, Imo State. Two objectives and two research questions guided the study. Descriptive research design was used and the study was carried out in AIFCE, Owerri, Imo State. The population comprised 3459 students while 346 students were randomly selected as sample size of the study. Instrument for data collection was duly validated questionnaire. It was validated by three lecturers from AIFCE, Owerri. The instrument had a reliability coefficient of 0.83 was obtained using Cronbach alpha method. Data obtained were analyzed using frequency, percentage and mean. Results showed that hand washing practices were low in some aspects e.g. washing hand before and after eating snacks, after urination, with soap and water, after wiping nose and coughing among others. Most of the students do not brush their teeth before going to bed. The students were aware of the problems associated with poor hygiene practices, yet they do not live up to expectations in observing good personal hygiene practices. The study concluded that the students’ personal hygiene practices is very poor and needs to be enhanced. The study recommended that hygiene programmes and workshops be designed for students to promote personal hygiene practices for sustainable healthy living.

Key words: Personal, Hygiene, Practices, Students, Healthy Living

Introduction
Hygiene is a significant global public health concern. Hygiene is a principal health behaviour that helps in prevention of infectious diseases. Hygiene can be described as cleanliness. However, World Health Organization (WHO) (2017) defined hygiene as practices and conditions that aid in maintenance of good health and prevention of disease outbreak. Practice on the other hand can be seen as the application of rules and knowledge that leads to action (Dong, 2015). Hygiene practices are concerned with preservation of health. A good hygiene practice is of great importance in maintaining personal health, hence, the need for adherence to good personal hygiene practices.

Personal hygiene is the practice of maintaining cleanliness of one's own body. Rasool (2012) described personal hygiene as any practice that properly takes care of one's body by keeping the body clean and healthy. Personal hygiene is defined as a condition promoting sanitary practices to self. Researches such as, Oluwafemi (2016); Ratnaprabha, Aswin and Ashok (2018); and Leila (2015) stated that personal hygiene practices involve keeping the body, clothes, and surrounding clean and prevention of microbe's outgrowth aimed at maintaining good health. The major areas in personal hygiene include body hygiene (skin care), oral hygiene (oral care), hand washing (hand care), face hygiene, hair hygiene, foot hygiene, arm pit and bottom hygiene, clothes hygiene fingernail and toe nail hygiene (nail care), ear hygiene, and menstrual hygiene among others. It does not only involve keeping one's body clean but it includes keeping the environment where one lives clean. Personal hygiene is very important in disease prevention and spread. A large portion of the world's illness and death is attributable to infectious diseases. WHO (2017), Celik and Pancoe (2012); Curtis and Carincross (2013) reported that infectious diseases have been the major contributor to global morbidity and mortality. Studies carried out by Curtis, Danquah and Anueng (2009) reported 62% and 31% of all deaths in Africa and South-Asia respectively are as a result of communicable/infectious diseases. Also, it has been reported that unsafe water, and lack of sanitation and hygiene every year claim lives of more than 1.5 million children under five years from diarrhea (Kumar & Akoijam, 2015; Jitendra, Goverdhan, Neelam, Dilip, Lovesh, Malkeet & Kusum, 2018; Ghose, Rahman, Hassan, Khan & Alam, 2012).
Personal hygiene practices involve proper and regular washing of hands, clothes, hair among others. It involves maintaining the cleanliness of the body and clothes. The knowledge and practice of personal hygiene are vital in all our everyday activities. Adequate personal hygiene practices help in keeping bacteria, virus, fungus and microorganisms capable of causing infections away from the human body (Kumar & Akoijam, 2015). Studies have shown that good hygiene practices can reduce incidence of infectious diseases and can also help to protect school health during disease outbreak (Rabbi & Dey, 2013). The school is usually over crowded hence; it is easier for infectious diseases to spread (Sibel, Aysegul, Naci, Ulken, Merve & Coskun 2015).

Often times most students neglect good hygiene practices. Miko, Cohen, Conway, Gilman, Seward, Larson (2012), emphasized that adults, students and school children are vulnerable to neglect of basic hygiene practices. Several studies have indicated that there is a strong and consistent causal relationship between infectious diseases (e.g. respiratory infections, helminthiasis, eye infection, food borne disease among others) and poor hygiene practices (Alyssa, Bizu, Nigusu, Abera, Yemane & Michelle, 2010).

Most students living in the hostels are lazy and they often times display careless attitude. They students find it very difficult to keep the environment clean (toilets, bathrooms and the surrounding). They feel it is the duty of hostel attendants without minding that they are jeopardizing their health. They live in a dirty environment that is capable of breeding disease causing organisms, resulting in ill health of the students. Furthermore, in the hostels hundreds of students share a few toilets and bathrooms and the facilities are over utilized. The students find it difficult to clean the toilets and bathrooms without considering the effect on their health especially the female students whose body are more exposed to infections. However, the male students are not left out. They also have nonchalant attitude concerning cleanliness of their hostel and its environment.

Some students urinate and defecate outside the toilets and bathrooms. This gives rise to environmental pollution thus, endangering their health. As a result, they fall sick and skip lectures. Some of the sick students may not have money to treat themselves and when the sickness prolongs it affects their academic performance. The hostel attendants are not left out on the consequences of the students' poor hygiene practices, it can also affect their health. Adequate personal hygiene practices by the students will help in prevention of infectious diseases and maintaining good health.

Although literature showed that many studies have been carried out on the knowledge and practices of personal hygiene in various foreign countries and on different groups (Tan, Cheng, Soon, Ghazali & Mahyudin 2013; Miko, Cohen, Conway, Gilman, Seward, Larson, 2012; Suchitra & Devi, 2007; Ali, Rahman, & Siddiqui, 2013), There are however, limited research on personal hygiene practices among tertiary institution students in Nigeria. Therefore, there is need to investigate the personal hygiene practices of students in Alvan Ikoku Federal College of Education, Owerri, Imo State.

Purpose of the Study
The general purpose of the study is to determine the personal hygiene practices of students in AIFCE, Owerri, Imo State. Specifically, the study ascertained the following:
1. personal hygiene practices of students in AIFCE, Owerri.
2. problems associated with the poor personal hygiene practices of students.

Research Questions
1. What are the personal hygiene practices of students in AIFCE, Owerri?
2. What are the problems associated with poor personal hygiene practices of the students?

Methodology
Design of the Study: Descriptive survey research design was adopted for the study. The research design is one that generalizes a population using a representative sample from the population to obtain reliable information for the study.
Area of the Study: The study was carried out in Alvan Ikoku Federal College of Education (AIFCE) Owerri, Imo State. The School has a large population of students. Most of the students are living in the school hostels. However, there are limited number of hostels (both female and male hostels). As a result, the hostels are overcrowded and have inadequate number of toilets and bathrooms. The conveniences require regular cleaning and washing for maintenance of good hygiene practices. The cleanliness of the hostels depends largely on the hostel attendants. Most often, the students frown at cleaning the conveniences and the surroundings, this affects hygienic and aesthetic beauty of the environment.

Population for the Study: The population for the study was 3495 (male 265, female 3230) consisting of the students living in the school hostels (AIFCE, Owerri, Students Affairs Department, 2019).

Sample and Sampling Technique: Proportionate random sampling technique was used to select 346 students (74 males, 272 females) from all the hostels (male and female hostels). They were randomly and proportionately selected according to the population of students in all the male and female hostels. The sample size was appropriate for the study. Krejcie and Morgan in Ohaka and Ohaka (2017) stated in their table of sample size determination, that with population of 3500, a sample size of 346 can be used.

Instrument for Data Collection: Questionnaire was the instrument used for data collection. The questionnaire had three-point scale of Yes = 3 points; Seldom = 2 points, and No = 1 point. Mean scores of 2.1 and above was regarded as high, while mean scores below 2.1 to 2.0 was regarded as moderate and mean scores below 2.0 was regarded as poor.

Validation of the Instrument: The instrument was face validated by three lecturers from AIFCE Owerri, one lecturer from Department of Health Education and two lecturers from Department of Home Economics.

Reliability of the Instrument: Reliability test was carried out using Cronbach Alpha reliability method to test the internal consistency of the instrument. Twenty-five copies of the instrument were administered on the students that were not part of the population for the study. Reliability coefficient of 0.83 indicating that the instrument was reliable.

Method of Data Collection: Data was collected through direct contact by the researcher with the help of five research assistants. A total of 346 copies of questionnaire were administered and 346 were retrieved giving 100% return rate.

Method of Data Analysis: Percentage, frequency and mean score were used in analyzing the data.

Results

Personal hygiene Practices of Students
Table 1a: Hand washing hygiene practices of students

<table>
<thead>
<tr>
<th>S/N</th>
<th>I wash my Hand</th>
<th>Yes</th>
<th>N (%)</th>
<th>Seldom</th>
<th>N (%)</th>
<th>No</th>
<th>N (%)</th>
<th>X</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>After going to toilet</td>
<td>241</td>
<td>69.7</td>
<td>83</td>
<td>24.0</td>
<td>22</td>
<td>6.4</td>
<td>2.6</td>
<td>H</td>
</tr>
<tr>
<td>2</td>
<td>Before eating</td>
<td>304</td>
<td>87.9</td>
<td>14</td>
<td>4.0</td>
<td>28</td>
<td>8.1</td>
<td>2.8</td>
<td>H</td>
</tr>
<tr>
<td>3</td>
<td>After eating food</td>
<td>316</td>
<td>91.3</td>
<td>18</td>
<td>5.2</td>
<td>12</td>
<td>3.5</td>
<td>2.8</td>
<td>H</td>
</tr>
<tr>
<td>4</td>
<td>After urination</td>
<td>98</td>
<td>28.3</td>
<td>119</td>
<td>34.4</td>
<td>129</td>
<td>37.3</td>
<td>1.9</td>
<td>P</td>
</tr>
<tr>
<td>5</td>
<td>With soap only</td>
<td>198</td>
<td>57.2</td>
<td>113</td>
<td>32.7</td>
<td>35</td>
<td>10.1</td>
<td>2.5</td>
<td>H</td>
</tr>
<tr>
<td>6</td>
<td>With soap and water</td>
<td>103</td>
<td>29.8</td>
<td>97</td>
<td>28.0</td>
<td>146</td>
<td>42.2</td>
<td>1.9</td>
<td>P</td>
</tr>
<tr>
<td>7</td>
<td>Before eating snacks</td>
<td>85</td>
<td>24.6</td>
<td>127</td>
<td>36.7</td>
<td>134</td>
<td>38.7</td>
<td>1.6</td>
<td>P</td>
</tr>
<tr>
<td>8</td>
<td>After eating snacks</td>
<td>137</td>
<td>39.6</td>
<td>121</td>
<td>35.0</td>
<td>88</td>
<td>25.4</td>
<td>1.7</td>
<td>P</td>
</tr>
<tr>
<td>9</td>
<td>After blowing/wiping nose</td>
<td>102</td>
<td>29.5</td>
<td>74</td>
<td>21.4</td>
<td>170</td>
<td>49.1</td>
<td>1.8</td>
<td>P</td>
</tr>
<tr>
<td>10</td>
<td>After coughing/covering mouth</td>
<td>117</td>
<td>33.8</td>
<td>64</td>
<td>18.5</td>
<td>65</td>
<td>47.7</td>
<td>1.9</td>
<td>P</td>
</tr>
<tr>
<td>11</td>
<td>After touching dirty things</td>
<td>279</td>
<td>80.6</td>
<td>31</td>
<td>9.0</td>
<td>36</td>
<td>10.4</td>
<td>2.7</td>
<td>H</td>
</tr>
<tr>
<td>12</td>
<td>After returning from lecture</td>
<td>95</td>
<td>27.5</td>
<td>100</td>
<td>28.9</td>
<td>151</td>
<td>43.6</td>
<td>1.8</td>
<td>P</td>
</tr>
</tbody>
</table>
It was observed in Table 1a that 69.6% (241) practice hand washing after going to toilet, 28.3% (98) wash hands after urination, 29.8% (103) wash hand with soap and water, 24.6% (85) wash hand after eating snacks, 80.6% (279) wash hand after touching dirty things and 27.5% (95) wash hand after returning from lecture. Also, hand washing hygiene practices after covering mouth with hand and after blowing the nose with hand is poor. From the result of the table their hand washing hygiene practices were not encouraging and it needs to be improved.

Table 1b: Mouth cleaning and body care hygiene practices of students

<table>
<thead>
<tr>
<th>S/N</th>
<th>Mouth cleaning and body care</th>
<th>Seldom</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>I brush teeth daily</td>
<td>296</td>
<td>85.5%</td>
</tr>
<tr>
<td>14</td>
<td>I brush teeth twice daily</td>
<td>165</td>
<td>47.7%</td>
</tr>
<tr>
<td>15</td>
<td>I brush teeth before going to bed</td>
<td>69</td>
<td>19.9%</td>
</tr>
<tr>
<td>16</td>
<td>I take bath once daily</td>
<td>319</td>
<td>92.2%</td>
</tr>
<tr>
<td>17</td>
<td>I take bath twice daily</td>
<td>124</td>
<td>35.8%</td>
</tr>
<tr>
<td>18</td>
<td>I clean genital area daily</td>
<td>287</td>
<td>82.9%</td>
</tr>
<tr>
<td>19</td>
<td>I clean private part daily</td>
<td>307</td>
<td>88.7%</td>
</tr>
<tr>
<td>20</td>
<td>I keep nails clean</td>
<td>259</td>
<td>74.9%</td>
</tr>
<tr>
<td>21</td>
<td>I cut nails regularly</td>
<td>113</td>
<td>32.7%</td>
</tr>
</tbody>
</table>

D = Decision Rule; H = High; P = Poor; M = Moderate; N = Number of Students

Approximately, 85.5% (296), 47.7% (165), 92.2% (319), 35.8% (124) and 82.9% (287) brush their teeth daily, brush their teeth twice daily, take bath at least once daily, take bath twice daily and clean their genital areas daily respectively. Similarly, 42.5% (147), 37.6% (130) and 4.9% (17) reported rarely brush teeth before going to bed, not brushing teeth before going to bed, not cleaning genital area daily respectively. The results from the Table showed that most the students do not take bath twice daily and also about 68% of the students do not change under clothing twice daily.

Table 1c: Cloth caring hygiene practices of students

<table>
<thead>
<tr>
<th>S/N</th>
<th>Caring for clothes</th>
<th>Yes</th>
<th>Seldom</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>22</td>
<td>I put on clean clothes once daily</td>
<td>287</td>
<td>82.7%</td>
<td>42</td>
</tr>
<tr>
<td>23</td>
<td>I put on clean clothes twice daily</td>
<td>100</td>
<td>28.9%</td>
<td>116</td>
</tr>
<tr>
<td>24</td>
<td>I hang my clothes in the sun after use</td>
<td>129</td>
<td>37.3%</td>
<td>100</td>
</tr>
<tr>
<td>25</td>
<td>I separate dirty and clean clothes</td>
<td>307</td>
<td>88.7%</td>
<td>20</td>
</tr>
<tr>
<td>26</td>
<td>I change under clothes daily</td>
<td>327</td>
<td>94.5%</td>
<td>10</td>
</tr>
<tr>
<td>27</td>
<td>I change under cloth twice daily</td>
<td>49</td>
<td>14.1%</td>
<td>61</td>
</tr>
<tr>
<td>28</td>
<td>I wear clean clothes after each bath</td>
<td>146</td>
<td>42.2%</td>
<td>133</td>
</tr>
<tr>
<td>29</td>
<td>I wear cloth once before washing</td>
<td>177</td>
<td>51.2%</td>
<td>115</td>
</tr>
<tr>
<td>30</td>
<td>I wear cloth twice before washing</td>
<td>123</td>
<td>35.5%</td>
<td>96</td>
</tr>
</tbody>
</table>

D = Decision Rule; H = High; P = Poor; M = Moderate; N = Number of Students

As shown in Table 1c, majority of the students 82.9% (287), 88.7% (307) and 94.5% (327) reported changing clean clothes once daily, keeping dirty clothes away from clean clothes and changing under wears daily. A good number of the students 68.2% reported that they do not change inner wear twice daily and 33.8% (117) do not practice hanging clothes in the sun after use.
Table 2: Problems associated with poor hygiene practices

<table>
<thead>
<tr>
<th>S/N</th>
<th>Problems</th>
<th>Yes</th>
<th>%</th>
<th>No</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Body odour</td>
<td>309</td>
<td>89.3</td>
<td>37</td>
<td>10.7</td>
</tr>
<tr>
<td>2</td>
<td>Skin infection</td>
<td>328</td>
<td>94.8</td>
<td>18</td>
<td>5.2</td>
</tr>
<tr>
<td>3</td>
<td>Bad breath</td>
<td>339</td>
<td>98.0</td>
<td>7</td>
<td>2.0</td>
</tr>
<tr>
<td>4</td>
<td>Dental diseases</td>
<td>319</td>
<td>92.2</td>
<td>27</td>
<td>7.8</td>
</tr>
<tr>
<td>5</td>
<td>Urinary tract infection</td>
<td>306</td>
<td>88.4</td>
<td>40</td>
<td>11.6</td>
</tr>
<tr>
<td>6</td>
<td>Disease outbreak</td>
<td>340</td>
<td>98.3</td>
<td>6</td>
<td>1.7</td>
</tr>
<tr>
<td>7</td>
<td>Poor health status</td>
<td>331</td>
<td>95.7</td>
<td>15</td>
<td>4.3</td>
</tr>
<tr>
<td>8</td>
<td>Decreased immunity</td>
<td>329</td>
<td>95.1</td>
<td>17</td>
<td>4.9</td>
</tr>
</tbody>
</table>

Table 2 showed that 89.3% (309) and 98.3% (340) had knowledge of body odour and disease outbreak as some of the problems associated with poor personal hygiene practices. Almost all the students were aware of all the problems. More than 10% of the students were not aware that poor hygiene practices can result to body odour and urinary tract infection.

Discussion

The study investigated the personal hygiene practices of students. Of the 346 students investigated, 21.4% (74) were males, while 78.6% (272) were females. 69.6% (24) and 28.3% (98) students practiced hand washing after going to toilet and urination. The percentage of students washing hands after defeation differs from results of other studies. For instance, Jitendra, Goverdhan, Neelam, Dilip, Lovesh, Malkeet and Kusum (2018); Alyssa, Bisu, Nigusu, Abera, Yemane, and Michelle (2010) reported that 90.2% and 14.8% wash their hands after going to toilet and after urination respectively. Also, Curtis, Danquah, and Aunger (2009) recorded 17% and 45% of their study's participants washing their hands with soap and water and then with water only after using the toilet. The findings of the study also showed that 89.9% and 91.3% wash hand before and after eating. This is an indication of proper hygiene practices. However, the students displayed poor hygiene practices with regards to washing hands with soap and water (29.8%) and washing hand after returning from lecture (27.5%). Proper hand washing habit is a necessity because it helps in prevention of gastro intestinal and respiratory infections. This shows that there is need to emphasize on proper hand washing hygiene practices. Similarly, hand washing was very poor (29.5%) after blowing/wiping nose and 33.8% after coughing. The hand may be heavily contaminated and thus may act as a means for transmission of microorganisms capable of introducing pathogens to the body. This has serious implication on the health status of students. A similar finding by Azuogu, Ikechukwu, Nwiomo, Azuogu, and Onwunaka (2016) noted that hand washing after nose wiping was also very low. Not washing hand after sneezing and coughing may be as result of not having water available always. This is in agreement with the findings of Miko, Cohen, Conway, Gilman, Seward and Larson (2012); Dreibelbis, Freeman, Greene, Saboor, and Rheingans (2014), who gave reason why pupils do not wash hand as non-availability of hand washing facility. Regarding personal hygiene practices on mouth cleaning, only 19.9% of the students brush their teeth before going to bed and 37.6% do not brush their teeth before going to bed. Not cleaning the teeth before going to bed will probably make the mouth to smell in the morning due to leftover food particles. It may result to teeth decay, ache, difficulty in chewing food among others. Cleaning genital areas was not practiced by about 14.9% of the students. When genital area is not well cleaned/washed, it smells. This is because the feaces may not be totally cleaned off with tissue paper. As a result, sometimes, the pants may be stained with feaces. It may be a good ground for transmission of infectious diseases. This emphasizes the need to wash the genitals with soap and water after defeation. 74.9 % of the students reported keeping their nails clean while only 32.7% stated that they trim their nails regularly. This indicated that 67.3% do not trim their nails regularly. Long nails are capable of harboring disease-causing organisms because germs and dirt can hide underneath, and later can be transmitted to food, thus may result in food poisoning and ill health.

Findings on clothes caring hygiene practices showed that, 82.9% change into clean clothes once a day. More so, 37.3%, 94.5%, 42.2% and 51.2% hang clothes in the sun after use, change inner clothes once daily, wear clean clothes after each bath and wear clothes once before washing correspondingly. Comparatively findings of another study carried out by Alyssa, Bisu, Nigusu, Abera, Yemane, and Michelle (2010) showed that 12% of the participants do not change their clothes often. Dirty clothes are capable of harboring microorganisms that can
cause skin irritation and infections. More so, dirty clothes can cause body smell/odour which can lead to stigmatization. The students were aware of the problems associated with poor hygiene practices. All the items scored above 88%. Concerning body odour and urinary tract infection, 10.7% and 11.6% of the students do not have knowledge that poor hygiene practices can result to such problems. Therefore, the students need to be well informed on problems associated with poor hygiene practices so as to maintain healthy living among the students.

Conclusions
Personal hygiene practices among the students were very poor. Although the students had good knowledge on problems associated with poor hygiene practices but it does not correlate to observance of good personal hygiene practices. Poor personal hygiene practices can result in spread of infectious diseases among students especially in overcrowded areas such as the school environment. Therefore, there is serious need for improvement in personal hygiene practices of students. This will help in prevention of infectious diseases, thereby ensuring good health and well-being among students. Proper adherence to good personal hygiene practices can contribute to reduction of infectious disease that give rise to high morbidity and mortality, thus ensuring sustainable healthy living.

Recommendations
Based on the findings, study recommended that;
1. Health clubs should be formed in the institutions to educate students on adequate personal hygiene practices.
2. Departments should provide hand washing facilities in lecture rooms to promote hand washing.
3. The School Management should provide hand washing facilities, soap and water in hostels’ toilets to enhance hygiene practices in the institutions.
4. The students should improve on their personal hygiene practices by making sure they observe good hygiene practices as the need arises.
5. Hostel wardens and supervisors should insist that students display good personal hygiene practices in hostels to prevent infectious diseases.

References


Personal Hygiene Practices of Students


PRODUCTION AND UTILIZATION OF TIE DYE FOR ECONOMIC EMPOWERMENT OF THE YOUTH IN CLOTHING AND TEXTILE IN NIGERIA

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Abstract
This study focused on utilization of dyes for production of tie dye products for economic empowerment of the youths in clothing and textile. The paper discussed the concept of dyes, tie dye, and reviewed different types of dyes and tie dyes. The paper further discussed different methods of making tie dye products and the ways marketing strategies for economic empowerment of the youths in our society.

Keywords: Dye, Production, Utilization, Empowerment, Youth

Introduction
Youth is the time of life when one is young. It is a passage from childhood to adulthood. In Nigeria, youth age is limited to 18-35 years (Marshall, 1999). Youth development is a process that takes young people to adulthood. Youth development involves functional combination of responsibilities of all people, places, opportunities, supports and services needed by the youth to escape from extreme poverty thereby avert extreme poverty. Thus, the need for Production and Utilization of Tie Die for Economic Epoerment of the Youths in Clothing and Textile in Nigeria (Madu, 2017). Production is the action of making, or manufacturing something from raw materials (Nwaiwu, 1998). Tye-dye products involves production of dye materials for employment usage. Once the fibers are available, they can be used to make desired household articles needed for utilization for youth employment. Utility is the act of making practical and effective use of fiber to fabrics. The production of various delightful fibers using dyes for tie-dye household articles is vital for human use. It has service that add value and contributes to utility of the youth for self-empowerment for self-employment and wealth creation.

Dye is a natural or synthetic substance used to add colour to fibers and fabric. Dye is used to change the colour of something using a special liquid. Dyes give a whole spectrum of possibilities with colour. Dye is used to change the colour of something using a special liquid (Gasua, 2005). Dyes give a whole spectrum of possibilities with colour. Dye is used to make the object more colorful to customize structures and items, including building, parts, and flags among others (Nwaiwu, 1998). Dye is a colorant, coloring, color, dyestuff, pigment, tint, and taint wash among others. According to Miles and Leslie, 2010), dye ads colour to or change the colour of materials when soaked in dye solution by soaking it in a solution impregnated with a dye. A synthetic dye was accidently discovered by an English Chemist William Perkins in 1856. He discovered the dye when he was trying to synthesize quinine in aniline. Before that time, all coloring materials were extracted from barks, roots, seeds, leaves and shellfish and most synthetic dyestuffs are made from coal-tar derivatives (Picton and Mark, 1998). Their manufacture is a highly complicated technical operation, which is constantly changing. Further-more, there is variation in the manner in which different fibers respond to dyestuffs and even the same fibers do not produce a full range of colors with a particular type of dye.

Classification of Dyes:
Basic or Cationic Dyes
This group was the first of the synthetic dyes to be taken out of coal-tar derivatives. As textile dyes, they have been largely replaced by later developments. However, they are still used in discharge printing, and for preparing leather, paper, wood, and straw. Asmah, Okpattah, and Frimpong, (2015) stated that, more recently they have been successfully used with some readymade fibers, especially the acrylics. The name means that these are dyes with an organic material, which is soluble in a simple acid. Basic dyes were originally used to color wool, silk, linen, hemp, and others without the use of a mordant. With a mordant such as tannic acid, they were used on cotton and rayon. Basic dyes give brilliant colors with exceptional fastness to acrylic fibers (Gasusa, 2015). They can be used on basic dyeable variants of nylon and polyester. Basic dyes are no longer used for any great extent on cotton or linen and seldom on wool. However, since they are less expensive, they are
used for hemp, jute and similar fibers. Their most important use today is on acrylics. They can also be used on basic dyeable variants of nylon and polyester. (Sandberg, 1989).

The Direct Dyes
Historically, the direct dyes followed the basic dyes and were widely accepted because they discouraged the use of a mordant or binder in dyeing cotton. The colors are not as brilliant as those in the basic dyes but they have better fastness to light and washing, and such fastness can be measurably improved after treatments. Direct dyes can be used on cotton, linen, rayon, wool, silk and nylon. These dyes usually have azo linkage and high molecular weight. They are water soluble because of sulfuric acid groups. (Asmah, 2013).

The Acid Dyes
This is a very large and important group of dyestuffs. According to Frankline, Wallen and Frankel, Wallen and Hyun, (1993), while an acid dye is a salt the color comes from the acidic component, while in the basic dye it's from the organic base. The first acid dyes were combinations of basic dyes with sulphuric or nitric acid.

Adding metallic salts especially chrome to the dyed fabric in an after-treatment generally has increased colorfastness of acid dyes. Acid dye, cannot be used for wool tops but are used in dyeing wool piece goods, silk, nylon, and some of the other manmade fibers. If a mordant is used they will successfully dye cotton and linen, though this is seldom done today. The ordinary type of acid dye is reserved largely for apparel fabrics and for knitting and rug yarns. A great deal of it is used on nylon carpeting. (Gutjah, and Koch, 1994).

The Sulphur Dyes
The sulphur dyes provide very deep shades, which have excellent resistance to washing but poor resistance to sunlight. They will dye cotton, linen, and rayon, but not brightly. A problem with sulphur dyes especially the black colors is that they make the fabric tender, or weaken its structure, so that it breaks easily. Sulphur dyed fabrics therefore usually must be treated with alkalis to neutralize the acids, which have formed. (Belfer, 1977).

Azoic Dyes
These dyes are used primarily for bright red shades in dyeing and printing since most other classes of fast dyes are lacking in good red dyes. William, (1858) stated that, azoic dyes, called Naphthols in the industry, are actually manufactured in the fabric by applying one half of the dye. The other half is then put on and they combine to form the finished color. Unless they are carefully applied and well washed, they have poor fastness to rubbing or crocking.

The Vat Dyes
This is another type of dye. They are perhaps the best known group of dyes in use today because of their all-round fastness to washing and sunlight on cotton and rayon. According to Oparinde, (2013), the term vat comes from the old indigo method dyeing in a vat: indigo had to be reduced to light form. Vat dyes are made from indigo, anthraquinone and carbazole. They are successfully used on cotton, linen, rayon, wool, silk, and sometimes nylon. Vat dyes are also used in the continuous piece of dying process sometimes called the pigment application process. In this method the dyes are not reduced before application, but after they have been introduced into the fabric. This makes for a dyeing superior appearance and economy. There are no light red vat dyes.

Soluble Vats: There are no water-soluble preparations for dyes.

Indigo: The oldest known vat dye stuff, formerly made from the indigo plant, but now made synthetically

Collective Dyes
Collectives are the latest dyestuff and because they react chemically with cotton, viscose, linen, wool and silk they are very fast to washing treatments. Miles and Leslie, (1998), highlighted that, they can be dyed and printed by many methods and for the first time, the whole spectrum of color can be put onto cloth using just one class of dyes. Substituting a reactive group on a direct dye produces these dyes

Dyes for Manmade Fibers
Dyeing manmade fibers such as acetate, the polyacids, polyesters and acrylics, etc., has proved to be a challenge to dyers. Each new fiber, as it emerges from the laboratory, must be carefully analyzed and tested for its reaction to different dyestuffs. The process has been continuous experimentation with new developments turning up constantly.
To date both basic and acid dyes have been used as well as what is known as disperse colors. A dispersed dye may be any one of a number of slightly soluble dyestuffs dispersed, or held in suspension in the dye bath. Perhaps the best known example is the dispersed dye method for coloring acetate, which cannot be dyed by any other technique. For acetate dyes, the dye substance is derived from anthraquinone and azoic dyes. It is ground in a colloid mill. When dispersed in dye bath (colloidal suspension), the particles are microscopic and cannot be detected by the naked eye (Picton, and Mark, 1995).

**Alizarin Dyes:** These are vegetables dyes, originally derived from the madder plant and now produced synthetically. They are used on wool and sometimes on cotton. They produce a brilliant turkey red, among other colors.

**Aniline Black:** They are produced from the chemical aniline, and are usually associated with the color black. Aniline black is a fast black, much used on cottons, and is developed by oxidizing the aniline on the fiber. It is very fast to light, washing, and chlorine.

**Chrome Dyes:** These are a special type of acid dyes and they are used to color animal fibers, especially woolens and worsteds. They will react well on a fabric with metals such as chromium. The process, however, tends to dull the color brilliance but does provide high light fastness and wash fastness. Source: (Nwaiwu, 1998).

**Neutral Dyes:** These are metal containing acid dyes and the metal is added in manufacture.

**Acetate of Disperse Dyes:** Disperse dyes were originally developed for dyeing secondary cellulose acetate fibers. According to Adetoro, (1972), these dyes are relatively insoluble in water and are prepared for dyeing by being ground into relatively fine powder in the presence of dispersing agents. In the dye bath, a suspension of the dye particle dispersion produces a very dilute solution of the dyes, which are then absorbed by the fibers. This dye class is used to dye polyester, nylon, acetate and triacetate fibers.

**Types of Natural Dyes**

Natural dyes can be sorted into three categories: natural dyes obtained from plants (Indigo), those obtained from animals (cochineal), and those obtained from minerals (ocher). Although some fabrics such as silk and wool can be colored simply by being dipped in the dye, others such as cotton require a mordan (Oparinde (2012). A mordant is an element, which aids the chemical reaction that takes place between the dye and the fiber so that the dye is absorbed. Containers used for dying must be non-reactive (enamel, stainless steel.) brass, copper or iron pots will do their own mordanting. Not all dyes need mordants, such as lichens and walnut hulls, they are called substantive dyes. If they do need a mordant, they are called adjective dyes. Common mordants are: ALUM, usually used with cream of tartar, which helps evenness and brightens slightly; IRON (or copperas) which saddens or darkens colors, bringing out green shades; TIN, usually used with cream of tartar, which blooms or brightens colors, especially reds, oranges and yellows; Blue Vitriol which saddens colors and brings out greens and TANNIC ACID used for tans and browns. One example of natural dye obtained from plants is madder, which is obtained from the roots of the madder plant. The plants are dug up, the roots washed and dried and ground into powder. Gutjahr, and Koch, (1994) stated that, during the 19th century, the most widely available fabrics were those which had been dyed with madder - the 'turkey red' that was considered brilliant and exotic. The madder plant continued to be used for dyeing until the mid-1800s when a synthetic substitute was developed.

Another example of a natural dye obtained from plants is wood. Until the middle Ages, Europeans used wood to create a blue fabric dye. The wood was widely used in Europe. The coloring was in the leaves, which were dried and ground mixed with water, and made into a paste. This dye was supplanted by indigo an ancient shrub well known to the Egyptians and Indians. Like wood, its color lay in its leaflets and branches. The leaves were Fermented, the sediment purified, and the remaining substance was pressed into cakes. Indigo prevailed as the preferred blue dye for a number of reasons. It is a substantive dye, needing no mordant, yet the color achieved is extremely fast to washing and to light. The manufacture of natural indigo lasted well into the early 1900s. Natural dyes obtained from minerals Ocher is a dye obtained from an impure earthy ore of iron or a ferruginous clay, usually red (hematite) or yellow (limonite). In addition to being the principal ore of iron, hematite is a constituent of a number of abrasives and pigments.

**Natural dyes obtained from animals**

A good example is cochineal, which is a brilliant red dye produced from insects living on cactus plants. The property of the cochineal bug was discovered by pre Colombian Indians who would dry the females in the sun, and then ground the dried bodies to produce a rich, red powder. When mixed with water, the powder produced a deep, vibrant red coloring. In fact, most cherries today are given their bright red appearance through the artificial color “carmine”, which comes from the cochineal insect.
Aniline Dyes

Aniline is a chemical that is a by-product of burning coal. The first synthetic dye (mauve, Developed in 1856) was a coal tar product and contained the chemical aniline but the term "aniline" has been used to include other chemical type dyes. The synthetic dyes do not contain the chemical aniline. Take note that the class of dyes known as aniline are chemicals and as such should be treated with respect. Protective gloves and eyewear is a must and breathing the powered dyes is prohibited.

Water based Vs. Alcohol based Dyes.

Most of the colors can be found in either water based or alcohol based dyes. The alcohol-based dyes can also be reduced with lacquer thinner. The dyes may show slight differences in color depending on the reducer (alcohol or lacquer thinner) but it has been observed that lacquer thinner works just as well as denatured alcohol.

The water based dyes are reputed to be more color fast than the alcohol reduced dyes as have found the color fastness of the alcohol types to be a non-issue. Water based dyes can only be applied to unfinished and unsealed wood whereas alcohol Based dyes can be either wiped onto unfinished wood or sprayed over filled and sealed wood. Water based dyes cannot be successfully sprayed over sealed wood (Nwaiwu: 1998).

Dye selection

Water based dyes are simple to apply but on some woods may cause problems further along in the finishing process. Alcohol based dyes if wiped on are as easily applied as the water based. If you choose to wipe onto bare wood the water-based dyes have a slight advantage. Water will evaporate much slower than alcohol and as such allows the dye solution a longer working time. The longer working time can lessen the possibility of streaking. Some colors are not available in both water and alcohol based. If your chosen color is not available in a water-based dye don’t let the possibility if streaking because you to abandon your preferred color choice. In normal temperature alcohol will evaporate slowly enough to allow you adequate application time (Sandberg, 1989).

