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Challenges and Coping Strategies of Families with Palliative Patients

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Abstract

Family members are prone to certain life events like diseases or illnesses occasioned either by accidents, genetic makeup or advancement in age, resulting in chronic illnesses thereby requiring care. This paper discusses the concept of palliative care; palliative care service options; the challenges that families with palliative patients encounter; and coping strategies available to such families. Palliative care service options available are hospital based, home based, community based and others. Some of the coping strategies adopted by families are guided relaxation, aromatherapy, amongst others. The paper recommends, among others, that families should source for and harness available resources to cope with the challenges of palliative care.

Keywords: Challenges, Families, Coping, Strategies, Palliative, Patient.

Introduction

The family remains the most essential social, economic and political unit, within which individuals experience love, care, co-operation, and so on. The family comprises of groups of persons united by ties of marriage, blood or adoption and characterized by common residence and economic co-operation (Anyakoha and Eluwa, 2010). The family provides specific functions to its members which no other social institution does such as care, security, protection (Schaefer, 2008). Families often experience crises, situations or turning points in their functioning. These upset the normal functioning of the family and often require a new set of responses to the stressor. It can also be regarded as a disruption or breakdown in a family's normal or usual pattern of functioning. Examples of crisis situations in the family are death of a spouse or family member, retrenchment and unexpected retirement of family member, accident, unplanned pregnancy, divorce, illness of family members (Crisis Intervention, 2012). When an illness interferes with the ability of a family member to perform his/her day to day activities

effectively or is protracted in nature, such as HIV/AIDS, mental health, then other members of the family have to provide care for its ailing member. The palliative approach views the family as a "unit of care". This paper discusses the concept of palliative care; palliative care service options; challenges of palliative patients on families and coping strategies of families with palliative patients.

The Concept of Palliative Care

The World Health Organisation (WHO, 2012) describes palliative care as "an approach that improves the quality of life of patients and their families facing the problems associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, including the physical, psychological and spiritual aspects. Palliative care: provides relief from pain and other distressing symptoms; affirms life and regards dying as a normal process; intends neither to hasten or postpone death; integrates the psychological and spiritual aspects of patient care; offers a support system to help patients live as actively as possible until death; offers a support system to help the family cope during the patients illness and in their own bereavement; enhances quality of life, and may also positively influence the course of illness; is applicable early in the course of illness, in conjunction with other therapies that are intended to prolong life, such as chemotherapy or radiation therapy, and includes those investigations needed to better understand and manage distressing clinical complications and uses a team approach to address the needs of the patients and their families, including bereavement counseling, if indicated.

Palliative care is provided by an interdisciplinary team consisting of doctors, nurses, physicians, pharmacists, registered nurses, social workers, chaplains, physiotherapists, dietitians, counselors, family members, and other allied health professionals, to relieve suffering in all areas of a patient's life (Palliative Care, 2013). Additional members of the team may include certified nursing assistants, home health aides, community health volunteers and housekeepers. The American Society of Clinical Oncology (2012) enumerated the following indications as characteristics of patients who should receive palliative care: limited ability to care for oneself; no benefit from prior evidence based treatment; patients who are ineligible to participate in any appropriate clinical trial; and patients whom the physician sees no strong evidence that treatment would be effective.

Palliative Patients are patients in all disease stages including those undergoing treatment for curable illnesses like mental disorder; and those living with chronic illnesses as well as patients who are nearing the end of life (Palliative Care, 2013). They require care, attention, love, encouragement and comfort at this point of their lives. Palliative care is increasingly used with regards to

diseases such as chronic, progressive pulmonary disorders, chronic heart failure, advanced heart or respiratory disease, end stage renal failure or liver disease, progressive dementia, cancer or degenerative neurological conditions, Acquired Immune Deficiency Syndrome (AIDS), Alzheimer, kidney failure, motor neuron disease, muscular dystrophy, multiple sclerosis, mental disorder and end stage dementia (Department of Health and Ageing, 2010).

Palliative Care Service Options

Palliative care team can discuss and agree on preferred place of care with patients / families. Such care is provided from diagnosis of the illnesses to the end of life. According to Department of Health and Ageing (2010) palliative care services can be provided in the home, in community-based settings like nursing homes, palliative care units and in hospitals. The pattern of care will be different to every individual and community and may depend on factors like: economics, geography, services in an area, the needs and desires of the patient, family members and friends. The service options include:

***Hospital Based*:** Services can be provided in a palliative care unit within a hospital (Canadian Hospice Palliative Care Association, 2001). This is done in agreement with the patient/family members or where there is no home based service. Also, if family members are elderly and no one to care for the patient, hospital based option may be sought (*Canadian Journal of Psychiatry*, 2004). Distant might be the problem to the family where the hospital is located far away from family home. In the hospital, doctors, nurses, dietitians, physiotherapist, among other personnel, are responsible for treatment and management of patients. Chaplains – part of palliative care team normally visit to talk/pray with the patients and keep their hope going.

***Community Based*:** Caring for terminally ill person can be done in community-based settings like nursing homes, hospice unit and rehabilitation centres and this vary from area to area depending on service available (Palliative Care, 2013). Department of Health and Ageing (2010) observed that palliative care is best provided within close proximity to the person's local environment and community. The pattern of care will be different to every individual and community and may depend on factors like: geography, services in an area, the needs and desires of the patient, family members and friends.

***Home Based*:** Palliative care can be given to patients in their homes. According to Hertfordshire Community Health Services (2012) patients who have life limiting illness are visited in their own homes, when they require specialist intervention and expertise. According to them, a home based therapy service involves providing a specialist assessment and systematic psychotherapy to patients,

their families and to other non-professional carers. A key element to realizing this goal is the availability of a family member who is willing and able to provide care at home (Stajduhar, Martin, Barwich and Fyles, 2008).

Careers may include parents, siblings, children /loved ones of the patient. Also, career can be hired alongside professional careers. In Nigeria, Olaitan (2013) asserts that Centre for Palliative Care Nigeria (CPCN) was able to commence a home-based care program in 2006. It is estimated that 50% and 70% of terminally ill patients prefer to receive care at home in the comfort of familiar surroundings. Also, lack of financial resources to meet hospital expenses can make patient/families to prefer home based care.

***Other Options*:** Most patients/families seek other options during their sickness stage due to lack of palliative care team or after a hospital stay. Indeed, according to Agoudavi (2013), some paramedics do not hesitate to affirm that their patients illness does not fall within the competence of modern medicine and that they should go to "seek the cause of their illness elsewhere" or turn toward spiritism or fetishism. They in their condition, seek for options like churches/spiritual homes, herbal homes, traditional acupuncture amongst others. However, according to WHO posits that the provision of palliative care can be augmented significantly by the involvement of family and community care givers. A mix of psychosocial support, traditional or local remedies and medicine can be combined to provide palliative care that surpasses that found in many overcrowded or poorly staffed hospitals.

***Churches/Spiritual Homes*:** For lack of palliative care service team, many patients/family members go to churches or prayer centers/spiritual homes to be "exorcised" or "un-bewitched" from the "evil" that is bothering them. It is common to see such patients for example those with mental disorder being chained till recover and some may die during the process. According to Peake (2013), spiritual healing is not faith healing. Faith healing requires a person to have belief in a deity whereas spiritual healing involves alternative healing methods that guide healing energy to improve a person's body, mind and/or spiritual health. In this centers, pastors, 'powerful' prophets/ prophetesses, prayer band members get in to work towards recovery. Also Agoudavi (2013), posit that religious leaders often turn to version of exorcism to treat the patients. Symbols like holy water, anointing oil, cross etc are used in the healing process. In addition, patients/family members are made to undergo fasting and prayers for healing/deliverance from the disease that is bothering them.

***Herbal Homes*:** The use of plants for healing purpose is an age long practice by herbalist. According to

Wisp (n.d) many herbal remedies have been and is still in use by people in USA, Europe and all over the world successfully. In this setting herbalist, who have long been enveloped in lure and myth with tales of perilous journeys to find the needed herb to heal someone, will charge some fees for such journeys, and also for the cost of treatment. Some may require midnight bath in old market squares or streams to cleanse one from the evil powers. They make use of items like fowls, cowries, kolanut, tortoise etc and also offer some incantations to appease the gods. Strong herbs and magic spells as well as powerful ancestral powers are implored.