Tie Dye: Tie dye is a process of hand-dyeing fabrics in which sections of the fabric are tightly bound with thread to resist the dye solution thereby producing variegated patterns. Tie-dye is a method of dyeing design on cloth or thread by tying bunches of it with waxed thread so that the dye affects only exposed parts such as cloth decorated (Asmath, 2004). Diverse cultures have different names for this technique, for instance, it is called Pangi in Indonesia, Indians call it Bandharu, Adire Elesto by Nigerians while Shibori by Japanise (Asmah, 2004, Picton & Raayda, 1995, Adeboro, 1972, Oparineke, 2012, Belfer, 1977). The tie-dye technique involves various methods of folding fabrics, tying, binding and dyeing of the fabric in a dye bath. The bindings prevent the tied portions of the fabric from receiving the dye and tie bonded parts untied, and reveal the designs created.

Resist dye: In Resist dye, the dyeing is in the form of starch paste and similar to hot wax resist dyeing, but a cooked soluble flour paste is applied to the fabric instead of hot wax. The technique is extensively used throughout Asia and Africa, particularly Nigeria, where such process is referred to as Adire Eleko (Adetoro, 1972: Oparinde, 2012: Asmah et al, 2013). The tritik technique refers to thread stitches sewn tightly into the cloth and gathered to form the resist. Though other cultures have adopted this traditionally Indonesian technique, it remains one of the easiest forms of resisting in West Africa. In marbling, the fabric is bunched up into a wrapped ball created by gathering the fabric in all directions, tied or stitch and produced by the tabletop dyeing method. The result after dyeing, indicate a blend of texture revealed after untying the fabric. As the name implies, tubular dyeing is dyeing the fabric while still wrapped around a tube. The resultant effect forms a V-textured, linear coloured patterns (Source: Asmah, 2004).

With the knotting technique, as the name suggests, the fabric goes through a series of knots at desired intervals along the folded length of the fabric. The resultant product forms patterns of wavy lines. The twist and coil technique also produces a tight twisted fabric that coils itself backwards. The result is a W-shaped series of movements throughout the fabric after dyeing. The tools and materials needed are the same as those used for the knotting technique. The clamping methods make use of solid flat objects like wooden boards pressed against the fabric and tied at both ends with threads to form the resist (Belfer, 1977: Asmah, 2004).

Home economics is skill oriented and decision making subject. It is concerned primarily with strengthening family through educating the individuals for family living (Anyakoha, 2001). It deals with human and material forces affecting homes, and families and the utilization of knowledge for benefit of mankind. Home economics is a subject that adequately equip youths for gainful employment, cultivation of self-respect, and dignity.
How to Tie-Dye Using the Bucket Method

Tie-dyeing is based on the traditional art of folding or tying fabric to create resists that stop the dye from being absorbed into parts of the fabric, thereby forming unique patterns of color. Often people use tie-dye to create a design on white fabric. Using the bucket method is a quick way to tie-dye several items at one time (Mile and Leslie, 2010).

**Step by Step**

1. Protect your work surface with a plastic table cover.
2. For best results, prewash and dry item to remove any finishes that may interfere with dye absorption.
3. Select your dye colors. One to three colors can be used. When using more than one color, it's usually best to start with the lightest color.
4. When tie-dyeing with two or more colors, it's best to put adjacent primary colors (red, yellow, blue) or secondary colors (orange, green, purple) next to each other. In the areas where they run together, they will create a third, great-looking color. For instance, Scarlet and Golden Yellow will produce Orange; Royal Blue and Kelly Green will make Aqua; Fuchsia and Royal Blue will create Purple.
5. There are many ways to create tie-dye patterns and designs. For example, to create a basic marbled tie-dye design, scrunch fabric into a ball and wrap it with rubber bands in different directions. The tighter the fabric is wrapped, the more white areas there will be. To make stripes, fold the fabric vertically or diagonally, like an accordion or fan, in 2” to 3” wide folds. Wrap with rubber bands every 2” – 3” or as desired.
6. Prepare all the dye baths before starting to tie-dye. Wear rubber gloves before handling dye. They prevent colourful fingers and offer protection from the hot water in the dye bath.
7. Shake all liquid dye bottles before pouring the dye. Measure and mix ½ cup liquid dye in about 2 – 3 gallons of very hot water (at least 140ºF). If using powder dye, dissolve 1 box in 2 cups very hot water; stir well before adding to water. If water is not hot enough, heat water in a tea kettle or the microwave. The hotter the dye bath, the stronger the colours will be. For dark or bright colours, double the amount of dye used. If dyeing multiple items at once, the amount of dye and water should be increased based on the weight of the shirts. As a guideline, 1 bottle of dye or 2 boxes of powder will colour up to 2 pounds of dry weight fabric (about 6 – 8 size small t-shirts).
8. For cotton fabrics, add 1 cup of salt to each dye bath to help intensify the colour. For silk, wool or nylon, add 1 cup white vinegar. Stir well to be sure salt or vinegar is dissolved.
9. To begin, immerse your wrapped fabric in the lightest colour dye bath for 4 to 10 minutes or as long as 30 minutes, stirring occasionally. The longer the fabric is in the dye bath, the darker the colour will be. Remove when the colour is a little darker than desired.
10. If desired, continue dipping wrapped fabric in another colour or unwrap fabric, cutting rubber bands. Rinse well in cool water, squeeze out excess water and wrap again. Then immerse in the next darkest colour. Repeat until you have used all your colours.
12. Wash garment in warm water with mild detergent. Rinse thoroughly in cool water. Gently squeeze out excess water by rolling shirt in a clean old towel. Machine dry or hang to dry.
13. Clean-up work surface and dye utensils using soap and bleach or cleanser.

Tie Dye Techniques

This is another method of Tie-dye. Although tie dye has been around for ages, it is one crafting trend that will never get old. According to Mile, (1994) and Shuaib and Enock, (2012) Creating the colourful designs and unique patterns is much easier than it can be imagine and a perfect activity that can be enjoyed by all. Tie dye can be done in different ways and techniques. Listed below are few tips to keep in mind before or when undertaking any form of tie dye making.

- Dedicate some time to folding and bundling the fabric. The 'folds' (or bundles) are one of the main components in creating unique tie dye patterns as it prevents the dye from reaching certain areas – which in return, create resists.
- Each fold you make will create a line in your pattern. For smaller patterns, keep the folds narrow – for larger patterns, made the folds wider.
- Creasing and folding the fabric creates geometric-type patterns and stripes. Crumpling, scrunching or twisting the fabric creates more organic-like patterns and spirals.
- When securing the fabric, make sure the rubber bands are really tight. This will not only hold the fabric
together, but will help prevent the die from seeping through the folds, creating crisp resists.

- The other main component of creating unique tie dye designs is choosing the right colours. Different colour dye applied close to each other will mix together and create a 'new' colour.

- When combining colors, stick with the primary basics.
- Avoid combining secondary colors – like orange and green, green and purple, & purple and orange – which will result in muddy brown hues.

The term 'accordion fold' is used below in several of the techniques. This simply means folding the fabric in a zig-zag pattern, creating a series of pleats, as shown above.

Some Tie Dye Techniques and Step by Step Procedures
1. Spiral Tie Dye Technique

In this technique, lay the t-shirt flat. Pinch the fabric in the center of the shirt. Begin twisting the fabric in a circular motion and continue until all of the fabric is in a spiral shape. Tightly secure the spiral rubber bands. Apply the dye to the fabric. Flip the fabric over and repeat on the backside.

![Result](image)


2. Diamond Pattern Folded Tie Dye Technique

Lay the fabric flat. Accordion fold the fabric from the bottom up. At this point you will have a long strip of folded fabric. Turn the strip in a vertical position and fold the bottom corner of the fabric at a 90-degree angle, creating a triangle shape. Using that triangle shape as a guide, repeat an accordion fold until you are left with a single 'triangle' of fabric – as shown above. Tightly secure the triangle with rubber bands. Apply the dye to the fabric. Flip the fabric over and repeat on the backside.

![Result](image)

For this particular design one color of dye was used. Lime green dye was applied to the outer edges of the triangle, leaving the center untouched. The fabric was then flipped over and the dye was repeated on the backside. As the dye processes it will seep through the fabric and create the ombre effect shown above.

3. Accordion Folded Stripe Pattern Tie Dye Technique
Lay the fabric flat. Accordion fold the fabric from the bottom up. At this point you will have a long strip of fabric. Fold the fabric in half. Secure the fabric with four rubber bands, evenly spaced as shown above. Apply the dye to the fabric. Flip the fabric over and repeat on the backside.

![Result](image1.png)


For this particular design one color of dye was used. The dye was generously applied to each end section of the fabric, as well as the center section. The fabric was then flipped over and the dye was repeated on the backside.

4. Box Pattern Tie Dye Technique
Lay the fabric flat. Accordion fold the fabric from the bottom up. This fold can be as wide as you like – ours was about 4 inches. At this point you will have a long strip of fabric. Turn the strip in a vertical position and fold the bottom edge of the fabric up, creating a square. Using that square shape as a guide, repeat an accordion fold until you are left with a single 'square' of fabric – as shown above. Tightly secure the fabric with rubber bands. Apply the dye to the fabric. Flip the fabric over and repeat on the backside.

![Result](image2.png)


For this particular design one color of dye was used. The dye was heavily applied to the outer edges only, leaving the center untouched. The fabric was then flipped over and the dye was repeated on the backside. Sources: (Asmah, (2013), Shuaib and Enoch, (2012), Asmah, (2004), Picton, and Rayda, (1995).

All of the designs shown above were placed in a plastic bag, sealed, and left to process for 24 to 26 hours. Rinsing out the processed tie dyed projects is a simple task. Remove the fabric from the bag and run under cold water in a sink. With the water running, gently squeeze the fabric to release as much of the dye as possible. Flip the fabric over and continue rinsing, until the water just about runs clear. Lay the fabric on a protective surface and remove the rubber bands. A pair of scissors comes in handy to cut any bands that are tightly secured. Place the fabric back under the running cold water and continue to rinse – unfolding the fabric as you go. The fabric should be rinse thoroughly until the water runs clear of any dye.

Conclusion
Dyes and tie dye have been in our mist since the creation of the earth. They can be used for self-empowerment, self-reliance and wealth creation since it is a career that stands taste of time. The research discovered that the utilization of dyes for production of tie dye products is not strenuous, therefore can be embarked on at anytime.
and anywhere for self-improvement since it is competence based job/career that does not require hung equipment and capital. Therefore, youths in our society should be encouraged to get involved in practicing utilization of dyes for production of various household articles for wealth creation to eradicate unemployment among the youths/graduates in the society.

References


Abstract
The quality of parenting style has long been acknowledged to be one of the most powerful predictors of optimal child development. However, in Imo State, corporal punishment is still a widely practiced disciplinary method for children. Hence the study investigated the impact of parenting styles on the personal and social development of school aged children in Imo State. Specifically, the study examined, parenting styles commonly practiced by parents, impact of parenting styles on personal and social development of school age children. The study was a descriptive survey. Three research questions and two hypotheses guided the study. The population comprised 3,585 school children. A sample size of 400 was obtained by the use Taro Yamani Formula. 400 school aged children were selected using simple random sampling technique. A structured questionnaire designed by the researcher was the instrument used for data collection. The instrument was duly validated by three experts. Reliability of the instrument was ascertained using Cronbach Alpha. A reliability coefficient of 0.88 was established which signified very high reliability of the instrument. Data collected were analyzed using mean and regression analysis. Results showed that authoritarian parenting style was most practiced on school aged children while permissive parenting style was least practiced in the study area. The study also revealed that authoritarian, authoritative and permissive styles of parenting impacted on the personal and social development of school aged children. Result of regression analysis showed significant (P < 0.05) relationship between parenting styles and personal development of school aged children. Also a significant (P < 0.05) relationship existed between parenting styles and social development of school aged children. Among the parenting styles considered in the study, permissive had more positive impact on the personal and social development of children. Authoritative had least impact on the personal and social development of school age children. The paper recommends that programmes should be designed for parents with the aim of educating and enlightening them on the injurious use of parenting styles, and its benefits on the psychological state of their children in Imo State.

Key words: Parenting styles, Personal and Social Development, School Aged Children, Nigeria

Introduction
Right from infancy to adolescent, children learn and acquire traits and behaviours that they exhibit throughout their life time. During these periods, children's social and personal development is driven by basic psychological needs to achieve competence, autonomy, and relatedness (Ayinmode & Adegunloye, 2011). Personal development is about how children come to understand who they are and what they can do. While social development covers how children come to understand themselves in relation to others, how they make friends, understand the rules of society and behave towards others.

Personal and social development is recognized as one of the building blocks of success in life (Early Years Matters, 2012). It supports children's development by helping them to interact effectively and develop positive attitudes to themselves and others. However, this does not happen in isolation and relies on influence of adults such as parents and caregivers. In the family, parents have been the major persons involved in rising or parenting children in every society which are often times discharged in varied styles.

Parenting styles are broad patterns of childrearing practices, values, and behaviours. It is the way parents take care of their children which can have impact on the children's personality development and the ways of interacting with social and close relations (Akhtar, 2012). While various typologies of parenting styles have been developed and utilised in literature, Baumrind (1991) typology (authoritative, authoritarian and permissive styles) has largely been accepted as very comprehensive. Consequently, the current study utilized this typology to assess the relationship between parenting styles and children's personal and social development.
The authoritative parenting is characterized by high levels of nurturance, involvement, sensitivity, reasoning and encouragement of autonomy. They provide a positive emotional climate for their children in order to promote autonomy and support assertiveness and individuality. Authoritative parents are assertive but intrusive and restrictive. Their disciplinary methods are supportive rather than punitive. Parents who direct the activities and decisions for their children through reasoning and discipline are described as authoritative (Turner, Chadler & Heffer, 2009). The authoritarian parent tries to shape, control, and evaluate the behaviour and attitudes of the child in accordance with a set standard of conduct (Baumrind, 1991). Parents characterised as authoritarian exhibit highly directive behaviours, high levels of restriction and rejection behaviours and power-asserting behaviours of children (Turner, et al 2009). Maintenance of structure and order are high priorities for these parents. These parents are highly demanding and unresponsive. The permissive parenting is characterised by making few demands, exhibiting non-controlling behaviours and using minimal punishment. These parents are warm and responsible but not demanding and have few expectations of their children. Parents who do not set rules and regulations for their children's behaviour are described as possessing a permissive parenting style (Turner, et al, 2009).

The quality of the parenting style has long been acknowledged to be one of the most powerful predictors of optimal child development. Research over many years has confirmed that parenting style has a direct effect in shaping individual’s development. For instance, Baumrind and many researchers have well documented the relationship between parenting practices and self-esteem (Gale Encyclopedia of Education, 2002). Much research has proven that the way parents interact with their children has a direct impact on their level of their confidence, self-esteem and social characteristics (The Importance of Parenting, 2009). This may affect them as they transit into adolescents. Okorodudu and Omoni (2005) also observed that adolescents may exhibit suicidal tendencies, juvenile delinquency, vandalism, destruction of public property, maiming and murder of parents and violence against the larger society.

In many parts of Nigeria, for example in Imo State, corporal punishment is still a widely practiced disciplinary method for children (Umobong, 2010 & Gershoff, 2002). It is still the rule rather than the exception; it is a practice supported by tradition, religion and the extended family which is widely used in most homes as appropriate means of parenting. It has been defined as use of physical force with the intention of causing pain but not injury for the purpose of correction or control of a child's behavior (Gershoff, 2002). Corporal punishment may be 'normative' (appropriate) or 'abusive' (inappropriate), depending on the method, its severity and frequency, the age of the child being punished and the context. Because of its potential to escalate, the dividing line between appropriate and abusive punishment can be very thin; crossing the boundary can be quite easy (Umobong et al., 2010). Parents who use corporal punishment often graduate to harmful forms such as using belts, electrical cords or other objects, or kicking and punching and most times shouting at their children (Gershoff, 2002). This form of parenting could be unhealthy to the child's personal and social well-being. Considering the nature of relationships between parenting styles and children development, it therefore becomes necessary that impact of parenting styles on the personal and social development of school age children in Imo State be researched into hence the present study.

**Purpose of the Study**

The main purpose of this study was to investigate the impact of parenting styles on the personal and social development of school age children in Imo State. Specifically, the study ascertained the following:

1. parenting styles commonly practiced in Imo State;
2. impact of parenting styles on the personal development of school age children in Imo State; and
3. impact of parenting styles on the social development of school age children in Imo State.

**Research Questions**

The following research questions guided the study

1. What is the dominant parenting styles practiced on school age children in Imo State?
2. What is the impact of parenting styles on the personal development of school age children in Imo State?
3. What is the impact of parenting styles on the social development of school age children in Imo State?

**Hypotheses**

The following hypothesis were out forward for the study

1. Parenting styles have no significant impact on the personal development of school age children in Imo State
2. Parenting styles have no significant impact on the social development of school age children in Imo State.

Methodology
Research Design
The study adopted a descriptive survey research design. Survey researchers typically employ interview and questionnaires to determine the opinions, perceptions, and attitudes of people about issues. This study adopted this design since it sought the opinions of school age children on the impact of parenting styles on their personal and social development.

Area of the Study
The study was carried out in Imo State in South East Nigeria.

Population and Sampling Technique for the Study
The population comprised 3,585 school age children Imo State Universal Basic Education Board, (2017). A sample size of 400 was determined by the use Taro Yamani. After which 400 school aged children were selected using simple random sampling technique.

Instruments for Data Collection
A structured questionnaire designed by the researcher was the instrument used for data collection. The questionnaire consisted of two sections I and II. Section I provided personal information of the respondents while section II was made up of three clusters according to the three specific objectives/research questions. Responses to the items in the questionnaire were based on a four-point Likert type rating scale, ranging from Strongly agree (SA) (4 points), to Agree (A) (3 points), Disagree (D) (2 points), and Strongly disagree (SD) (1 points). The instrument was duly validated by three experts (2 from Department of Educational Foundations, University of Nigeria, Nsukka and 1 from Department of Special Need Education, Alvan Ikoku Federal college of education Owerri, Nigeria). Reliability of the instrument was ascertained using Cronbach Alpha. A reliability coefficient of 0.86 was established which signified very high reliability of the instrument.

Data Collection
Direct method was applied by the researcher and one research assistant in distributing and collecting the questionnaire for the respondents at the institutions used for the study. The research assistants were briefed on the modalities for distributing and collecting the questionnaire from the respondents on the spot. This ensured that the respondents appropriately complete the questionnaire. Thus, there was 100% return of the questionnaire, and were duly used for data analysis.

Data Analysis
a. Descriptive statistics (mean and standard deviation) were used for data analysis. A mean of 2.50 was used as the benchmark for decision making for each item, since a four-point rating scale was used for the study. Thus any item with a mean of 2.50 and above was considered as accepted by the respondents, while any item with a mean below 2.50 was considered as unaccepted by the respondents.

b. Regression analysis was used to ascertain the relationship between parenting styles and children personal and social development and also used to test the null hypotheses at P < 0.05.

All computations were carried out using the Statistical Package for Social Science (SPSS) version 22.0.

Results
Four hundred respondents completed the questionnaire. The mean ratings of the respondents on each of the items and regression coefficients were computed. The results are presented in the Tables according to the three research questions and two hypotheses that guided the study.

Research Question 1: What is the dominant parenting styles practiced on school age children in Imo State?
Table 1: Mean responses of the respondents on authoritative parenting style

<table>
<thead>
<tr>
<th>S/N</th>
<th>Authoritative parenting styles</th>
<th>X</th>
<th>SD</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Your parent praise you when you did anything good</td>
<td>2.94</td>
<td>0.91</td>
<td>Accepted</td>
</tr>
<tr>
<td>2</td>
<td>Your parents encourage you to talk about your problems</td>
<td>2.88</td>
<td>0.96</td>
<td>Accepted</td>
</tr>
<tr>
<td>3</td>
<td>Your parents joke and play with you</td>
<td>2.73</td>
<td>1.01</td>
<td>Accepted</td>
</tr>
<tr>
<td>4</td>
<td>Your parents explains to you why rules should be obeyed</td>
<td>2.59</td>
<td>1.05</td>
<td>Accepted</td>
</tr>
<tr>
<td>5</td>
<td>Your parents shows sympathy whenever you are hurt or frustrated</td>
<td>2.93</td>
<td>1.00</td>
<td>Accepted</td>
</tr>
<tr>
<td>6</td>
<td>Your parents comfort you and understand with you whenever you are upset.</td>
<td>2.27</td>
<td>1.08</td>
<td>Rejected</td>
</tr>
</tbody>
</table>

X = Mean, SD = Standard Deviation

Result in Table one shows that items 1-5 had mean scores above 2.50 while item 6 had mean scores below 2.50. This indicate that parents praise their children when they do anything good, encouraged them to talk about their problems, joke and play with them, explained to them why rules should be obeyed, as well as showed sympathy whenever their children are hurt and frustrated. However, parents failed to comfort and understand with their children whenever they are upset.

Table 2: Mean responses of the respondents on authoritarian parenting style

<table>
<thead>
<tr>
<th>S/N</th>
<th>Authoritarian parenting styles</th>
<th>X</th>
<th>SD</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Your parents always tell you what to do</td>
<td>3.17</td>
<td>0.99</td>
<td>Accepted</td>
</tr>
<tr>
<td>2</td>
<td>Your parents spank you whenever you disobey them</td>
<td>2.66</td>
<td>1.09</td>
<td>Accepted</td>
</tr>
<tr>
<td>3</td>
<td>Your parents shouts at you whenever you misbehave</td>
<td>2.83</td>
<td>0.98</td>
<td>Accepted</td>
</tr>
<tr>
<td>4</td>
<td>Your parents punish you by taking privileges with few explanations</td>
<td>2.87</td>
<td>0.99</td>
<td>Accepted</td>
</tr>
<tr>
<td>5</td>
<td>Your parents scold/criticize you when you don’t meet their expectations</td>
<td>2.89</td>
<td>1.03</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

X = Mean, SD = Standard Deviation

From Table 2, it can be seen that all items had mean scores above 2.50. This indicate that parents always tell their children what to do, spank them whenever they disobey them, demand that they do things, shout at them whenever they misbehaved, punish them by taking privileges with few explanation and scold/criticize them when they do not meet their expectations.

Table 3: Mean responses of the respondents on permissive parenting style

<table>
<thead>
<tr>
<th>S/N</th>
<th>Permissive parenting styles</th>
<th>X</th>
<th>SD</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Your parents don’t scold you when you act against their wishes.</td>
<td>2.14</td>
<td>1.03</td>
<td>Rejected</td>
</tr>
<tr>
<td>2</td>
<td>Your parents threaten you with punishment more often than they give you.</td>
<td>3.11</td>
<td>0.83</td>
<td>Accepted</td>
</tr>
<tr>
<td>3</td>
<td>Your parents spoil you.</td>
<td>3.00</td>
<td>0.90</td>
<td>Accepted</td>
</tr>
<tr>
<td>4</td>
<td>Your parents find it difficult to discipline you</td>
<td>2.73</td>
<td>0.99</td>
<td>Accepted</td>
</tr>
<tr>
<td>5</td>
<td>Your parents give in when you make a fuse about something</td>
<td>2.51</td>
<td>1.06</td>
<td>Accepted</td>
</tr>
<tr>
<td>6</td>
<td>Your parents ignore you when you misbehave</td>
<td>2.24</td>
<td>1.03</td>
<td>Rejected</td>
</tr>
</tbody>
</table>

X = Mean, SD = Standard Deviation

Result in Table 3, shows that items 2-5 had mean scores above 2.50 which revealed that parents threatened their children with punishment more often than they give it to them, spoil their children, found it difficult to discipline their children, as well as gave in to their children whenever they make a fuse about something. However, items 1 and 6 were not considered as aspects permissive parenting style practiced by parents (X ≤ 2.50).

Table 4: Grand mean responses of the respondents on parenting style practiced

<table>
<thead>
<tr>
<th>S/N</th>
<th>Parenting styles</th>
<th>X</th>
<th>SD</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Authoritative</td>
<td>2.72</td>
<td>0.92</td>
<td>Accepted</td>
</tr>
<tr>
<td>2</td>
<td>Authoritarian</td>
<td>2.88</td>
<td>0.79</td>
<td>Accepted</td>
</tr>
<tr>
<td>3</td>
<td>Permissive</td>
<td>2.62</td>
<td>0.87</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

XX = Grand Mean, SD = Standard Deviation
Table 4 revealed that authoritative, authoritarian and permissive parenting styles were practiced by parents on school age children in Imo State (X ≥ 2.50). Although, authoritarian parenting style was most practiced, while permissive was least practiced by parents as indicated by their respective mean values.

Research Question 2
What is the impact of parenting styles on the personal development of school age children in Imo State?

Table 5: Regression analysis on the impact of parenting styles on the personal development of school age children in Imo State

<table>
<thead>
<tr>
<th>S/N</th>
<th>Parenting styles</th>
<th>B</th>
<th>SE</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Authoritarian</td>
<td>-0.38</td>
<td>0.13</td>
<td>Negative</td>
</tr>
<tr>
<td>2</td>
<td>Authoritative</td>
<td>2.30</td>
<td>0.16</td>
<td>Positive</td>
</tr>
<tr>
<td>3</td>
<td>Permissive</td>
<td>-1.12</td>
<td>0.19</td>
<td>Negative</td>
</tr>
</tbody>
</table>

Dependent Variable = Personal Development, B = Regression Coefficient, SE = Standard Error

The regression results in Table 5 on the impact of parenting style on the personal development of school age children showed the independent variables which are authoritative, authoritarian and permissive parenting style with their respective coefficients. The analysis revealed that authoritarian and permissive parenting style had inverse relationship with child personal development, while authoritative parenting styles had direct relationship with the personal development of school age children. The nature of the relationships between the variables showed authoritative had positive (2.30) impact on the personal development of school age children, while authoritarian (-0.38) and permissive (-1.12) parenting styles had negative impact on the personal development on school age children.

Research Question 3: What is the impact of parenting styles on the social development of school age children in Imo State?

Table 6: Regression analysis on the impact of parenting styles on the social development of school age children in Imo State

<table>
<thead>
<tr>
<th>S/N</th>
<th>Parenting styles</th>
<th>B</th>
<th>SE</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Authoritarian</td>
<td>-0.19</td>
<td>0.12</td>
<td>Negative</td>
</tr>
<tr>
<td>2</td>
<td>Authoritative</td>
<td>-0.38</td>
<td>0.15</td>
<td>Negative</td>
</tr>
<tr>
<td>3</td>
<td>Permissive</td>
<td>1.65</td>
<td>0.18</td>
<td>Positive</td>
</tr>
</tbody>
</table>

Dependent Variable = Social Development, B = Regression Coefficient, SE = Standard Error

The regression results in Table 6 on the impact of parenting style on the social development of school age children showed the independent variables which are authoritative, authoritarian and permissive parenting style with their respective coefficients. The analysis revealed that authoritarian and authoritative parenting style had inverse relationship with child social development, while permissive parenting styles had direct relationship with the social development of school age children. The nature of the relationships between the variables showed that permissive parenting style had positive (1.65) impact on the social development of school age children, while authoritarian and authoritative parenting style had negative (-0.19) and permissive (-0.39) parenting styles had negative impact on the social development on school age children.

Hypothesis 1: Parenting styles have no significant impact on the personal development of school age children in Imo State

Table 7: Regression analysis on the significant impact of parenting styles on the personal development of school age children in Imo State

<table>
<thead>
<tr>
<th>S/N</th>
<th>Parenting styles</th>
<th>B</th>
<th>SE</th>
<th>P-value</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Authoritarian</td>
<td>-0.38</td>
<td>0.13</td>
<td>0.00</td>
<td>Significant</td>
</tr>
<tr>
<td>2</td>
<td>Authoritative</td>
<td>2.30</td>
<td>0.16</td>
<td>0.00</td>
<td>Significant</td>
</tr>
<tr>
<td>3</td>
<td>Permissive</td>
<td>-1.12</td>
<td>0.19</td>
<td>0.00</td>
<td>Significant</td>
</tr>
</tbody>
</table>

Dependent Variable = Personal Development, B = Regression Coefficient, SE = Standard Error
The results of the regression analysis in Table 7 revealed that authoritarian, authoritative and permissive parenting styles had a significant (P < 0.05) impact on the personal development of school age children in Imo State. Hence, the null hypothesis was not retained in favour of the parenting styles.

Hypothesis 2: Parenting styles have no significant impact on the social development of school age children in Imo State.

Table 8: Regression analysis on the significant impact of parenting styles on the social development of school age children in Imo State

<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>SE</th>
<th>P-value</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-0.48</td>
<td>0.11</td>
<td>0.00</td>
<td>Significant</td>
</tr>
<tr>
<td>Authoritarian</td>
<td>-0.19</td>
<td>0.12</td>
<td>0.12</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Authoritative</td>
<td>-0.38</td>
<td>0.15</td>
<td>0.01</td>
<td>Significant</td>
</tr>
<tr>
<td>Permissive</td>
<td>1.65</td>
<td>0.18</td>
<td>0.00</td>
<td>Significant</td>
</tr>
</tbody>
</table>

Dependent Variable = Social Development, B = Regression Coefficient, SE = Standard Error

The results of the regression analysis in Table 8 revealed that authoritative and permissive parenting styles had a significant (P < 0.05) impact on the social development of school age children in Imo State. However, authoritarian parenting style had no significant (P > 0.05) impact on the social development of school age children in Imo State. Hence, the null hypothesis was rejected in favour of the authoritative and permissive parenting styles.

Discussion
The results of this study revealed that authoritative, authoritarian and permissive parenting styles were practiced by parents on school aged children. Although, authoritarian parenting style was most practiced, while permissive was least practiced by parents as indicated by their respective mean values. This finding is supported by research findings of Akinsola (2010, 2011) who revealed that authoritative and authoritarian parenting styles as well as their hybrids are significantly practiced by Nigerian parents. This pattern in the parenting styles practiced by parents could be attributed to their cultural and religious background.

The study found out that authoritative parenting style improved the personal development of school age children. This finding is in line with the finding of Kilonzo (2017) who found out that authoritative parenting styles was responsible in explaining some traits such as low neuroticism, openness to experience, agreeability and high conscientiousness on children, while authoritarian and permissive parenting styles had negative impact on the personal development of school age children. One of the negative consequences was high extraversion.

With respect to children social development, permissive parenting style had positive impact, while authoritarian and authoritative parenting style had negative impact. The results of the study showed that authoritarian parenting style had negative effect on children's social competence. This finding was in consonant with the findings of Mensah and Kuranchie (2013) who in there study found out that that authoritarian parenting style has a negative relationship (-046) with pupils' behaviour. Therefore, children of authoritarian parents were rated by their teachers as socially incompetent. This style of parenting was not effective in controlling and shaping the children's behaviour.

The results of the regression analysis on the significant impact of parenting styles on children personal and social development revealed that authoritarian, authoritative and permissive parenting styles all had a significant (P < 0.05) impact on the personal development of school age children in Imo State. Thus, the null hypothesis was rejected. As regards the social development of the children, authoritative and permissive parenting styles had a significant (P < 0.05) impact on the social development of school age children in Imo State. However, authoritarian parenting style had no significant (P > 0.05) impact on the social development of school age children in Imo State. Hence, the null hypothesis was rejected in favour of the authoritative and permissive parenting styles.

Conclusion
Authoritative and authoritarian parenting styles were most practiced and were attributed religious and cultural background of parents. Among the parenting styles considered in the study, authoritative parenting style
improved the personal development of school age children, while authoritarian and permissive parenting styles had negative impact on the personal development of school age children. With respect to children social development, permissive parenting style had positive impact, while authoritarian and authoritative parenting style had negative impact.

**Recommendations**

1. More awareness on the various parenting styles should be created through various media platforms such as radio, television, facebook, whatsapp etc., and also, emphasis should be on the need for parents to be able to be sensitive to the changes in societal demand as it concerns parenting.
2. Programmes should be designed for parents with the aim of educating and enlightening them on the injurious use of parenting styles, and its benefits on the psychological state of children.
3. Policy makers, pedagogues, and other parental advisors may be able to help parents to choose their style by examining the circumstances in which the family operates.

**References**


INFLUENCE OF CONSUMER CHOICE OF CLOTHING ON SOCIETY IN
PORT HARCOURT METROPOLIS

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Abstract
This study assessed consumer choice of clothing and its influence on the society in Port Harcourt. Specifically, the study determined impacts of preferences for foreign-made clothing and youth fashion styles and its impact on the society. The research adopted a quantitative survey design. The population of this study was all the 135 male and female staff of the Port Harcourt Municipal Council, Rivers state. The Krejcie & Morgan table for determining sample size for a given population was used to select randomly select 100 participants for the study. The instrument for data collection was a semi-structured questionnaire titled 'Fashion Choice and Society Questionnaire' (FCSQ). The direct contact approach was used in administering the questionnaire. Mean and standard deviation were used to answer the research questions, while the hypotheses were tested using t-test at 0.05 level of significance. Some of the findings are that preference for foreign clothing reduces employment opportunities in the local industries, undermines skills development in the clothing and textile sector; while preference for youth fashion styles creates a social conflict; makes adults dress like young persons. Among the recommendations are that there is utmost need for adjustment in our consumption habits; this would have a drastic effect on our psychosocial wellbeing, and that consumer education on the pattern of wears for different age groups should be encouraged, and focus on consumer psychology.

Keywords: Consumer choice, foreign-made clothing, youth fashion styles, society

Introduction
Over the years, the behaviour of consumers have occupied research, and attracted interests. Consumers usually have significant influence on the society. Social analysts have argued that consumerism and individuals conceiving of themselves predominantly as consumers are distinctive, if not defining features of contemporary social life and the human society at large (Bohm & Haller, 2007). Contemporary society is now often described as a `consumer society' in so far as identity and status are acquired and social inclusion or integration is considered to be achieved through participation in consumer activity (Shanahan, 2000). The industrial capitalist society with which Karl Marx was preoccupied is regarded as a work-based society, a society that `engaged its members primarily as producers. In contrast, Bauman (2001) suggests our society – in its 'late-modern, second-modern or post-modern stage; engages its members – again primarily – in their capacity as consumers'.

This relative shift of emphasis from production to consumption is what Bauman terms the passage from producer to consumer society, is exemplified by the increasing prominence accorded to consumer activity and consumer choice. It is also reflected in the respects in which individual identity and satisfaction for consumption aspects such as clothing now appear to be less and less bound up with job, work, and career and more and more with lifestyle consumption and shopping (Baudrillard, 2008). The passage from producer to consumer society is marked by a diminution of the significance of the work ethic and a corresponding valorization of consumption. Consumer spending rather than waged work is now a 'duty', the 'spending-happy consumer' rather than the disciplined worker, for whom work or labor constituted a calling, is now considered a necessity and 'confidence' to spend is deemed vital to economic wellbeing (Buchi, 2006). The implication is that consumerism occupies a central place in contemporary social life and that it is no longer appropriate to equate consumption with need satisfaction or the gratification of desires for what now provides the motivational emphasis necessary to sustain the seemingly ever accelerating consumer cycle is the stimulation of wishful fantasy (Bauman, 2001).

Fashion is an area of consumption which has drawn serious attention over the years because it has tremendous social implications, and affects the social aspects of life. According to Kofoworola (2007), fashion choices cause changes in social, economic and political landscapes. Thus fashion choices have benefits and stimulate society, in the process promoting creativity. Fashion also has negative impacts (Silberberg, 2001). The choices that consumers make such preference for foreign dresses and the contemporary adoption of youth fashion culture by the adults have tremendous impacts on the society generally. For instance, it diverts peoples' attention from other important activities and affects the self-esteem of people who cannot afford certain clothing. While
earlier study by Iver and Eastman (2010) had focused on determinants of fashion choices, few or no study has centered on fashion choices and the implications on the society. This paper examined consumer choice of clothing, and how it impacts on the society.

Statement of the Problem
Clothing is an influential aspect of human life. A keen observation in the nature of fashion and clothing amongst different categories of persons in Port Harcourt reveals a fashion-conscious society. Everyone – young and advanced, male or female, workers or students is specifically interested in what they wear. Sometimes, it is difficult to distinguish between an employed and unemployed, young and old because the sophistication and choices of clothing that exist in-between them. Many people spend high on clothing. Many older populations adopt clothing which should have been for a younger population. The prevalence of indecency in dressing continues to impose a moral burden on the society and families, just as consumers appear to be insensitive to the biting economic circumstances. While it is commonly discussed or debated amongst inhabitants, there is yet to be scholarly works on this phenomenon. Hence, it becomes expedient to understand the impact of clothing choices of consumers on the society.

Purpose of the Study
The main purpose of this study was to assess the influence of consumer choice of clothing on the society in Port Harcourt. Specifically, the study determined:

1. the preference for foreign-made clothing and its influence on the society; and
2. the preference for youth fashion styles and its influence on the society.

Research Questions
The study was guided by the following research questions:

1. To what extent does the preference for foreign-made clothing influence the society?
2. To what extent does the preference for youth fashion styles influence the society?

Hypotheses
The following hypotheses were tested at 0.05 level of significance.

H subst: There is no significance difference between the mean scores of the male and female respondents on the extent preference for foreign-made clothing will impact on the society.

H subst: There is no significance difference between the mean scores of the male and female respondents on the extent preference for youth fashion styles will impact on the society.

Literature Reviewed
Consumer Choice Theory
Consumer choice theory has influenced everything from government policy to corporate advertising to academia (Castells, 2000; Akor, Ayotamuno, Aman and Enokela, 2013). But the theory has been criticized for not being the most accurate description of how people actually make choices (Durkin, 2000). A whole new branch of economics, called ‘behavioral economics’, has emerged essentially to use findings from psychology to disprove the assumptions behind consumer choice theory. This has also led others to argue that consumer choice theory is less about describing how we do actually behave, and is more about describing how people should behave. In other words, by portraying people as self-interested shopaholics, economists are saying that is it okay and natural for us to be avid consumers (Binger, 1998).

Consumer Choice of Clothing
Consumer choice refers to the decisions that consumers make with regard to products and services. Clothing choices are motivated or influenced by several factors which such as psychology (internal and external perceptions, personal satisfaction, reasons for dressing); social (culture and religion) and more importantly, economics (the amount of money available for purchases, and or satisfying thirst for clothing). When we study consumer choice behavior, we examine how consumers decide which products to purchase or consume over time. Consumer choice theory’ is a hypothesis about why people buy things. Put simply, it says that you choose to buy the things that give you the greatest satisfaction, while keeping within your budget. At the heart of this theory are three assumptions about human nature (Castells, 2000).

The first assumption is that when you shop, you choose to buy things based on calculated decisions about what
will make you happiest. In economics language, this is known as utility maximisation (Economists really like to put quite simple concepts into long complicated terms). Secondly, the theory assumes that no matter how much you shop, you will never be completely satisfied. In other words, you will always be happier consuming a little bit more. This is known as the principle of non-satiation (Buchi, 2006; Isu, 2005). Thirdly, even though you always get more happiness from more consumption, the amount of pleasure you get from each good decreases with the more you consume. So if you buy two dresses rather than one, you get more overall pleasure, but the second dress won’t be as satisfying as the first. This is known as decreasing marginal utility.

The consumer way of life is open to criticism for its excessiveness and profligacy, for the accelerating rate at which things are being consumed (Silberberg, 2001), the waste that is produced, and the fact that it is a form of life mediated through the market, a form of life that recognizes no limits, one which now encompasses public as well as the most personal of private domains of everyday life (Durkin, 2000). It is a form of life that trades on and continually promotes the value of consumer choice, exercise or expression of which by individuals, under conditions that tend to receive less analytic consideration, is generally represented as an exemplification of ‘freedom’ (Hicks, 2006). The promotion and extension of consumer choice is now regarded as a self-evident manifestation of freedom, but increasingly it is the beguiling activities of cultural intermediaries in advertising, marketing and branding, aided by the iconic status and example offered by the stellar figures of the celebrities (Cholachatpinyo, Padgett & Crocker, 2002), that cultivates individuals as consumers, that stimulates them in their flights of fantasy to buy into the notion that a sense of self-worth, self-identity (Castells, 2000), and happiness can be achieved through the consumption of things. Increasing choice of goods and services, in and of itself, does not necessarily contribute anything to the kind of freedom that matters.

Consumer Choice of Clothing and Society

Fashion can have negative influence on society. For example, it diverts peoples’ attention from other important activities and affects the self-esteem of people who cannot afford certain clothing (Buchi, 2006). The impacts of clothing choice on the society are discussed thus.

1. **Youth Culture**: Youth culture has emerged as an area of concern for researchers especially relating to youth development and transformations. Youth culture is the self-constructed way of life among adolescents and other young persons. It includes the norms, values, and practices they share (Rice, 2006; Cachon & Swinney, 2011). Youth culture has been characterized by excessive emphasis on clothes or fashion (Shanahan, 2000), music, dating/premarital sexual relationships, and so on. Clothing occupies vital aspects of youth culture. Youths’ choices of clothing have had tremendous changes and impacts on the society, with a section eager to do anything to be in line with trends in fashion. When fashion distracts people, especially youth, from more productive activities, they focus more on acquiring the latest and the most fashionable wear rather than on education or work (Cachon & Swinney, 2009). People who cannot afford certain fashionable items sometimes have diminished self-esteem and do not feel adequate among their peers (Buchi, 2006). At times people are bullied for not having the latest fashions. Some people believe fashion is harmful since it creates a society in which appearance is often valued more than character.

2. **Mixed economic implications**: Clothing choice can indirectly influence some levels of hardship in the society. For example, when low income earners make unchecked choices that tend to overweight their budget, the risk of economic crisis may arise (Binger, 1998). All fingers they say “are not equal”. Clothing choice can also affect family relationships – the inability of couples to agree on these choices can cause frictions or conflict in the home. The same is applicable to the children and their parents who fail to meet or satisfy their fashion desires.

Consumer choice of clothing has greatly influenced the environment. The global concern for environmental health is on the increase as a result of improper management of waste from domestic and industrial/institutional centers (Isu, 2005). Materials identified to have no more value to man otherwise known as waste are gathered together and disposed off in non-environmentally friendly and non acceptable manner (Baudrillard, 2008). The effect becomes harmful to human, plants, animals and other natural resources over the years (Bertrandias & Goldsmith, 2006). Effective management of solid waste has been a major problem in developing countries because of the poor waste management system. In Nigeria, dumping of refuse at street corners (municipal solid

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wastes, MSW) is still the common general practice (Baudrillard, 2008). Even when they are dumped at dumpsite or land fill, there still exist the problem of leachate that contaminate the groundwater and other water bodies which affect human health. When there is combustion of MSW, significant atmospheric pollution becomes the problem. Solid wastes have become recurring features in our urban environment (Isu, 2005; Arnold & Thompson, 2005). Materialism as a concept needs to be examined. This is a difficult task, but ultimately both manufacturers and consumers need to take responsibility for their own over-consumption.

Methodology
Design of the Study: The research adopted a quantitative survey design.

Population of the Study: The population of this study was all the 135 male and female staff of the Port Harcourt Municipal Council, Rivers State.

Sample and Sampling Technique: The Krejcie & Morgan table for determining sample size for a given population was used to select randomly select 100 participants for the study. The ever increasing need for a representative statistical sample in empirical research has created the demand for an effective method of determining sample size. To address the existing gap, Krejcie & Morgan (1970) came up with a table for determining sample size for a given population for easy reference.

Instrument for Data Collection: The instrument for data collection was a semi-structured questionnaire titled 'Fashion Choice and Society Questionnaire' (FCSQ). The responses to the SCADCSD form were designed on a 4 point rating scale of measurement of Very High Extent (VHE), High Extent (HE), Low Extent (LE), Very Low Extent (VLE), with values 4, 3, 2, 1.

Method of Data Collection: The researcher administered the FCSQ forms with the help of two research assistants so as to facilitate the administration and coverage of the area of the study. The direct contact approach was used in administering the questionnaire.

Data Analysis Techniques: Mean and standard deviation were used to analyze the data from the research questions, while the hypotheses were tested using t-test at 0.05 level of significance. The decision level for the mean score was 3.00. The implication is that any item which was 3.00 and above was accepted, while any item less than 3.00 was rejected.

Results
Research Question 1: To what extent does the preference for foreign-made clothing influence the society?

Table 4.1: Mean and Standard Deviation on the extent preference for foreign-made clothing influences on the society

<table>
<thead>
<tr>
<th>Preference for foreign-made clothing</th>
<th>n=100</th>
<th>X</th>
<th>SD</th>
<th>RMK</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Preference for foreign clothing reduces employment opportunities in the local industries</td>
<td></td>
<td>3.62</td>
<td>0.97</td>
<td>HE</td>
</tr>
<tr>
<td>2. undermines skills development in the clothing and textile sector</td>
<td></td>
<td>3.02</td>
<td>0.88</td>
<td>HE</td>
</tr>
<tr>
<td>3. imposes excessive spending on the public to purchase already-made wears</td>
<td></td>
<td>3.74</td>
<td>0.94</td>
<td>HE</td>
</tr>
<tr>
<td>4. imposes financial burden on families</td>
<td></td>
<td>3.82</td>
<td>0.99</td>
<td>HE</td>
</tr>
<tr>
<td>5. discourages entrepreneurship in clothing and textile industry</td>
<td></td>
<td>3.80</td>
<td>0.98</td>
<td>HE</td>
</tr>
<tr>
<td>6. undermines culture of the local people</td>
<td></td>
<td>3.27</td>
<td>0.82</td>
<td>HE</td>
</tr>
<tr>
<td>7. indecency in dressing will easily spread with dependence on foreign clothing</td>
<td></td>
<td>3.28</td>
<td>0.84</td>
<td>HE</td>
</tr>
<tr>
<td><strong>Grand Mean</strong></td>
<td></td>
<td>3.50</td>
<td>0.91</td>
<td>HE</td>
</tr>
</tbody>
</table>

**Key:** \( \bar{X} = \text{Mean score} \); \( \text{SD} = \text{Standard Deviation} \); \( \text{HE} = \text{High Extent} \); \( \text{LE} = \text{Low Extent} \)
The Table 1 showed the mean ratings and standard deviation of the responses on the extent preference for foreign-made clothing will impact on the society. The data that all items (1-7) were on high extent scores because they had grand mean scores of 3.00 and above. Also, the standard deviation ranged between 0.82 and 0.99. The highest mean scores was 3.82 (item 2) while the lowest mean score was 3.02 (item 2).

Research Question 2: To what extent does the preference for youth fashion styles influence the society?

Table 2: Mean and standard deviation on the extent preference for youth fashion styles influences on the society

<table>
<thead>
<tr>
<th>Preference for youth fashion styles</th>
<th>n=100 Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>X</td>
</tr>
<tr>
<td>1. Creates a social conflict</td>
<td>3.67</td>
</tr>
<tr>
<td>2. Makes adults dress like young persons</td>
<td>3.40</td>
</tr>
<tr>
<td>3. Increases moral decadence amongst families</td>
<td>3.68</td>
</tr>
<tr>
<td>4. causes disregard for culture</td>
<td>3.31</td>
</tr>
<tr>
<td>5. makes adults appear like and behave like younger persons</td>
<td>3.71</td>
</tr>
<tr>
<td>6. likelihood of indecent dressing increases</td>
<td>3.83</td>
</tr>
<tr>
<td>7. increases in the cost of youth clothing</td>
<td>3.63</td>
</tr>
<tr>
<td><strong>Grand Mean</strong></td>
<td><strong>3.60</strong></td>
</tr>
</tbody>
</table>

Key: \(\overline{X}\) = Mean score; SD = Standard Deviation; HE = High Extent; LE = Low Extent

The Table 2 showed the mean ratings and standard deviation of the responses on the extent preference for youth fashion styles will impact on the society. The data showed that all items (8-14) were on high extent scores because they had mean scores of 3.00 and above. Also, the standard deviation ranged between 0.81 and 0.99 indicating that the respondents were not far from their opinions. The highest mean score was 3.88 (item 14), while the lowest mean score was 3.31 (item 11).

**Hypothesis Testing**

The hypotheses below were tested at 0.05 level of significance.

\(H_{a1}\): There is no significance difference between the mean scores of the male and female respondents on the extent preference for foreign-made clothing influences the society.

Table 3: t-test analysis of the mean responses of the male and female respondents on the extent the extent preference for foreign-made clothing influences the society.

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>X</th>
<th>SD</th>
<th>P-value</th>
<th>DF</th>
<th>t-Cal</th>
<th>t-Tab</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>50</td>
<td>3.33</td>
<td>0.87</td>
<td>0.03</td>
<td>98</td>
<td>1.34</td>
<td>1.52</td>
<td>Accepted</td>
</tr>
<tr>
<td>Female</td>
<td>50</td>
<td>2.95</td>
<td>0.75</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The t-test analysis presented in table 3 indicates that the t-tab (table value of 1.52) is greater than t-calculated value (t-cal) of 1.34 (1.52>1.34) at 0.03 level of significance, and at 348 degree of freedom (df). The implication of this finding is that there is no significant difference in the mean scores of the male and female respondents on the extent preference for foreign-made clothing will impact on the society, hence \(H_{a1}\) was accepted.

\(H_{a2}\): There is no significance difference between the mean scores of the male and female respondents on the extent preference for youth fashion styles influences the society.
Table 4: t-test analysis of the mean responses of the male and female respondents on the extent preference for youth fashion styles influences on the society

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>$\bar{X}$</th>
<th>SD</th>
<th>P-value</th>
<th>DF</th>
<th>t-Cal</th>
<th>t-Tab</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>50</td>
<td>2.88</td>
<td>0.78</td>
<td>0.05</td>
<td>98</td>
<td>1.62</td>
<td>1.91</td>
<td>Accepted</td>
</tr>
<tr>
<td>Female</td>
<td>50</td>
<td>2.72</td>
<td>0.70</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The t-test analysis presented in table 4 indicates that the t-tab (table value of 1.91) is greater than the t-calculated value (t-cal) of 1.64 ($1.91 > 1.64$) at 0.05 level of significance, and at 348 degree of freedom (df). The implication of this finding is that there is no significant difference in the mean scores of the male and female respondents on the extent preference for youth fashion styles will impact on the society; subsequently, $H_0$ was accepted.

Discussion of Findings

From the findings on the extent preference for foreign-made clothing will impact on the society findings revealed that all items were accepted, and these include: preference for foreign clothing reduces employment opportunities in the local industries ($X_3.5, 3.62$); undermines skills development in the clothing and textile sector ($3.53, 3.02$); imposes excessive spending on the public to purchase already-made wears ($3.84, 3.74$); imposes financial burden on families ($3.34, 3.82$); discourages entrepreneurship in clothing and textile industry ($3.21, 3.80$); undermines culture of the local people ($3.09, 3.27$); indecency in dressing will easily spread with dependence on foreign clothing ($3.39, 3.28$). These findings are in agreement with reports of Kofoworola (2007) which noted the choice of ready-made wears is a major impediment to the development of local industries. Rice (2006) also noted that excessive spending on fashion has implications on the economic wellbeing of communities.

From the findings on the extent preference for youth fashion styles will impact on the society, the following were revealed: creates a social conflict ($3.74, 3.67$); makes adults dress like young persons ($3.23, 3.40$); increases moral decadence amongst families ($3.73, 3.68$); causes disregard for culture ($3.64, 3.31$); makes adults appear like and behave like younger persons ($3.04, 3.71$); likelihood of indecent dressing increases ($3.88, 3.83$); increases in the cost of youth clothing ($3.79, 3.63$). These findings are in consonant with Kellert (2005) and Hicks (2006) who noted that the youth culture is overwhelming the adult culture. Many adults are dressing like younger persons. This has affected the choice of clothing. For example, 'pencil' trousers and skirts are gaining popularity among older members of the society. The preference for youth fashion culture also increases indecency; older persons who wear dresses made for younger persons will appear indecent in them, and this imposes some moral questions in the young.

Conclusion

Consumer choice is significant to changes in society. The taste of consumers about what they wear and buy affects the larger society. This paper has revealed that understanding the choices consumers make is significant to explaining societal influences and the fashion industry. The study showed that preferences for foreign clothing and youth fashion styles have greatly affected the society.

Recommendations

Based on the findings, the following recommendations were made:
1. There is utmost need for adjustment in our consumption habits; this would have a drastic effect on our psychosocial wellbeing.
2. Consumer education on the pattern of wears for different age groups should be encouraged, and focus on consumer psychology.
3. Consumers should constantly be reminded of the impact of the choices they make on the society.
4. The fashion industry must engage in consumer behaviour assessment and evaluation.
References


INFLUENCE OF FAMILY PLANNING PRACTICES ON BIRTH CONTROL IN NIGERIA

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Abstract
The purpose of this study was to examine family planning practices as a panacea in birth control in Nigeria. Nigerian adults who are sexually active form the population of the study and 500 were conveniently sampled across 5 states of Nigeria, namely; Edo, Lagos, Benue, Anambra, and Kaduna states. The survey research design was adopted in this study. The major instrument for data collection was the questionnaire which was personally administered to the respondents by the research. Study findings revealed that Nigerians' religious and cultural beliefs, cost as well as awareness of family planning influences family planning practices in Nigeria. On the basis of findings made, the researcher strongly recommends that the government should properly fund family planning programmes and promote constant advertisement that discourages too many children in the family and the risk it presents to life or health. Also, youths should be taught sex education so as to prevent unwanted pregnancy, abortion, and child abuse in the society and it is majorly for the married.

Keywords: family planning, contraceptive, pregnancy, abortion.

Introduction
About three decades ago, family planning was a taboo in Nigeria and indeed many African countries. There is also stiff opposition from the Christians and Muslims to introduce various birth control measures especially the legislation on abortion (Abdullahi, 2010). Children were seen as gifts from God, and any attempt at birth control was considered sinful. In recent times however, it has been observed that the incidence of over population is posing a great problem for the economic development as well as health, education and other social services. The current realization that large population can hold back socio-economic development and health for all programmes has led to the quest for information in family planning. Economically, there is global recession, hence, if the rapidly increasing population is not checked, there would be global famine because it has been observed that the population is increasing rapidly than the economy (Martin and Wu, 2000). It has also been discovered in the recent times that over large families with too closely spaced children have been shown to have an increase in very low birth weight babies and higher occurrence of malnutrition.

Historically, family planning is not new as well as the awareness for its publicity and benefits because family planning is as old as mankind. The increase in human population would soon outgrow productivity (Pauline, 2008). Family planning is therefore considered as a means by which individuals or couples space the process of conception, or child birth at intervals. Mutually it is determine by the both husband and wife in order to have the desired number of children that they can conveniently cater for including assisting couple who have difficulty in having children. The issue of population explosion and the geometric enormous of birth rates had made the federal government of Nigeria to come up with the Nigeria National Policy on population whose main objective is to reduce the high level of fertility in the country (NPC 2004). This reduction in the high level of fertility is actualized by use of safe family planning methods natural and artificial methods. The natural methods could be defined as a process devoid of consumption of preventive drugs but adherence to natural processes to be observed to prevent conception. They are periodic sex abstinence methods, calendar methods in safe period methods, basal body methods, billing ovulation methods, (BOM) and symto-thermal method and Lautational Amenorrhea method (LAM). They are based on naturally occurring signs and symptoms of fertile and infertile phases.

Artificial family planning method could be defined as the use of condoms, contraceptive and the elimination of already formed faetus (Abortion) ingestion of hormonal pills, saline solution and insertion of artificial contraceptive barrier into uterus vacuum aspiration and hormonal method (insertable injectable or implants) or other anti-progesterone pills or steroid drugs, dilation and curratage (D&C) and intrauterine conceptive devices (IUCDs). Birth control is the prevention of unwanted birth of babies both married and unmarried. According to Ogbada (2004), if all unwanted births are prevented women would have less number of children, compared to what they have now.
The emergence of the use of modern family planning or contraceptive can be traced to the United States of America as far back as 1912 by Morse Margaret Samer (Sterfling, 1999), the author was a public health nurse moved by the adverse effect of frequent child birth, miscarriages and abortion experienced by women. These women related health challenges motivated her to initiate efforts to circulate information about family planning and provide access to contraception. By extension, in order to achieve or realize the three core objectives of family planning which include public health; child health and population control; Margaret Samer set up a clinic in 1916, named Boure's ville clinic (Sterfling, 1990). And since then, clinics have been set up by different health personnel.

In Nigeria however, the Federal Government lunched the primary health care plan (PHC) of which the then president Ibrahim Babangida announced in 1987 as the corner stone of health policy (abdullahi, 2010). This development led to the establishment of primary health care centres across the federation that provide family planning service to the residents in the area where they were cited with the following methods amongst other. All state in Nigeria were capture in the health policy (Abdullahi, 2010). One of the major challenge that confronted Nigerian families was basically cultural. In order words, the cultural norms, values and practices of Nigerian societies affected the promotion of the use of modern contraceptive of family planning. The Africa traditional belief encourages a man to marry as many wives as possible as long as he has the means to cater for them. This cultural attitude have been harbouring against family planning giving rise to the problem of over population in the society. Posing another problem is the wide spread illiteracy among many couples. The level of educational attainment of the majority of Nigerian population especially those in the rural areas seem to be very low. Hence, this study is on using family planning as a panacea to birth control in Nigeria.

Research Questions
The following research questions were raised to guide the study;
1. To what extent do people's belief (religious and cultural) influence family planning practices?
2. Estimate the cost of contraceptive influence family planning practices?
3. To what extent does awareness of family planning influence public health in Nigeria?

Research Objectives
The main purpose of the study was to assess family planning in Nigeria using it as a panacea to birth control in Nigeria. The specific objectives include:
1. The extent to which people’s belief (religious and cultural) influence their family planning practices
2. Ascertain the extent to which the cost of contraceptive influence family planning practices
3. Determine the extent to which awareness of family planning influence public health in Nigeria?

Methodology
Descriptive survey research design was adopted in this study. The descriptive survey design was considered appropriate because the researcher sought opinions of a sample which was a representative and similar in all characteristics to the population of the respondents. The population of the study comprised 79.8 million sexually active Nigerian adult (NPC, 2006). Convenient sampling technique was used to select five hundred (500) adults across five (5) states in Nigeria, namely; Edo, Lagos, Benue, Anambra, and Kaduna states. The instrument used for the collection of data was basically a research developed questionnaire and comprised of section “A” and “B”. Section “A” contain question relating to the demographic characteristics of the respondents such as, while section B sought information on respondents’ opinion family planning practice under discussion. The questionnaire was based on four point rating scale of Strongly Agree (SA) = 4, Agree (A) = 3, Disagree (D) = 2, and Strongly Disagree (SD) = 1. The research instrument was validated by three (3) experts in measurement and valuation, Faculty of Education, University of Benin, Benin City, Edo State of Nigeria. The test-retest reliability technique was used to ascertain the instrument’s reliability and it yielded a reliability score of 0.82, thus indicating that the research instrument was reliable. The mean x and Standard Deviation (SD) were used as the statistical tools of data analysis to answer the research questions.

Results
1. Research Question 1: To what extent do people's belief (religious and cultural) influence family planning practices?
Table 1: Mean rating on respondents' belief on family planning

<table>
<thead>
<tr>
<th>S/N</th>
<th>Items</th>
<th>$\bar{\chi}$</th>
<th>SD</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>My religion is against family planning</td>
<td>3.21</td>
<td>.444</td>
<td>Agree</td>
</tr>
<tr>
<td>2.</td>
<td>My religion is in support of abortion</td>
<td>1.15</td>
<td>.366</td>
<td>Disagree</td>
</tr>
<tr>
<td>3.</td>
<td>My culture supports the use of contraceptive</td>
<td>1.80</td>
<td>.308</td>
<td>Agree</td>
</tr>
<tr>
<td>4.</td>
<td>My culture encourage the birth of more than four children</td>
<td>2.95</td>
<td>.224</td>
<td>Agree</td>
</tr>
</tbody>
</table>

Source: Research field

Table 1 revealed that the mean response of item S/N 1 is 3.21, thus indicative that the respondents agree that their religion is against family planning. For item 2, the mean value is 1.15 which is below the bench mark of 2.50, thus indicative that the respondents disagree with the items which states that their religion is in support of abortion. Item 3 and 4 were culture influences which had mean scores of 1.80 and 2.95 respectively, thus suggesting that the respondents disagree to item 3 and agree to item 4.

Research Question 2: Estimate the cost of contraceptive influence family planning practices?

<table>
<thead>
<tr>
<th>1 b</th>
<th>Items</th>
<th>$\bar{\chi}$</th>
<th>SD</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Modern contraceptive except condom is affordable for me</td>
<td>1.95</td>
<td>.224</td>
<td>Disagree</td>
</tr>
<tr>
<td>2.</td>
<td>Government should make the contraceptive free</td>
<td>2.90</td>
<td>.308</td>
<td>Agree</td>
</tr>
<tr>
<td>3.</td>
<td>Practicing family planning is expensive</td>
<td>3.11</td>
<td>.503</td>
<td>Agree</td>
</tr>
<tr>
<td>4.</td>
<td>Traditional method of family planning is more expensive</td>
<td>3.40</td>
<td>.208</td>
<td>Agree</td>
</tr>
<tr>
<td>5.</td>
<td>I make use of cheaper contraceptive</td>
<td>3.55</td>
<td>.444</td>
<td>Agree</td>
</tr>
<tr>
<td>6.</td>
<td>I encourage the use of good contraceptive irrespective of the cost</td>
<td>1.75</td>
<td>.194</td>
<td>Disagree</td>
</tr>
</tbody>
</table>

Source: Research field

Result in table 2 revealed that majority of the respondents agreed to 4 out of the 6 items in the table with a mean (x) rating ranging from 2.90 to 3.40 while item 1 to 6 were disagreed upon with mean (x) rating of 1.95 and 1.75 respectively.

Research Question 3: To what extent does awareness of family planning influence public health in Nigeria

Table 3: Mean rating on how the Awareness of family planning influence public Health

<table>
<thead>
<tr>
<th>1 b</th>
<th>Items</th>
<th>$\bar{\chi}$</th>
<th>SD</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Am aware of the importance of family planning</td>
<td>3.09</td>
<td>.108</td>
<td>Agree</td>
</tr>
<tr>
<td>2.</td>
<td>Lack of awareness of family planning is responsible for the problem of over population and unemployment</td>
<td>2.85</td>
<td>.406</td>
<td>Agree</td>
</tr>
<tr>
<td>3.</td>
<td>There will be improvement on public health with the awareness of family planning</td>
<td>3.73</td>
<td>.114</td>
<td>Agree</td>
</tr>
<tr>
<td>4.</td>
<td>My attitude towards family planning is influenced by my awareness levels</td>
<td>2.80</td>
<td>.210</td>
<td>Agree</td>
</tr>
</tbody>
</table>

Source: Research field

Table 3 revealed that the respondents to this study agree to all four items in table 3 which mean (x) rating ranging from 2.80 to 3.75. It can be concluded that the respondents awareness of family planning influence their health.

Discussion of Results

The findings of research question 1 revealed that people's belief (religious and cultural beliefs) have influence on family planning practices. This was in line with Martins and Wu (2000) report which revealed that within the Latina population, religion and culture were found to influence perception of ideal family size but did not negatively affect contraceptive practice. In respect to research question 2, this study found that the cost of
contraceptives do have an influence on family planning practices. In line with this finding, Romo (2004) stated that factors such as low income have influence family size for more than religious factors. The finding of three revealed that the awareness of family planning influence public health which according to America College of Obstetricians and Gynecologists (2011), stated that knowledge and awareness of family planning is strongly related to higher level of education and that education is the prime influencing factor that affect the attitudinal and behavioural patterns of the individual towards the health of individual. This is also implicated as most respondents agreed that there will be improvement on public health with an increase in awareness of family planning. They also indicated that lack of awareness of family planning is responsible for problem of over population and unemployment.

**Conclusion and Recommendations**

This study was set out to study family planning as a panacea to birth control in Nigeria. The purpose of the study was to find out if peoples' religious and cultural beliefs, financial cost as well as level of awareness influence family planning practices in Nigeria. The study thus concludes that all three factors considered in this study do influence family planning practice. Based on the findings, the following recommendations were made for the successful implementation of family planning practice:

1. The government should properly fund family planning programmes and promote constant advertisement that discourage too many children in the family and the risk it present to life or health.
2. The people should be greatly educated so that the perception of family planning programme can be enhanced to boost health and longevity.
3. Health professionals should always educate mothers on the importance of contraceptive usage.
4. Youths should be taught sex education so as to prevent unwanted pregnancy, abortion and child abuse in the society.
5. Couples should have mutual agreement on how many children they would have, and family planning methods to adopt.

**Reference**


American College of Obstetricians and Gynecologists (2011). *Natural family planning*. The Article, Frequently asked questions (FAQ 024) on contraception.


ACCEPTABILITY OF VEGETABLE FLAN PRODUCED FROM COMPOSITE FLOUR (WHEAT AND CORN) AS SNACK FOR MIDDLE AGE (40-65 YEARS)

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Abstract
The study evaluated the acceptability of vegetable flan produced from composite flour (wheat and corn flour) as snack for middle age (40-65 years). Three research questions were raised and two hypotheses were formulated and tested at 0.05 level of significance. Simple random sampling was used to select 30 respondents. The panelists were presented with three coded samples in which descriptive statistics such as frequency, percentages, mean and standard deviation and inferential statistics were analyzed using Analysis of Variance, Chi-square and PPMC. The findings revealed that a majority of the respondents were females 17 (56.7%), 40-45 years old, (46.7%) had HND/B.Sc, and were knowledgeable on healthy snacks. In addition, results indicated the sample Wheat Corn Vegetable flan (WCVF) was most preferred in colour, taste, texture, aroma and overall acceptability while the wheat vegetable flan was least preferred. There was a significant relationship between the respondents’ personal characteristics and their knowledge on healthy snacks and there was no significant relationship between the respondents’ knowledge on healthy snacks and their acceptability of vegetable flan as a healthy snack. The study concluded that the knowledge of respondents played a major role in the consumption of healthy snacks, it was therefore recommended that more attention should be given to nutritional labelling of products to further encourage healthy consumption of snacks by middle age.

Keywords: Acceptability, Vegetable Flan, Snack, Middle Age

Introduction
Middle age is the period of age beyond young adulthood but before the onset of old age. Various attempts have been made to define this age, which is around the third quarter of the average life span of human beings. Some scholars list the category middle age from 45 to 65 while prominent psychologist Erik Erikson saw it starting a little earlier and defines middle adulthood as between 40 and 65 (Chourakis, Tzellos, Papazisis, Toulis, and Kouvelas 2010). Shruti and Sunita (2013) affirmed that aging is defined as a genetic physiological process associated with morphological and functional changes in cellular and extracellular components aggravated by injury throughout life and resulting in a progressive imbalance of the control regulatory systems of the organism, including hormonal, autocrine, neuroendocrine and immune homeostatic mechanisms. Ageing is the process of growing older; it includes a reduction in strength, endurance, speed of reaction, agility, basal metabolism, sexual activity and hearing acuity. Margie and Stefan (2010) averred that individual differences in the rate of aging are vast and are influenced by such factors as heredity, health habits, and lifestyle. Lifestyle and behaviours in youth and young adulthood can affect health in midlife, and midlife habits affect outcomes in old age. Thus, as many adults recognize, the opportunity to control one’s health is enormous because many of the risk factors for chronic illnesses are modifiable, including cigarette smoking, alcohol use, poor diet, excess weight, and physical inactivity. The reported effort devoted to health increases with age and is higher among women than men. However, reports of health-related behaviours such as exercise or vitamin use decline with age in general. Thus, with increasing age adults may spend time dealing with chronic conditions, not just on health preventative measures.

The term “snacks” or “snack food” is difficult to define or categorize. Hence, snacks are sweet savoury light or substantial food, which may be endowed with attributes such as “healthy” or “just for fun” (Tettweiller, 2003). A snack is seen in western culture as a type of food not meant to be eaten as a main meal of the day (breakfast, lunch or dinner) but rather to assuage a person’s hunger between meals, providing a brief supply of energy for the body (James, 2005). Snacks and light meals are popular forms of catering at any time of the day or night and there is a wide variety of foods to be offered (Foskett, Barrett-Connor, and Wingard, 2004). Therefore, snacks provide items that are suitable for people requiring something quickly or something light to eat. (Koo, Lee, Choi, Kim, and Lee, 2006) asserted that healthy snack includes the foods that have short gastric emptying time, lower degree of satiety and various nutrients with 10-15% of total energy intake. Healthy snacks provide people with vitamins and nutrients needed to keep one healthy and full of energy. They are low in sugar, fats and salt.
Flan is an open, rimmed, pastry or sponge base, containing a sweet or savoury filling. It can also be defined as a dessert with egg and milk as the usual main ingredients and can be made into open types of pastry.

According to Kumar, Yadava, Gollen, Kumar, Verma and Yadav (2011) wheat (triticum aestirum) is the most important stable food crop for more than one third of the world population and contributes more calories and proteins to the world diet than any other cereal crops. It is nutritious, easy to store and transport and can be processed into various types of food. Wheat is considered a good source of protein, minerals, B-group vitamins and dietary fiber although the environmental conditions can affect nutritional composition of wheat grains with its essential coating of bran, vitamins and minerals, it is an excellent health-building food. Wheat flour is used to prepare bread, produce biscuits, confectionary products etc.

Maize (Zea mays) also known as corn is a cereal crop that grows across a range of agro-ecological zones in Nigeria, though it is grown slightly in the northern part of the country. Two types of maize are grown in Nigeria, the yellow and white variety (Lemchi, Mbah and Obi-Anyanwu, 2016). Maize is a major source of energy. In a 100g serving, maize kernels provide 86kcal and are a good source of B vitamins, thiamine, pathothenic acid (BS) and folate. They supply diatery fibre, the essential minerals and phosphorous. Maize flour is one of the common types of flour obtained from maize. It can be used in the production of chin-chin, cake, bread, pudding among others.

Vegetables are edible plant that is used in making different soups, snacks and many other foods and they can also be eaten raw. Vegetables make up a majority of the diet of humans in many parts of the world and a significant role in human nutrition, especially as sources of phyto-nutriceuticals: vitamins (C, A, B1, B6, B9, E), minerals, dietary fiber and phytochemicals. Some phytochemicals of vegetables are strong antioxidants and are thought to reduce the risk of chronic diseases by protecting against free-radical, damage by modifying metabolic activation and detoxification of carcinogens, or even influencing processes that alter the course of tumor cells.