***Traditional Acupuncture*:**Acupuncture is being increasingly used as an alternative therapy in palliative care by patients/families. It is a non drug treatment, which provides at least a partial solution for the increasing proportion of patients who turn to alternative therapy at variable times after diagnosis of the terminal disease (Filshie, 2011). Mihaly (2010) reported that patients used acupuncture for palliative care. Acupuncture differs from different setting for e.g in Chinese Medicine five elements (wood, fire, earth, metal and water) are used in treatment of sick people. According to Connelly (2013), all these elements will help patient and family members open to the powerful emotional, spiritual and psychological benefits that are important aspects of acupuncture therapy.

Challenges of Palliative Patients on Families

When a family member is stricken with a life-threatening condition, the family is not only faced with the difficult realization that its member is ill and suffering. They also struggle with the task of providing intense, complex and ongoing care. These challenges are discussed under the following sub-headings:

***Heavy work-load/stress for family members and caregivers*:** Steinhauser, Christakis and Clipp (2001) noted that, pressure is put on the family. Home based care and a desire to die at home is preferred by the patients and this usually requires a family caregiver. Perkel (2010) noted that family caregivers play an equally important role in a palliative patient's health because they know the patient better than anyone else. Caring for a patient with terminal illness involves a considerable commitment on the part of the caregiver and attention must also be given to the caregiver's needs as well as those of the patient. According to Hudson (2003) having a healthy full time caregiver who is able and willing to offer physical care service to the patient is a challenge, since the responsibilities of a caregiver may encompass some or all of the following: personal care (hygiene, feeding); domestic care (cleaning and meal preparation); auxiliary care (shopping, transportation); social care (informal counseling, emotional support, conversing); nursing, care (administering medication, changing catheters if need be); and planning

care (establishing and support for the patient).

***Financial Challenges*:** Financial resources to meet the demands of palliative care and caregiver; unavailability of general practitioners and palliative care specialists; suitable respite options available; improved assessment tools to accurately determine patient and family needs; illiteracy/ignorance as family members may attribute the illness to others causes like witchcraft (Steinhauser, Christakis and Clipp, 2001).

***Emotional Challenges*:** Schultz-Byard (2011) noted that another challenge of palliative caregiving on families is that it can be emotionally draining considering the relationship one has with the patient/families. The author posits that it is extremely rewarding though challenging as it often creates a strong bond between the patient and career.

Different kinds of treatment decisions that families with a member in the advanced stages of life-threatening illness are: Curative or life-sustaining treatment – this is such a treatment initiated or withheld, continued or withdrawn; Palliative treatment and symptoms control – all treatment aimed at maximizing, in an active way, the incurably ill patient's quality of life and comfort; and Euthanasia or assisted suicide – where lethal medication is purposefully administered (Broeckaert, 2009).

Coping Strategies of Families with Palliative Patients

Strategies used by loved ones, according to Benkel (2010) could be categorized into four different areas: thinking that the death is far off in the future; hoping for an improvement; living in the present; and utilizing the family and personal network. The strategies are:

***Physical Strategies*:** According to Baranowski (2006), eating well, exercising and recreation; restful and relaxing activities such as massage therapy, napping, warm baths, help some care givers in relieving physical strains. If burnout occurs or professional assistance is needed, psychotherapeutic intervention may help. Therapeutic interventions may include relaxation training, stress management, cognitive therapy and step-wise reintegration planning.

***Psychological Strategies*:** Setting priorities and saying no to some ideas that will increase stress; letting go of conflict and keeping an open mind to new ideas; listening to music of interest and reflecting on rewards of working, caring for a sick person help other caregivers in coping (Baranowski, 2006).

Stajduhar *et. al*. (2008) assert that thinking positively, keeping busy and learning more about the problem were the most frequent coping strategies used by some families. According to CJP (2004), understanding that dying is inevitable and normal part of life for

the individual/everyone is another coping strategy.

***Emotional Strategies*:** Baranowski (2006) asserts that reflection on positive side of life, listening to quiet/soothing music; letting go of resentment; interacting with optimistic people who can give words of encouragement like counselors and good friends, help patient/families to cope. Palliative Care (2013) noted that career support groups provide emotional support to careers and this makes them forget some mind bucking issues.

***Spiritual Strategies*:** Engaging in religious/spiritual practices like prayer, fasting and reading the word of God, considering personal beliefs, meditation can be great source of help. Spiritual counselors/chaplains can help manage the pain and symptoms of the disease by way of prayers and encouragement from the word of God (Baranowski, 2006). Spiritual wellbeing may produce a stress-buffering effect for caregivers. According to Kim, Wellisch and Spillers (2007), higher levels of spirituality are associated with lower psychological distress and improved wellbeing for caregivers.

***Financial Strategies*:** Most palliative care units offer financial support to families with chronic/terminal illness member. Children of parents living with HIV/AIDS as well as those orphaned by the epidemic engage in some food and income generating activities like gardening, poultry keeping and selling. These activities contribute to the health, survival and sustenance of their household (Skovdal, 2011). Also, donations from friends and loved ones help to ease the financial burden on the family. According to Dyer and Dyer, (2012) churches usually give financial and spiritual support to such patients and families.

***Social Strategies*:** Social support from strong palliative care teams gives palliative patients/ families ability to cope (Sunner, 2001). The greater use of webcams, video phones and social media network such as facebook, twitter can help careers to access information and chat with friends and love ones thereby reducing stress. Also, visits by friends and loved ones will also help the patients and careers to cope positively.

***Other Strategies*:** Some complementary therapies are becoming increasingly used during the final stages of condition to enhance palliative or end of life care to both patients and family.

***Aromatherapy*:** This requires the use of essential oils from plants and flowers in the form of oils used in massaging and to inhale (Wisp, n.d).

***Guided relaxation & imagery*:** Both focus on relaxing and the use of words to conjure up feelings of strength and positivity. Imagery for children involves imagining happy and safe

events and places which help in providing children with more control over their pain.

***Biofeed*:** Aim to teach patients how to relax and change their reactions to stress, based on feedback about their bodies (Hales, James and Harrison, 2010).

***Music therapy*:** music therapy is used in hospital based palliative care as a means to promote, maintain and restore mental, physical, emotional and spiritual health of patients. Less complex music, which is harmonious, rhythmic and melodious can help patients and family careers work through relationship issues and grief surrounding imminent death (Ubelacker, 2013).

Conclusion

Palliative care is patient and family centered care and involves addressing physical, psychological, emotional, social and spiritual needs of the patient and family. When facing life threatening illness, palliative care is needed to improve quality of life of patients and their families, through the prevention and relief of suffering by an interdisciplinary team. Where palliative care facilities are not available, patients/families seek other options of care till time of death. Proper care and management of patients to help the individual live as actively as possible and a support system to sustain the family is important. For palliative care to be successful, it takes the effort of the individuals, families, community, private sector, NGOs and government to educate/sensitize health care providers and family members on palliative care needs and coping strategies.

Recommendations

The following recommendations are proffered for consideration.

- Palliative patients and family members or careers need care, support and encouragement and this should be provided by those around them whether or not there is palliative care team around one's locality. This can help ameliorate the challenges facing such families and help them to adapt positively to the emotional, social and psychological stress of the illness till the time of death.
- Well meaning individuals, philanthropists, and non-governmental organizations should establish palliative care service centres in communities where patients and families can avail themselves.
- Families should source for and harness available resources to cope with the challenges of palliative care.

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Inclusive Education Practices in Primary Schools in South East, Nigeria

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Abstract

This study investigated the extent teachers adopted the inclusive education practices in primary schools in South East, Nigeria. The study adopted a descriptive survey design. Three research questions guided the study. The sample consisted of one thousand and seventy eight teachers drawn from the population of teachers in the zone. Questionnaire was used to generate data. Mean and Standard deviations were used to analyze the data. The findings revealed that many of the teachers were unaware of appropriate inclusive education practices, and were, therefore, not adopting them. The study recommended that teachers should be trained on appropriate inclusive practices and special education teachers should be employed in school to work with general education teachers in making the general education curriculum accessible to all children.

Key words: Inclusive, Education, Special, Needs, Children

Introduction

Education is a basic right of every child, including persons with special education needs. Inclusive education is fundamental to the realization of this right. Inclusive education is the practice of ensuring that all children with disabilities are educated with other children in all aspects in the regular school (Onu, 2008). According to Nkangibung and Adeyemi (2002), it is the process of integrating all students (disabilities notwithstanding) into all the activities of a general education classroom in the community.

Inclusive education has widespread support, in principle, among educational stakeholders through various international conventions, such as the UNESCO Salamanca Statement (1994) and the United Nations Convention on the Rights of Persons with Disabilities (2006), which called on all state parties to ensure an inclusive education system at all levels. Nigeria in the National Policy on Education (Federal Republic of Nigeria, 2004), also maintains that persons with special needs have the right to equal educational opportunities in the inclusive schools.

Inclusion involves some practices which ensure that all children participate and benefit from the general education curriculum in the regular classroom despite their diversities. Pennsylvania Department of Education (2011) refers to inclusive practices as those practices, attitudes, approaches and strategies which make all children to have opportunity to be included in the general education classroom. It includes the necessary supplementary aids, support services, instructional methods and strategies given to children with special needs to increase their participation in the general education curriculum. Peters (2004) outlined some inclusive education practices as providing an enabling and empowering school learning environment that holds positive expectations and opportunities for all learners; placing importance on social integration and celebration of difference; involving learners and parents in the planning of curriculum that will meet the needs of diverse learners, and the accommodation of individual strengths and needs.

Inclusive practices also involve collaboration among special educators, general education teachers and other professionals that meet the needs of learners with disabilities. This is unlike what happens in time past when one teacher teaches the subject matter and manages discipline in the class alone (Holdheide & Reschly, 2008). Research shows that collaborative teaching is highly recommended in inclusive classrooms as it offers everyone an opportunity to bring in his/her expertise in their various areas of specialization (Boudah, Schumacher & Deschler, 1997). The Saskatchewan Special Education Unit (2001) reiterated that it is unreasonable to expect one teacher to be solely responsible for meeting the needs of diverse learners in an inclusive situation. Inclusive education practices also involve the use of a variety of instructional and assessment practices, adaptations and modifications in the physical environment, curriculum and differentiated instructions which may require adjusting the level of difficulty of learning materials and provision of varied learning activities in order to meet the needs of every learner (Holdheide & Reschly, 2008). Kolo, (2006) asserts that inclusive education practices appear to be the most realistic form of special education, and an effective way of ensuring that persons with special needs are fully integrated into society

Despite the relevance of the above mentioned inclusive practices Onu (2008) observed that the rights of people with disabilities are constantly violated. Obi (2013) noted that considering the way the Universal Basic Education is being implemented currently that children with special needs are often segregated, arbitrarily discriminated against and consistently not fully included in general education classes. In the schools in Southeastern states of Nigeria, experience has shown that many children with special needs are still educated in the

segregated schools, some are out of school and some who enrolled in the general education classroom are unable to complete their schooling. Some of them have dropped out of school completely or gone back to segregated special schools due to absence of support personnel, specialist teachers, suitable teaching and learning materials and teachers neglect of the children due to cultural bias. In some cases, they are denied admission into the regular schools on the ground that there are some special schools where they belong even when inclusion has been recommended in the National Policy on Education.

Obi (2013) pointed out some of the challenges to the implementation of inclusive education as the absence of disability education law, lack of political will by policy makers, a continued view of persons with disability as society's dregs, and overcrowding of classrooms. Ntukidem, Asim & Eni (2005) noted that inadequate teaching facilities in schools as well as lack of special facilities are an inhibiting factor. Florain (2009) noted that many teachers in the regular classroom do not have adequate knowledge of the important inclusive education practices and the professional skills that make for equality of opportunities for children with diverse needs, abilities and interest. Obi (2013) then suggested that the future of inclusive education calls for enlightenment campaigns, legislation, setting up of a commission for special needs education and adequate funding

Inclusive practices, though important, need to be effectively implemented in an environment that promotes diversity and by teachers with a repertoire of skills, expertise, knowledge, adequate teaching methods and materials to be able to address the diverse needs of learners in the inclusive classroom. (European Agency for Development in special needs education (2003). This paper is therefore, designed to ascertain the inclusive practices in South East, Nigeria. The finding may help to ensure that all children irrespective of disabilities complete a full course of primary schooling and also have equal access to education in the regular schools.

Purpose of the study

The main purpose of this study was to ascertain the inclusive education practices in primary schools in South East, Nigeria. Specifically the study determined:

1. the inclusive education practices in the primary schools in South East, Nigeria.
2. the challenges of inclusive education practices in primary schools in South East, Nigeria.
3. the strategies for improving inclusive education practices in primary schools in South East Nigeria.

Research Questions:

The study sought answers to the following:

1. What are the inclusive education practices in the primary schools in South East, Nigeria?
2. What are the challenges of inclusive education practices in the primary schools in South East, Nigeria?
3. What are the strategies for improving inclusive education practices in the primary schools in South East Nigeria

Methodology

***Design of the Study*:** Descriptive survey design was used for the study to ascertain the extent inclusive education practices adopted by teachers in the primary schools in South East, Nigeria are suitable for the attainment of the millennium development goals.

***Area of the study*:** The study was carried out in primary schools in South East, geopolitical zone of Nigeria. There are five states in the zone. The states include: Abia, Anambra, Ebonyi, Enugu and Imo. The zone is chosen based on the fact that many children with special needs are still educated in segregated schools where they have very little or no contact with their peers without disabilities.

***Population of the Study*:** The population comprised all the teachers in the 5768 government owned primary schools in South East, Nigeria. In Anambra State, there are I1,266 teachers, Ebonyi has 10,719 teachers, Enugu has 13,854 teachers, Imo has 12,172, and Abia has 10,958 teachers (State Universal Basic Education Board, 2013).

***Sample and sampling Technique*:** The sample was 1080 primary school teachers. A multi-stage sampling technique was adopted. First he researchers randomly sampled two states, Imo, and Anambra from the five states in the geopolitical zone. Second, in each of the state fifty four schools were randomly sampled state making a total of 108 schools. Third in each school, ten teachers were randomly sampled, and this brought the number to 1080 teachers .

***Instrument for data collection*:** A structured questionnaire constructed by the researchers was used to elicit information from the respondents. The questionnaire titled Inclusive Education Practices Questionnaire (IEPQ) had three sections with forty seven items. Section A dealt with inclusive education practices adopted by teachers. Section B dealt with the challenges confronting teachers in adopting appropriate inclusive education practices. Section C dealt with strategies for improving the inclusive education practices of teachers. The instrument is structured on a four point rating scale of Strongly Agree- 4 points, Agree- 3 points, Disagree- 2 points and Strongly Disagree- 1 point. The face validation of the instrument was done by two experts in special education and measurement and evaluation from the University of Nigeria, Nsukka. The internal consistency reliability for IEPQ using cronbach alpha yielded a reliability index of 0.71, 0.81 and 0.78 for the three clusters respectively.

***Methods of data collection and analysis*:** One thousand and eighty copies of the instrument were distributed directly by hand by the researchers and two research assistants. This approach helped to ensure 100% rate of return of the instrument. However, two questionnaires were wrongly filled and, therefore, not used for analysis. Data generated were analyzed using mean and standard deviation. For the interpretation of data, real limits of numbers were employed and an item with a mean rating of 0.50 -1.49 is regarded as very strongly disagree, 1.50- 2.49 is regarded as disagree, 2.50-3.49 is regarded as low agree while 3.50- 4.00 is regarded as strongly agree.