Vegetable Flan is a name given to the snack made using milk, egg, vegetables and some other ingredient to produce flan. They are ready-to-eat convenient and nutritive food product and contain digestive and dietary principles of vital importance. The principal ingredients are milk and egg, while other ingredient includes carrot, green pepper, sweet corn, green beans, corn flour and/or wheat flour. Honey is used as sweetening agent. Lynne (2013) says vegetable flan is a snack produced after considering the general health requirement of middle age, which include calcium, vitamin D, fiber, protein, iron, amino acid such as lutein, lysine, leucine, vitamin B complex, vitamin E, zeaxanthin etc. A few studies have suggested that the consumption of food that will supply the middle age the nutrient needed and the avoidance of food that are harmful to their health will prevent them from having ailment and also reduce the risk of some ailment as the case may be.

Statement of Problem
Middle age are always mindful of what they eat because of the requirement of their health which include calcium, vitamin D, fiber, protein, iron, vitamin B complex and vitamin E. It has limited them to some particular type of snacks because of the high cholesterol content, high sugar or salt content and some other type of ingredients they use in the preparation. This study therefore aims at producing an alternative snack that will contain the ingredients that will have low fat content, low sugar level, free of salt, and suit their general health requirement.

Objective of the Study
The broad objective of the study is to produce flan with wheat flour, corn flour and vegetables. The specific objectives are to:

i. identify the personal characteristics of the middle age in the study area
ii. assess the knowledge of middle age on healthy snacks in the study area
iii. determine the acceptability and sensory qualities of vegetable flan

Research Questions
Three research questions sought answers to:

i. What are the personal characteristics of the respondents?
ii. What is the level of knowledge of middle age on healthy snacks?
iii. How acceptable and what are the sensory qualities of vegetable flan?
Hypotheses
Two null hypotheses were formulated and tested at 0.05 level of significant.
H₀₁: There is no significant relationship between the personal characteristics of respondents and their knowledge on healthy snacks.
H₀₂: There is no significant relationship between their knowledge on healthy snacks and acceptability of vegetable flan as healthy snack.

Materials and Methods

Design of the Study: A Survey research design and Research and development design (R&D) were adopted for this study. R&D is an approach concerned with seeking relationship between two or more variables as they existed. Survey method of research is concerned with generalized statistics resulting when data are obtained from part of the large number of population and used to generalize. Research & Development design is investigation conducted in the content of development of a product for the purpose of improving the product.

Population of the Study: The total population for the study comprises 149 middle age.

Sample and Sampling Technique: Thirty (30) respondents were randomly sampled and were used as panelist for the study.

Instrument for Data Collection: A closed questionnaire was designed to elicit information about the acceptability of vegetable flan as snacks for middle age. The questionnaire has three segments, Section A: Respondents' personal characteristics
Section B: Knowledge of the respondent on healthy snacks
Section C: Acceptability and sensory qualities of vegetable flan using 7-points hedonic scale.

Materials
Kitchen tools used for making vegetable flan are; oven, flan tin, measuring scale, measuring cup, egg whisker, mixing bowl, working surface, rolling pin, chopping board, knife, small bowls, colander, tray, tin cutter, knife and fork while ingredients for preparation were obtained from the market

Ingredients for Vegetable Flan

<table>
<thead>
<tr>
<th>Recipe</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat flour</td>
<td>780g</td>
</tr>
<tr>
<td>Corn flour</td>
<td>720g</td>
</tr>
<tr>
<td>Milk</td>
<td>210ml</td>
</tr>
<tr>
<td>Quail egg</td>
<td>3 creates</td>
</tr>
<tr>
<td>Sweet corn</td>
<td>300g</td>
</tr>
<tr>
<td>Green beans</td>
<td>250g</td>
</tr>
<tr>
<td>Bell pepper</td>
<td>30g</td>
</tr>
<tr>
<td>Carrot</td>
<td>150g</td>
</tr>
<tr>
<td>Honey</td>
<td>200ml</td>
</tr>
</tbody>
</table>

Methods of Preparation

- The oven was Pre-heated to 180°C/200°C
- Composite flour was measured in bowls and unsaturated fat was rubbed-in until the mixture resembles breadcrumb. Sample 1 (WVF): 100% wheat flour, sample 2 (CVF): 100% corn flour and sample 3 (WCVF): 60% wheat flour and 40% corn flour.
- Water was added into the flour mixtures and mixed, until it forms a smooth dough
- The work surface and rolling pin was lightly dusted with flour and the pastry were rolled out. It was then used to line the flan tin
- This process continues until all the flan tin has been lined
- A piece of foil was laid in the lined flan tin (shiny side down), and weighed down with dry rice, baked for 10 minutes, after which the foil and rice was removed and then baked for another 5 minutes. It was then left to cool in the tin for 10 minutes
- The carrot was peeled, rinsed and diced
- The bell pepper was rinsed, the seeds were removed and then diced
- Sweet corn and green beans were also rinsed
- The egg was whisked
- Milk and honey were then gradually mixed with the whisked egg

Acceptability of Vegetable Flour Produced from Composite Flour (wheat and Corn) as Snack for Middle Age (40-65 years)
The vegetables (sweet corn, green beans, green pepper and carrot) were added. It was mixed together so that the vegetables can distribute evenly. The egg barter was then poured in the flan and returned to the oven. It was left to bake for 20-30 minutes, and then served hot.

Validity of Research Instrument: Validity of the instrument for data collection was determined using content and face validity by professionals in the field.

Reliability of the Instrument: To determine the reliability of the instrument, a pilot study was conducted using a sample size of ten (10) middle age men and women who are not part of the population sample of the study. The pilot study was subjected to Cronbach alpha statistics to determine the reliability coefficient, which was 0.714.

Method of Data Collection (Sensory Evaluation): The test was carried out by consumers’ acceptance and preference using 30 panelists. A 7-point hedonic scale of very much liked (7), liked a lot (6), liked (5), liked and disliked (4), disliked (3), much disliked (2), and very much disliked (1) was used. The qualities that was assessed include; colour, taste, texture, aroma, and general acceptability of the snack. The snack was served to the panelists in a white coloured plate for them to judge. In addition, questionnaire was administered and supervised by the researcher to ensure a high percentage return of the questionnaire. The questionnaire was distributed to the respondents and collected immediately to avoid mutilation and misplacement.

Table 1: Blending Percentage of Flour used for Vegetable Flour

<table>
<thead>
<tr>
<th>Sample Codes</th>
<th>Wheat Flour %</th>
<th>Corn Flour %</th>
</tr>
</thead>
<tbody>
<tr>
<td>WVF</td>
<td>100%</td>
<td>---</td>
</tr>
<tr>
<td>CVF</td>
<td>---</td>
<td>100%</td>
</tr>
<tr>
<td>WCVF</td>
<td>60%</td>
<td>40%</td>
</tr>
</tbody>
</table>

Data Analysis: The data obtained was analyzed using statistical tool (SPSS), the mean, standard deviation and percentages, which is based on respondent's response. In addition, inferential statistics was used to test the hypothesis and Pearson Product Moment Correlation (PPMC) at 0.05 level of significance.

Results

Research Question One: What are the Personal Characteristics of the Respondents?

Table 2: Distribution of Respondents According to their Personal Characteristics. N=30

<table>
<thead>
<tr>
<th></th>
<th>Variables</th>
<th>Respondents</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Gender</td>
<td>Male</td>
<td>13</td>
<td>43.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Female</td>
<td>17</td>
<td>56.7</td>
</tr>
<tr>
<td>2</td>
<td>Age (in years)</td>
<td>40-45</td>
<td>17</td>
<td>56.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>46-50</td>
<td>4</td>
<td>13.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>51-55</td>
<td>4</td>
<td>13.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>56-60</td>
<td>3</td>
<td>10.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>61-65</td>
<td>2</td>
<td>6.7</td>
</tr>
<tr>
<td>3</td>
<td>Educational Qualification</td>
<td>SSCE</td>
<td>4</td>
<td>13.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ND/NCE/DIPLOMA</td>
<td>3</td>
<td>10.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HND/B.Sc</td>
<td>14</td>
<td>46.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Postgraduates</td>
<td>9</td>
<td>30.0</td>
</tr>
</tbody>
</table>


Table 2 presents the distribution of the respondents by gender, age (in years), and educational qualifications. The table shows the gender of the respondents, 13 (43.3%) were male and 17 (56.7%) were female. The age range of the respondents shows that 17 (56.7%) were between the age range of 40-45 years, 4 (13.3%) were between the age range of 46-50 years, 4 (13.3%) were between the age range of 51-55 years, 3 (10.0%) were between the age range of 56-60 years while 2 (6.7%) respondents were between the age range of 61-65 years. The educational qualification of respondents shows that 4 (13.3%) were SSCE certificate holder, 3 (10.0%) were ND/NCE/DIPLOMA certificate holder, 14 (46.7%) were HND/B.Sc certificate holder while 9 (30.0%) possessed postgraduate qualifications.
### Research Question Two:
What is the Level of Knowledge of the Respondents on Healthy Snacks in the Study Area?

Table 3: Mean Rating and Standard Deviation of Respondents on the Knowledge on Healthy Snacks in the Study Area

<table>
<thead>
<tr>
<th>S/N</th>
<th>Statements</th>
<th>SA</th>
<th>A</th>
<th>SD</th>
<th>D</th>
<th>UD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Snacks are suitable for people requiring something quickly or something light to eat</td>
<td>20(66.7)</td>
<td>10(33.3)</td>
<td>0(0)</td>
<td>0(0)</td>
<td>4.67</td>
</tr>
<tr>
<td>2</td>
<td>All snacks are healthy to eat</td>
<td>3(10)</td>
<td>6(20)</td>
<td>6(20)</td>
<td>15(50)</td>
<td>0(0)</td>
</tr>
<tr>
<td>3</td>
<td>All snacks are high in fat</td>
<td>0(0)</td>
<td>7(23.3)</td>
<td>7(23.3)</td>
<td>14(46.7)</td>
<td>2(6.7)</td>
</tr>
<tr>
<td>4</td>
<td>All snacks have high sugar content</td>
<td>1(3.3)</td>
<td>2(6.7)</td>
<td>11(36.7)</td>
<td>14(46.7)</td>
<td>2(6.7)</td>
</tr>
<tr>
<td>5</td>
<td>All snacks have high salt content</td>
<td>1(3.3)</td>
<td>2(6.7)</td>
<td>11(36.7)</td>
<td>14(46.7)</td>
<td>2(6.7)</td>
</tr>
<tr>
<td>6</td>
<td>Healthy snacks are low in sugar, fats and salt content</td>
<td>8(26.7)</td>
<td>16(53.3)</td>
<td>2(6.7)</td>
<td>2(6.7)</td>
<td>2(6.7)</td>
</tr>
<tr>
<td>7</td>
<td>Healthy snacks provide people with vitamins and nutrients needed to keep one healthy and full of energy</td>
<td>15(50.0)</td>
<td>13(43.3)</td>
<td>0(0)</td>
<td>0(0)</td>
<td>2(6.7)</td>
</tr>
<tr>
<td>8</td>
<td>Healthy snacking habit can contribute to obesity</td>
<td>4(13.3)</td>
<td>3(10.0)</td>
<td>12(40.0)</td>
<td>9(30.0)</td>
<td>2(6.7)</td>
</tr>
</tbody>
</table>

**Grand Mean** 3.31


Table 3 presents the mean score on the knowledge on healthy snacks. From the table, out of eight (8) items on the knowledge of middle age on healthy snacks in the study area only three items were agreed; Five (5) items were disagreed; the grand mean for the statements was 3.31, the statement was agreed because they have a mean rating is above 3.00.

### Research Question Three:
What is the Sensory Evaluation of Vegetable Flan?

Table 4: Mean ( ) and Standard Deviation of Sensory Evaluation of Vegetable Flan

<table>
<thead>
<tr>
<th>Sample Codes</th>
<th>Colour</th>
<th>Taste</th>
<th>Texture</th>
<th>Aroma</th>
<th>Overall Acceptability</th>
</tr>
</thead>
<tbody>
<tr>
<td>WVF</td>
<td>22.57±11.82</td>
<td>23.14±10.59</td>
<td>23.43±10.53</td>
<td>24.29±10.29</td>
<td>25.86±10.87</td>
</tr>
<tr>
<td>WCVF</td>
<td>25.43±11.93</td>
<td>25.14±12.76</td>
<td>27.86±15.51</td>
<td>24.57±15.60</td>
<td>26.29±14.70</td>
</tr>
</tbody>
</table>

Source: Field Survey (2018)

**Key:** WVF- Wheat de’ vegetable flan, CVF- Corn de’ vegetable flan, WCVF- Wheat corn vegetable flan

Table 4 revealed that for colour, taste and texture there was a significant difference between the samples while for aroma and overall acceptability, there was no significant relationship between the samples.

### Hypotheses Testing

**Hypothesis One:** There is no significant relationship between the age of the respondents and their knowledge on healthy snacks.

Table 5: Relationship between the personal characteristics of the respondents and their Knowledge on Healthy Snacks

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>r-value</th>
<th>p-value</th>
<th>Remarks</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>30</td>
<td>0.776</td>
<td>0.000</td>
<td>S</td>
<td>Reject H0</td>
</tr>
<tr>
<td>Gender</td>
<td>30</td>
<td>0.697</td>
<td>0.000</td>
<td>S</td>
<td>Reject H0</td>
</tr>
<tr>
<td>Educational qualification</td>
<td></td>
<td>0.697</td>
<td>0.002</td>
<td>S</td>
<td>Reject H0</td>
</tr>
</tbody>
</table>

Source: Field Survey (2018)

Table 5 shows the correlation result of personal characteristics of the respondents and their knowledge on healthy snacks.
snacks. Since the p-value was less than the α-level of significance (0.05), we reject the null hypothesis that there is no significant relationship between personal characteristics of respondents and knowledge on healthy snacks. This implies that the relationship was significant.

**Hypothesis Two:** there is no significant relationship between the respondent's level of knowledge and acceptability of healthy snacks

Table 6: Relationship between the Respondents Knowledge on Healthy Snacks and Acceptability of Vegetable Flan as Healthy Snack

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>r-value</th>
<th>p-value</th>
<th>Remarks</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of Knowledge on Healthy Snacks</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acceptability of Vegetable Flan as Healthy Snack</td>
<td>30</td>
<td>0.245</td>
<td>0.559</td>
<td>NS</td>
<td>Accept H0</td>
</tr>
</tbody>
</table>

Source: Field Survey (2018)

Table 6 shows the correlation result of the respondents' knowledge on healthy snacks and acceptability of vegetable flan. The result shows that the r-value was 0.245 and the p-value was 0.559. Since the P-value was greater than the α-level of significance (0.05), we accept the null hypothesis that there is no significant relationship between the knowledge on healthy snacks and the acceptability of vegetable flan.

**Discussion of Results**

This study investigated the acceptability of vegetable flan produced from composite flour as snack for middle age. The result of the personal characteristics indicated that the majority of the respondents were females, the age ranges of majority of the respondents were between 40-45 years and majority of the respondents possesses HND/B.Sc certificate. It was revealed that out of eight (8) knowledge statement the researcher asked middle age on healthy snacks in the study area, only three were agreed on while five (5) items were disagreed. This implies that all respondents in the study area had knowledge of snack and what it supplies to the body. The findings agree with Koo, et al., (2006), who stated that snacks provide items that are suitable for people requiring something quickly or something light to eat. In addition, Parsons (2008) also wrote that healthy snacks are low in sugar, fat and salt and they provide people with vitamins and nutrients needed to keep one healthy and full of energy.

The result of the sensory evaluation of the vegetable flan sample was also analyzed in terms of colour, taste, texture, aroma and overall acceptability. In terms of colour, sample WCVF (60% wheat flour and 40% corn flour) was more attractive and preferred and not significantly different from samples CVF (100% corn flour) but significantly different from sample WVF (100% wheat flour). Similar finding was reported in a study by Brannan, Setser, Kemp, Seib and Roozeboom (2001), who observed that high quantity of maize flour in wheat composite flour causes muffin visual lightness (with more yellowness and light brownness rather than dark brownness) and yield a higher aroma, texture and colour acceptability scores. Sample WVF (100% wheat flour) was shown to be the least preferred with the value of 25.43. Yusufu, Obeigbuna & Yusufu (2015) reported that the initial acceptance of baked products is much influenced by colour, which can also be an indicator of baking completion. As wheat flour gives a dark brown colour when baked, this might have given the panelists an impression of 'over-baked' product, thus affecting their preference. In terms of taste, sample WCVF (60% wheat flour and 40% corn flour) was the most preferred and significantly different from samples CVF (100% corn flour) and WVF (100% wheat flour) respectively, while sample WVF (100% wheat flour) was the least preferred and not significantly different from sample CVF (100% corn flour). This could probably be due to the fact that the snacks are chewed together with the fillings; the taste of the fillings combined with the taste of the pastry added an additional flavour to the mouth feel of the snacks. In terms of texture, sample WCVF (60% wheat flour and 40% corn flour) was the most preferred and significantly different from samples CVF (100% corn flour) and WVF (100% wheat flour) respectively. Noor and Komathi (2009), who produced cracker from composite flour reported similar findings that, this is because the lightness of maize flour combined with wheat flour gives a different texture that is neither too soft nor hard and the bran of the wheat flour only shows slightly. Sample WVF (100% wheat flour) was shown to be the least preferred and not significantly different from sample CVF (100% corn flour). Panelists commented that the texture of WVF was hard and coarse, this result may be due to the milling method used in which the bran was also blended with the endosperm and embryo (that is, the kernels do
not undergo any processing prior to milling). In terms of aroma, sample WCVF (60% wheat flour and 40% corn flour) was the most preferred and not significantly different from samples CVF (100% corn flour) and WVF (100% wheat flour) respectively. The insignificant differences of the samples could be because the filling has a pleasant sharp and spicy smell, which overshadows the smell of the pastries. In terms of overall acceptability, sample WCVF (60% wheat flour and 40% corn flour) was the most preferred, while sample WVF (100% wheat flour) was the least preferred. The three samples were not significantly different from each other. This could be attributed to the close resemblance of the vegetable flan types, which was because they have the same type of fillings. In general, all the samples compared were well accepted in terms of colour, taste, texture, aroma and overall acceptability.

The result of hypothesis one revealed that, there was a significant relationship between age of the respondents and their level of knowledge on healthy snacks. The findings agreed with Hansbro, Morgan and Hickman (2000) who stated that level of knowledge on healthy snacks are generally better in middle aged than older or young groups. For gender, there was also a significant relationship; this means that the gender of the respondents affects their knowledge on healthy snacks. In this study, female respondents were more than male and they were more knowledgeable about healthy snacks and food in general. This finding agreed with Nwankwo, Meludu, Dioka, Nnodim and Ezeugwunne (2016) who stated in their findings that females exhibited high levels of health consciousness than the males. Only a few of the males responded for an awareness in their health status. The increase in health consciousness for females can be attributed to social and psychological factors that influence the way females think about their body shape and health in general. The results indicated that a large number of female respondents were concerned about their health, and interested in acquiring information on health topic. For educational qualification there was also a significant relationship, this means that the educational qualification of the respondents affects their knowledge on healthy snacks. This finding agreed with Saulo and Donna (2014) who wrote that men and women with a lower level of educational attainment tended to have a less healthy diet than men and women with a higher level. Hansbro et al. (2000) also mentioned that women had better knowledge than men, and knowledge tended to be at higher levels of education and socio-economic status. Levy, Fein, and Stephenson (1999) found that level of knowledge about fat, cholesterol and snacks were highest for more educated people and people of middle years.

The result of hypothesis two revealed that there was no significant relationship between the respondents' level of knowledge on healthy snacks and acceptability of vegetable flan. This implies that how knowledgeable the respondents were on healthy snacks does not determine their view or choice on the acceptability of vegetable flan. This could be because the vegetable flan was accepted based on the sensory attributes of what they see, taste, feel, and smell. That is, the colour, taste, texture, aroma and the general acceptability.

Conclusion
The researcher concluded that the knowledge of respondents played a major role in the consumption of healthy snack. Based on the findings, it was affirmed that women had better knowledge on healthy snacks than men, and knowledge tended to be better at higher levels of education. Knowledge is generally better at early midlife than late midlife. The result revealed that the sample WCVF was the most preferred in terms of colour, taste, texture, aroma and overall acceptability, while the sample WVF was the least preferred.

The study also observed that there was a significant relationship between the personal characteristics of the respondents and their knowledge on healthy snacks (p<0.05), while there was no significant relationship between the respondent's knowledge on healthy snacks and acceptability of vegetable flan as healthy snack (p>0.05).

Recommendations
1. Ways of passing basic nutrition information to people with low educational qualification should be found to bring their level of knowledge up to that of the people with higher qualifications.
2. Efforts should be given to nutritional labeling of snack products in order to provide clear information, thereby encouraging snacking habit.
3. Awareness should be created on healthy snacks to the middle age to enhance healthy living at old age.
References


Abstract

Food security is an important element in the development and poverty alleviation of any nation. Food security at national level may not usually address the household level food security problems. The main thrust of this paper is improving household food security for national stability. Also, the paper focuses on the concept of food security, the types and causes of food insecurity. It also highlighted the characteristics of household with very low food security and strategies for achieving household food security, which include among others, improving agricultural productivity to benefit the rural poor and improving science and technological strategies. The paper concluded that household food security can be improved on to ensure improved health, economic growth, job creation and poverty reduction. It suggested among others that food security policies should address household level food security and should be problem specific.

Keywords: Household, Food Security, National Stability.

Introduction

Access to quality, adequate and nutritious food is fundamental to human existence. Food security exists when all people, at all times have physical and economic access to enough, good, safe and nutritious food to eat so as to meet their dietary needs and food preferences for an active and healthy life. Food security is one of major elements of development and poverty alleviation and has been the goal of many international and national public organizations. These organizations in different ways have tried to ensure global food security so that the population of undernourished persons in the world is brought to the minimal. Despite this unprecedented effort, the population of undernourished persons still constitutes a major problem in most parts of the world. Based on 2015 assessment of the Food and Agriculture Organization of the United Nations (FAO), around 795 million people in the world remained undernourished, (Saheed and Isa, 2017).

In 1996, a world summit on food security was held in Rome to renew a global commitment to the fight against hunger. This summit was organized by Food and Agriculture Organization of the United Nations (FAO) in response to the widespread undue-nutrition and growing concern about the capacity of agriculture to meet future food needs. The conference came up with two key documents, namely, the Rome Declaration on World Food Security and the World Food Summit Plan of the Action. The Rome Declaration called on the members of the United Nations to work towards reducing the numbers of chemically undernourished people on earth by halve by the year 2015, while the plan of Action set a number of targets for both government and non-governmental organizations for achieving food security at all levels.

There are different aspects to food security, and these include economic, environmental and social aspects. That is to say that food security is a phenomenon which is multi dimensional. Food is no doubt, the most basic need of humans need for survival. Although efforts have been made to improve the quality as well as production of world food supplies, food and insecurity is still prevalent, especially in developing nations, Nigeria inclusive. Malnutrition has caused a lot of deaths in the country. Saheed and Isa (2017) stated that achieving a sustainable economic development in Nigeria and Africa at large will continue to be a mirage without well-nourished and healthy people. Not less than 70% of the Nigerian is surviving on less than a dollar per day while food insecurity prevalence in the low income urban households and rural areas respectively stands at 79% and 71%, (Saheed and Isa, 2017). Since the discovery of oil, Nigerian government became less interested in the Agricultural sector. This gave rise to a decline in the production of food. Nigeria became heavily dependent on the importation of food. The rural households are the worst hit as they are now vulnerable to malnutrition, poor food supply, (both in quantity and quality). Household food security exists when all members in a household have access to enough food at all times for a healthy, active life. Individuals or households who are food secure do not live in hunger or fear or starvation.
Basic Concept of Food Security

Worldwide, about 852 million people are chronically hungry due to extreme poverty, while up to 2 billion people lack food security intermittently due to varying degrees of poverty. About 17,000 children die of hunger and malnutrition related diseases on daily basis, making it about 6 million children who die of hunger every year. In the sub-Sahara Africa, about 240 million people lack access to adequate food. This is as a result of hike in prices of food items and drought. The term “Food Security” first emerged in the mid-1970’s at the world food conference of 1974. At the conference, food security was defined in terms of food supply, that is, ensuring the availability and stability of prices of basic food items at all levels. Defining food security precisely is very difficult. Although the phrase “Food Security” is being used widely, the definition and concept of food security is elusive and being evolved and expanded over time. The 1974 world food conference defined food security in terms of supply and later definitions included demand and access issues to the definition.

The 1996 World Food Summit stated that food security exists when all people, at all times have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life, (Bajagai, 2015). The Food and Agriculture Organization stated that food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life, (Disabled World, 2017). According to World Health Organization (WHO), (2013) food security means that,

a) All people have both physical and economic access to enough food at all times for healthy, active life.

b) The ways in which food is produced and distributed are respectful of the natural processes of the earth and thus sustainable

c) Both the consumption and production of food are governed by social values that are just and equitable as well as moral and ethical

d) The ability to acquire food is ensured

e) The food itself is nutritionally adequate and personally and culturally acceptable, and

f) The food is obtained in a manner that upholds human dignity.

Household food security occurs when a household has access to the food needed by all members for a healthy life. This means having adequate food in terms of quality, quantity, safety and cultural acceptability. Bajagai (2013) listed the following as characteristics of household with very low food security

a) Members of household (mainly adult) worried that their food would run out before they got money to buy more

b) Food they bought just did not last and they didn't have money to get more

c) They couldn't afford to eat balanced meals, have to rely on inexpensive non-nutritious food

d) An adult had to cut the size of meals or skipped meals because there was not enough money for food

e) They had to eat less than they felt they should because there was not enough money or food

f) They had been hungry but did not eat because they could not afford enough food

g) They had to acquire food through socially unacceptable means such as charitable assistance, buying food on credit, etc.

Global and national food security policies may not address household level food security problems. Therefore, it is really important that policies that are problem-specific are developed to be able to address the household level food in security problems.

Measuring Household Food Security

Measuring household food security according to the United States Department of Agriculture (USDA) is a vital aspect in checking household food insecurity because it helps to capture some or all of the main components of food security in terms of food availability, accessibility and utilization and adequacy. Food security can be measured by calorie intake per person per day, available on a household budget. While it is easier to estimate availability (that is, production and supply) and utilization and adequacy (that is nutritional status/anthropometric measurement), accessibility (that is the ability to acquire the sufficient quantity and quality of food) is still difficult. Several household food security measurements have been developed to capture the access component of food security. Notable examples developed by the USAID – funded Food and Nutrition Technical Assistance (FANTA) project in collaboration with Cornell and Tufts University and Africare and World vision include:
1. **Household Food Insecurity Access Scale (HFIAS):** This scale is used to continuously measure the degree of food insecurity (that is inaccessibility) in the household in the previous month.

2. **Household Dietary Diversity Scale (HDDS):** The scale measures the number of different food groups consumed over a specific reference period (24hrs/48hrs/7days).

3. **Household Hunger Scale (HHS):** This measures the experience of household food deprivation based on a set of predictable reactions, captured through a survey and summarized in a scale.

4. **Coping Strategies Index (CSI):** This assesses household behaviours and rates them based on a set of varied established behaviour on households cope with food shortages.

The Methodology for this research is based on collecting data on a single question, for example “what do you do when you don't have enough food and when you do not have enough money to buy food?” (USDA, 2017).

### Types of Food Insecurity

Food insecurity has been an issue throughout the history of humans. Different individuals, households, and nations at large experience different kinds of food insecurity. Bajagai (2013) identified basically two different types of food insecurity. These include:

- **Chronic Food Insecurity:** This has to do with lack of minimum requirement of food to the people for a sustained period of time due to extended periods of poverty, lack of assets and inadequate access to productive or financial resources.

- **Acute or Transitory Food Insecurity:** This occurs as a result of sudden lack of food or reduction in the ability to produce or access minimum requirement of food due to short-term shocks fluctuation in the availability and access of food. It also includes year-to-year variations in domestic food production, food prices and household incomes.

### Causes of Food Insecurity

It is not an easy task discussing the driving factors for food insecurity. Nigerians lack enthusiasm for local products and often consider them inferior to imported food products. The emergence of the oil sector obviously marked the end of emphasis on agriculture in Nigeria. This was because huge revenue was generated from petroleum products, and so government embarked on huge importation of food and local production of food faded away. Saheed and Isa (2017) identified the following as prime causes of food insecurity in Nigeria. They include:

1. **Insufficient Production:** The agricultural sector has remained underdeveloped and depended too much on primary agricultural system. It is being practiced mostly by farmers who cannot access facilities required for optimum food production. The world bank's statistics showed that 90% of agricultural products are outputs of inefficient small scale farmers who only produce just enough for their immediate families and a little for the market.

2. **Gender Inequality:** The role of women in ensuring food security cannot be overemphasized. They ensure adequate land use as well as food production, processing, distribution, and marketing. Otaha (2013) suggested that women were given similar access as men in productive resources, the yield will increase thereby boosting agricultural output.

3. **Inefficient Policies and Corruption:** Food insecurity has persisted in Nigeria because of many inefficient policies and corruption. Development is not on the fast track because government has failed to properly administer policies and initiatives which have to do with food. Behnassi and Yaya (2011) stated that in the past, food security was not a problem because government was importing huge quantity of food, therefore unworkable policies was not an issue. But in recent times, the effect of inefficient policies has really become a problem in Nigeria. The worst is that whenever there is change in government, the new government abandons the old policies and formulates new ones, so there is no stability in policy formulation.

4. **Conflicts and Civil Insecurity:** War or any form of civil crises makes people to leave their land to other areas where they may not have land to farm. There are occasions that ethno-religious crises have had devastating effects on the Nigerian economic development especially on food production. Also, civil insecurity born out of activities of Boko Haram, Fulani herdsmen, kidnappers etc is limiting crop production below average because citizens are afraid to go to their farms.

5. **Climate Change and Natural Disaster:** For the past five years, Nigeria has been witnessing an unprecedented flooding case as a result of persistent heavy rainfall, coupled with release of water from
different dams. This has caused the displacement of about 2.8 million people and the affected households are yet to fully recover their livelihoods.

6. **Low Technology for Processing and Storage:** The use of modern technologies in the production, distribution and storage of agricultural products in Nigeria is very low. The sector is still depending much on manual labour. This to a large extent is affecting productivity.

To achieve a sustainable food security, effort must be made to address the causes of food insecurity in the nation.

**Dimensions of Food Security**

The International Union for Conservation of Nature (IUCN) (2013) stated that food security can be thought of as comprising four dimensions. The four dimensions must be satisfied simultaneously to meet the objectives of food security. FAO and Simon (2012) listed the dimensions as follows:

a) **Availability:** This is the physical, social and economic access to sufficient and nutritious food by all people and at all times. The food must meet the dietary requirements and preference of the people. It is the amount of food physically available in a place.

b) **Access:** This has to do with the ability of individuals to obtain food through their own production, markets or other sources. That an adequate amount of food is available at the national level does not imply it is accessible at household level. It must be therefore be locally accessible and affordable.

c) **Utilization:** It is the means by which individuals are able to gain energy and nutrition from food. It is determined by food quality, nutritional values, preparation method and storage as well as feeding pattern.

d) **Stability:** This is when sufficient and adequate food is available, accessible and utilizable on a reliable, sustainable basis.

All dimensions must be fulfilled simultaneously for an individual or household to achieve food security.

**Ways of Achieving Household Food Security for Sustainable Development**

Food security for a household means access by all members at all times to enough food for an active, healthy life. Food security cannot be achieved just by increasing food production. Even when the food is very much available, household will still be food insecure if they cannot afford to buy it. The following are ways of achieving household food security.

a) **Improving Agricultural Productivity to Benefit the Rural Poor:** There are strong, direct relationship between agricultural productivity, hunger, poverty and sustainability. About three quarters of the world poor households live in rural settlements and depend mostly on agriculture to make a living. Therefore, when small scale farmers are helped to improve agricultural productivity, it will benefit the rural poor household. Food will be available and also accessible to them thereby reducing their food insecurity.

b) **Improving Agricultural Science and Technological Strategies:** Current agricultural yields are insufficient to feed the growing populations. The use of crop rotation and diversification in a technique that should be encouraged among farmers because it helps in improving crop quality and yield of agricultural products. The use of mechanized farming system should be promoted because despite the use of crop rotation and other local techniques, food insecurity has been on the increase because these techniques cannot meet the food demand of the fast growing population. There is need for mechanized system of farming in Nigeria through the use of machines, equipment and other implements to improve production, (Ojo and Adebayo 2012). Also the use of irrigation system of farming is important because this ensures certain foods are made available and accessible at all seasons of the year.

c) **Improving Human Capital Through Education:** This is actually a mechanism that facilitates productivity in any field of career, agriculture inclusive. Most farmers in Nigeria are not educated. Not because they are not interested, but because they lack access to it. The government needs to make education accessible to poor one so as to improve their ability to understand and handle modern equipment which in turn will bring about high agricultural production.

d) **Improving our Infrastructure:** Lack of basic infrastructures such as good roads, electricity, portable water etc have been a major problem in ensuring food security. For farmers to be productive, these basic amenities must be accessible so as to improve productivity.

e) **Conflict prevention and resolution mechanisms and democracy and governance based on principle of accountability and transparency in public institutions and the rule of law are basic to reducing vulnerable household in the society.** Any government that is for the people ensures that the citizens are cared for in all aspects. They make policies that will alleviate poverty and ensure food security.

f) **Improving on the Provision of Credit and Incentives:** Granting credit facilities to farmers will go a long way to improve farmer's productivity. Having access to credit facilities during the planting season.
will enable the farmers afford good quality seeds, fertilizers, pesticides etc as well as buy or hire equipment needed for production.

This will go a long way in helping the farmers produce large quantities of food to reduce to the minimal food insecurity among households for national stability.

**Conclusion**

Food security has been a thing of concern many thousands of years ago. Household food security exists when all members of the household, at all times, have access to food for an active, healthy life. Although food insecurity is a global phenomenon, it is more prevalent among developing countries, Nigeria inclusive. Food security became an issue in Nigeria from the time of shift from agriculture as the nation's source of financial resources to oil.

Though huge financial resources are gotten from oil, it is been diverted into private accounts leading to underdevelopment, hunger, starvation and malnutrition. Food security can, however, still be restored in the country if the above listed ways of improving household food security can be adhered to by all.

**Recommendations**

From the foregoing discourse on Improving Household Food Security for National Development, the following suggestions are made;

a) Government should help farmers improve their agricultural markets and increase food production
b) Funding research in agriculture so as to increase crop production
c) Government should make available soft loans to farmers to assist them in boosting food production.