Results

The following findings were made:

A. **Inclusive education practices in the primary schools in South East, Nigeria**

Table 1: Mean and standard deviation on the inclusive education practices in the primary schools in South East, Nigeria

N=1078

S/N	Inclusive education practices in primary schools	$\bar{x}$	SD	Dec
1	Children with disabilities are allowed to attend any school of their choice in their communities	2.60	0.52	A
2.	Teachers have high level of expectations for children with disabilities in the regular classrooms	2.17	1.28	D
3	Children with disabilities interact freely with their peers in regular classroom.	2.62	0.63	A
4	Children with disabilities are encouraged to participate in extracurricular activities like their counterparts.	2.59	0.39	A
5.	Children receive the same materials as Children without disabilities with some necessary support	1.89	0.26	D
6.	Children are discriminated against in assignment of school functions	2.65	0.78	A
7.	The physical environment in schools are generally accessible to all children.	2.16	0.37	D
8	All children participate and take turns in all school activities not minding where the activities are taking place in the school	2.73	0.29	A
9.	Children with significant disabilities are provided with appropriate communication supports.	2.12	0.84	D
10	Special education staff work as co-teachers and support staff in the regular classroom	1.23	0.45	SD
11	All professionals needed to teach and provide supportive services to children with disabilities work together.	2.28	0.81	D
12	There is collaborative planning among administrators,	2.76	0.64	A

	children, teachers, parents and the community			
13	Curriculum are designed to accommodate a full range of children with diversity.	2.63	0.31	A
14	Individual support are provided to children with significant disabilities to enable them to fully participate and make progress in school.	2.17	0.62	D
15	Children learning styles are considered through the use of visual facilities and kinaesthetic materials.	2.12	0.48	D
16	Appropriate instruction strategies and learner centred strategies as cooperative learning are encouraged	2.39	0.65	D
17	Instruction is based on Individualized Education Programme objectives for students with special education needs	1.98	1.23	D
18	IEP committees are set up to develop appropriate instructional programme for the children with disabilities	1.57	0.22	D
19	Before placement assessments are conducted to identify children's learning needs	2.45	0.36	D
20	Through assessments children's preferences and interests are identified	2.73	0.39	A
21	Assessment reports reflect the children's abilities and needs rather than deficits and weaknesses	2.18	0.98	D
22	Children's assessment are ongoing rather than a one shot assessment type.	2.57	0.73	A
23	Family and school work together to provide quality instruction	3.21	0.81	A
24	Family have input and receive information about their child's education.	3.25	0.78	A
25	Family provides information that helps the school in taking decisions	2.79	0.92	A
26	Parents collaborate with parents in setting attainable goals for their child	2.46	0.72	D

Data presented on Table 1 shows that the respondents agree with items 1,3, 4,6, 8, 12, 13, 20, 22, 23 24 and 25 as inclusive practices in primary schools in South East, Nigeria. The items have mean ratings ranging from 2.57- 3.25 with a corresponding standard deviation of 0.29 - 0.92. They disagree with items 2, 5, 7,9, 11, 14, 15, 16, 17, 18, 19, 21, and 26. The items have mean ratings ranging from 1.56- 2.48 with a corresponding standard deviation of 0.22- 1.28. They strongly disagree with item 10 which has a mean rating of 1.23 with a standard deviation of 0.45.

B. **Challenges to inclusive education practices in the primary schools in South East, Nigeria**

Table 2: The challenges of inclusive education practices *in the primary schools in South East, Nigeria*

N=1078

S/N	Challenges to inclusive education practices	$\bar{x}$	SD	Dec
1	Lack of trained personnel for the inclusive practice.	3.21	0.64	A
2.	Lack of funds for creating learner friendly environments .	2.86	1.28	A
3	Lack of proper understanding of appropriate inclusive practices by teachers	3.02	0.61	A
4.	Lack of cooperation from parents.	2.14	0.92	D
5.	Non- acceptance of children with disabilities by the 'normal' students.	2.18	0.83	D
6	Managing children with disabilities is a very difficult task	2.06	0.27	D
7	Children with disabilities slow down the progress of the class.	2.78	0.24	A
8	Existence of curriculum that is not flexible enough to accommodate children with diversities	2.59	0.78	A
9	Paraprofessionals do not collaborate with teachers in providing support for children with special needs	3.53	0.61	SA
10.	Number of children in the classes are too many for teachers to personally supervise what each child is doing	3.46	0.38	A
11	Some teachers manifest negative attitude towards children with disabilities	2.63	0.32	A

Table 2 shows that the respondents strongly agree with item 9 as the challenges of inclusive education practices in the primary schools in south East, Nigeria. Nigeria. The item has a mean rating of 3.53 with a standard deviation of 0.61. The respondents also agree with items 1, 2,3, 7,8, 10 and 11 as challenges to inclusive education. The mean ratings for the items range between 3.46- 2.59 with the corresponding standard deviation ranging between 0.24 – 1.28. On the other hand, they disagree with items 4,5 and 6, as the challenges of inclusive education practices in South East, Nigeria. The items have mean ratings ranging from 2.06- 2.18 with a corresponding standard deviation of 0.27 and 0.92.

C. **Strategies for improving the inclusive education practices in the primary schools in South East, Nigeria**

Table 3: Mean and standard deviation of the respondents on the strategies for improving the inclusive education practices in the primary schools in Southeast, Nigeria

N=1078

S/N	Strategies for Improving education practices	$\bar{x}$	SD	Dec
1	Seminars and symposia on inclusive education practices should be organised for in-serving teachers	3.76	0.38	SA
2	Teacher trainees should be taught inclusive practices	3.69	0.75	SA
3	Efforts should be made to change teachers attitudes toward children with special needs	3.16	0.83	A
4	Teachers need to incorporate assistive technology devices in teaching	2.88	0.49	A
5	Teachers need to apply appropriate teaching styles that that will promote students' learning	2.73	0.44	A
6	In every school there should be regular and special education teachers for effective teaching	2.71	0.27	A
7	Each school should have IEP committee to assess and plan appropriate instructional programmes for children	2.53	0.38	A
8	Teaching materials should be adequately provided for teaching special education	2.78	0.57	A
9	There should be no discriminatory policies in schools	3.22	0.39	A
10	An environment that supports the free movement and learning of children with diversities	3.19	0.43	A

Results from Table 3 reveals that all the items are strategies for improving the inclusive education practices in the primary schools in South East, Nigeria. The respondents strongly agree with items 1 and 2 as they have mean ratings between 3.69 and 3.76 with corresponding standard deviation ranging between 0.38 -0.75. They agree with items 3, 4, 5, 6, 7, 8, 9 and 10. These items have mean ratings between 2.53 -3.22 with corresponding standard deviation ranging between 0.27- 0.83.

Discussion

The result on Table 1 shows the inclusive education practices in the primary schools in South East, Nigeria. The data indicates that children with special needs are allowed to attend any school of their choice in their communities. They interact freely with their peers in regular classroom and they are encouraged to participate in extracurricular activities like their counterparts. The result however, reveals that teachers do not have high level of expectations for children with special education needs in the regular classrooms. These children are discriminated against in assignment of school functions. The physical environment in schools are not designed to accommodate all. The findings which are not in line with the inclusive practices outlined by Peters

(2004) could have some negative effect on the access to and retention of children with diversities in inclusive schools. When children find themselves in schools where the learning environment and the necessary support that will enable them to access the same learning materials as their counterparts are not provided, they will be so disadvantaged that they may not benefit maximally from the education process. Parents can, as a result, withdraw them from the school since such schools contribute in excluding these children from the regular classrooms.

The data also indicates that special education staff do not work as support staff to the regular classroom teachers and other professionals needed to teach and provide support services to children with disabilities do not collaborate with the teachers. This finding contradicts the works of Saskatchewan Special Education Unit (2001) which stated that it is unreasonable to expect one teacher to be solely responsible for meeting the needs of students with diverse needs. This finding also contradicts the views of Boudah, Schumacher & Deschler, (1997) and Holdheide & Reschly (2008) which asserts that collaborative teaming is highly recommended in inclusive classrooms as it offers everyone the opportunity to bring their expertise in their various areas of specialization . Unfortunately, in South East Nigeria, one teacher is left alone in the class to teach all the school subjects and manage children with diverse needs even when the teacher may not be well equipped to meet the diverse needs. This could make certain areas of the child's strengths or weaknesses to be neglected.

The Table further indicates that the curriculum is not designed to accommodate a full range of students with diversity. Children's' learning styles are not considered and schools do not adopt curriculum modification, differentiated instruction and appropriate instructional learner-centred strategies as cooperative learning, which show to be effective in the inclusive classroom (Holdheide & Reschly, (2008). The respondents agreed that instructions are not based on a child's individualised education programme even when it helps in determining the degree and the type of adaptation a child would need to be able to make progress in school. They also agreed that children's assessment are ongoing but the assessment is not conducted before placement to identify students learning needs.

With regards to family involvement, the study shows that families have input and receive information about their child's education. They provide information that help the school to take decision even though they do not collaborate in setting attainable goals for their children. The finding agrees with the findings of Peters(2004) who noted that parental involvement in providing quality education is essential for effective inclusive practices.