**References**


CAPACITY BUILDING NEEDS OF HOME ECONOMICS TEACHERS TEACHING GARMENT MAKING IN EBONYI STATE

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Abstract
The study investigated the capacity building needs of Home Economics teachers teaching garment making in secondary schools in Ebonyi South Senatorial Zone, Ebonyi State. The survey was based on five research questions. The population for the study comprised one hundred and four (104) Home Economics teachers in secondary schools in south senatorial zone Ebonyi State. There was no sampling due to manageable size of the population. Structured and validated questionnaire was used for data collection. Mean and standard deviation were used for data analysis. The findings of the study showed that the teachers need capacity building in all the identified areas of garment making curriculum. The study concluded that teacher's competency in teaching garment making needs upgrading. Based on the findings of the study, it was recommended that re-training and upgrading of Home Economics teachers proficiency in the newly introduced trade subjects should be embarked upon by policy makers to ensure effective implementation of the ever evolving curriculum.

Keywords: Garment Making, Capacity Building, Home Economics

Introduction
Garment making is an aspect of clothing and textile in Home Economics Education. It is among the 39 trade subjects in which students are to choose one as a requirement in senior secondary school. The trade subject otherwise known as entrepreneurial subjects were introduced to meet the broad goals of secondary education which is to prepare students for tertiary education and to equip those who may not be privileged to proceed into tertiary education level with skills for the world of work (Federal Republic of Nigeria (FRN), 2013).

The curricula was developed to further consolidate the educational gains of the 9 years Basic Education Curriculum as well as ensure the actualization of Governments' Transformation Agenda and other national development aspirations. Garment making curriculum covers introduction to garment making, sewing tools and equipment, basic sewing processes, patterns in garment making, figure types, pattern drafting, adaptation and garment construction and finally setting up a garment making business (Federal Ministry of Education (FME), 2011). The objectives are geared towards equipping the students with professional and entrepreneurial skills for self reliance.

Educational objectives are only attainable through effective implementation of the educational curriculum (Okeke & Opebiyi, 2011). According to Egbo (2011) micro level practitioners which are teachers in policy implementation constitute the nexus of any sustainable transformation system. Educational reforms cannot be successful without addressing the 'teacher' question, especially in the case of Nigeria, where massive student academic failure is partly attributed to teachers not carrying out their primary task of teaching and learning with quantifiable success (Egbo, 2011). Buttressing this fact, Okoye and Ogunleke (2015) observed that after many years of introduction of the trade subject the impact is yet to be felt. Similarly Olubiyi, Ozor, ObiAnyanwu and Okeke (2018) observed in their study, that teachers encounter various difficulties in teaching the trade subjects. Currently the general perception is that a significant number of Nigerian teachers are not equipped to deliver quality education for a number of intercondensed reasons, chief among them being training related issues, infrastructural limitation and low morale (Egbo, 2011). There is therefore renewed emphasis on quality of teachers and teacher education. Indeed no nation can build a strong and effective educational system without the continuous appraisal and subsequent improvement of its teachers training programme since teachers remain the pillars of the system (Nyozer, 2008) cited in Egbo (2011). Therefore,, the need for capacity building of teachers.

Capacity building and development is the process by which people, organization and society systematically stimulate and develop their capability over time to achieve social and economic goals, including through improvement of knowledge, skills, system and institutions within a wider society and cultural enabling environment (UNISRR, 2013). Many capacity building need activities may be too broad. However, the specific needs of individuals and groups need to be addressed through targeted activities, based on relevant cases,
evidence based success stories and focused experimental learning (United Nations Educational and Scientific Cultural Organization International Bureau of Education: UNESCO IBE, 2009). According to UNESCO IBE (2009) in capacity building, teachers and educators must understand their changing roles as curriculum changes, comprehend curriculum objectives and national curriculum stands, master the subject matter and pedagogical skills to deliver the subject specific content, engage in continued professional learning and development among others. The professional development of teachers occur in three phases viz preparatory or pre service training before they begin teaching in school, induction during initial years of teaching especially the first three years and finally in-service training, throughout the teaching career. There is therefore dire need for teachers to update their knowledge and skill as the school curriculum and technologies change. Hence, the objective of this study is to determine the capacity building needs of Home Economics teachers teaching garment making.

**Purpose of the Study**
The main purpose of this study is to ascertain the capacity building need of Home Economics teachers in teaching garment making in Ebonyi South Senatorial Zone, Ebonyi State. Specifically, the study was designed to determine:

1. Capacity building needs of Home Economics teachers in teaching selection of sewing tools and equipment in Ebonyi South Senatorial Zone
2. Capacity building needs of Home Economics teachers in teaching sewing processes in garment making in Ebonyi South Senatorial Zone
3. Capacity building needs of Home Economics teachers in teaching pattern drafting and adaptation in garment making in Ebonyi South Senatorial Zone
4. Capacity building needs of Home Economics teachers in teaching garment construction method in Ebonyi South Senatorial Zone
5. Capacity building needs of Home Economics teachers in teaching requirement for setting up a garment making business in Ebonyi South Senatorial Zone

**Research Questions**
The following research questions were formulated to guide the study:

1. What are the capacity building needs of Home Economics teachers in teaching sewing tools and equipment in Ebonyi South Senatorial Zone?
2. What are the capacity building needs of Home Economics teachers in teaching basic sewing processes in garment making in Ebonyi South Senatorial Zone?
3. What are the capacity building needs of Home Economics teachers in teaching pattern drafting and adaptation in garment making in Ebonyi South Senatorial Zone?
4. What are the capacity building needs of Home Economics teachers in handling garment construction of different garments in Ebonyi South Senatorial Zone?
5. What are the capacity building needs of Home Economics teachers in teaching requirement for setting up a garment making business in Ebonyi South Senatorial Zone?

**Methodology**
**Research Design:** The research design was descriptive survey.

**Population:** The population comprised of one hundred and four (104) Home Economics teachers in secondary schools in Ebonyi South Senatorial Zone, Ebonyi State.

**Sample and Sampling Technique:** There was no sampling due to the manageable size of the entire population.

**Instrument for Data Collection:** A questionnaire titled ‘capacity building need of Home Economics teachers in teaching garment making in Ebonyi South Senatorial Zone (CBNHETGM)’ was used for data collection. Four point scale was used: Highly Needed (HN), Needed (N), Slightly Needed (SN) and Not Needed (NN) was utilized in the rating.

**Method of Data Collection:** The questionnaire was given to the teachers on the spot contact and retrieved immediately after filling them ensuring 100% return.

**Method of Data Analysis:** The data collected was analyzed using mean and standard deviation. The mean score for each was interpreted based on the limit of numbers of nominal values assigned in the scaling statement. Any mean score below 2.50 was rejected while 2.50 and above was accepted.

**Results**
**Research Question 1:** What are the capacity building needs of Home Economics teachers in teaching sewing tools and equipment?
Table 1: Mean responses of respondents on capacity building needs in teaching sewing tools and equipment

<table>
<thead>
<tr>
<th>S/N</th>
<th>Items: Home Economics teachers need capacity building in teaching:</th>
<th>Mean</th>
<th>SD</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Selection and care of simple sewing tools</td>
<td>3.07</td>
<td>1.04</td>
<td>Accepted</td>
</tr>
<tr>
<td>2.</td>
<td>The sewing machine types, parts and functions</td>
<td>2.89</td>
<td>1.06</td>
<td>Accepted</td>
</tr>
<tr>
<td>3.</td>
<td>Common machine faults and remedies</td>
<td>2.84</td>
<td>1.079</td>
<td>Accepted</td>
</tr>
<tr>
<td>4.</td>
<td>Maintenance and storage of sewing tools</td>
<td>3.10</td>
<td>0.98</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

Table 1 shows that the grand mean ratings (2.84-3.10) which were all greater than the cutoff value of 2.5. This showed that the respondents agreed that in all the 4 items, the teachers need capacity building in teaching the topics in garment making in Ebonyi South Senatorial Zone. The standard deviation indicated that the responses were close to one another and to the mean.

Research Question 2: What are the capacity building needs of Home Economics teachers in teaching the following sewing processes?

Table 2: Mean responses of respondents on capacity building needs in teaching sewing processes in garment making

<table>
<thead>
<tr>
<th>S/N</th>
<th>Items: Home Economics teachers need capacity building in teaching:</th>
<th>Mean</th>
<th>SD</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Basic statistics</td>
<td>2.86</td>
<td>1.04</td>
<td>Accepted</td>
</tr>
<tr>
<td>2.</td>
<td>Seams and seam finishes</td>
<td>2.89</td>
<td>1.06</td>
<td>Accepted</td>
</tr>
<tr>
<td>3.</td>
<td>Disposal of fullness</td>
<td>3.09</td>
<td>0.96</td>
<td>Accepted</td>
</tr>
<tr>
<td>4.</td>
<td>Facing and interfacing</td>
<td>3.08</td>
<td>0.99</td>
<td>Accepted</td>
</tr>
<tr>
<td>5.</td>
<td>Opening and fastening</td>
<td>3.25</td>
<td>0.95</td>
<td>Accepted</td>
</tr>
<tr>
<td>6.</td>
<td>Figure types</td>
<td>3.04</td>
<td>0.98</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

Table 2 showed that the 6 items, capacity building needs in teaching processes in garment making were all positively scored above the cutoff point with the mean ranging from (\( \bar{X} =2.86-3.25 \)). This showed that, the teachers agreed that capacity building is needed in teaching all the sewing processes. The standard deviation value for all the items ranged between (0.98 – 1.06) indicating that the responses are close to one another and the mean.

Research Question 3: What are the capacity building needs of Home Economics teachers in teaching pattern drafting and adaptation in garment making?

Table 3: Mean responses of respondents on capacity building needs in teaching pattern drafting and adaptation in garment making

<table>
<thead>
<tr>
<th>S/N</th>
<th>Items: Home Economics teachers need capacity building in teaching:</th>
<th>Mean</th>
<th>SD</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Choice of styles</td>
<td>3.05</td>
<td>0.99</td>
<td>Accepted</td>
</tr>
<tr>
<td>2.</td>
<td>Body measurement</td>
<td>2.93</td>
<td>1.09</td>
<td>Accepted</td>
</tr>
<tr>
<td>3.</td>
<td>Fabric selection</td>
<td>2.86</td>
<td>1.03</td>
<td>Accepted</td>
</tr>
<tr>
<td>4.</td>
<td>Concept of pattern</td>
<td>3.03</td>
<td>1.00</td>
<td>Accepted</td>
</tr>
<tr>
<td>5.</td>
<td>Ways of obtaining pattern</td>
<td>2.81</td>
<td>1.09</td>
<td>Accepted</td>
</tr>
<tr>
<td>6.</td>
<td>Drafting of bodice block</td>
<td>2.89</td>
<td>1.07</td>
<td>Accepted</td>
</tr>
<tr>
<td>7.</td>
<td>Drafting of skirt block</td>
<td>2.67</td>
<td>1.06</td>
<td>Accepted</td>
</tr>
<tr>
<td>8.</td>
<td>Drafting of basic sleeve block</td>
<td>3.08</td>
<td>0.97</td>
<td>Accepted</td>
</tr>
<tr>
<td>9.</td>
<td>Drafting of basic collar</td>
<td>3.09</td>
<td>1.03</td>
<td>Accepted</td>
</tr>
<tr>
<td>10.</td>
<td>Adaptation of blouse pattern</td>
<td>3.13</td>
<td>0.97</td>
<td>Accepted</td>
</tr>
<tr>
<td>11.</td>
<td>Adaptation of skirt pattern</td>
<td>2.89</td>
<td>1.06</td>
<td>Accepted</td>
</tr>
<tr>
<td>12.</td>
<td>Adaptation of sleeves</td>
<td>2.88</td>
<td>1.04</td>
<td>Accepted</td>
</tr>
<tr>
<td>13.</td>
<td>Adaptation of collars</td>
<td>2.99</td>
<td>1.06</td>
<td>Accepted</td>
</tr>
<tr>
<td>14.</td>
<td>Adaptation of shirt</td>
<td>3.01</td>
<td>0.99</td>
<td>Accepted</td>
</tr>
<tr>
<td>15.</td>
<td>Adaptation of other outfits e.g. Gowns, jumpers and other house articles, etc</td>
<td>2.84</td>
<td>1.03</td>
<td>Accepted</td>
</tr>
<tr>
<td>16.</td>
<td>Free hand method</td>
<td>2.98</td>
<td>0.94</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

Table 3 showed that the grand mean rating of the response of the respondents on the 16 items ranged between (\( \bar{X} =2.67-3.02 \)) which were all above the cutoff value of 2.5. This indicated that the respondents agreed that there is
need for capacity building in teaching pattern drafting and adaptation in Ebonyi South Senatorial Zone. The standard deviation values indicated that the responses were close to one another and to the mean.

**Research Question 4:** What are the capacity building needs of Home Economics teachers in teaching garment construction?

**Table 4: Mean responses of respondents on capacity building needs in teaching construction of different garments and its features**

<table>
<thead>
<tr>
<th>S/N</th>
<th>Items: Home Economics teachers need capacity building in teaching:</th>
<th>Mean</th>
<th>SD</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Construction of blouse</td>
<td>2.89</td>
<td>1.06</td>
<td>Accepted</td>
</tr>
<tr>
<td>2.</td>
<td>Construction of skirts</td>
<td>3.02</td>
<td>0.99</td>
<td>Accepted</td>
</tr>
<tr>
<td>3.</td>
<td>Construction of sleeves</td>
<td>2.88</td>
<td>1.04</td>
<td>Accepted</td>
</tr>
<tr>
<td>4.</td>
<td>Construction of collar</td>
<td>3.07</td>
<td>0.98</td>
<td>Accepted</td>
</tr>
<tr>
<td>5.</td>
<td>Construction of shirt</td>
<td>3.01</td>
<td>0.98</td>
<td>Accepted</td>
</tr>
<tr>
<td>6.</td>
<td>Construction of trousers, gowns and jumpers</td>
<td>3.03</td>
<td>1.00</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

Table 4 showed that the 6 items on responses of respondents on capacity building needs in teaching garment construction in garment making were all accepted with mean score ranging from ($\bar{x} = 2.88-3.07$) which were all above the cutoff point of 2.5. The standard deviation values for the 6 items ranged between (0.98 – 1.06) indicating that the responses of the respondents are close to one another not much variation.

**Research Question 5:** What are the capacity building needs of Home Economics teachers in teaching requirement for setting up a garment making business?

**Table 5: Mean response of respondents on capacity building needs in teaching requirement for setting up a garment making business**

<table>
<thead>
<tr>
<th>S/N</th>
<th>Items: Home Economics teachers need capacity building in teaching</th>
<th>Mean</th>
<th>SD</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Planning a business in garment making</td>
<td>3.25</td>
<td>0.98</td>
<td>Accepted</td>
</tr>
<tr>
<td>2.</td>
<td>Financing a garment making business</td>
<td>3.01</td>
<td>0.99</td>
<td>Accepted</td>
</tr>
<tr>
<td>3.</td>
<td>Profit/price faxing in garment making</td>
<td>3.00</td>
<td>0.97</td>
<td>Accepted</td>
</tr>
<tr>
<td>4.</td>
<td>Building customer relationship</td>
<td>2.84</td>
<td>1.07</td>
<td>Accepted</td>
</tr>
<tr>
<td>5.</td>
<td>Promoting garment making business</td>
<td>2.88</td>
<td>1.04</td>
<td>Accepted</td>
</tr>
<tr>
<td>6.</td>
<td>Minimum requirement for setting a business for establishing garment making business</td>
<td>2.98</td>
<td>1.04</td>
<td>Accepted</td>
</tr>
<tr>
<td>7.</td>
<td>Factors that can affect garment making business</td>
<td>3.02</td>
<td>0.98</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

Table 5 shows that the 6 items on capacity building needs of the teachers in teaching requirement for setting up a garment making business were all accepted. The table further showed that planning a business in garment making received the maximum mean rating of ($\bar{x} = 3.25$) other items presented had mean score ranging from (2.84 - 3.25198) which were all above the cutoff point. This indicated that all the topics under requirement for setting up a garment making business, Home Economics teachers need capacity building in teaching them. The standard deviation values for the entire 6 items in the table ranged from (0.98 – 1.07) indicating that the responses of the respondents are close to one another and to the mean.

**Discussion of Findings**

The findings of the study showed that Home Economics teachers need capacity building in teaching selection and care of sewing tools and equipment, common machine faults and remedies, maintenance and storage of sewing tools among others. Raul (2010) noted that modern technology has given rise to wide range of sewing aids, wide range of sewing machines from simple straight sewing to computerized ones, attachments, hem makers, dress forms among others. Hence, achieving professional result in dress making is easily attainable. The changing trend from manually operated equipment to automated ones invariably compels teachers to update their knowledge and acquaint themselves with the manipulative skills needed to operate them.

The findings of the study in table 2 also showed that capacity building is also needed in teaching sewing processes; figure type, opening and fastenings, disposal of fullness among others. According to Raul (2010)
technical processes in dress making must be mastered to become really skilled in the act of converting flat materials into shaped garments. Sewing is a skilled craft which comparatively few people find it easy. Teachers involved require self determination and commitment to get themselves perfected in the skill.

Furthermore, the findings of tables 3 and 4 indicated that the Home Economics teachers also need capacity building in pattern drafting, adaptation and construction of different style features and garments. This corroborates the findings of Nuhu, Lidima, Iliya and Rish (2018) who observed that available teachers who teach the entrepreneurship subjects were drafted from those who were trained with the old curriculum and may not have gotten additional skills to cope with the challenges of the new curriculum. Ali, Rashid, Azlam, Aminidin, Muhammed and Yahaya (2012) opined that teachers should be engaged in training and retraining sessions to equip them with current skills and knowledge towards teaching approaches. According to UNESCO IBE (2009) capacity building should be an ongoing process not a one off injection of training teachers. Teachers need to update their knowledge as school curriculum and technologies change. In the Canada, provincial government emphasizes continuous professional development that there are designated professional development days in the schools calendar during the course of an academic year (UNESCO IBE, 2009). If teachers have the knowledge, competency and preparedness to teach the needed skill, this should easily be transferred as the teacher interacts with the students (Okeke, Lemchi & Nwinyi, 2017). Capacity building of teachers becomes paramount for effective implementation of the curriculum.

Finally, table 5 showed that the Home Economics teachers also needed capacity building in requirement for establishing garment making business; making business plans, financing garment making business, factors affecting garment making business among others. This affirms the findings of Maxwell, Falola, Ibidumi and Inelo (2014) who observed the lacking business aspect of the entrepreneurship education taught by teachers in secondary schools teaching only theory which is void of real life situation. This eventually produces school leavers who cannot establish their businesses after leaving school. Eaglesland Technologies emphasized the need for policies and strategies that would address the cross cutting issues of quality and relevance of training, employability and collaboration between the training institutions and employers. Building capacity in Nigeria should therefore include a re-conceptualization of the processes that are involved in teacher certification and licensure (Egbo, 2011). Theory and practice should be matched together, thus a non entrepreneur or entrepreneurship educator who does not have firsthand experience is not qualified to handle the subject. (Elena 2014)

**Conclusion**

Capacity building is the ability of a teacher to deliver qualitative instruction to ensure the attainment of the desired educational goals. Curriculum in its dynamic nature is ever evolving to meet the societal needs. Introduction of garment making as one of the trade subject is a good innovation which gives the students opportunity and exposure to explore and discover their talents for economic empowerment. Implementation of the curriculum lies greatly on the shoulders of the teachers who impact this knowledge to the students.

However, the poor outcome of the learning objectives as the school leavers could not establish after school is worrisome; thus the need to address the teacher problem. Most of the teachers in the school were trained with the old curriculum, whose ultimate goals have been overtaken by the current societal needs. Hence, the need for re-training programme for teachers to acquaint them with the current modern innovations for effective manpower development. Even the teachers in the making should embrace creativity and innovation, a paradigm shift from the popular assertion that teachers generally teach the way they are taught.

**Recommendations**

Based on the findings of this study, the following recommendations were made:
1. Training and retraining of teachers to keep abreast with the current trade in technological development to enable them qualify to implement the ever evolving curriculum.
2. Organizing of seminar and workshops and practical skills in garment making
3. Engagement of successful entrepreneurs to argument teachers’ effort
4. All the necessary equipment needed for effective teaching of garment making should be provided by school management and government
5. Allocation of quality time for practical teaching of garment processes should be ensured in secondary schools.
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PROXIMATE COMPOSITION AND MICROBIAL CHARACTERISTICS OF PROCESSED TIGER NUT MILK (*Cyperus esculentus*)

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Faculty of Renewable Natural Resources, University of Ibadan, Oyo State

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Federal Polytechnic Auchi, Edo State, Nigeria.

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Abstract
This study investigated the proximate and microbial characteristics of processed tiger nut milk. Tiger nut was purchased, processed under standard conditions and subjected to laboratory analysis in triplicates. The result showed that the sample contain 90.7% moisture content, 0.6% crude protein, 2.7% crude fat, 0.1% crude fibre, 0.2% ash and 5.7% carbohydrate. The microbial load was found to be higher than the FAO/WHO standard. The pH was found to decrease from 5.5 at preparation to 3.2 after 18 hours. It was concluded that tiger nut milk is a nutritious beverage with high moisture content but low crude fibre, crude protein, crude fat and ash content. The milk decrease in pH suggested increase in acidity which aids spoilage.

Keywords: Tiger nut milk, Proximate Composition, Microbial load.

Introduction
Tiger nut is an emerging grass-like perennial plant belonging to the family Cyperaceae and genus Paprus (Ogwuike *et al*., 2017). Tiger nut is also referred to as Zulu nut, Yellow nut grass, Ground almond, Chafa and Edible rush. In Nigeria, the Hausa’s call it Aya, Yoruba call it *Imumu* and Ofio or *Aki Hausa* in Igbo (Omode *et al*., 1995). Tiger nut can be eaten raw, dried, roasted or grated and used as flour or vegetable milk (Ogbonna *et al*., 2013). The most common of its use is the processing into milk. In Spain, where it originated from, recognition and use seems to be highest globally. It is processed into local drink call *Horchata De Chafa* (Allouh *et al*., 2015). In Ghana, it is referred to as 'Atadwe' (Asante *et al*., 2014) while it is called 'Kunnu Aya' in Nigeria (Ogbonna *et al*., 2013), and produced in large quantity in the northern part of the country. There are three varieties of the nut which are brown and yellow, with the latter being the most preferred one because of its organoleptic characteristics, large size, attractive colour, freshness, and high milk yield during extraction (Ogwuike *et al*., 2017). Tiger nut beverages are whitish and considered by many to be very refreshing especially when chilled (Badau *et al*., 2018).

Research efforts have been tailored towards the development of beverages from local raw materials globally and Nigeria is not left out (Said *et al*., 2017). This can been argued from the perspectives of utilization of available materials to meet an enduring need such as the campaign against the excess consumption of carbonated drinks, increased awareness of the health benefits of natural products, and economic improvement of local farmers and rural economy. The sources of the beverages that have been relatively explored include millet, roselle plant extract (Zobo), sorghum and soybean. Despite the fact that tiger nut is one of the earliest domesticated crops in the world it is one of the underutilized crops in the world (Ogwuike *et al*., 2017). This also a cash crop that has not been given enough recognition and patronage. There has been increasing awareness on this and a campaign for heightened utilization given its nutritional and health benefits (Belewu and Belewu, 2007).

In light of this, the proximate composition of the tiger nut seed and products like flour and local snack 'donkwa' has been documented (Oladele and Aina, 2007). Temple (1989) further reported that tiger nut is rich in protein (7%) and carbohydrate. These carbohydrates include reducing sugar (7.4%), soluble polysaccharide (7.4%) and starch (86.4%). Its biological value is slightly higher as reported by Ojobe and Tempo (1993) than many other nutritious foods proposed by FAO/WHO (2002). The amino acid content of tiger nut is essentially found within the range needed by adult (Bosch *et al*., 2005). A major issue associated with tiger nut milk is however the fast deterioration rate. Chemical and microbiological composition of tiger nut milk produced under hygienic conditions by a researcher has however not been largely explored. Most evaluations have been reliant upon samples gotten from sales outlet which may not be prepared under hygienic conditions.
Madau et al. (2018) evaluated the microbiological quality of tiger nut beverages sold within the University of Maiduguri, Borno State in order to ascertain its safety on the health of the consumers. In Abeokuta campuses, Ogun State, this was assessed by Taiwo et al. (2017). Likewise, Umar et al. (2014) in Umaru Musa Ya’ar’adua University, Katsina State, Musa and Hamza (2013) in Kaduna State University and Elmahmood and Doughari (2007) surveyed this in Girei town of Adamawa State. This study methodologically prepared tiger nut milk under standard conditions and examined the proximate and microbial composition, with a view to compare with the findings of previous studies.

Methodology

Purchase and preparation of Tiger nut milk

Tiger nut (Cyperus esculentus), the yellow variety, was purchased from Ojoo Market Ibadan, Oyo State. The preparation was done in the Department of Wildlife and Ecotourism Management, University of Ibadan Hospitality Unit adapting the methods of Manga (2016) on Figure 1. The milk was package in a plastic bottle which was labelled to give brief information about the milk.

1. Purchase and sorting of Tiger nut
2. Wash and soak Tiger nut for 6-8 hours
3. Grind Tiger nut in ratio of 2 liters of water to 500 grams of Tiger nut
4. Allow to stay for 10 minutes
5. Press and strain in a clean muslin/strainer
6. Serve chilled or package

Fig. 1: Flow chart for the production of Tiger nut milk
Source: Adapted from Manga, (2016)

Proximate analysis: Three 10ml samples of the prepared Tiger nut milk was subjected to proximate composition analysis. Nutrient checked for were Carbohydrate, Crude fat, moisture, Crude protein, Crude fibre and Ash. This proximate analysis was carried out at Human Nutrition, College of Medicine, University of Ibadan, Oyo State.

Microbial analysis: The microbial analysis was carried out at the department of Microbiology, Faculty of Science, University of Ibadan, Oyo State. This was carried out to investigate the microbial load of 10ml of tiger nut milk with a view to determine the shelf life of the Tiger nut milk sample. The method use was adopted from Okorie et al. (2014). On each experiment, 10ml of sample content was dispersed in 90ml of sterile distilled water, homogenized by shaking vigorously and further diluted. An aliquot portion (0.1ml) of the 5th dilution was inoculated in duplicate on dried surface of Nutrient agar (for bacteria), Mac Conkey agar (without yeast for coliform), Sabouraud dextrose agar (for yeast) and potato dextrose agar (for moulds).

Data analysis: Using Statistical Package for Social Sciences version 21, data were subjected to descriptive statistics and the means and standard deviation were presented.

Results

Proximate composition
The sample was found to contain 90.7% moisture content, 0.6% crude protein, 2.7% crude fat, 0.1% crude fibre, 0.2% ash and 5.7% carbohydrate (Table 1).

Table 1: Proximate composition of tiger-nut milk

<table>
<thead>
<tr>
<th>Component</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moisture content (%)</td>
<td>3</td>
<td>90.7267</td>
<td>0.01528</td>
</tr>
<tr>
<td>Crude protein (%)</td>
<td>3</td>
<td>0.5867</td>
<td>0.00577</td>
</tr>
<tr>
<td>Crude fat (%)</td>
<td>3</td>
<td>2.7033</td>
<td>0.00577</td>
</tr>
<tr>
<td>Crude fibre (%)</td>
<td>3</td>
<td>0.1033</td>
<td>0.00577</td>
</tr>
<tr>
<td>Ash (%)</td>
<td>3</td>
<td>0.2433</td>
<td>0.00577</td>
</tr>
<tr>
<td>Carbohydrate (%)</td>
<td>3</td>
<td>5.7400</td>
<td>0.01732</td>
</tr>
</tbody>
</table>
Microbial composition
This is presented on Table 2. The pH of the sample was found to decrease from 5.5 at preparation to 4.3 after six hours. This further decreased to 3.5 after 12 hours and 3.2 after 18 hours. The total bacterial count was $2.825 \times 10^6$ CFU/ml at 0 hour. No growth was recorded for subsequent hours. Likewise, the total coliform count was $2.375 \times 10^6$ CFU/ml and no growth was recorded for subsequent hours. The yeast composition was $1.275 \times 10^5$ CFU/ml at 0 hour. This decreased to $2.95 \times 10^4$ CFU/ml after six hours. After 12 and 18 hours, the yeast count has reduced to $7 \times 10^4$ CFU/ml and $2 \times 10^4$ CFU/ml respectively. The total mould count at 0 hour was $4 \times 10^4$ CFU/ml and this remained the same after 6 hours. At 12 hours following preparation, the mould count has reduced to $2 \times 10^4$ CFU/ml. An increase was observed to $2.5 \times 10^4$ CFU/ml after 18 hours.

<table>
<thead>
<tr>
<th>Time (hours)</th>
<th>pH</th>
<th>TBC (CFU/ml)</th>
<th>TCC (CFU/ml)</th>
<th>Yeast (CFU/ml)</th>
<th>Mould (CFU/ml)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>Mean</td>
<td>Mean</td>
</tr>
<tr>
<td>0</td>
<td>5.5</td>
<td>$2.825 \times 10^6$</td>
<td>21213</td>
<td>$3.27 \times 10^4$</td>
<td>466691</td>
</tr>
<tr>
<td>6</td>
<td>4.3</td>
<td>NG</td>
<td>NG</td>
<td>NG</td>
<td>NG</td>
</tr>
<tr>
<td>12</td>
<td>3.5</td>
<td>NG</td>
<td>NG</td>
<td>NG</td>
<td>NG</td>
</tr>
<tr>
<td>18</td>
<td>3.2</td>
<td>NG</td>
<td>NG</td>
<td>NG</td>
<td>NG</td>
</tr>
</tbody>
</table>

(Note = TBC – Total bacterial count, TCC – Total coliform count, SD – Standard deviation, NG – No growth)

Discussion
One of the essential components of any beverage is its water content (Ojebo and Tempo, 1993). The tiger nut milk was found to comprise of 90.7% moisture content. This when compared to the moisture content in dried tiger nut (3.5%) as reported by Oladele and Aina (2007) is high, mainly because the principal constituent in the production is water. High moisture content has however been noted to typically allow microbial growth (Udeozor and Awonorin, 2014). The sample was found to contain 0.6% crude protein, 2.7% crude fat, 0.1% crude fibre, 0.2% ash and 5.7% carbohydrate. Bamishaiye and Bamishaiye (2011) reported that tiger nut drink is a rich source of unsaturated fats and some enzymes which help in digestion. Also, the milk is thought to be beneficial to diabetic patients if it is sugar-free (Anderson et al., 2009) and those seeking to reduce cholesterol or lose weight (Borges et al., 2008), due to its content of carbohydrate (Alegria-Torán and Farré-Rovira, 2003). This is evident in this study as the sample was prepared without sugar. However, the crude protein, crude fibre and ash content of the milk were found to be low when compared with the composition of tiger nut seeds documented by Oladele and Aina (2007). From the results of this study, it was observed that the microbial counts were above the limit of acceptance, which shows that the beverage was not suitable for consumption after the first few days of storage. And this goes in line with the findings of Abajeoh et al. (2006) who indicated that the deterioration effect of microorganisms on tiger nut beverage drink hampered its production in Nigeria. The reduction in the pH from 5.5 at zero hour to 3.2 at 18 hours depicts an elevated level of acidity. This is similar to the findings of Ibrahim et al. (2016) of pH 3.05 to 4.36. Also, Efuvwevwere and Akoma (1995) reported pH of 3.2 for tiger nut milk; Akoma et al. (2006) reported a pH range of 3.32 to 4.15 also for tiger nut milk. Musa and Hamza (2013) reported pH range of 3.5 to 4.5 for tiger nut milk consumed by students of Kaduna state University. This type of acidity is called biological acidity and may be as a result of the growth of microorganisms as pH reduces (James, 2000). In contrast, the only bacterial count reported was at zero hour, and no growth was observed for the 18 hours following preparation. Increase in acidity has however been associated with increased fermentation which invariably leads to spoilage.

Conclusion
Tiger nut milk is a nutritious beverage with high moisture content but low crude fibre, crude protein, crude fat and ash content. The milk had high microbial load and its acidity which facilitates spoilage as the storage hours' increases. It is recommended that, good hygiene must be ensured while preparing the beverage so as to avoid cross-contamination that can increase the beverage microbial load.

References
VEGETABLE FARMING: A STRATEGY FOR HOUSEHOLD FOOD AND ECONOMIC SECURING AMONG WOMEN IN OSHIMILI SOUTH, DELTA STATE, NIGERIA.

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Abstract
This study aimed at identifying types of vegetables planted by female farmers in Oshimili South Local Government Area, the level of income generated from vegetable sales and the nutritive values of vegetables that makes them to support good health. Three research questions guided the study, survey research design was adopted, a simple random method was used to select fifty respondents and a structured questionnaire, containing twenty test items was used for data collection, data collected was analyzed using mean statistics. Result obtained revealed that pumpkin vegetable are cultivated for both nutrition needs and income generation, 2.9, and maintain family financial stability with a of 2.6 among others. Based on these findings it was recommended that women living in the river-line areas should engage in such occupation and assist the family to alleviated level of poverty and food insecurity.

Keywords: Vegetable, Farming, Household, Nutrition, Economic security, Nigeria

Introduction
Vegetable farming is a type of horticultural farming in which various types of flowering plants are grown and nurtured to maturity level, either for food or beautification purposes (Uko – Aviomoh, 2016). Moemeke (2012) defined vegetables as succulent herbaceous plants that are eaten whole or in part, raw or cooked as plant of main dish or salad. Vegetables are also referred to as portions of plants such as:

i. Leafy (Spinach, Scent leaf, pumpkin leaf and bitter leaf among others)
ii. Fruits (Okra, tomatoes, pepper and lettuce among others)
iii. Bulbs (Onion, shallot and garlic among others)
iv. Roots (Carrots, turnip and ginger among others)
v. Stem (Mushroom, leaks, cley and edible grass stocks among others

Source: Jenine (2016)

In the past, Nigerians consumed leafy vegetables customarily as condiments, essentially used to improve the eye appeal and the flavour of foods (Moemeke, 2012). This reason and for medicinal purposes, vegetables were consumed in small quantity in the past. Fresh vegetables were self-supporting by local preference for a particular type and variety of vegetable grown for family consumption in different locality.

A visit to some villages in the Oshimili Local Government Area in Delta State revealed that vegetable has assumed a different dimension among the female folk in Oshimili South Local Government Area, and that fluted pumpkin leaves is not only cultivated for family consumption but for income generation also. The fluted pumpkin leaves are called different names in Nigerian Societies. The Igbo call it Ugu, the Yoruba call it Ugu, Hausa call it Kabewa, Ikong – Ubong in Efik and Calabar call it Oriebe. Gerger (2016) reported the nutritional benefits of fluted pumpkin leaves or vegetables to include:

Nutritional Benefits of Fluted Pumpkin Leaves

1. Good source of Dietary Fibre
Fluted pumpkin leaves are a source of dietary fibre that helps in the healthy maintenance of the digestive system. It plays an important role in improving digestion thereby reducing the chances of health conditions like an irritable bowel movement, constipation and those causes by indigestion problems like ulcers and gastroparesis.
2. Maintains the Body Tissues
   The vitamin contents present in pumpkin vegetable helps in maintaining healthy tissues, cells, membrane as well as maintaining the skin and treating wounds in the case of vitamin C.
   The protein in fluted pumpkin leaves also helps in the improvement and maintenance of the body tissues which includes the connective tissues, muscles and the nervous systems.

3. Rich in Antioxidants
   They are rich in alkaloids, resins, hydrocyanic acid, tannins and flavonoids which are powerful antioxidants that offer some immune system and anti-inflammatory benefits. Foods that are rich in antioxidants are known to be effective in the prevention of cancer and other associated health conditions like ulcer due to its ability to prevent the damages which should have been caused by the oxidative stress in the body.