Table 2 shows that one of the major challenges of inclusive education practice in the primary schools in South East, Nigeria. is lack of trained personnel for the inclusive practice. Consequently, the teachers do not have the required skills and proper knowledge of appropriate inclusive practices. This finding is in agreement with Onu, (2008) who stated that teachers are not aware of the inclusive education practices. Another challenge is lack of funds for creating a learner friendly environment. This situation could be as a result of lack of political will especially in developing countries where government may not consider funding of inclusive education as a priority. Negative attitude of some teachers towards children with disabilities as well as the existence of paraprofessionals who do not collaborate with teachers in providing support for children with special needs, and large number of children in the classes may make it difficult for teachers to properly instruct and personally supervise what each child is doing. This finding is in agreement with the challenges enumerated by Obi (2013) and Ntukidem, Asim & Eni (2005) such as lack of political will, fund and facilities. These factors could pose significant barriers to children with special needs especially in their retention and completion of school programmes.

Table 3 shows that to improve the inclusive education practices in primary schools in South East, Nigeria, seminars and symposia on inclusive education practices should be organized for in-serving teachers and efforts should be made to change teachers attitudes towards children with special needs. Teachers should incorporate assistive technology devices in teaching while teaching materials should be adequately provided for teaching special education There should also be no discriminatory policies in schools and the environment should be learner friendly to students with diversities. These are in consonance with the suggestions made by Obi (2013) that successful inclusion requires enlightenment campaigns, adequate funding and legislation to back education for persons with disabilities

Conclusions

Inclusive education practices are highly dependent on teachers who actually implement the policies and maintain contact with children with diversities in their various classrooms. Schools must provide an environment where access and participation of children with diversity will be realized. The education of the children must be based on assessment of the needs of the children and there must be high expectations by teachers. Collaboration among general educators, special educators, parents and other professionals should be maintained while learner- centered pedagogical strategies must be introduced. A learning environment that is accessible and learner- friendly, curriculum that is geared towards the needs of the children, instructions that are based on the child's IEP and

curriculum adaptations that would accommodate children with diversities are necessities that should not be compromised.

Recommendations

Based on this, the following recommendations are made for the improvement of inclusive education practices in Nigeria

- Seminars and symposia on inclusive education practices should be organized for in-serving teachers
- In every school, there should be both regular and special education teachers for effective teaching
- There should be no discriminatory policies in schools

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Teaching Pre-Schoolers Rudimentary Mathematics Concepts Using Clothing Related Symbols and Items

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Abstract

This study identified clothing related symbols and items that could be used to teach basic mathematics in pre-schools. The area of the study was Lagos state. the research design was survey. Population for the study comprised of all the teachers in both government and private pre-schools in Lagos State. A sample of 50 teachers were randomly selected. A structured questionnaire was used for data collection. Reliability coefficient of 0.9 was obtained as the overall coefficient for the instrument. The findings of the study revealed among others that clothing related symbols and items could be utilized to teach pre-schoolers rudimentary mathematics concepts such as counting, matching numbers with objects, shapes, colours and measurement. It was recommended that the clothing related symbols and items accepted in this study should be used to teach basic mathematics in all pre-schools.

Keywords: Clothing-related, Rudimentary Mathematics, Pre-Schooler, Shapes, Colours, Measurement.

Introduction

Federal Republic of Nigeria (2004) National Policy on education referred to pre-school education as education given in an educational institution to children aged 2-5 years plus, prior to their entering the primary school. NPE (2004) therefore stated that the purpose of pre-school education among others shall be "to teach the rudiments of numbers, letters, colours, shapes, forms through play.

Pre-school education programme according to Augie (2007) is divided into two parts according to age ranges. At age range 0-2 (often called sensory

motor stage by Piaget) the programme is aimed at taking care of child through play. At this stage, the child learns mainly through feeling via seeing, touching, smelling etc. At age 3-6, the child enters what Piaget called pre-operational stage. At this stage, the child starts to associate objects with numbers for example two shoes, three buttons. Teaching a child mathematics at these two stages calls for taking into consideration the behavioral characteristics exhibited at each stage. Vernom (2007) stated that pre-schoolers are cute and funny but they certainly have a small attention span and that can give their teachers headache if the teacher do not have enough good ideas ready at hand, thus, teachers are advised to change their activities every five minutes, if they go longer than that the child becomes restless and the teachers will spend more time trying to keep the children's attention than actually doing the activity.

In teaching mathematics, the teacher must develop or improve mathematics teaching materials in such a way that a child can see and touch different types of objects through playing with them at sensory-motor stage. At pre-operational stage, the teacher is expected to develop instructional materials that will be utilized to teach the concept of numbers. A child is expected at this stage to be associating number with concrete objects. (Augie 2007). Reason (2000) emphasizes that young children need play-based opportunities to develop and deepen their conceptual understanding of mathematics. From a social constructivist perspective, learning is more likely to occur if adults or more competent peers mediate children's learning experiences. Reasons (2000) further stated that pre-school programme needed to expand and deepen the conceptual knowledge that young children have already developed by 3years of age (Payne, 1990). The role of the teacher therefore, is to provide "Scaffold assistance" (Berk & Whistler 1995). The adult must build on this knowledge to higher levels of understanding hence this study on the use of clothing related symbols and item to teach basic mathematics concepts.

Clothing is defined as all items of apparel and adornment. Igbo (2008) described clothing as anything that can be placed on the body to protect and adorn. Clothing includes dresses, hat, caps, hairdo, handbags, shoes, accessories, make up, booties among others. (Anyakoha 1997) people also decorate their bodies with makeup or cosmetics, perfumes and other ornamentation. They also include cuts, dye and arrangement of the hair make up on faces and body marks on the skin (by tattoos, scarifications and piercing). All these decorations contribute to the overall effect and message of clothing. Clothing is worn for variety of reasons including communication. Rouroughse (1999) stated that clothing and body decoration are non-verbal means of communication. Hence this study involves the use of clothing items and

symbols which are non verbal means of communication to teach some basic mathematics concepts.

Pre-school teachers could introduce children to mathematics using clothing symbols and items such as shoes, buttons, hat, bags, school uniform and assorted dresses, earrings, bangles, make ups among others to teach the rudiments of counting, shapes, colours and measurements and matching numbers with objects. This is also supported by Kaura (2007) who explained the relevance of improvised or locally produced materials for school classes. Yau'ware (2007)also in his own view pointed out that the improvision of instructional materials has been generally regarded as an important skill which every pre-school teacher in Nigeria must possess, if they are to carry out their teaching effectively. Mathematics as a subject plays an important role in the national development. It is the recognition of this role that the study of mathematics is made compulsory in every level of education in Nigeria. Salau (1995) noted that skills and competences that will qualify students to gain entry into any tertiary institution and succeed in science and technology and related careers are at the heart of mathematics. Igbo (2006) also pointed out that for some years now, the performance of children in mathematics in Nigerian schools has been very poor and disappointing. She further stressed that mathematics disability starts as early as in pre-primary school through primary school and continues thereafter, unless there is intervention somewhere along the line. Many school teachers have used many instructional materials such as television, flash cards, pictures, charts, textbooks, among others to teach counting, measuring, matching. It has been observed that these materials could be improved upon for the children better performance and solid foundation for future success in mathematics. This has informed this study which involves an investigation into teaching pre-schoolers rudimentary mathematics concepts using clothing related symbols and items.

Purpose of the Study

The major purpose of this study was to identify related clothing symbols and items that could be used to teach pre-schoolers rudimentary mathematics concepts. Specifically the study identified:

1. Clothing related symbols and items that can be used to teach counting in mathematics
2. Clothing related symbols and items that can be used to teach matching numbers with objects.
3. Clothing related instructional materials that can be used to teach shapes
4. Clothing related symbols and items that can be used to teach colours.
5. Clothing related symbols and items that can be used to teach measurement.

Research Questions

The following questions guided the study:

1. What clothing related symbols and items can be used to teach counting in mathematics.
2. What clothing related symbols and items can be used to teach matching numbers with objects.
3. What clothing related instructional materials can be used to teach shapes.
4. What clothing related symbols and items can be used to teach colours.
5. What clothing related symbols and items can be used to teach measurement.

Methodology

Research Design: The study utilized a survey research design to collect data from the teachers. It involved the use of questionnaire. According to Anyakoha (2009) questionnaire is used in interviews, observation to determine the opinions, attitudes, preferences and perceptions of persons of interest to the investigator.

***Area of the study*:** The study was carried out in Lagos state. The state has twenty local government areas (20 LGAs) and six education districts. Each district has both public and private pre-schools.