4. Balances the Hormones
   Pumpkin vegetable is known to have high protein content. Ugu contains the amount of protein needed for hormone balancing; tissue repairs and regulates the acitivities of body cells and organs. This is why consuming fluted pumpkin leaves (ugu) is very essential as its content of protein will also help in improving the body cells as well as replacing broken ones in the body.

5. Serve as Anti-Diabetic Agent
   Pumpkin leaves has an anti-diabetic effect which means that it has the ability to treat diabetes mellitus by reducing the level of glucose in the blood. This is made possible due to the content of polysaccharides and ethyl acetate which have been effective in lowering the blood sugar level. They are also effective in promoting glucose tolerance as well as the levels of serum insulin. The extract of Ugu leaves have proved effective in this case, and it has been used as an anti-diabetic agent to regulate the blood glucose level.

6. Improves Blood Production
   Fluted pumpkin leaves are always recommended for patients who suffer from a shortage of blood due to the effect of certain illnesses; the presence of iron and other important minerals in it contribute in the boosting of blood in the body system and prevent anaemia.

7. Improves the Bones and Teeth
   Fluted pumpkin vegetable contains a good amount of calcium that the body needs for maintaining healthy bones and teeth. It also keep the skeletal systems in normal functioning conditions. It also contains magnesium which plays a vital role in making the bone firm and strong, it might be surprising to say that without magnesium, calcium is almost ineffective to bones as it helps the adequate absorption of calcium by the bones.
   Ugu also has potassium as one of the minerals it contains which also help in maintaining the bone mineral density which means that helps to make the calcium content in the bones intact avoiding the leaching of the mineral.
   This helps to prevent osteoporosis, which affects the bones especially in the aged.

8. Treat Convulsion
   Ugu leaves have been found effective in treating convolution in children. It becomes medicinal in this case when sliced and mixed with coconut water and with a small amount of salt.
   Scientifically there might be no proof of this, but it has been used hundreds of years ago in the treatment of high fever and convolution, and serve as a remedy to many other health conditions.

9. Effective for Weight Loss
   Foods that help in weight loss are recommended for its effectiveness in weight management. Vegetables such a fluted pumpkin leaves (ugu) contain a high amount of dietary fibre which can help you lose weight as it makes one fuller and lowers their appetite.

10. Promotes Fertility
    Fluted Pumpkin leaves have been used locally in the treatment of infertility issues in both men and women. Its content of many vital nutrients and compounds have proven effective in its use to boost/improve sperm count in men and the overall functioning of their testicles. It boosts fertility in women and improves post-pregnancy health as it helps nursing mother to adequately feed their babies by increasing breast milk production.

11. Can Improve Memory
    Fluted pumpkin leaves (ugu) just as most green leafy vegetables contain certain compounds which help to improve memory.
    It also contains vital nutrients such as vitamins and magnesium which aid in the improvement and normal functioning of the brain and nervous system.
This can help in improving cognitive reasoning, memory loss (Dementia) and other health conditions associated to memory health such as Alzheimer’s disease.
Source: WHO (2014)

### Nutritional Values of Fluted Pumpkin Leaves (Ugu) (90g)

<table>
<thead>
<tr>
<th>Nutrients</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calories</td>
<td>42</td>
</tr>
<tr>
<td>Total fat</td>
<td>1.6 g</td>
</tr>
<tr>
<td>Saturated fat</td>
<td>0 g</td>
</tr>
<tr>
<td>Trans fat</td>
<td>0 g</td>
</tr>
<tr>
<td>Cholesterol</td>
<td>0 mg</td>
</tr>
<tr>
<td>Sodium</td>
<td>48 mg</td>
</tr>
<tr>
<td>Potassium</td>
<td>2500 mg</td>
</tr>
<tr>
<td>Magnesium</td>
<td>18 g</td>
</tr>
<tr>
<td>Total Carbohydrate</td>
<td>7 g</td>
</tr>
<tr>
<td>Protein</td>
<td>3 g</td>
</tr>
<tr>
<td>Vitamin A</td>
<td>7 %</td>
</tr>
<tr>
<td>Vitamin C</td>
<td>240 %</td>
</tr>
<tr>
<td>Vitamin K</td>
<td>136 %</td>
</tr>
<tr>
<td>Calcium</td>
<td>3 %</td>
</tr>
<tr>
<td>Iron</td>
<td>7 %</td>
</tr>
</tbody>
</table>

Source: Gerger (2016)

Fluted Pumpkin are rich in dietary fibre, minerals, vitamins A, B6, C, phosphorus, protein, riboflavin, thiamine, manganese, niacin, folate, magnesium, iron, potassium, anti-oxidants and vitamins flavonoid, poly-phenolic antioxidants such as lutein, xanthins and carotene.

### Cultivation of Fluted Pumpkin

The female vegetable farmers in one of the visit on group discussions disclosed the methods and activities they undertake in the vegetable farming practice to include the following activities.

1. **Site Selection:** Fluted pumpkin should be grown on a fertile soil that is well drained. This is because fluted pumpkin does not produce well in a water logged soil.
2. **Seed selection from varieties:** there are few varieties, usually called various names for example, Oriebe speshu from Calabar is said to be best preferred by vegetable marketers and consumers because it does not start decaying few days after harvesting rather it retains its quality for longer periods than others
3. **Planting Season:** Planting season may vary slightly from one region to another in some areas, April to May might be ideal for planting. While in other areas planting between August and December be ideal.
4. **Preparation of the Seed:** The seeds of the fluted pumpkin are usually housed in a large fruit pod that protects the seeds. Break open to bring out the seeds, gently scrap off the juicy flesh around the seed and dry them before planting. Drying could take minimum of 24 hours and maximum of 72 hours. Removing the juicy flesh is very important because it will prevent ants from eating up the seed immediately they are planted. It also helps to reduce moisture content that can make the seeds rotting before germination.
5. **Planting:** it is much advisable to make beds and plant the pumpkin seeds on ridges under a shade. The seeds can be nursed there by watering and dunging (spreading of fowls droppings) until ready for transplanting in the farm land.
6. **Planting Techniques and Distance:** the pumpkin seeds are planted vertically in to the soil. The pointed edge should face the soil (downward) and the exposed part facing up-ward. The seed should not be buried completely into the soil. Expose 2/3 part of the seed into the soil. Planted distance should be 30cm apart from each other on the bed. Germination and sprouting takes place within 7-14 days.
7. **Fertilizer Application:** The application of fertilizer should start when the plants are still standing i.e before the vines begins to run or creep. And the best fertilizer for pumpkin leaves are fertilizers with high nitrogen formula in the early plant growth; then switch over to fertilizers high in phosphorous just before he blooming period (Moemeke 2012).
Use of fowl droppings can be used instead of fertilizers. Fowl dropping is cheaper and contain much of the nutrient requirement for the crop. Whichever, fertilizer or fowl dropping been used, do not allow them to come in direct contact to the plants rather apply them in between the stands, apply the droppings periodically.

8. **Staking:** Staking and making of rails for the vines is becoming unpopular among farmers in some part of the country. Many prefer to leave the vines or creep on the beds. The pods are also left on the beds instead of dangling from stake to rails. However, when the fruits start growing, the vine holding the fruits is slightly raised from the ground with a small forked sticks. The choice of which method to use may depend on the variety planted and purpose of planting. If planting is on a large scale for commercial purposes, leaving them to creep on the beds will be economical and yet productive.

9. **Weeding:** if planted on beds and not staked or raise from the ground, manual weeding should be done; but if staked or raised on a rails, herbicides can be used. Weeding immediately after harvesting of leaves will be advisable. As such a time the vines are scantly ad there are space for ease of weeding and application of fertilizers.

10. **Harvesting:** Harvesting of leaves may start between 1- 2 months after planting for commercial quantity. However, it is better to harvest as from two months after planting and between one harvesting to another should take an interval of about three weeks. However, the frequency of cutting may depend on the fertility of the soil and the rate of growth of the crops. Harvesting may continue for about 8 months to one year.

11. **Fruiting:** The crop starts producing fruits from 6 months to 9 months or 9 months to one year depending on the specie planted.

12. **Attitude towards harvesting of leaves during fruiting:** the farmers attitude towards harvesting of the leaves during fruiting depends on his/her priority. Some farmers plant for the commercial benefits of the leaves. Others consider the sales of the seeds more lucrative. If one is more interested in the sales of the seed, caution should be exercised on the quantity of leaves harvested for vegetables during fruiting. The quantity and quality of harvested leaves goes a long way to determine income generation from vegetable sales. Income generation increases progressively in geometric rate starting from eight months of its life span, if the farm is properly maintained through weeding, dunging and watering as at when due (Eze, 2016).

Vegetable Farming, although not as tedious as the cultivation of other farm products, but generates income within a short period of time. The women who engage in vegetable farming in Oshimili South Local Government Area testified that income generated from the sales of vegetable goes a long way to meet the daily needs as well as off-set financial challenges in their life and families. This expression of the women level of satisfaction from income generated from vegetable farming led the researchers to investigate the extent of income generated from vegetable sales among others.

**Purpose of the Study**
The main purpose of this study is to determine the extent to which pumpkin vegetables farming contributes to heath status and financial stability of families in Oshimili South Local Government Area. Specifically the study seeks to establish:

1. The ways in which families in Oshimili South Local Government Area benefit nutritionally from fluted pumpkin leaves.
2. The level of income, the female farmers generates from vegetable sales.
3. The extent to which vegetable sales ensure financial security to vegetable farmer in Oshimili South L.G.A.

**Research Questions**
The following research questions guided the study.

1. What ways does fluted pumpkin leaves production and sales contributes to family members' nutrition needs in Oshimili South Local Government Area?
2. What level of income do female vegetable farmers in Oshimili South Local Government Area generate from vegetable sales?
3. To what extent does income generated from vegetable sales help family members to be financially secure?
Methodology
The researchers employed a descriptive survey Research Design. According to Abanobi (2018), a survey design is the best research procedure to collect information on study, population opinion, knowledge or practices in issues of discuss that can be analyzed to make a decision.

Population of the Study: The population for the study consisted all the female vegetable farmers in the six (6) villages in Oshimili south Local Government Area. The names of the villages includes: Asaba, Oko, Okwe, Illah, Ebu and Eze (Population unknown).

Sample and Sampling Techniques: A Convenience Sampling Technique was used to select ten (10) female vegetable farmers from each of the six (6) villages in Local Government Area. The actual sampled size were sixty (60) participants.

<table>
<thead>
<tr>
<th>S/N</th>
<th>Villages</th>
<th>Number Sampled</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Asaba</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>Oko</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>Okwe</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>Illah</td>
<td>10</td>
</tr>
<tr>
<td>5</td>
<td>Ebu</td>
<td>10</td>
</tr>
<tr>
<td>6</td>
<td>Eze</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>60</td>
</tr>
</tbody>
</table>

Instrument for Data Collection: A self-structured questionnaire was used for Data Collection. The questionnaire was structured in two section A and B. Section A constructed of five (5) demographic information while section B had fifteen (15) closed end items that elicited information on the study subject matter; structured on four point rating scale, namely; Very High Extent (VHE), High Extent (HE), Average Extent (AE) and Low Extent (LE). A mean of 2.5 and above indicated acceptance of opinion, while a mean less than 2.5 and below indicated rejection of opinion.

Validity of the Instrument: The instruments’ validity was established by two experts. One from the field of Agriculture Extension Service and the other from the Department of Measurement and Evaluation, Federal College of Education (Tech.) Asaba. All corrections and suggestion made on the questionnaire items were duly effected before the final copy produced were used.

Reliability of the Instrument: The instrument reliability were established through test-retest. Ten (10) copies of the instrument were given to ten (10) female vegetable farmers in Ebu, in two different occasion within two weeks interval. The women were part of the population of study but not sampled. Data generated from the two occasions were analyzed using Pearson moment Correlation and was found to be 0.89, at 0.05 level of significance. This indicates high reliability.

Method of Data Collection: The researcher visited each villages personally and administered the instruments to ten (10) respondent who were on ground at the time of the data collection. The researcher guided the respondents for appropriate completion of the questionnaire items and retrieved them on the spot. 100% of the administrated questionnaire were retrieved from the field survey.

Method of Data Analysis: Data generated from the field survey was analyzed using percentage and mean statistics. A mean of 2.5 and above will indicate agreement of opinion while a mean less than 2.5 indicates disagreement of opinion.

Results
The presentation of result is according to research question raised.

Research question 1: what way does fluted pumpkin leaves production and sales contributes to family nutrition needs in Oshimili South Local Government Area?
Table 2: Pumpkin Leaves Contributions to Nutritional Status

<table>
<thead>
<tr>
<th>S/N</th>
<th>Items</th>
<th>VHE</th>
<th>HE</th>
<th>AE</th>
<th>LE</th>
<th>WEIGHT SCORE</th>
<th>X</th>
<th>RMK</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>As sources of vitamins and minerals to family diet</td>
<td>16</td>
<td>20</td>
<td>14</td>
<td>10</td>
<td>162</td>
<td>2.7</td>
<td>Accepted</td>
</tr>
<tr>
<td>2</td>
<td>As good source of dietary fibre that prevent constipation</td>
<td>14</td>
<td>23</td>
<td>18</td>
<td>5</td>
<td>166</td>
<td>2.8</td>
<td>Accepted</td>
</tr>
<tr>
<td>3</td>
<td>As a source of improving blood production</td>
<td>15</td>
<td>24</td>
<td>17</td>
<td>4</td>
<td>170</td>
<td>2.8</td>
<td>Accepted</td>
</tr>
<tr>
<td>4</td>
<td>As a medicine to improve fertility in male and females</td>
<td>13</td>
<td>18</td>
<td>22</td>
<td>7</td>
<td>157</td>
<td>2.6</td>
<td>Accepted</td>
</tr>
<tr>
<td>5</td>
<td>Money generated from vegetable sales used to buy other food stuff that family members require to maintain good health</td>
<td>24</td>
<td>31</td>
<td>06</td>
<td>-</td>
<td>201</td>
<td>3.4</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

**Total Grand Mean**: 2.9 Accepted

Table, revealed that fluted pumpkin leaves consumption contributes to their needs to a high extent with a grand x of 2.9. This indicates that fluted pumpkin leaves farming contributes to their nutrition needs that enables them to maintain good health as well as make money sold from leaves to be used in purchasing other food stuff that are not available to them in the locality to ensure they take adequate diet.

**Research Question 2**: What level of income do female vegetable farmers in Oshimili South Local Government Area generate from vegetable sales.

Table 3: Level of income generation from vegetable sales

<table>
<thead>
<tr>
<th>S/N</th>
<th>Items</th>
<th>VHE</th>
<th>HE</th>
<th>AE</th>
<th>LE</th>
<th>WEIGHT SCORE</th>
<th>X</th>
<th>RMK</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Meet the family members nutrition needs</td>
<td>13</td>
<td>19</td>
<td>21</td>
<td>7</td>
<td>158</td>
<td>2.6</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Meet the family members medical needs</td>
<td>14</td>
<td>17</td>
<td>24</td>
<td>8</td>
<td>163</td>
<td>2.7</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Pay family members school fees and apprenticeship bills</td>
<td>16</td>
<td>19</td>
<td>18</td>
<td>7</td>
<td>154</td>
<td>2.6</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Meet all family financial needs and the expenditures</td>
<td>11</td>
<td>23</td>
<td>17</td>
<td>9</td>
<td>156</td>
<td>2.6</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Make family members live above poverty level</td>
<td>17</td>
<td>19</td>
<td>13</td>
<td>11</td>
<td>162</td>
<td>2.6</td>
<td></td>
</tr>
</tbody>
</table>

**Total Grand Mean**: 2.6

Table 3, revealed that income generated from vegetable farming can be used to solve all family challenges as well as live above poverty level in the society with a grand x of 2.6.

**Research Question 3**: To what extent does income generated from vegetable sales help family members to be financially secure?
Table 4: The Extent of Family financial security through income generated from vegetable farming.

<table>
<thead>
<tr>
<th>S/N</th>
<th>Items</th>
<th>VHE</th>
<th>HE</th>
<th>AE</th>
<th>LE</th>
<th>WEIGHT</th>
<th>X</th>
<th>RMK</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Meet all the financial needs from vegetable sales</td>
<td>15</td>
<td>18</td>
<td>22</td>
<td>7</td>
<td>157</td>
<td>2.6</td>
<td>Accepted</td>
</tr>
<tr>
<td>2</td>
<td>Contribute regularly to their savings through vegetable sales</td>
<td>15</td>
<td>17</td>
<td>16</td>
<td>13</td>
<td>156</td>
<td>2.1</td>
<td>Accepted</td>
</tr>
<tr>
<td>3</td>
<td>Embark on some capital intensive projects through vegetable sales</td>
<td>10</td>
<td>17</td>
<td>15</td>
<td>18</td>
<td>139</td>
<td>2.3</td>
<td>Rejected</td>
</tr>
<tr>
<td>4</td>
<td>Lend money to others in and outside the society through vegetable sales</td>
<td>11</td>
<td>19</td>
<td>14</td>
<td>16</td>
<td>145</td>
<td>2.4</td>
<td>Rejected</td>
</tr>
<tr>
<td>5</td>
<td>Maintain financial self-sufficiency throughout the year due to income generation from vegetable sales</td>
<td>18</td>
<td>20</td>
<td>12</td>
<td>10</td>
<td>167</td>
<td>2.7</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

Total Grand Mean: 2.52

Table 4 revealed that female vegetable farmers generate income that usually help them to meet their family needs with a $X$ of 2.6, contribute regularly to their saving with a $X$ of 2.1, and maintain financial self-sufficiency with an $X$ of 2.7.

Discussion of Findings

Research question one, revealed that pumpkin leaves contribute to the nutritional needs of family members in maintaining good health as it was contributing to the ability to purchase other food stuffs needed with income generated from pumpkin leaves sales, with ground mean of 2.6. This finding is in line with Uko – Aviomoh (2015), report which opined that vegetable nutrients value is essential for maintaining good health as the antioxidants content help eradicated the effects of free radicals in the body. This finding was also in line with Gerger (2006) remarked that fruits and vegetables nutrition value works like drugs in maintaining good health status when consumed on regular bases. Research question 2 and 3 which examined the level of income generated from vegetable sales and the extent to which economic security are guaranteed by income from vegetable sales revealed that income from vegetables are sufficient to meet basic needs of family members with a grand $X$ of 2.5. This indicates that income generated from vegetable production and sales are major source in income and they can depend on it to off-set their regular daily needs. This finding is in line with Anyakoha (2013), who remarked that individual in families that has spaces around the home; should make good use of such, in home gardening practices and mark more money for the family; while making the home environment clean and safe from dangerous rodents and insects.

However, the level of the income coming from fluted pumpkin vegetable sales, can help family members live above poverty level; but not to the extent of executing capital projects when need arises for such. This finding is also in line with Anyakoha (2013), who reported that families most challenging issues includes meeting the present immediate financial needs to survive often which comes the needs of belonging. Therefore for any family to meet a present financial challenge is sure to be financially secured.

Conclusion

The findings of this study have revealed that females in Oshimili L.G.A, who took to the pumpkin leaves farming, made the family nutritionally and financially secured. Based on the fact that engagement in the fluted pumpkin leave farming enrich their health with nutritional value that promotes good health status and income generated from pumpkin leave sales has increased the financial capabilities to effectively meet the financial challenges and live about poverty level.

Recommendations

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

1. Women, irrespective of the level of education in the local environments should engage themselves in income generation trades to help complement the bread winners' efforts to meet the needs of the family.
2. Women in local environment that has access and space could engage in vegetable farming instead of remaining unemployed duet to the scarcity of white collar jobs in our society.

3. Women, who are the major meal providers in the families, should use vegetables in meal preparations to enhance family health status rather than spending all income on drugs that will present side effects in no distant time.

4. The unemployed youths in the societies can be gainfully employed through vegetable farming as they engaged in vegetable production and supply of fresh vegetables to urban dwellers on daily bases.

References


CLOTHING CONSTRUCTION VOCATION: A STRATEGY FOR SUSTAINING FAMILY EMPOWERMENT, NATIONAL STABILITY AND EMERGING CHALLENGES IN BADE LGA, YOBE STATE

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Department of Home Science,
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Abstract
This study researched on the impact of clothing construction vocation as a strategy for sustaining family empowerment, national stability and emerging challenges in Bade local Government Area of Yobe State. Population of the study was drawn from all the families in Bade L.G.A, Yobe State, with a population of 54, 216 thousand adult members between the ages of 20 to 59 years of age. Simple random sampling was used to select a sample of 200 adult families' members from the six wards in the L G A. The sample consist of literate and non-literate, working and non-working class, business, home economist/scientist lecturers and teachers and adult family members. Survey design method was adopted and structured questionnaire was used to elicit data from the respondents. Four research questions guided the study, amongst which are: what are the benefits of empowering adult family members through clothing construction vocation in Bade LGA of Yobe state? Data collected were analyzed using descriptive statistics. The findings of the study shows that families can be sustained, empowered, made more stable and address the challenges through financial contributions of clothing construction vocation amongst others.

Key Words: Clothing Construction Vocation, Strategy, Family / National Stability, Emerging Challenges.

Introduction
Sustaining national stability with the global economic recession coupled with socio cultural uncertainty is one of the major challenges facing Nigeria presently. The recent rise in violence and conflict as well as social vices such as arm robbery, kidnapping, piracy, extremism, boko haram insurgency and other emerging threats have sparked concerns over Nigeria's future unity and development (Ajah, 2014). Efforts to curb these challenges contributing to overall stability are paramount to national unity and development. Human resources need to be developed and improved on, so as to assist the family and the Nation quell most challenges of idleness through learning clothing construction skill (Nnubia, 2014). Empowerment policy has a critical role to play in supporting stability to reduce instability over the long term run. This requires intervention strategies in many areas including support for adult family members faced with high rate of instability, strengthening local governance and spurring job creation among others. Developing policies with a critical role to play in improving stability where challenges are high are very vital ( Alexandre, Neelam and Stephen 2016). It is very important to invest in vocational and technical education such as clothing construction and other Home Economics skill acquisition courses required to increase the size of the skilled labor force and improve livelihoods for adult members of the society.

Unemployment has become a major challenge that spurs up instability and is of critical concern to almost every Nigerian. A 2010 report by the International Labour Organization (ILO) revealed that Sub-Saharan Africa is one of the regions highly affected by unemployment. Globally, unemployment rate stood at 15.4% in 2010 with a total of 84.8 million young people unemployed. Developing economies in Sub-Saharan Africa, Nigeria inclusive had unemployment rates of 53.6 % (ILO 2010). The scenario of unemployment in Nigeria is challenging and growing overtime with the families being the most hit. Nigeria is a nation where most of its adults do nothing as a living, even after graduating from the best Universities in the nation. Some adults wake up to sell gala, ice cream, etc, while some engage in watching and discussing European Football, playing video games, downloading and watching films, listing to popular music and most of the time on social media amongst others idling activities. A nation experiencing these high rate of idleness amongst its adult members will definitely have its share of high rate of unrest and crime just to mention a few. There is a popular saying that idle mind is the devil's workshop'. This state of joblessness has caused Nigerian adult family members to engage in crime with many languishing in jail (Egunjobi, 2012).However, it is estimated that 64% of unemployed persons in Nigeria are adult family members (Azubuike, 2010). According to Obumneke (2012), the level of unemployment in Nigeria is quite alarming and appears to grow geometrically every year. This therefore
Clothing construction vocation with its employment opportunities can therefore be indicated as one of the means of sustaining national stability in Nigeria, taking note that high rate of unemployment in Nigeria is enormous. Phenarus (2014), noted that high level of unemployment is the root cause of poverty, youth restiveness, gangsters’, high level of insurgency (book haram) submit, bank robbery, kidnapping, assassination, lawlessness and all sorts of deviant behaviours (Azubuike, 2013). In Bade local government area of Yobe state, the case is not different. In the local government, most adult who are unemployed are seen idling about roaming the street, causing havoc. Most girls have been involved in unwanted pregnancy cases, prostutions and other social vices that are inimical to their personal and economic development. While young men and women have been reported to involve in cases of robbery, rape, gangsters’ among others. In order to curb this ugly incidence, there is need for repositioning adult family members for economic empowerment through clothing construction business.

According to Anyakoha and Eluwa (1999) in Euchara (2012) clothing is any article that is placed on the body in order to protect beauty or adorn it. It is also used to show status and roles of individual in the society. Anyakoha and Eluwa (1999) also stated that clothes can be seen as garment of blouses, gowns, trousers, shirts worn to improve or enhance the clothes items for instance shoes, gloves jewelries, handkerchiefs and stockings. Clothing is very important, it plays many vital and aesthetic functions for both male and female consumers. Clothes can be made out of fibre plants such as cotton, plastics, polyester or wool. Humans began wearing clothes long time ago. The wearing of clothing is mostly restricted to human beings and is a feature of nearly all human societies.

Clothing construction therefore means the process of putting together of fabric, or clothing materials in order to create an attractive figure (Gigson and Agu, 2000). The items used for construction of clothing articles are known as sewing equipment while buying sewing equipment, one should consider availability of money, usefulness, care, storage space, servicing facilities and operation.

Clothing construction vocation therefore mean the process of putting together of fabric, or clothing materials in order to create an attractive clothes (ready to wear clothes) that fit most figure type without alteration, when standard patterns are used. These services or productions are exchanged for money for a living. Nigerian adult family members need economic empowerment to be free from all social vices and combat challenges of unemployment thereby sustaining national stability. Empowerment is an attitudinal, structural, and cultural process whereby adult family members gain the ability, authority, and agency to make decisions and implement change in their own lives and the lives of other people (Vavrus and Fletcher, 2006).

According to Fletcher (2005), empowerment means creating and supporting the enabling conditions under which people can act on their own behalf, and on their own terms, rather than at the direction of others. It simply means assisting the people to overcome the difficulties which might prevent them from achieving their potentials. Also Robert (2012) stated that economic Empowerment is an initiative geared towards economically empowering people from low-income backgrounds, focusing primarily on cultural trends in economics, entrepreneurship, education and knowledge. On the other hand economic empowerment is a process and project aimed at socially and economically empowering disadvantaged adult members of the both men and women in market oriented, technical, entrepreneurial and managerial skills, productive resources as well as sustainable earning potential. However, clothing construction is the act of mastering skills in dress making such as top dresses, pants, skirts, trousers and even outerwear (Madu, 2011).
Clothing construction vocation is a lucrative business that will help to reduce high level of unemployment among family members and as well improve their socio-economic development (Ozoke, 2006). Home Economics through its clothing construction skill acquisition, plays a vital role in poverty alleviation and unemployment reduction in Nigeria (Alabi, 2015). Clothing construction involves other businesses like fashion design, modelling, skills in dress making, sewing, cutting and drafting pattern among others (Okpara, 2011). Clothing construction vocation is one of the profession that generate huge sum of money to some world prominent individual like, Eto Samuel of Eto jeans, Ugo Mozir of U-jean of Nigeria, Muccia Prada and Giorgio Armani of Italy among others. However, if adult members, in Bade local government area of Yobe state are empowered with skills in clothing construction, it will not only engage them with meaningful source of livelihood, it will also help to improve their economic development. It is on this note that the researchers investigated the need for national sustainable stability by repositioning its adult family members for economic empowerment through clothing Construction vocation in Bade local government area of Yobe state.

Statement of the Problem
Instability has been a thing of concern in many parts of Nigeria, it has become one of the most serious socio-economic problems confronting the country (Dei-Tumi, 2011). The magnitude of this is evidently shown from the report of Federal Bureau of Statistics in 2010 on the number of unemployed adult roaming the streets perpetrating all sorts of crisis in most cities of Nigeria. According to the report, over 60% of Nigerian youths are unemployed and underemployed. However, Awogbenle and Iwuamadi (2010) observed that from the excerpts of statistics obtained from the National Manpower Board and Federal Bureau of Statistics, Nigeria has an adult population of eighty (80) million representing 60 percent of the total population of the country. Sixty four (64) million of them are unemployed while one million six hundred thousand (1.6 million) are underemployed. Unemployment has become a major problem facing the lives of Nigerian adult causing frustration, dejection and dependency on family members and friends, who also have their own problems to contend with. The high rate of unemployment among the Nigeria has contributed to the high rate of poverty, insecurity and instability in the country (Yusuf, 2011).

The Nigerian situation is further compounded by the recent global financial crisis that has crippled businesses and the prospect of securing jobs for people (Fanimo and Olayinka, 2009). Adejumola and Tayo-Olajubulu (2009) contended that instability is a characteristic features of unemployment has been identified as one of the major causes of social vices, including armed robbery, destitution, prostitution, political thugs, kidnapping, insurgencies and many more. Musan (2009) corroborated this statement by saying that about 4.5 million enter the labour market every year without any hope of getting employment for life sustenance. The precarious situation has left Nigerians in a vicious cycle of poverty that daily erodes their self-confidence and bright future. In order to curb these problem of unemployment in Nigeria as a whole and in Bade local government in particular, there is need that adult family members are empowered in the areas of skill development which include clothing construction business. Clothing construction business is one of the skill needed to reduce the rate of unemployment in the country and as well help in the economic empowerment. This would curb most of the emerging challenges facing the country today. Thus this study sought to investigate the benefits of sustaining adult family members for economic empowerment through clothing construction vocation in Bade local government area of Yobe State for the purpose of ensuring national stability.

Purpose of the Study
The main purpose of the study is to determine ways of sustaining family members for economic empowerment through clothing construction business in Bade Local Government Area of Yobe State. Specifically, the study sought to:

1. Find out the benefits of empowering families through clothing construction vocation in Bade Local Government Area of Yobe State.
2. Determine the prospects of clothing construction vocation to economic development in Bade local government area of Yobe State.
3. Identify the problems of clothing construction vocation in Bade local government area of Yobe state.
4. Find out strategies of equipping adult family members with skills in clothing construction in Bade local government area of Yobe State.

Research Questions
The following research questions were formulated for the study.

1. What are the benefits of empowering family members through clothing construction vocation in Bade
Local Government Area of Yobe State?

2. What are the prospect of clothing construction vocation to economic development in Bade Local Government Area of Yobe State?

3. What are the problems of clothing construction vocation in Bade local government of Yobe State?

4. What are the strategies of equipping adult residents with skill in clothing construction in Bade local government of Yobe State?

Methodology

Survey research design was used for the study. Respondents used for the study were randomly selected from parents, Home Economics/Science, teachers in Bade Local Government Area of Yobe State. The sample of this study comprised of 200 adult family members and Home Econonomist/Scientist lecturers and teachers in Bade Local Government Area of Yobe State. The respondents constitute both working and nonworking members of families. There are six wades in bade local government area, namely Sabongari, lawan-fannami, Katuzu, Lawan musa, Zango and Gausiya. The population of the LGA comprises of 139, 782 according to 2006 National population commission, National Bureau of Statistics. There are fifty four thousand two hundred and sixteen adult family members between the age of 20 to 59 years in Bade Local Government Area. (National Population Commission, 2006) Planning and Information Unit, Bade Local Government Area (2019). These age group are used because they are deemed strong enough to engage in clothing construction vocation.

Instrument for Data Collection

Structured questionnaire was used for data collection. A total number of 20 items questions grouped sequentially under the four different research questions to which they relate. The questionnaire items were based on a four point likert scale in which the respondents are expected to indicate agreement or disagreement to each of the question items. The instrument was validated by two Home Scientist lecturers at Federal University Gashua. The researchers used purposive method to administer the questionnaire to the respondents in their offices, skill acquisition centers in Bade Local Government and some homes. Data collected were analyzed using Mean and percentages. Response items with a mean of 2.5 and above were rated agreed while any mean less than 2.5 is regarded as disagree.

Results

The results of the study are presented in Table 1 to 4.

Table 1: Mean response of the benefits of empowering family members through clothing construction vocation in Bade Local Government Area of Yobe State.

<table>
<thead>
<tr>
<th>S/N</th>
<th>ITEM</th>
<th>SA</th>
<th>A</th>
<th>%</th>
<th>D</th>
<th>SD</th>
<th>N</th>
<th>X</th>
<th>DECISION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Clothing construction vocation will help adult financial improvement.</td>
<td>90</td>
<td>80</td>
<td>85</td>
<td>20</td>
<td>10</td>
<td>200</td>
<td>3.2</td>
<td>Agreed</td>
</tr>
<tr>
<td>2</td>
<td>Clothing construction vocation will help reduction of crime among Nigerians.</td>
<td>100</td>
<td>80</td>
<td>90</td>
<td>20</td>
<td>-</td>
<td>200</td>
<td>3.4</td>
<td>Agreed</td>
</tr>
<tr>
<td>3</td>
<td>Clothing construction vocation will help in increasing economic powers /gains of adults.</td>
<td>140</td>
<td>50</td>
<td>95</td>
<td>10</td>
<td>-</td>
<td>200</td>
<td>3.9</td>
<td>Agreed</td>
</tr>
<tr>
<td>4</td>
<td>Clothing construction vocation will help in improving standard of living among families</td>
<td>120</td>
<td>60</td>
<td>90</td>
<td>15</td>
<td>5</td>
<td>200</td>
<td>3.4</td>
<td>Agreed</td>
</tr>
<tr>
<td>5</td>
<td>Clothing construction vocation will help in reduction of unwanted pregnancies among girls.</td>
<td>130</td>
<td>60</td>
<td>95</td>
<td>8</td>
<td>2</td>
<td>200</td>
<td>3.5</td>
<td>Agreed</td>
</tr>
</tbody>
</table>

The result from Table 1 indicated that items 1-5 have a mean score of 3.2, 3.4, 3.9, 3.4 and 3.5 respectively. This therefore, shows that respondents agreed that there are various benefits of empowering adult members through
clothing construction vocation in Bade Local Government Area of Yobe State. The result also showed that the mean value of items numbers 1 to 5 were all above 2.5 indicating agreement. The result further concurred with the percentile agreement of 85, 90, 95, 90, 95% respectively in all the items numbers 1 to 5 of Table 1.

Table 2: Mean response of the prospects of clothing construction vocation as an economic empowerment in Bade Local Government Area of Yobe State.

<table>
<thead>
<tr>
<th>S/N</th>
<th>ITEMS</th>
<th>SA</th>
<th>A</th>
<th>%</th>
<th>D</th>
<th>SD</th>
<th>N</th>
<th>x</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>It will help in creation of employment.</td>
<td>130</td>
<td>60</td>
<td>95</td>
<td>10</td>
<td>-</td>
<td>200</td>
<td>3.6</td>
<td>Agreed</td>
</tr>
<tr>
<td>7</td>
<td>Reduction of restiveness in the area.</td>
<td>140</td>
<td>40</td>
<td>90</td>
<td>20</td>
<td>-</td>
<td>200</td>
<td>3.6</td>
<td>Agreed</td>
</tr>
<tr>
<td>8</td>
<td>It will help in exportation of Nigerian made clothes thereby build revenue.</td>
<td>100</td>
<td>60</td>
<td>80</td>
<td>20</td>
<td>10</td>
<td>200</td>
<td>3.1</td>
<td>Agreed</td>
</tr>
<tr>
<td>9</td>
<td>Increase the living standard of Nigerians.</td>
<td>120</td>
<td>65</td>
<td>95</td>
<td>10</td>
<td>5</td>
<td>200</td>
<td>3.5</td>
<td>Agreed</td>
</tr>
<tr>
<td>10</td>
<td>Increase industrialization and business activities in Bade Local Government Area.</td>
<td>110</td>
<td>70</td>
<td>90</td>
<td>0</td>
<td>10</td>
<td>200</td>
<td>3.3</td>
<td>Agreed</td>
</tr>
</tbody>
</table>

The result from Table 2 indicated that all the respondents in item nos. 6-10 agreed that there are prospect of clothing construction vocation to economic development in Bade Local Government Area of Yobe State. This is evidently shown in the mean score of the items which are 3.6, 3.5, 3.1, 3.5 and 3.3 respectively were all of item 6 to 10 were above 2.5 and a percentile agreement of 95, 90, 80, 95, and 90% respectively.

Table 3: Mean response of problems of clothing construction vocation in Bade Local Government Area of Yobe State.

<table>
<thead>
<tr>
<th>S/N</th>
<th>ITEMS</th>
<th>SA</th>
<th>A</th>
<th>%</th>
<th>D</th>
<th>SD</th>
<th>N</th>
<th>x</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>Most family members neglect clothing construction.</td>
<td>100</td>
<td>60</td>
<td>80</td>
<td>20</td>
<td>10</td>
<td>200</td>
<td>3.1</td>
<td>Agreed</td>
</tr>
<tr>
<td>12</td>
<td>There are inadequate manpower to teach the skill in clothing construction in the area.</td>
<td>120</td>
<td>65</td>
<td>92.5</td>
<td>10</td>
<td>5</td>
<td>200</td>
<td>3.5</td>
<td>Agreed</td>
</tr>
<tr>
<td>13</td>
<td>There are inadequate infrastructural facilities and learning centers for clothing construction.</td>
<td>110</td>
<td>70</td>
<td>90</td>
<td>10</td>
<td>-</td>
<td>200</td>
<td>3.4</td>
<td>Agreed</td>
</tr>
<tr>
<td>14</td>
<td>Lack of family members orientation on clothing construction business.</td>
<td>110</td>
<td>60</td>
<td>85</td>
<td>20</td>
<td>10</td>
<td>200</td>
<td>3.4</td>
<td>Agreed</td>
</tr>
<tr>
<td>15</td>
<td>Poor attitude of family members towards clothing construction vocation..</td>
<td>120</td>
<td>65</td>
<td>92.5</td>
<td>10</td>
<td>5</td>
<td>200</td>
<td>3.5</td>
<td>Agreed</td>
</tr>
</tbody>
</table>

The result of Table 3 indicated that in item 11 to 15, respondents agreed that neglect of clothing construction, inadequate man power to teach the skill, inadequate infrastructure, lack of orientation and learning centers and poor attitude towards clothing construction are the problems of clothing construction in bade local government of Yobe state. This is observed in the mean rating of 3.1, 3.5, 3.4, 3.4, and 3.5 respectively of item 11 to 15 were all above 2.5 showing agreement. This result was concurred with a percentile rating of 80, 92.5, 90, 85, and 92.5 respectively for item numbers 11 to 15 respectively.
Table 4: Mean response of strategies of equipping family members with skills in clothing construction in Bade Local Government Area of Yobe State.

<table>
<thead>
<tr>
<th>S/N</th>
<th>ITEMS</th>
<th>SA</th>
<th>A</th>
<th>%</th>
<th>D</th>
<th>SD</th>
<th>N</th>
<th>x</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>Orientation of family members on the gains inherent in clothing</td>
<td>110</td>
<td>60</td>
<td>85</td>
<td>20</td>
<td>10</td>
<td>20</td>
<td>3.4</td>
<td>Agreed</td>
</tr>
<tr>
<td></td>
<td>construction.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Building skill acquisition centers.</td>
<td>120</td>
<td>65</td>
<td>92.5</td>
<td>10</td>
<td>5</td>
<td>200</td>
<td>3.5</td>
<td>Agreed</td>
</tr>
<tr>
<td>18</td>
<td>By sponsoring and giving out startup fund to those who are interested</td>
<td>140</td>
<td>50</td>
<td>95</td>
<td>10</td>
<td>-</td>
<td>200</td>
<td>3.9</td>
<td>Agreed</td>
</tr>
<tr>
<td></td>
<td>in clothing construction vocation.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>By organizing workshops for the adult family members on clothing</td>
<td>120</td>
<td>60</td>
<td>90</td>
<td>15</td>
<td>5</td>
<td>200</td>
<td>3.4</td>
<td>Agreed</td>
</tr>
<tr>
<td></td>
<td>construction vocation.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>By organizing seminars for the adult family members on clothing</td>
<td>90</td>
<td>80</td>
<td>85</td>
<td>20</td>
<td>10</td>
<td>200</td>
<td>3.2</td>
<td>Agreed</td>
</tr>
<tr>
<td></td>
<td>construction vocations.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4 indicated that in all the items no 16 to 20, respondents agreed that orientation, building skill acquisition centers, sponsoring interested people, organizing workshops, and seminars are all veritable strategies to equip adult family members with skills in clothing construction. This is clearly shown in the mean score of 3.4, 3.5, 3.9, 3.4, and 3.2 respectively for items numbers 16 to 20 were all above 2.5 indicating agreement. This result also agrees with the percentile rating of 85, 92.5, 95, 90, 85% respectively for items number 16 to 20.

Discussions of Findings

The result of the research reveals that there are benefits of empowering families through clothing construction vocation in Bade Local Government Area of Yobe State. The Table 1 shows that clothing construction vocation can help families improve their financial condition and empower them the more. Clothing construction vocation can help reduce crime perpetrated by members of families when they are busy with their vocation. It will help increase the economic gains of the families and improve family standard of living. It will reduce vices and incidence of instability and promote national stability. The findings of this research is in agreement with the popular saying that an idle man is the devil's workshop and with Egbuna (2001) who stated that empowerment programmes in various skill acquisition centers will help in the reduction of high rate of crimes in rural and Urban Areas. Alanana (2003) also opines that clothing construction business has the potential of equipping individuals with skills for self-reliance.

The result of Table 2 indicates that there are prospects of clothing construction vocation to economic growth in Bade Local Government Area of Yobe State. The Table shows that clothing construction vocation will help in creation of employment with a mean of 3.6 and 95% agreement. It will promote the exportation of Nigerian made clothes with a mean rate of 3.6 and 90% agreement, increase the standard of living and level within the Local Government Area. Clothing construction will also increase industrialization and business activities in the area of the study. This was indicated with a mean of 3.3 and percentile value of 90% showing agreement. The findings of the study is in concordance with the Alabi and Alanan (2012) statement that clothing construction business will help develop world class entrepreneurs in the area of fashion and design and improving the standard of living in Nigeria. It also with Aishatu (2015) who stated that development and stability of any nation hinges on social and economic contribution of her citizens.

Result of Table 3 showed that clothing construction vocation is faced with a lot of problems among families in Bade Local Government Area of Yobe State. Most adult family members neglect clothing construction; this is indicated in the mean rating of 3.1 and 80% agreement from the respondents. The table also showed that there are inadequate skilled manpower to teach the skill of clothing construction in the area, this is observed from the mean rating of 3.5 and 92.5% agreement. This findings is in agreement with personal interaction with some adult learning clothing construction statements that even those that knows the skill are unwilling to teach the skill but mostly involve apprentices in errand activities of going to buy thread, needle, lining etc more than teaching the skill. There are inadequate infrastructural facilities, respondents also agree that they don't allow them assesse to sewing machine especially industrial machines. This is shown in the mean response of 3.4 and percentage agreement of 90%. There is also problem of lack of orientation on clothing construction and poor personal
Clothing Construction Vocation: A Strategy for Sustaining Family Empowerment, National Stability and Emerging Challenges

The findings from Table 4 revealed that there are different ways of equipping adult family members with skills of clothing construction in Bade Local Government Area of Yobe State. The result shows that orientation of family members on the gains inherent in clothing construction vocation, building skill acquisition centers, sponsoring those who are interested in clothing construction vocation, organizing workshops for families on clothing construction and seminar presentation in clothing construction vocation are ways of equipping families with skills in clothing construction in Bade Local Government Area of Yobe State. These various ways were indicated with mean responses of 3.4, 3.5, 3.9, 3.4, and 3.2 for item numbers 16, 17, 18, 19, and 20 respectively. This observation also agrees with the percentile agreement of 85, 92.5, 95, 90 and 85% for items numbers 16 to 20. The result shows that, if proper orientation, seminars were given to the adult family members on the benefit inherent in clothing construction, most adult family members might be willing to learn the vocation. If learning centers are provided, if government can sponsor and empower those who are willing to learn the skill, most adult family members will be motivated to learn the vocation. These findings were in line with Obumneke (2012) who stated that organizing seminar and symposium on the benefits of clothing construction business are some of the ways of encouraging women to engage in clothing construction business venture.

Conclusion and Recommendations
In concluding this study, it is evident from the result, that clothing construction vocation is a veritable tool for family empowerment and national stability, prevent people from engaging in a lot of vices due to joblessness, and discourage youths to engage in Boko haram in the north east. Evidently, crimes occur where people are without jobs. Most Nigerian adult, graduates and non-graduates are unemployed and it is causing a lot of menace. This can be minimized through empowerment with clothing construction skill and vocation. Government should do the needful through providing enabling, empowering socio economic environment, building skill acquisition centers, sponsoring youths, by proving interested people with machines and fund. This will help transform them into employers, confident and purposeful individuals thereby sustaining national stability and overcoming the challenges facing Nigeria presently.

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ASSESSMENT OF SANITATION PRACTICES OF STUDENTS OF FEDERAL COLLEGE OF EDUCATION (TECHNICAL) AKOKA FOR HEALTHY LIVING AND WELLNESS

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Department of Home Economics
College of Education (Technical) Akoka, Yaba, Lagos,

Abstract
Sanitation is vital for good health. Health problems associated with poor sanitation include diarrhea, dysentery, typhoid, cholera, malaria, bilharzias, worm infestations, eye infections, and skin diseases. The study focused on Assessment of Sanitation Practices of Students of Federal College of Education (Technical) Akoka for Healthy Living and Wellness. The study adopted a descriptive survey design, the population was all the students of FCE (T) Akoka, Lagos. The sample was 70 students selected using simple random sampling technique. A well-structured questionnaire with two sections A and B was used to elicit data from the respondents. The questionnaire was validated by experts in the field of Home Economics as well as tested for reliability by administering to 20 students in the population and was analyzed using Cronbach Alpha. The reliability coefficient (r) of the instrument was 0.64. The questionnaire was administered to 70 students of FCE (T) Akoka and was collected immediately by the researchers. The data were analyzed using percentage, frequency table, mean and SD. The study found out among many that the students of FCE(T) Akoka are not consistent in total sanitation practices for healthy living and wellness while in the campus; consequentially, these have imparted on their health as shown that some do encounter foodborne diseases due to poor sanitation practices. The study recommended that students should be encouraged to engage and imbibe in good sanitation practices that could enhance healthy living and that the students should be encouraged and sensitized that to either imbibe in the collective weekly or fortnight cleaning of their environment in order to promote healthy living and wellness among them among others.

Keywords: Health, Sanitation, Sanitation Practices, Wellness, Hygiene

Introduction
Home Economics is a field of study that deals with all elements of family living, individual human development and interpersonal relation. It is a study that provides the necessary knowledge for guiding and assisting human beings towards a more self-rewarding and fulfilled life, compatible with the society, within the context of home management and family life (Olaitan & Agusiobo, 1981). The philosophy of Home Economics focuses on the acquisition of knowledge, skills and competence which family members require to satisfactory improve family living. It also identifies and classifies the roles, aspiration and abilities of each member as well as determines strategies towards achieving them (Anyakoha & Eluwa, 2011). There are some major areas of Home Economics such as clothing and textiles, home management etc. Home Management is an essential aspects of home economics. It equips the students or learners with the knowledge, skills and attitude necessary for the effective management of the home and the hygiene of the home environment. Hygiene is the state of being clean and it is related to the safe management of human excreta such as hand-washing with soap or the safe disposal of refuse which involve sanitation. According to World Health Organization WHO (2017) hygiene is referred to conditions or practices that help to maintain health and prevents the spread of diseases. Hygiene is a set of practice performed to preserve health and sanitation.

Sanitation refers to public health conditions that are related to clean drinking water with adequate treatment; disposal of human wastes and sewages. World Health Organization 2017 defines sanitation as a system aimed to protect human health by providing a clean environment that will stop the transmission of the diseases for instance, diarrhea which is a main cause of malnutrition and stunted growth in children can be reduced through sanitation. Sanitation is vital for good health. Health problems associated with poor sanitation include diarrhea, dysentery, typhoid, cholera, malaria, bilharzias, worm infestations, eye infections, and skin diseases. Sanitation is also vital for wealth creation. Economic benefits of improved sanitation include savings in health costs, higher worker productivity, better school attendance, improved tourism and reduced water treatment costs (Republic of South Africa, RSA, 2000).

Adequate sanitation is the foundation of social development. According to the World Health Organization WHO, (2013), a decent toilet or latrine is an unknown luxury to half of the people on earth. Sanitation is vital for good health. Health problems associated with poor sanitation include diarrhea, dysentery, typhoid, cholera,
malaria, bilharzias, worm infestations, eye infections, and skin diseases. Sanitation is also vital for wealth creation. Economic benefits of improved sanitation include savings in health costs, higher worker productivity, better school attendance, improved tourism and reduced water treatment costs (RSA, 2000).

The United Nations Children Fund, UNICEF (2012) and WHO (2013) presented the benefit of investing in sanitation as:

1. Reduced morbidity and mortality and increased life expectancy, savings in health care costs, reduced time caring and sick leave (back to work), higher worker productivity,
2. Improve better learning capacities of school students, increased school attendance especially by male and female.

Strengthened tourism and national pride, direct economic value of high quality water such as irrigation water for crops, and reduced water treatment costs. Access to sanitation facilities is a fundamental human right that safeguards health and human dignity. Therefore, the provision of safe water and sanitation facilities is a first step towards a healthy physical learning environment. The ultimate goal of Agenda 21 is for all people to have safe and adequate water and sanitation, and a clean and healthy environment.

The sanitary conditions of schools in rural and urban areas in developing countries are often appalling, creating health hazards and other negative impacts, making schools unsafe for children. Although water and sanitation facilities are recognized as fundamental for hygiene behavior and children's well-being, in practice the sanitary conditions in most schools are woefully inadequate (UNICEF, 2001: 13). Diseases related to poor sanitation and water availability caused many people to fall ill or even die. Children are the most vulnerable to these health hazards. Sanitation is regarded as the maintenance of sanitary conditions. Therefore, basic sanitation means the provision of sufficient hygienic, hazard-free toilets, the effective removal and disposal of household waste, and effective effluent disposal (Pietersen, 1997). Poor sanitation promotes the spread of health problems. Many infections of human beings are spread through inadequate sanitation. Viruses, bacteria, protozoa and worms may spread through direct contact, indirectly via carriers and vectors. Cholera deaths are indication of a poor health system and certainly poor sanitation (Hall, 2003). Poor sanitation impacts on the health, quality of life, and development potential of communities.

Consumption of contaminated drinking water, improper disposal of human excreta, lack of personal and food related hygiene and improper disposal of solid and liquid waste have been major causes of many diseases in Nigeria and it is estimated that around 30 million people suffer from water-related diseases (RSA, 2003). In collaboration to the upkeep of the school management, students are expected to do sanitation of their environment always to protect them against diseases and remain healthy always and it will keep them away from the medical center. The students are given accommodation in the school (on campus) to make learning easy and smooth for them. It is expected of them to keep the hostel environment clean and tidy always especially their rooms to avoid diseases which may cause some health issues like malaria, fever, diarrhea, toilet infection, cholera, tuberculosis etc.

When their hostels are clean and hygienic it will keep them away from diseases and infections associated to poor sanitation and unhealthy environment. A disease caused by consuming contaminated food or drink. Myriad microbes and toxic substances can contaminate foods. There are more than 250 known foodborne diseases. The majorities are infectious and are caused by bacteria, viruses, and parasites. Other foodborne diseases are essentially poisonings caused by toxins, chemicals contaminating the food. All foodborne microbes and toxins enter the body through the gastrointestinal tract and often causes the first symptoms there. Nausea, vomiting, abdominal cramps and diarrhea are frequent in foodborne diseases (Strom, 2013).

Statement of the Problem

Adequate sanitation is the foundation of social development. Over the years, it has been observed that students always visit the medical center of the college because of different health issues such as diarrhea, vomiting, malaria, typhoid, fever, toilet infection among other. Sanitation is a serious issue that could lead to health challenges when students do engage in good health and sanitation practices. The hostels for accommodation are provided for students in FCE (T) Akoka and need to be taken care off. Sanitation or cleaning done appeared not adequate which had led to some issues such as poor drainage system, unhygienic toilet, poor water system, dirty and bushy environment, damp environment etc. and all these may pose challenges on the health of the students. The increase and frequent visits of the student is an indication that...
there is need to pay attention to the health and hygiene matters in the College. Hence, the study sought to find out whether the regular visitation of students to the medical center has a bearing on the students sanitation practices in the college. Thus, could sanitation practices impact on the health of the students?

**Purpose of the Study**
The main purpose of the study is to find out the implication of sanitation practices on the health and well being of students of Federal College of Education (Technical) Akoka {FCE(T) Akoka}. The specific aim of the study is to:
1. determine the sanitation practices among the students of FCE (T) Akoka.
2. determine the extent to which the students of FCE(T) Akoka engage in sanitation practices and;
3. to ascertain whether health issues they encounter are foodborne diseases related.

**Research Questions**
The following research questions were raised to the study:
1. What are the sanitation practices among the students of FCE(T) Akoka?
2. To what extent do the students of FCE(T) Akoka engage in the sanitation practices?
3. What are foodborne disease encountered among the students of FCE(T) Akoka?

**Methodology**
The study adopted a descriptive survey design; the population was all the students of FCE (T) Akoka, Lagos. The sample was 70 students selected using simple random sampling technique. A well-structured questionnaire with two sections A and B; Section A elicited demographic information and Section B contains items raised from the research questions of the study were used to elicit data from the respondents. The questionnaire was validated by experts in the field of Home Economics as well as tested for reliability by administering to 20 students in the population and was analyzed using Cronbach Alpha. The reliability coefficient (r) of the instrument was 0.64. The questionnaire was administered to 70 students of FCE (T) Akoka and was collected immediately by the researchers. The data were analyzed using percentage, frequency table, mean and SD.

**Results**
**Table 1: Distribution of Respondents by Sex**

<table>
<thead>
<tr>
<th>Sex</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>27</td>
<td>38.6</td>
</tr>
<tr>
<td>Female</td>
<td>43</td>
<td>61.4</td>
</tr>
<tr>
<td>Total</td>
<td>70</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 1 above displayed the distribution of respondents by sex. The female respondents constituted 61.4% of the total sample. They were in the majority. The males constituted only 38.6%.

**Table 2: Distribution of Respondents by Age**

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24 years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30 years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>31 years and above</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2 above displayed the distribution of respondents' ages. Those that were between 21 and 24 years were in the majority. They constituted 57.1 % of the entire sample for the study. Next to this is the 24 to 30 years' group who constituted 31.4 % of the entire population of the study. The least represented group were those who were 31 years old and above and the 16 to 20 years' group and they constituted 5.7 %.
Table 3: Mean Response to Respondents on Sanitation Practices Among the Students of FCE(T) AKOKA

<table>
<thead>
<tr>
<th>Item</th>
<th>SD</th>
<th>D</th>
<th>A</th>
<th>SA</th>
<th>Mean</th>
<th>ST. DEV.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Littering the school premises is avoided by making use of the waste disposal appropriately</td>
<td>4(5.7)</td>
<td>12(17.1)</td>
<td>42(60.0)</td>
<td>12(17.1)</td>
<td>2.89</td>
<td>0.753</td>
</tr>
<tr>
<td>I always ensuring we have clean environment in the hostel.</td>
<td>4(5.7)</td>
<td>16(22.9)</td>
<td>38(54.3)</td>
<td>12(17.1)</td>
<td>2.83</td>
<td>0.780</td>
</tr>
<tr>
<td>There is a fix day for general cleaning of the environment</td>
<td>25(35.7)</td>
<td>22(31.4)</td>
<td>9(12.9)</td>
<td>14(20.0)</td>
<td>2.63</td>
<td>0.951</td>
</tr>
<tr>
<td>I drink water from natural source (tap) without being treated.</td>
<td>15(21.4)</td>
<td>28(40.0)</td>
<td>19(27.1)</td>
<td>8(11.4)</td>
<td>2.29</td>
<td>0.935</td>
</tr>
<tr>
<td>I am not concerned about untidy environment and appropriate method of waste disposal.</td>
<td>8(11.4)</td>
<td>27(38.6)</td>
<td>27(38.6)</td>
<td>8(11.4)</td>
<td>2.50</td>
<td>0.847</td>
</tr>
</tbody>
</table>

**Table 3** above showed the sanitation practices among the students of FCE (T) AKOKA. 50.0% and above of the respondents accepted four of the five items to be true. The mean ratings of each of the four items were above the 2.50 benchmark for the acceptance of a statement in a four Likert scale.

The Table above revealed that littering the school premises was avoided by making use of the waste disposal appropriately by the students and that the students have a fix day for general cleaning of the environment. It was also revealed that students residing in the hostel are always ensuring they have clean environment. The Table also showed that some of the students are not concerned about untidy environment and appropriate method of waste disposal. While some of the student disagreed that they drink water from natural sources without being treated.

Table 4: Mean Responses of Respondents on Students' Engagement in Sanitation Practices

<table>
<thead>
<tr>
<th>Item</th>
<th>SD</th>
<th>D</th>
<th>A</th>
<th>SA</th>
<th>Mean</th>
<th>ST. DEV.</th>
</tr>
</thead>
<tbody>
<tr>
<td>I join in ensuring that toilets in the school and hostel are always clean and conducive</td>
<td>11(15.7)</td>
<td>16(22.9)</td>
<td>40(57.1)</td>
<td>3(4.3)</td>
<td>2.50</td>
<td>0.812</td>
</tr>
<tr>
<td>I do join in the cleaning of the surroundings</td>
<td>7(10.0)</td>
<td>35(50.0)</td>
<td>21(30.0)</td>
<td>7(10.0)</td>
<td>2.40</td>
<td>0.806</td>
</tr>
<tr>
<td>I ensure I correct poor hygiene practices when I see such.</td>
<td>4(5.7)</td>
<td>14(20.0)</td>
<td>38(54.3)</td>
<td>14(20.0)</td>
<td>2.89</td>
<td>0.790</td>
</tr>
<tr>
<td>Cooking is carried out anywhere available</td>
<td>9(12.9)</td>
<td>28(40.0)</td>
<td>25(35.7)</td>
<td>8(11.4)</td>
<td>2.46</td>
<td>0.863</td>
</tr>
<tr>
<td>Water from tap is boiled before drinking.</td>
<td>11(15.7)</td>
<td>27(38.6)</td>
<td>25(35.7)</td>
<td>7(10.0)</td>
<td>2.40</td>
<td>0.875</td>
</tr>
<tr>
<td>There is need for daily cleaning</td>
<td>4(5.7)</td>
<td>16(22.9)</td>
<td>38(54.3)</td>
<td>12(17.1)</td>
<td>2.33</td>
<td>0.780</td>
</tr>
<tr>
<td>There is need for weekly sanitation</td>
<td>9(12.9)</td>
<td>22(31.4)</td>
<td>25(35.7)</td>
<td>14(20.0)</td>
<td>2.63</td>
<td>0.951</td>
</tr>
<tr>
<td>There is need for thorough occasional cleaning</td>
<td>30(42.9)</td>
<td>18(25.7)</td>
<td>13(18.6)</td>
<td>19(27.1)</td>
<td>2.74</td>
<td>0.935</td>
</tr>
</tbody>
</table>

**Table 4** above showed the extent of students' engagement in sanitation practice in FCE (T) Akoka. 50.0% and above of the respondents accepted three of the eight items to be true. The mean ratings of the two items are each at least 2.50 benchmark for the acceptance of a statement in a four Likert scale. The Table revealed that the toilets in the school and hostel are always clean and conducive; that some of the students of the school have poor hygiene practices and that there is need for daily cleaning. The Table also revealed that the students do cook food from unhygienic source and that some of the students drink water from natural sources without being treated.
Table 5: Mean Responses of Respondents on Types of Foodborne Disease Encountered among the Students

<table>
<thead>
<tr>
<th>Item</th>
<th>SD</th>
<th>D</th>
<th>A</th>
<th>SA</th>
<th>Mean</th>
<th>ST. DEV.</th>
</tr>
</thead>
<tbody>
<tr>
<td>I do vomit due to indigestion of food intake bought</td>
<td>7(10.0)</td>
<td>22(31.4)</td>
<td>35(50.0)</td>
<td>6(8.6)</td>
<td>2.57</td>
<td>0.791</td>
</tr>
<tr>
<td>Fruits I consume do have brown patches and led to vomit</td>
<td>5(7.1)</td>
<td>19(27.1)</td>
<td>29(41.4)</td>
<td>17(24.3)</td>
<td>2.83</td>
<td>0.884</td>
</tr>
<tr>
<td>I do have stomach upset because of contaminated food.</td>
<td>3(4.3)</td>
<td>14(20.0)</td>
<td>38(54.3)</td>
<td>15(21.4)</td>
<td>2.93</td>
<td>0.767</td>
</tr>
<tr>
<td>I have fallen victim of food poisoning dysentery is contacted due to intake of bad food</td>
<td>4(5.7)</td>
<td>20(28.6)</td>
<td>27(38.6)</td>
<td>19(27.1)</td>
<td>2.87</td>
<td>0.883</td>
</tr>
<tr>
<td>GRAND MEAN</td>
<td>7(10.0)</td>
<td>16(22.9)</td>
<td>35(50.0)</td>
<td>12(17.1)</td>
<td>2.74</td>
<td>0.863</td>
</tr>
</tbody>
</table>

Table 5 above showed percentages in parenthasis.

Table 5 above showed the types of foodborne disease encountered among the students of FCE (T) Akoka. More than 50.0% of the respondents accepted the five items to be true. The mean ratings of the five items are each more than 2.50 benchmark for the acceptance of a statement in a four Likert scale. The Table revealed that some of the students vomit due to indigestion of food intake; some do consume brown patches (bacteria/virus infected) fruit and do vomit and that some of the students are victims of stomach upset because of contaminated food and dysentery due to intake of bad food.

Discussion of Findings

The findings in the Research Question One revealed that students have a fix day for general cleaning of the environment at weekly and monthly bases, students residing in the hostel are always ensuring they have clean environment, students of the school avoid littering the school premises by making use of the waste disposal appropriately, the students are not concerned about untidy environment and appropriate method of waste disposal. This is in line with the study of Blackwell (2004) that shows that the consumption of contaminated drinking water, improper disposal of human excreta, lack of personal and food related hygiene and improper disposal of solid and liquid waste have been major causes of many diseases.

The findings of Research Question Two revealed that the toilets in the school and hostel are always clean and conducive; some of the students of the school have poor hygiene practices. that the students do participate fully in the cleaning of the surroundings, students do cook food from unhygienic source, some students drink water from natural sources without being treated while some do boil water from tap before drinking it. The study also revealed that majority of the students prefers to clean up daily rather than weekly and occasional thorough cleaning. This practice might not sustain a very clean and healthy environment. The study indicated that the students' involvement in sanitation practices partial. UNICEF (2001) pointed out that, the sanitary conditions of schools in rural and urban areas in developing countries are often appalling, creating health hazards and other negative impacts, making schools unsafe for students. From the UNICEF perspective the students need to cultivate the habit of regular involvement in sanitation practice in order to have a healthy environment and for their well-being.

The findings of Research Question Three revealed that majority of the respondents disagreed that students vomit due to indigestion of food intake, students are exposed to bacteria/virus infected fruit and do vomit when consumed, students are victims of stomach upset because of contaminated food, students do fall victim of food poisoning and students contact dysentery due to intake of bad food. This is supported with the findings of Hall (2003) that pointed out that many infections of human beings are spread through inadequate sanitation. Viruses, bacteria, protozoa and worms may spread through direct contact, indirectly via carriers and vectors. Hence, the study revealed that the students are mindful of these and need to make continuous effort to ensure foodborne diseases are prevented through good sanitation practices.
Conclusion
Based on the findings of the study, the researchers concluded that the students of FCE(T) Akoka are not consistent in total sanitation practices for healthy living and wellness while in the campus; consequentially, these have imparted on their health as shown that some do encounter foodborne diseases due to poor sanitation practices.

Recommendations
Based on the findings, the study recommends that:

- Students should be encouraged to engage and imbibe in good sanitation practices that could enhance healthy living.
- Students should be encouraged and sensitized that to either imbibe in the collective weekly or fortnight cleaning of their environment in order to promote healthy living and wellness among them.
- There should be an awareness or sensitization programme to enlighten them on the consequences and danger of staying in a partially or unkept environment which can impact on their academic achievement which is main purpose of staying in the hostel.

References


IMPORTANCE OF FUNCTIONAL FOODS IN DISEASES PREVENTION AND PROMOTION OF HEALTH IN COLLEGES OF EDUCATION IN DELTA STATE, NIGERIA

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Abstract
The study investigated the importance of functional foods in disease prevention and promotion of health in Colleges of Education in Delta State, Nigeria. Three research questions were raised for the study. Descriptive survey design was used for the study and the population for the study was made up of some selected lecturers in the Department of Home Economics in the four Colleges of Education in Delta State. The sample size for the study was all the lecturers in the department of Home Economics in the four colleges of education in Delta State. Since the population was small, there was no need for sampling. The instrument for data collection was a questionnaire developed by the researcher and validated by two experts in Home Economics and Measurement and Evaluation from the Ebonyi State University, Abakaliki. Using the Pearson’s Product Moment Correlation Coefficient to determine its co-efficient. A correlation of 0.72 was obtained which was high enough for the study. Data analysis was done using mean and standard deviation to answer the research questions. The result of the study among others showed that some of the major functional foods include: provivia fruit juice, fat from fish oil, fresh fruit and vegetable, activia yoghurt and vitamin D enrich margarine. It further indicated that the mere availability of functional foods do not necessarily imply their effectiveness in disease prevention and promotion of health. It equally revealed that functional foods play crucial roles in disease prevention and promotion of health. Furthermore, the result showed that respondents have positive attitudes towards functional foods in disease prevention and promotion of health. Based on the result, it was recommended that there should be a clear demonstration in additional dietary roles in reducing disease risk, and consumers should learn that food has a greater impact in health maintenance/promotion and disease prevention. Hence functional food should be an integral component of established public health programs to reduce the risk of specific diseases.

Keywords: Opinion, Home Economics Teachers, Functional Foods, Disease Prevention, Promotion of Health, Nigeria.

Introduction
In recent time in Nigeria there has been reports of various outbreak of diseases ranging from (1) malaria, laser fever as well as, manifestation of chronic disorders like cardiovascular diseases, diabetes, cancer, depression among others (Modifor, 2010). The first categories of reported diseases may be caused by mosquito, rodent, unkempt and environment, while the second categories may be as a result lifestyle. Irrespective of the category that a particular disease belongs there must be appropriate healthcare delivery to ensure optimal health among the populace. Putting appropriate healthcare delivery for effective management of the various categories of diseases cost a lot of money. These costs according to Holub (2012) include a plethora of approaches such as pharmaceutical, risk-factor management, diagnostic, surgical and so on used to target the prevention, management, and treatment of diseases and medical conditions. In fact, healthcare costs for personal, infrastructure, expendables among others to provide good health have continued to increase in Nigeria (FAO, 2007).

Essentially, lifestyle related chronic disorders like cardiovascular diseases, diabetes, cancers, high blood pressure are cardinal contributors to the present increases health costs in the country. Besides, these diseases are responsible for early morbidity (physical and mental suffering, loss of quality of life including functional impairments, loss of independence, unemployability, poverty, psychiatric disorders, family and social discord, loss of self-esteem and hope among others and subsequently mortality in Nigeria. As such functional foods may play a role in disease and promotion of good health-care. Functional foods are conventional foods consumed as part of a usual diet and are demonstrated to have physiological benefits and/or reduce the chronic disease beyond basic nutritional functions (Health Canada, 2018). According to the Health Canada, functional foods contain sufficient levels of natural extracts, dried powders, concentrates or purified natural nutraceuticals ingredients, which are isolated from natural food sources which have a long history of being consumed as dietary components on different sectors of the world for decades (or generations) and which demonstrates
health benefits including favourable modification of disease risk factors, prevention of disease, delay of disease onset, retardation of disease progression, as well as, applications in disease/medical management in those who have pre-existing disease/disorders (Ramsay, 2009).

Despite the laudable contribution of functional foods in disease prevention and promotion of health, there are indications that there may be lack of awareness as regards the major available functional foods. Moreover, there are some studies that have shown that attitude change which means the way one thinks and feel about functional foods may be as important as knowledge of functional foods. For instance, the International Longevity Centre (2010) and Howlett (2008) averred that there is evidence suggesting significant cultural differences in attitudes towards functional foods. Based on this background the study set to ascertain the effectiveness of functional foods in disease prevention and promotion of health.

**Functional Foods from Plant Sources:** Functional foods from plant sources include the following:

- **Oats:** Oats products are widely studied dietary source of the cholesterol-lowering soluble fibre b-glucan. There is now significant scientific agreement that consumption of this particular plant food can reduce total and Low Density Lipoprotein (LDL) cholesterol, thereby reducing the risk of Coronary Heart Disease (CHD) (Agriculture and African Food Canada, AAFC, 2008).

- **Soy:** This has been in the spotlight during 1990s not only is soy a high protein, as assessed by the Foods and Drugs Administration's (FDA) protein digestibility corrected Amino acids score method, it is now thought to play preventive and therapeutic role in cardiovascular disease (CVD), cancer, osteoporosis, and the alleviation of menopausal symptoms (AAFC, 2008). It acts as a source of supplementary, complementary protein and contribute functional properties such as solubility water, absorption, viscosity, emulsification, texture and antioxidation, whole soy beans are processed into snack foods beverages.

- **Flaxseed:** Among the major seed oils, flaxseed oil contains the most (57%) of the omega-3 fatty acid, a-Linolenic acid. Others include: tomatoes, garlic, broccoli and vegetables, citrus fruits, cranberry tea, wine and grapes (AAFC, 2008).

**Functional Food from Animal Sources:** Although the vast number of naturally occurring health-enhancing substances are of plant origin, there are a number of physiological- active components in animal products that deserve attention for their potential role in optimal health. They include;

- **Fish:** Omega-3 (n-3) fatty acids are an essential class of polyunsaturated fatty acids (PUFAS) derived primarily from fish oil (AAFC, 2008).

- **Dairy Products:** There is no doubt that dairy products are functional foods. They are one of the best sources of calcium, an essential nutrient which can prevent osteoporosis and possibly colon cancer.

**Top Functional Nutrients/Components and their Food Sources**

- **Omega-3 Fatty Acids:** flaxseed (cold pressed), fish oil, chia seeds, walnuts & walnut oil, fish roe (caviar), cured & canned fish (smoked salmon), fish (mackerel), seafood (oysters), soybean (roasted), spinach (cooked, boiled).