***Population for the study*:** The population for the study was made up of all the teachers of government and private pre-schools in the twenty (20) local government areas in Lagos State.

***Sample for the study*:** The sampling strategy utilized for the study was purposive sampling in order to reach only the pre-school teachers. Random sampling technique was utilized to select five local government area (5 LGAs) and Ten (10) pre-schools within the 5 LGAs, Random sampling technique was utilized to select fifty (50) pre-school teachers only from the five LGAs for the study.

***Instrument for data collection*:** The instrument for data collection was the questionnaire designed by the researcher. The instrument was divided into two parts. Part one was structured to obtain personal data, Part two was grouped into sections: Teachers and pupils activities which sought information on how clothing symbols and items could be used to teach selected concepts in mathematics. A five (5) point likert scale was used 5 (Strongly agreed) 4 (Agreed) 3 (Slightly agree) 2 (Disagree) and 1 (Strongly disagree) mean of 3.0 was accepted for deciding level of acceptance.

***Data collection Technique*:** The questionnaire was administered by hand to 50 pre-school teachers in their classrooms. Data collected represented 100% recovery of the questionnaire.

Method of Data Analysis

Data obtained were analyzed using means through SPSS.

Findings

The following are the findings of the study based on the research objectives:

How clothing related symbols and items could be used to teach selected rudimentary mathematics concepts of counting, matching, shapes, colours and measurement.

Different activities could be used as below:

(1) Clothing symbols and items could be used to teach through:

(a) Counting:

1. Identification of symbols on clothing items worn by pupils.
2. Counting the number 1-10 of buttons on dresses.
3. Printing numbers on cloth tags and asking pupils to attach them to cloth lines sequentially in objects. See table 1.

Table 1: Mean and standard deviation of respondents on how clothing could be used to teach counting.

	Content	Teachers activities	Pupils activities	$\bar{x}$	SD	Remark
1	Counting 1-10	Let the children identify a variety of symbols on ten clothing's worn by boys and girls for demonstration	The pupils identify clothing symbols by touching one to ten on different clothings worn.	4.65	0.53	Agree
2		Show buttons on the pupils dresses to them.	Count the numbers 1-10 buttons and other clothing items on their dresses.	4.23	0.56	Agree
3		Print numbers 1-10 on clothes tags.	Pupils attach the clothe tags on a low cloth lines and sequence them in numeric order.	4.15	0.53	Agree

$\bar{x}$ = Mean SD = Standard Deviation.

Table 1 shows that all the items fall within the acceptance mean range of 3.79 and 4.65. This was interpreted to mean that all the respondents (pre-school teachers) agreed on all the items in this section as ways clothing could be used to teach counting concept in mathematics.

b. Matching numbers with objects:

This is done through

1. Teacher using games and songs relating to clothing items e.g 1,2 buckle my shoes.
2. Teacher using group of clothing items to teach the pupils to associate number e.g group of five caps to match number 5.
3. Using pictures with numbers to match clothing items. See table 2.

Table 2: Mean and standard deviation of the respondents on how clothing could be utilized to teach matching of numbers with objects.

S/N	Content	Teachers activities	Pupils activities	$\bar{x}$	SD	Remark
1	Matching number with objects	Teacher uses games and songs relating to clothing items e.g 1, 2 buckle my shoes	Pupils play and sing along with the teacher	4.18	0.55	Agree.
2		Teachers uses group of clothing item to associate numbers e.g group of 5caps to match number 5	The children associates the numbers with caps, bags, socks, buttons, on the shirts	4.43	0.65	Agree
3		Guide the pupils to match pictures with numbers.	Pupils match numbers with the clothings	4.35	0.60	Agree.

Table 2 shows that all the 3 items in the section are rated high by the respondents with the mean scores of 4.18, 4.35 and 4.43. all the clothing items used are accepted by the respondents.

(c) Shapes: This is done by

1. Sorting of clothing items based on colours.
2. Naming the different shapes seen on the clothing items.
3. Looking at different shapes on clothing items and drawing them.
4. Counting the sides and corners of each shape one after the other so as to identify the names.
5. Counting the different types of shapes on patterned shorts and shirts.
6. Making small pairs of different shapes out from variety of fabrics e.g cut out two wool shapes, two silk, two cotton, two nylon, two linen mix up the cut outs and give to the child to sort back into pairs.
7. Hang the shorts on the bulletin board and hang a push pin on the top of the shorts and let the child hang the corresponding patterned skirts on top of the shirts. See table 3

Table 3: Mean and standard deviation of respondents on how clothing could be used to teach shapes.

s/n	Content	Teachers activities	Pupils activities	$\bar{x}$	SD	Remarks
1	Shapes	Let the pupils sort dirty or clean clothes, sort between plain and patterned clothes	Pupils sort sizes of different clothing items by differentiating between plain and patterned clothes.	4.38	0.67	Agree.
2		The teacher mentions the shapes on the clothing items	Pupils sort out clothing's according to patterns and shapes by naming the shapes they can see on the clothing items in the classroom.	4.34	0.63	Agree.
3		Teacher names and list the shapes-circle, square, triangle, rectangle and star.	Pupils sort out clothing items according to shapes and pictures. They now point at different shapes.	4.30	0.67	Agree
4		Teacher guides the pupils to count the sides and corners of each shape one after the other.	Pupils identify the shapes by counting the sides and corners of each shape one after the other e.g shirts and shoes etc.	4.11	0.60	Agree.

Table 3 shows all the items to be rated high which shows that the item of clothing could be used to teach shapes concept in mathematics as accepted by the respondents.

(d) Colour: This is carried out through

1. Sorting out different clothing into colours
2. Naming the different colours on clothing.
3. Using fabric printing ink to colour different fabrics.
4. Using different dyes to colour different fabrics
5. Mixing different colours of dyes and fabrics. See table 4.

Table 4: Mean and standard deviation of respondents on how clothing could be used to teach colours.

s/n	Content	Teachers activities	Pupils activities	$\bar{x}$	SD	Remark
1	Colours	Provide different clothing items of different colours	Pupils sort out clothes items based on colours	4.17	0.67	Agree
2		Teacher lists out the primary colours and name them on the clothing items	Pupils name the different colours on the clothing items one by one	4.14	0.78	Agree

3	Teachers uses fabric printing ink to colour different fabrics	Pupils use different colours to colour different fabrics and name them	4.06	0.65	Agree.
4	Teacher uses different dyes to colour fabrics.	Pupils name the colours on the fabrics.	3.89	0.69	Agree.
5	Teacher mixes different colours of dyes to form secondary colours and uses the colours to dye fabrics and name the colours for the pupils.	Pupils mention different colours on the fabric or garments available in the classroom.	3.83	0.65	Agree

As shown in table 4, the result shows clearly that all item 1 and 2 are the highest with mean scores of 4.17 and 4.14. This means the respondents consider these items more important than the remaining 3 items which could be used to teach colour.

(e) Measurement: This is done through

1. Placing clothing articles on themselves to see determent length
2. Modelling the pupils' different sizes of clothing items like shirts and shorts to determine width.
3. Public trying putting on their old clothing and explaining what happens when wearing them and give reasons.
4. Examining the old and current clothing.
5. Modelling different sizes of shoes to determine length and width.
6. Measure different clothing items and comparing them to check the length and width. See table 5.

Table 5: Mean and standard deviation of respondents on how clothing could be used to teach measurement in mathematics.

s/n	Content	Teachers activities	Pupils activities	$\bar{x}$	SD	Remarks
1	Measurement	Teacher guides the pupils to place clothing articles on themselves to see the determent length.	Pupils to hold two articles of clothing one on top of the other to measure which is longest or the shortest.	3.8	0.67	Agree.
2		Teacher guides the pupil to try putting on his old clothing and explain what happens when wearing them and compare with the current clothing.	Pupil model different sizes of clothing items like shirts and shorts to determine width.	3.79	0.68	Agree.

3	Teacher guides the pupil to model different sizes of shoes to determine length and width	Pupils model different sizes of shoes to determine length and width.	3.82	0.64	Agree.
4	Teacher guides the pupil to measure different clothing items e.g wrist band, caps, tattoos etc.	Pupil measure different clothing items	3.86	0.59	Agree.

Table 5 shows all the items in the group to be rated high by the respondents (pre-school teachers) with the mean scores ranging from 3.79 to 3.86. This indicates that all the clothing items could be used to teach measurement concept in mathematics.

Discussion of Findings

Based on the statistical analysis of data collected on how clothing could be used to teach selected mathematics concepts of counting, matching, shapes, colours and measurement. All the clothing items suggested teaching selected mathematics concepts were accepted by the respondents (pre-school teachers.) All the item fall within the acceptance mean range of 3.79and 4.65, this means that all the clothing related symbols and items are suitable for teaching the pre-schoolers the rudimentary mathematics concepts. This is in line with Kaura (2007) who stressed the relevance of improvised or locally produced materials for pre-school classes. He stated that the children at the pre-school are not capable of performing abstract operations, it is expected that learning should be facilitated through the use of a variety of instructional media and materials.

In using clothing items to teach counting, all the items have mean scores ranging from 4.15-4.65. The high scores could mean that the respondents are qualified or experienced pre-school teachers hence their responses were higher in the items. The items identified are mostly concerned with what the children are familiar with on their clothing's. This was stated by Bark and Wlister (1995) that children learn through meaningful, naturalistic, active learning experiences. He also stressed that the adult must build on this knowledge and takes the children to higher levels understanding.

Association of numbers with a group of 5 caps to match numbers 5 and using of pictures with numbers to match clothing items were rated highest with mean scores of 4.43 because clothing could used as play based opportunity to develop the lesson materials. This is also consistent with the views of Reason (2000) who emphasized that young children need play- based opportunities to develop and deepen their conceptual understanding of mathematics. This also agrees with the view of Augie (2007) who stated that teacher must develop or improve mathematics

teaching materials in such a way that a child can see and touch different types of objects through playing with them.

Teaching pre-schoolers rudimentary mathematics concept such as shape using clothing related symbols and items could introduce creativity, the item were rated high with the mean scores of 4.38, 4.34 and 4.30. This was pointed out by Jones (2003) by stating that play is practiced in creativity. This is in agreement with Papalia (2000) who also stated that children engage in different ages have different styles of different things.

Using fabric printing ink to colour different fabric was riot rated as high as providing different clothing items of different colours and sorting out. This is because the three items rated low have only been used to teach only Arts and Crafts. This does not agree with Yan'ware (2007) who opined that the different needs and interests of pupils as well as their individual differences have to be taken into cognizance when making appropriate choice of teaching materials. In Igbo (2006) he stressed the need for the use of real objects such that encourage perception of colours, size, texture in the teaching of mathematics as remediation mathematics disability in children.

The high scores ranging from 3.79-3.86 in using clothing to teach measurement could attribute to the fact that all the clothing items considered the growing activities such as games, dances, singing, and modeling. This could be so because the attention span of pre-schoolers should be taken care of in scheduling programmes for them. Vernom (2007) rightly noted that pre-schoolers have a small attention span and advised teachers to change their activities. He stressed that if teachers go longer than that, the teacher will spend more time trying to keep the children attention than actually doing the activity. This is in agreement with Anyakoha and Anyanwu (2003) that teachers should assist pupils to have a good feeling towards learning situations and activities.

Conclusions

Clothing related symbols and items could be utilized to teach pre-schoolers the following rudimentary mathematics concepts: counting, matching numbers with objects, shapes, colours and measurements. The pupils are familiar with clothing which is refer to as second skin which is inevitable in life. The study concludes that clothing could introduce play and reinforce creativity relatively, which is different from the normal conventional instructional materials and activities adopted by the teachers. This should make the teachers to make a shift from the usual conventional materials for teaching children mathematics. Since mathematics is made compulsory in every level of education in Lagos state. This may have implications for pre-scholars that might have mathematics disability, which starts as early as in pre-school through tertiary institution unless there is intervention somewhere along the line.

Recommendations

The following recommendations were made:

- Clothing items worn by pupils, teachers and parents could be used to teach counting of number 1 -10 to pre-schoolers.
- Games, songs relating to clothing items and group of clothing item should be used to associate members in the classroom
- Teaching of colour to pre-schoolers should be demonstrated by mixing different colorus of dyes to colour different fabrics. This should be integrated into the curriculum of pre-schoolers.
- The mixture of different shapes cut out in pairs from different fabrics such as linen, wool, nylon, silk should be kept instructional material banks in schools for the pupils to sort back into pairs to identify different shapes
- Different sizes of clothing items such as shoes, dresses, cap etc should be provided in school for pupils modeling to teach measurements.

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Availability and Utilization of Technologies in Information System Units in Federal Universities in Nigeria

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Abstract

This study was carried out to assess the information technology management of information system (IS) units in federal universities in Nigeria. two research questions guided the study. Survey research design was adopted and a sample size of 330 information managers from the information system units in the universities were studied. Questionnaire was used for data collection. Mean and standard deviation were used to answer the research questions. The study revealed some vital information management technologies/practices that are not adequately available or poorly utilized. It was therefore recommended that the administrators of the Federal universities and the National Universities Commission (NUC) should adequately provide the necessary information management technologies to ensure effective information management which will in turn result to proper decision making, and indeed good administration.

Keywords: Information, Technology Management, Information System units, Practices, Information management

Introduction

Information is a vital asset in any organization for effective management and decision making. The terms data and information are often used interchangeably; however, data is the raw material resources that are processed into finished information

products, while information is data that have been converted into meaningful and useful context for specific end users. Data must be processed into meaningful information to be useful to any management. Therefore, processed data is called information and it is in this form that it provides assistance to management and other users. Uwadia (2000) added that the mere act of processing data does not itself produce information. The author emphatically stated that information must create value and must possess desirable qualities like relevance, accuracy, completeness, confidence in the source, communication to the right person, timing, and detailed. Information with the afore-mentioned qualities are usually used in Information systems (IS) units for decision making by information managers in many organizations.

Information systems (IS) and technologies are vital components of successful businesses and organizations. They, thus, constitute an essential field of study in an organization's administration and management. According to O'Brien (2002), information systems can be any organized combination of people, hardware, software, communication networks and data resources that collects, transforms and disseminates information in an organization. People have relied on information systems to communicate with each other using a variety of physical devices (hardware); information processing instructions and procedures (software), communication channels (networks); and stored data (data resources); since the dawn of civilization. Computer-based information systems also include the use of computer hardware and software; the internet and other telecommunications networks; computer–based data resource management technique; and many other information technologies, to transform data resources into an endless variety of information products for consumers and organizations (O'Brien, 2002).

Information Technology (IT) Management is the discipline whereby all the technology resources of a firm are managed in accordance with its needs and priorities (Bryce, 2008). These resources may include tangible investments like computer hardware, software, data, networks and data centre facilities, as well as the staff who are hired to maintain them (McNurlin, 2009). Information Technology as defined by Veen, (2007) is a combined set of hardware, software, networks, facilities, including all of the Information Technology, in order to develop, test, deliver, monitor, control or support Information Technology (IT) services.

Information Technology Management (ITM) has a history of helping companies successfully implement and use leading edge technologies to help their people create value. ITM is experienced in delivering technology projects on time and within budget (Burk and Horton, 2004). According to Bird (2010) a

primary focus of IT Management is the value creation made possible by technology. This requires the alignment of technology and business strategies. While the value creation for an organization involves a network of relationships between internal and external environments, technology plays an important role in improving the overall value chain of an organization. However, this increase requires business and technology management to work as a creative, synergistic, and collaborative team instead of a purely mechanistic span of control (Skyrme, 2011). As opined by Skyrme, (2010), information technology management also recognizes the value of information technology to an organization and works with an information resource management philosophy which emphasizes that all technologies that process, store, and deliver data and information must be managed as integrated systems of organizational resources. Such technologies include telecommunications and office automation systems, as well as traditional computer-based information systems (O'Brien, 2002).

In many Nigerian universities, the information system that manages the major information resources is the Management Information systems (MIS). Pant and Hsu (2000) recorded that MIS refers broadly to a computer-based system that provides managers with the tools for organizing, evaluating and efficiently running their departments. Nwamarah (2001) further stated that Management Information systems (MIS) in a university set up is the organization of the basic operating units of the university so that they provide information that is needed at various levels of management.

The university system is a large and complex system that requires data and information for its smooth operations. Information resource is also one of the major issues and indices of university planning. Where the relevant information required for planning are not available at the appropriate time, there is bound to be poor planning, inappropriate decision making, poor priority of needs, defective programming or scheduling of activities. Therefore, it is important to ensure the availability and utilization of relevant technologies/practices involved in effective information management.