- **Prebiotics:** They are compounds in food that induce the growth or activity of beneficial microorganism such as bacteria and fungi. As a functional food component, they are conceptual intermediary between food and drugs. E.g. chicory roots, dandelion greens, Jerusalem artichoke, garlic, onions, leeks, asparagus, bananas, barley, oats, apples, konjac roots, cocoa, burdock root, flaxseed, yacon root, jicama root, wheat bran, seaweed.

- **Probiotics:** They are living microorganisms promoted with claims that they provide health benefits when consumed generally by improving or restoring the gut flora. They are considered generally safe to consume, but may cause bacteria-host interactions and unwanted side effects. E.g. yoghurt, miso soup, sauerkraut, kefir, kombucha, mirocoalgea, sour pickles, tempeh, kimchi, poi.

- **Antioxidants:** They are substances that reduce damage due to oxygen such as heat caused by free radicals. E.g. purple, red, and blue grapes, blueberries, red berries, nuts, dark green veggies, sweet potatoes and orange vegetables, tea, wholegrain, beans, fish.

- **Plant Sterols:** They are substances that occur naturally in small amount in many grains vegetables, fruits, legumes, nuts and seeds since they have powerful cholesterol-lowering properties.
Health Benefits of Functional Foods
The health benefits and disease-preventive effects of functional foods and nutraceuticals have primarily been in several areas. These include treatment of cancer, atherosclerosis and other cardiovascular disease (CVD), the process of aging, and immune response-enhancing effect, as well as diabetes, among others. The effect rendered by functional foods are due to a cocktail of phytochemicals and bioactive substance present in the products of interest. As an example, soybeans contain phytates, phenolic acids, flavonoids/isoflavoids, carotenoids, coumanins, lignans, terpenes, enzymes inhibitors, and saponins, among others. In each family of compounds there are usually many members that are present. Thus, a variety of phenolics are present in plant-based source materials, extracts, or preparations.

Epidemiological evidence shows that regular consumption of functional foods, nutraceuticals and value added food products is associated with a lowered risk of coronary heart disease, obesity, diabetes, cancer, osteoporosis and other chronic age-related degenerative disease like Parkinson's and Alzheimer's disease (Prakash and Kumar, 2011). Berry fruits and blackcurrants, for example are employed in fruits medicine for the prevention and treatment of circulating disorders and inflammatory diseases. These foods are known to play important roles in modulating oxidative stress in disease states. The observed health benefits has been ascribed to the presence of bioactive compounds by Priya and Santtriya (2011) which accumulate in plasma and tissue of consumers in rations mediated by reactive oxygen species (Ames, 2011; Etminan, Takkouche, Gamano-Isorna, 2004).

These compounds either alone, or synergistically, have much therapeutic potential and exert varying biological and pharmacological effect in human health as anti-carcinogenic, anti-inflammatory, anti-diabetic, analgesic, central nervous system (CNS) stimulant and stimulation of cellular immunity (Hakiman and Maziah, 2009, Prakash and Kumar, 2011). For example, tocopherol is useful as an antioxidant therapeutic agent in attenuating the progression of heart attack (Azzi, et al, 2003) and heart failure (Ghatak, et al 2000). The vitamin prevents cardiovascular diseases (CVDs) by reducing platelet adhesion, elevating High density Lipoprotein (HDL) level in the blood and inhibiting smooth muscle cell proliferation, a predisposing factor in atherosclerosis (Lee, et al 2005). They are readily available, cheaper and safer, nutraceuticals, functional foods and value added food products are becoming widely acceptable as alternatives to conventional drugs and pharmaceuticals (Chatterjee, Goswami, Bhatnagar and Kumar, 2013).

The Burden of Chronic Diseases and Possible Intervention of Functional Foods, Nutraceuticals and Value Added Products
Most countries in the world are presently going through a nutritional transition and are affected by double burden of nutritional problems. Under-nutrition and specific nutrient deficiency, and simultaneously imbalanced diets and chronic diseases are becoming burdensome and the trend is rapidly increasing globally (Health Canada, 2006). In 2001, chronic diseases were reported to contribute about 46% of the world burden of diseases and this has been predicted to increase to 57% by 2020 (WHO, 2002). Most of these diseases now appear earlier in life and affect both the affluent and the poor in developing and developed nations of the world, chronic diseases are largely preventable diseases, as a result, the promotion of healthy diets, nutrition and lifestyle to reduce the global burden of these diseases continually being advocated, and a possible way out is the copious consumption of functional food products, nutraceuticals and value added food products, due to their ready availability and disease preventing characteristics.

Nutraceuticals have gained worldwide popularity, have been defined or concentrated food and food products with health-promoting and/or disease-prevention properties beyond their basic nutritional function (Gunther, Patterson, Kristel, Stratton and White, 2004). When consumed, they enhance health and quality of life for people of all ages. Nutraceuticals ranges from supplements and diets, to naturally occurring substances such as herbals, vitamins amino acids or their formulations, and processed products such as cereals, soups, and beverages (Kharb and Singh, 2004).

Statement of the Problem
Functional foods provide means to reduce the increasing burden on the health care, health system as they play crucial role in prevention, cure and treatment of an illness. As such the effective use of functional foods may reduce the financial expenditure on health every year in Nigeria, as well as, prevent chronic diseases that are related to lifestyle. However, it is a common experience that most people who supposed to be consuming these products (functional foods) may not be aware of their availability in the market and those who are aware may have shown poor attitude towards them probably as a result of cultural difference or interest. The situation
worries the researcher, hence the study of the importance of functional foods in disease prevention and promotion of health in Colleges of Education in Delta State, Nigeria.

Research Questions
1. What are the available functional foods for diseases prevention and promotion of health?
2. What are the role of functional foods in diseases prevention and promotion of health?
3. What is the attitude of home economics lecturers towards the effectiveness of functional foods in diseases prevention and promotion of health?

Methodology
Research Design: The descriptive survey research design was used for the study. Owie (2006) has maintained that the descriptive survey research is one of the best available designs that can be used by researchers to investigate, identify, determine or describe situation or events as they are, interpret and report the results of the investigation without manipulation of any variables, but merely seek to look at things (information, evidence, facts and so on) as they are and to collect, synthesize, interpret and report such findings.

Population of the Study: The population of the study comprised of 35 selected lecturers in the Department of Home Economics in the four Colleges of Education in Delta State. They are selected as follow: College of Education, Warri (11 lecturers), College of Education, Agbor (9 lecturers), College of Education, Mosogar (7 lecturers) and Federal Colleges of Education (Technical), Asaba (8 lecturers) (Source: Senior Establishment Unit, 2019).

Sample and Sampling Technique: The entire 35 lecturers selected in the four Colleges of Education in Delta State were used for the study. Since the population was small, there was no need for sampling.

Instrumentation: The instrument for the study was a questionnaire designed by the researcher titled; “Importance of Functional Foods in Disease Prevention and Promotion of Health Questionnaire (IFFDPPHQ).” The questionnaire sought information on available functional foods, effectiveness of functional foods, role of functional foods and the attitude of Home Economics lecturers towards functional foods in disease prevention and health promotion. The questionnaire was based on a four point scale format of strongly agree (4 points), agree (3 points), disagree (2 points) and strongly disagree (1 point) and 3 point scale of very effective (3 points), just effective (2 points) and not effective (1 point) respectively.

Validity of the Instrument: The instrument was validated by the two experts in Home Economics and Measurement and Evaluation from the Ebonyi State University, Abakaliki. Based on their observation, correction and inputs the final copy of the questionnaire was produced.

Reliability of the Instrument: To determine the reliability of the instrument, it was pro-tested on 10 Home Economics lecturers in colleges of education in Edo State who were not involved in the main study. After an interval of two weeks, a post-test was also administered to the same lecturers using the same questionnaire. The scores from the first and second administrations were analyzed using Pearson's Product Moment Correlation Coefficient to determine its co-efficient. A correlation of 0.72 was obtained which was high enough for the study.

Method of Data Collection: The researcher will personally administer the questionnaire forms to the respondents herself in the Department of Home Economics in the four colleges of education in Delta State sampled for the study. The completed questionnaire forms were collected by the researcher same day.

Method of Data Analysis: In analyzing the data collected, the researcher used mean and standard deviation to answer the research questions. The decision rule was that any mean score above 2.50 was accepted and below 2.50 was rejected.
Results

Research Question 1: What are the available functional foods for diseases prevention and promotion of health?

Table 1: Available functional foods for diseases prevention and promotion of health

<table>
<thead>
<tr>
<th>S/N</th>
<th>Functional foods</th>
<th>Mean</th>
<th>SD</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Activia yoghurt</td>
<td>3.24</td>
<td>0.84</td>
<td>Agree</td>
</tr>
<tr>
<td>2</td>
<td>Proviva fruit juice</td>
<td>3.38</td>
<td>0.76</td>
<td>Agree</td>
</tr>
<tr>
<td>3</td>
<td>Flora Omega3 margarine</td>
<td>3.94</td>
<td>1.09</td>
<td>Agree</td>
</tr>
<tr>
<td>4</td>
<td>Omega3 soya milk</td>
<td>3.13</td>
<td>0.82</td>
<td>Agree</td>
</tr>
<tr>
<td>5</td>
<td>Vitamin D enrich margarine</td>
<td>3.25</td>
<td>0.74</td>
<td>Agree</td>
</tr>
<tr>
<td>6</td>
<td>Fresh fruit</td>
<td>3.25</td>
<td>0.50</td>
<td>Agree</td>
</tr>
<tr>
<td>7</td>
<td>Fresh vegetable</td>
<td>3.12</td>
<td>0.82</td>
<td>Agree</td>
</tr>
<tr>
<td>8</td>
<td>Whole meal bread</td>
<td>3.16</td>
<td>0.84</td>
<td>Agree</td>
</tr>
<tr>
<td>9</td>
<td>Whole grain rice</td>
<td>3.28</td>
<td>0.80</td>
<td>Agree</td>
</tr>
<tr>
<td>10</td>
<td>Fat from fish oil</td>
<td>3.41</td>
<td>0.94</td>
<td>Agree</td>
</tr>
<tr>
<td>11</td>
<td>Calcium fortified milk</td>
<td>3.44</td>
<td>0.68</td>
<td>Agree</td>
</tr>
<tr>
<td>12</td>
<td>Walnut and walnut oil</td>
<td>3.29</td>
<td>0.67</td>
<td>Agree</td>
</tr>
<tr>
<td>13</td>
<td>Spinach</td>
<td>3.31</td>
<td>0.79</td>
<td>Agree</td>
</tr>
<tr>
<td>14</td>
<td>Garlic</td>
<td>3.36</td>
<td>0.74</td>
<td>Agree</td>
</tr>
<tr>
<td>15</td>
<td>Onions</td>
<td>3.43</td>
<td>0.64</td>
<td>Agree</td>
</tr>
<tr>
<td>16</td>
<td>Barley</td>
<td>3.16</td>
<td>0.75</td>
<td>Agree</td>
</tr>
<tr>
<td>17</td>
<td>Apples</td>
<td>3.57</td>
<td>0.67</td>
<td>Agree</td>
</tr>
<tr>
<td>18</td>
<td>Orange vegetable</td>
<td>3.27</td>
<td>0.63</td>
<td>Agree</td>
</tr>
<tr>
<td>19</td>
<td>Blue berries</td>
<td>3.59</td>
<td>0.61</td>
<td>Agree</td>
</tr>
<tr>
<td>20</td>
<td>Red berries</td>
<td>3.30</td>
<td>0.73</td>
<td>Agree</td>
</tr>
<tr>
<td>21</td>
<td>Nuts</td>
<td>3.43</td>
<td>0.88</td>
<td>Agree</td>
</tr>
<tr>
<td>22</td>
<td>Dark green veggies</td>
<td>3.16</td>
<td>0.92</td>
<td>Agree</td>
</tr>
<tr>
<td>23</td>
<td>Blue grapes</td>
<td>3.25</td>
<td>0.71</td>
<td>Agree</td>
</tr>
</tbody>
</table>

Given a 2.50 mid-point in the 4-point scale, data in table 1 showed that all the items had mean ratings above the mid-point, indicating that they are all available functional foods for diseases prevention and promotion of health. Indeed, all the items received mean rating of 3.0. The highest mean rating of 3.38 was recorded in the case of “blueberries”. On the other hand, “fresh vegetable” received the lowest mean of 3.12.

Research Question 2: What are the role of functional foods in diseases prevention and promotion of health?

Table 2: Role of functional foods in diseases prevention and promotion of health.

<table>
<thead>
<tr>
<th>S/N</th>
<th>Item statement</th>
<th>Mean</th>
<th>SD</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Improvement in general digestive comfort/functioning</td>
<td>3.25</td>
<td>0.75</td>
<td>Agree</td>
</tr>
<tr>
<td>2</td>
<td>Improvement in immunity</td>
<td>3.25</td>
<td>0.25</td>
<td>Agree</td>
</tr>
<tr>
<td>3</td>
<td>Improvement and management of diarrhea and irritable bowel disease syndrome (IBS)</td>
<td>3.12</td>
<td>0.83</td>
<td>Agree</td>
</tr>
<tr>
<td>4</td>
<td>Prevention of colon cancer</td>
<td>3.25</td>
<td>0.50</td>
<td>Agree</td>
</tr>
<tr>
<td>5</td>
<td>Anti inflammatory system</td>
<td>3.28</td>
<td>0.80</td>
<td>Agree</td>
</tr>
<tr>
<td>6</td>
<td>Maintenance of intestinal tolerances</td>
<td>3.25</td>
<td>0.66</td>
<td>Agree</td>
</tr>
<tr>
<td>7</td>
<td>Prevention of respiratory infection</td>
<td>3.38</td>
<td>0.64</td>
<td>Agree</td>
</tr>
<tr>
<td>8</td>
<td>Helpful in normalising nutritional status</td>
<td>3.47</td>
<td>0.64</td>
<td>Agree</td>
</tr>
<tr>
<td>9</td>
<td>Prevention of common cold and flu</td>
<td>3.41</td>
<td>0.73</td>
<td>Agree</td>
</tr>
<tr>
<td>10</td>
<td>Reduction of the risk of diabetic</td>
<td>3.30</td>
<td>0.73</td>
<td>Agree</td>
</tr>
<tr>
<td>11</td>
<td>Lowering of blood fat</td>
<td>3.57</td>
<td>0.75</td>
<td>Agree</td>
</tr>
</tbody>
</table>

Given a 2.50 mid-point in the 4-point rating scale, data analysis in table 3 showed that all the items had mean ratings above the mid-point, indicating that functional foods play crucial role in diseases prevention and promotion of health. Indeed, all the items received mean ratings of 3.0. The highest mean rating of 3.57 was recorded in the case of “lowering of blood fat”. On the other hand, “improvement and management of diarrhoea
and irritable bowel disease syndrome (IBS) received the lowest mean rating of 3.12.

**Research Question 3:** What is the attitude of home economics lecturers towards the effectiveness of functional foods in diseases prevention and promotion of health?

**Table 3: Attitude of Home Economics lecturers towards functional foods in diseases prevention and promotion of health**

<table>
<thead>
<tr>
<th>S/N</th>
<th>Item statement</th>
<th>Mean</th>
<th>SD</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Positively inclined towards functional food</td>
<td>3.45</td>
<td>0.68</td>
<td>Agree</td>
</tr>
<tr>
<td>2</td>
<td>Interested in the health benefits offered by functional food</td>
<td>3.54</td>
<td>0.94</td>
<td>Agree</td>
</tr>
<tr>
<td>3</td>
<td>Interested in the taste of functional food than health benefits</td>
<td>2.14</td>
<td>0.78</td>
<td>Disagree</td>
</tr>
<tr>
<td>4</td>
<td>Need to be sure of the perceived health need that will be met by the product</td>
<td>3.28</td>
<td>0.68</td>
<td>Agree</td>
</tr>
<tr>
<td>5</td>
<td>Consumers purchase functional foods that belong to the product category that they usually consume</td>
<td>3.27</td>
<td>0.64</td>
<td>Agree</td>
</tr>
</tbody>
</table>

Given a 2.50 mid-point in the 4-point rating scale, data analysis in table 4 showed that item 1, 2, 4 and 5 with the exception of item 3 had mean rating above the mid-point, indicating that respondents have positive attitude towards functional food is disease prevention and promotion of health. The highest mean rating of 3.45 was recorded in the case of “positivity inclined toward functional foods”. On the other hand, interested in taste of functional foods than health benefits received the lowest mean rating of 2.14, thus indicating negative attitude.

**Discussion of Findings**

The result of the study indicated that the functional food for diseases prevention and promotion of health were all accepted by the respondents. Some of the major functional foods include: provivia fruit juice, fat from fish oil, fresh fruit and vegetable, activia yoghurt and vitamin D enrich margarine. This finding is in agreement with that of FAO (2007) that common functional foods include activia yoghurt, Yakult diary drink, Sainsbury probiotic yoghurt, probiotic juice and cereal, flora proactive margarine, Tropicana fruit juice with benecol, omega -3 eggs, flora omega -3 margarine, calcium enriched fruit juice, calcium and vitamin D enriched soya milk, vitamin D and calcium fortified orange juice and vitamin D fortified milk.

When the role of functional foods in diseases prevention and promotion of good health (as presented in table 3) was examined, results showed that functional foods play crucial role in diseases prevention and promotion of health. This is not surprising given the report of Priya and Santhriya (2011) that functional foods play important role in modulating oxidative stress in disease states and that of Hakiman and Maziah (2009) that functional foods have much therapeutic potential and exert varying biological and pharmacological effect in human health as anti-carcinogenic, anti-inflammatory, anti-diabetic, anti-apoptotic, chemo-preventive, hepato-protective, hypolipidemic, analgestic, central nervous system (CNS) stimulant and stimulation of cellular immunity.

Moreover, the result showed that respondents have positive attitudes towards functional foods in disease prevention and promotion of health, as presented in table 4. This finding is in line with the report of the International Longevity centre (2010) that consumers of all ages with interest in health are more likely to be positively inclined towards functional foods.

**Conclusion and Recommendations**

The study has revealed that in general Home Economics lecturers are familiar with the major functional foods, as well as, assure of their importance in disease prevention and promotion of health. The result equally suggests that the respondents had positive attitude towards functional foods as they play crucial role in disease prevention and promotion of health. It is therefore recommended that:

i. There should be a clear demonstration in additional dietary roles in reducing disease risk, and consumers should learn that food has a greater impact in health maintenance/promotion and disease prevention. Hence functional food should be integral component of established public health programs to reduce the risk of specific diseases.

ii. Scientific, regulatory, and business framework must be in place to evaluate the research supporting functional foods for efficacy and safety, ensure effective regulatory oversight, and communicate the research findings to consumers. These changes must be implemented now to protect consumer’s
confident in the safety of food supply and to encourage the food industry to invest in the development of new functional foods.

iii. The researcher suggests the possibility to design foods and diets that regulate gene expression and thereby change metabolism in a way that reduces or prevents common diseases afflicting people having a specific genotype and also to promote their health.

iv. Optimal intake and upper safe limit values have to be determined for functional bioactive components.

v. Total dietary intake of bioactive components is only restricted to function foods; it is therefore recommended that nutraceuticals (food supplements and herbal medicine) be reviewed.

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The International Longevity Centre (2010). *Older people are functional foods: The importance of diet in supporting older people’s health; what role for functional foods?* England: ILC – UK


HOMEMAKING SKILLS AND FAMILY RELATIONSHIP: A PRE-REQUISITE FOR NATIONAL STABILITY IN ORASHI REGION, RIVERS STATE

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Abstract
The study focused on homemaking skills and family relationship for national stability in Orashi Region, Rivers State. Two purposes, two research questions guided the study and two hypotheses were formulated and tested at 0.05 level of significance. This study adopted correlational research design. The population of the study consisted of all the 153,320 married male and female adults in the Region. Stratified random sampling technique was used to sample three strata from the four Local Government Areas. Furthermore, simple random sampling technique was used to sample 180 respondents for the study. An instrument titled “Homemaking Skills and Family Relationship Questionnaire (HMSFQ)” structured on a four point rating scale of Very High Extent, High Extent, Low Extent and Very Low Extent was used for data collection and was validated by three experts. The reliability of the instrument was determined using test-retest method. The scores generated from the first and second administrations were correlated using Pearson Product Moment Correlation Method. The reliability coefficient was 0.75 indicating that the instrument was quite reliable enough for the study. The findings of the study revealed that the resulting R means that only 29% of family relationship is associated with communication skill. This means that communication skill is a predictor of family relationship for national stability. The study recommended that families should be encouraged to possess good communication skills as this would enhance a better family relationship for national stability. Through conferences, workshops and seminars, families should be taught and exposed to various entrepreneurship skills as these skills would enhance family relationship.

Keyword: Homemaking Skills, Family Relationship, National stability, Communication skill and Entrepreneurship skill

Introduction
In recent time in Nigeria there has been reports of various outbreak of diseases ranging from (1) malaria, laser fever as well as, manifestation of chronic disorders like cardiovascular diseases, diabetes, cancer, depression among others (Modifor, 2010). The first categories of reported diseases may be caused by mosquito, rodent, unkempt and environment, while the second categories may be as a result lifestyle. Irrespective of the category that a particular disease belongs there must be appropriate healthcare delivery to ensure optimal health among the populace. Putting appropriate healthcare delivery for effective management of the various categories of diseases cost a lot of money. These costs according to Holub (2012) include a plethora of approaches such as pharmaceutical, risk-factor management, diagnostic, surgical and so on used to target the prevention, management, and treatment of diseases and medical conditions. In fact, healthcare costs for personal, infrastructure, expendables among others to provide good health have continued to increase in Nigeria (FAO, 2007).

Essentially, lifestyle related chronic disorders like cardiovascular diseases, diabetes, cancers, high blood pressure are cardinal contributors to the present increases health costs in the country. Besides, these diseases are responsible for early morbidity (physical and mental suffering, loss of quality of life including functional impairments, loss of independence, unemployability, poverty, psychiatric disorders, family and social discord, loss of self-esteem and hope among others and subsequently mortality in Nigeria. As such functional foods may play a role in disease and promotion of good health-care. Functional foods are conventional foods consumed as part of a usual diet and are demonstrated to have physiological benefits and/or reduce the chronic disease beyond basic nutritional functions (Health Canada, 2018). According to the Health Canada, functional foods contain sufficient levels of natural extracts, dried powders, concentrates or purified natural nutraceuticals ingredients, which are isolated from natural food sources which have a long history of being consumed as dietary components on different sectors of the world for decades (or generations) and which demonstrates
Open and honest communication creates an atmosphere that allows family members to express their differences and understand the interactions of family and the pattern of behaviors of family members in different circumstances. According to Ahmed, Rukhsana; Jaya and Peruvemba (2014), communication is very important in the family and makes relationships a priority, communicating effectively and providing support for each other. However, different needs arising within the family may create tensions between family members, and pressures that come from outside (e.g., work or financial pressures) may also impact on families and children (Stene, Trevisani & Danielsen, 2015). Creative problem solving is a method of solving problem in an imaginative and innovative way which have powerful effect on emotions and sense of security in the individual, family and the nation at large fostering national stability.

National stability guarantees individual's freedom, development and peace. It is only when a country can produce its own goods and services through the provision of the right educational training; has independence in making and executing its own decisions and national policies; makes rational use of its scarce material and manpower resources that it can achieve national economic and political stability and development using innovative skills.

Skills have to do with the ability to perform or carry out a task related to some meaningful exercise. Elijah (2006) described skills as a well-established habit of doing things. It involves the acquisition of performance ability. Skills acquisition therefore is the acquisition of performance abilities and capabilities. Williams and Offiong (2007) maintained that skills acquisition is essential for development of intrinsic potentials in individuals. Hence, when individuals are dependently developed it improves the cordial relationship in the family as well as maintaining family problem solving technique.

Communication skills are important in a wide range of circumstances and environments: Not all communication happens in words, so it's important to pay attention to the feelings that children and partner express non-verbally. For example, a teenage child might not want to talk to anyone but might still come looking for the comfort of cuddles sometimes? It's also important to be aware of the non-verbal messages one send. For example, hugs, kisses and eye contact send the message that someone want to be close to a family member. But a grumpy tone of voice or a frown when doing something together might send the message that such a person is not welcome. Family communication is the study of the communication perspective in a broadly defined family, with intimacy and trusting relationship. According to Trenholm and Jensen (2013), the main goal of family communication is to understand the interactions of family and the pattern of behaviors of family members in different circumstances. Open and honest communication creates an atmosphere that allows family members to express their differences.
as well as love and admiration for one another. It also helps to understand the feelings of one another.

**Turner and West (2013) stated that communication** skills are essential for effective family relationships as the ability to communicate information accurately, clearly as intended, is a vital life skill and something that should not be overlooked by the homemaker. Communication is the basic bond for good family relationship. In order to ensure effective communication in the family, it is important that the homemaker acquire the knowledge of communication skill. In Anyakoha (2015), communication is the process of human interaction that involves generating, organizing and sending ideals to one or more receivers. Communication is the process of creating and sending messages to a receiver. It is exchange of information which includes facts, opinion and feelings. In Ferguson, et al (2014), communication is very important in the family relationships as it plays the following roles: strengthens family relationships, enables family members care for each other, helps family members share physical and psychological things, facilitates self-expression, foster understanding among family members, makes the teaching and learning of family values possible, useful in conflict resolution, used in making family decision and so on. Hence homemakers' communication skills help in improving quality family relationship and gives room for family members to showcase other vital skills such as entrepreneurship skill.

Entrepreneurship is the ability to seek out investment opportunities, establish and run a business enterprise successfully (Anyahoha, 2015). Entrepreneurship is one of the four mainstream economic factors of production. According to Schumpeter in JIPTE (2011), entrepreneurship is a force of creative destruction whereby established ways of doing things are destroyed by the creation of new and better ways to get things done. Entrepreneurship is therefore a subtle force challenging the order of society through marginally small changes. According to Izedonmi and Okafor (2010), entrepreneurship education is focused on developing youth with the passion and multiple skills. With the knowledge of entrepreneurial action, these students or potential entrepreneurs are able to understand how and what it means and takes to own a business, create ideas towards the achievement of desired goals and objectives. Izedonmi and Okafor (2010) stressed that certainly, the growth and development of a family as well as a country's economy is possible through entrepreneurial activities and its education.

**Statement of the Problem**
In more recent times, Home Economics as a course has been underestimated, leaving many youths with little or no knowledge of homemaking skills. “Homemaking skills are becoming a lost art. When the home-makers in a society are lost, then there will be an emotional homelessness much like street homelessness, with similar problems of despair, lack of self-esteem, insecurity, poverty, immorality, killing and kidnapping. Home signifies not only shelter, but also emotional commitment, security, and belonging. Since “No nation can rise above its homes, the school, and even the nation, the good home is the rock foundation — the cornerstone of civilization. For National stability therefore, home must be safeguarded, strengthened, and restored to its rightful importance” using the necessary acquisition of skills. It should be noted that the acquisition of skills from Home Economics have contributed in no small measure to the economic development of the country. Through entrepreneurship skills most of the national economic needs are met. This is equally true for the caterers, seamstress/tailors, decorators, bakers, manicurists, hair dressers and so on. A good number of them are non-completers of basic education. It therefore follows that, if home economics with its multiple roles are made compulsory for both male and female who will be exposed to skills at their location irrespective of their educational qualification, on acquiring the skills, they will not only create jobs for themselves but also become employers of labour. This will contribute significantly to the national economic stability. It is not clearly known how communication skill and entrepreneurship skill are taking as homemaking skills in family relationship for national stability in Orashi Region of Rivers State. These are the issues this paper sought to achieve

**Purpose of the Study**
The main purpose of the study was to determine homemaking skills and family relationship for national stability in Orashi Region of Rivers State. This paper specifically determined:

2. Entrepreneurship skill and family relationship for national stability in Orashi Region of Rivers State.
Research Questions
Two research questions guided the study:

1. To what extent does communication skill and family relationship enhance national stability in Orashi Region of Rivers State?

2. To what extent does entrepreneurship skill and family relationship enhance national stability in Orashi Region of Rivers State?

Hypotheses
Two hypotheses were formulated and tested at 0.05 level of significance:

H₀₁ There is no significant relationship in the mean responses between married male and female adults on the extent to which communication skill and family relationship enhances national stability in Orashi Region of Rivers State.

H₀₂ There is no significant relationship in the mean responses between married male and female adults on the extent to which Entrepreneurship skill and family relationship enhances national stability in Orashi Region of Rivers State?

Methodology
Design of the Study: This study adopted correlational research design because it attempts to establish relationship between the independent variable (that is knowledge of homemaking skills) and the dependent variable (that is, family relationship). Correlational study is employed when the researcher intends to find out or establish the relationship or association between two or more variables.

Population of Study: The population of this study consisted all the married male and female adults in Orashi Region Rivers state. There are 1,53,320 married male and female adults, a source from (registry units, Local Government, 2018).

Sample and Sampling Techniques: Stratified random sampling technique was used to sample three strata from the four Local Government Areas. Furthermore, simple random sampling technique was used to sample one clan each from the four Local Government Areas of the Region. The samples clans are Egi clan 45, Igbuduya clan 45, Okpden clan 45 and Upata clan 45. This gave a total sample size of 180 married male and female adults in the Orashi Region.

Instrument for Data Collection: A structured questionnaire instrument was used to collect data for this study titled “Homemaking Skills and Family Relationship Questionnaire (HMSFQ)’. The instrument was structured on four point response options of Very High Extent (VHE), High Extent (HE), Low Extent (LE) and Very Low Extent (VLE) with values of 4, 3, 2, and 1 respectively for each item.

Validation of the Instrument: The instrument was face and content-validated by three experts. The suggestions and criticisms of the experts were very useful in final draft of the instrument.

Reliability of the Instrument: The reliability of the instrument was determined using test-retest method. This method requires administering an instrument to married male and female adults from Ubie clan. These respondents were not selected for the study. The Homemaking Skills and Family Relationship Questionnaire was administered twice after an interval of time (3 days). The scores generated from the first and second administrations were correlated using Pearson Product Moment Correlation Method. The reliability coefficient was 0.75 indicating that the instrument was quite reliable for use in the study.

Method of Data Collection: The instrument for data collection (Homemaking Skills and Family Relationship Questionnaire) was distributed by the researcher with the help of two research assistants.

Method of Data Analysis: Mean score and standard deviation were used in answering the research questions while t-test was used in testing the two null hypotheses at 0.05 level of significance. 2.50 was used as the criterion for decision taking. Any items which mean score is 2.50 and above is regarded as high extent while 2.49 and below is regarded as low extent. In addition, when the calculated t-value is less than the critical f-value, the null hypothesis was accepted and vice versa.
Results

Research Question 1: To what extent does Communication skill and family relationship enhance National stability in Orashi Region of Rivers State?

Hypothesis 1: There is no significant relationship in the mean responses of married male and female adults on the extent to which Communication skill and family relationship enhance national stability in Orashi Region of Rivers State.

Table 1a and 1b: testing the significance of standardized regression coefficient (r) on the extent to which communication skill and family relationship enhance national stability

Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
<th>R Square Change</th>
<th>F Change</th>
<th>df1</th>
<th>df2</th>
<th>Sig. F Change</th>
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</table>

a. Predictors: (Constant), 4

Results from the table 1a and 1b yielded an R of 0.544 and R² of 0.29. The resulting R² means that only 29% of family relationship is associated with creative communication skill. Also, the result from table 1 reveals that Beta(β) value of 0.544 produced a t-value of 7.69 which is significant at P < 0.05. The result is significant and the null hypothesis is rejected. This means that communication skill is a predictor in family relationship for national stability. The regression equation for predicted family relationship is Y = 0.701x + 0.892 (Y' = Bx + a) where "x" is communication skill as an aspect of homemaking skills.

Research Question 2: To what extent does entrepreneurship skill and family relationship enhance national stability in Orashi Region of Rivers State?

Hypothesis 2: There is no significant relationship in the mean responses of married male and female adults on the extent to which Entrepreneurship skill and family relationship enhance national stability in Orashi Region of Rivers State.

Table 2a and b: Table 1a and 1b: testing the significance of standardized regression coefficient (r) on the extent to which Entrepreneurship skill and family relationship enhance national stability

Model Summary

<table>
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<tr>
<th>Model</th>
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<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
<th>R Square Change</th>
<th>F Change</th>
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<td>46.307</td>
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</table>

a. Predictors: (Constant), 4

Results from the table 2a and 2b yielded an R of 0.497 and R² of 0.24. The resulting R² means that only 24% of

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family relationship for national stability is associated with Entrepreneurship skill. Also, the result from table 2 reveals that Beta(β) value of 0.497 produced a t-value of 6.80 which is significant at P<0.05. The result is significant and the null hypothesis is rejected. This means that Entrepreneurship skill is a predictor in family relationship for national stability. The regression equation for predicted family relationship is \( Y = 0.415x + 2.126 \) (\( Y' = Bx +a \)) where “x” is Entrepreneurship skill as an aspect of homemaking skills.

**Discussion of Findings**

The finding of research question one (Table 1a) indicated that communication skill to a high extent enhances national stability while family relationship is associated with communication skill. When the Beta (β) statistics was applied, its value of 0.544, it was found out that the result is significant and the null hypothesis was rejected at t-value of 7.69 which is significant at P<0.05 (Table 1b). The above finding may be due to several reasons. probably, in fact, whenever homemakers meet and interact with other family members it brings joy and harmony to the family at large. In addition, the result of the finding in Table 1a and 1b reviewed that communication skill is a predictor in family relationship for national stability. This finding agree Turner and West (2013) stated that communication skills are essential for effective family relationships as the ability to communicate information accurately, clearly as intended, is a vital life skill and something that should not be overlooked by the homemaker and Ferguson, et,al (2014) that communication is very important in the family relationships as it plays the following roles: strengthens family relationships, enables family members care for each other ….

The finding of research question one (Table 2a) indicated that entrepreneurship skill to a high extent enhances national stability while family relationship is associated with entrepreneurship skill. When the Beta (β) statistics was applied, its value of 0.497, it was found out that the result is significant and the null hypothesis was rejected at t-value of 6.80 which is significant at P<0.05 (Table 2b). The above finding may be due to several reasons. probably, because when one member of the family has the knowledge of entrepreneurship other members can create ideas and possibly become self-reliance as well. In addition, the result of the finding in Table 2a and 2b reviewed that entrepreneurship skill is a predictor in family relationship for national stability. This finding agrees with Izedonmi and Okafor (2010), stating that certainly, the growth and development of a family as well as a country's economy is possible through entrepreneurial activities and its education.

**Conclusion**

Homemaking skills can improve Family relationship which in turn leads to national stability by acquisition and application of practical skills, attitudes and knowledge relating to economic life when it is properly harness according to the findings of the study. The primary aim of homemaking is to equip an individual with the right attitude, abilities and competencies towards family sustainability.

**Recommendations**

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

1. Families should be encouraged to embrace problem solving skill as this would enhance a better family relationship and of course national stability.
2. Through conferences, workshops and seminars, families should be taught and exposed to various entrepreneurship skill as this would enhance good family relationship.

**References**


Nicholas Eberstadt (2015). The global fight from the family: it's not only in the west or prosperous nation-the decline in marriage and drop in birth rates is rampant, with potentially dire fallout"Wall Street Journal, vol 4 pg 26-37,