Purpose of the Study

The major purpose of the study was to assess the information technology management of Information System units in federal universities in Nigeria. Specifically, the study determined:

1. The extent to which the technologies for information management are available in IS units in Federal Universities in Nigeria.
2. The extent of utilization of the Information management technologies and practices in IS units in Federal Universities in Nigeria.

Research questions

1. To what extent are technologies for information management available in IS units in Federal Universities in Nigeria?
2. To what extent are technologies utilized in IS units in Federal Universities in Nigeria?

Methodology

***Design and area of the Study*:** The descriptive survey design was adopted for the study. The study was conducted in the 25 federal universities with Information Systems (IS) units in the six geopolitical zones of Nigeria. These universities share a common feature of being funded fully by the Federal Government of Nigeria, unlike the state and privately owned universities that are funded and managed by the state governments and private individuals/ organizations respectively. The National Universities Commission (NUC) had made it mandatory that all federal universities should establish information systems units for easy access to information within and outside the universities.

***Population for the study*:** The population for the study was 474 information managers in 20 federal universities in the six geopolitical zones in Nigeria with information system (IS) units that have been functional for at least 10 – 15 years. They include: 178 information managers from five first generation universities, 144 information managers from seven second generation universities, and 152 information managers from eight third generation universities.

***Sample for the study*:** The sample size for the study was 330 information managers from 12 federal universities in Nigeria. A multi-stage sampling technique was adopted. At the first stage, 12 universities were purposively selected to include two universities from each of the six geo-political zones in Nigeria. At the second stage, four universities each from each generation were purposively selected as follows: 123 information managers from four first generation universities, 110 information managers from four second generation universities and 97 information managers from four third generation universities.

***Instrument for Data Collection*:** The instrument for data collection was a structured questionnaire which carried a 5-point scale. The response modes Very Much Available (VMA), Much Available (MA), Averagely Available (AA), Slightly Available (SA), and Not Available (NA) were used for the first research question; while Very Great Extent (VGE), Great Extent (GE), Moderate Extent (ME), Little Extent (LE), and Very Little Extent (VLE) were used for the second research question. The questionnaire was face validated by three experts and Cronbach alpha technique was used to determine the internal consistency of the questionnaire items, giving a coefficient of 0.88. The test for internal consistency also yielded coefficients of 0.83 and 0.96 for each of the clusters eliciting information for research questions 1 and 2 respectively.

***Data collection and analysis Techniques*:** Out of the 330 copies of questionnaire administered, only 322 copies were retrieved and analyzed for the study. Mean and Standard deviation were used to answer the research questions. The mean of the items were interpreted in relation to the upper limit of the codes of the rating scales used for data analysis. The standard deviation on the other hand was used to determine the closeness or otherwise of the responses of the respondents from the mean. Any item with a standard deviation of 1.96 and below showed that the respondents were close to the mean in their responses, while any item with a standard deviation above 1.96 indicated that the respondents were not close to the mean.

Findings of the Study

The following findings were made:

1. Extent of availability of technologies for information management

Findings on this are summarized in Table 1.

Table 1: Information Managers' Mean Ratings on the Extent to which the Technologies for Information Management are Available in the IS units in Federal Universities in Nigeria.

S/N	Technologies for Information Management	$\bar{x}$	SD	Remarks
1.	Networked microcomputers	3.32	1.11	AA
2.	Departmental Transaction Processing Systems (TPSs)	2.76	1.25	AA
13.	Automated staff offices	2.44	1.28	SA
4.	Conference rooms with computers	2.24	1.33	SA
5.	Voice mail and voice annotation for information Dissemination	1.60	1.45	SA
6.	Electronic mail services for quick dissemination of information to staff	2.63	1.51	AA
7.	Internet bulletin board system	2.00	1.41	SA
8.	Computer facilitated facsimile services	2.59	1.41	AA
9.	Videotext in distributing information	2.22	1.29	SA
10.	Electronic Meeting Systems (EMS)	2.33	1.68	SA
11.	Hypertext or hypermedia documents	2.89	1.48	AA
12.	Internet ready computers for staff	2.20	1.48	SA
13.	On-line terminals for staff offices	2.86	1.45	AA

Key: AA = averagely available; SA = slightly available

Table 1 reveals that six items had their mean values ranged from 2.59 – 3.32. This showed that the Information management technologies represented by those items are averagely available in the IS units. The remaining seven items had mean values ranging from 1.60 – 2.44, indicating that the technologies represented by the items are slightly available in IS units in

federal universities in Nigeria. The Table also showed that the standard deviation of the items ranged from 1.11 – 1.68 which is a low range of values. The data further indicates that the respondents varied in their responses more on the availability of Electronic Meeting Systems (EMS) (SD= 1.68) than on the availability of Networked microcomputers (SD = 1.11).

2. Extent of Information management technologies and practices utilized

Findings on this are summarized in Table 2.

Table 2: Information Managers' Mean Ratings on the Extent of Utilization of the Information Management Technologies and Practices in IS units in Federal Universities in Nigeria

S/N	Information Technology management practices	$\bar{x}$	SD	Remarks
1	Expert use of hardware and software in telecommunication	4.07	0.99	GE
2	Use of secure telecommunication networks	2.76	1.74	ME
3	Regular improvement on telecommunication design and operational quality	3.40	1.22	ME
4	Employment/acquisition of competent personnel that manage the telecommunication networks	3.37	1.03	ME
5	Constitution of groups that identify, introduce and monitor the assimilation of new information systems technologies	4.03	1.11	GE
6	Change from analog to digital telecommunication systems	3.99	0.98	GE
7	Use of open system networks	4.05	0.97	GE
8	Use of wide area networks (WAN)	4.11	0.97	GE
9	Use of local area networks (LAN)	4.02	0.87	GE
10	Implementation of client/server computing	2.40	1.33	LE
11	End-user involvement in the development of new systems	2.05	1.29	LE
12	Training of end-users in the operation and use of new information systems	3.22	1.24	ME
13	Acquiring external current hardware and software needed	3.49	1.21	ME
14	Acquiring external information systems (IS) services	3.29	1.30	ME
15	Having a strong acquisition process for the acquired technologies	2.43	1.10	LE
16	Use of hardware and software that are available, reliable, efficient and secure	3.17	1.19	ME
17	Use of documented technologies and staff that can interpret documentations	3.16	1.30	ME
18	Having a competent maintenance culture	2.36	1.32	LE

Key: GE = Great extent; LE = Little extent; ME = Moderate extent

Table 2 reveals that six items had their mean values ranged from 3.99 – 4.11 showing that the information management technologies/practices represented by those items are utilized to a great extent. Eight items had mean values ranging from 3.16 – 3.49 indicating that the extent of utilization of the information management technologies/practices represented by those items is moderate. The remaining four items had mean values ranging from 2.05 – 2.40 showing that the information management technologies/ practices represented by those items are utilized in a little extent.

The Table also shows that the standard deviation of the items ranged from 0.87 – 1.74 which is a low range of values. Furthermore, the respondents varied more in their responses on Use of secure telecommunication networks (SD = 1.74) than on the use of local area networks (LAN) (SD = 0.87).

Discussion of Results

The data in Table 1 revealed 6 information management technologies averagely available and 7 slightly available for information management in IS units in federal universities in Nigeria. This finding shows that the universities are not fully equipped with the information management technologies needed fro effective information management. Wilson (2005) had pointed out that it is necessary to understand what kind of reports a client needs from a system, so that the designer of a computer-based information systems can then try to ensure that the system delivers what is needed, when it is needed. Ralph and McNurlin (2009) had also asserted that what end user computing is all about is direct hands on the computers by end users, instead of indirect use provided by the hardware, software, and professional resources of organization's information service department. However, in end user computing, an information services department plays only a supportive role to an end user's own computing resources and effort. According to Tayntor (2002), office automated systems are telecommunications-based information systems that collect, process, store and distribute electronic messages, document and other forms of communications among individuals, workgroups, and organizations. Such systems can improve the collaboration and productivity of end users and work groups by significantly reducing the time and effort needed to produce, distribute and share business communications. Similarly, Lasher, Blake, and Sirkka (2001) had opined that electronic communication systems are the central nervous system of today's organization. These electronic communication systems like electronic mail, voice mail, bulletin board systems and facsimile enable organizations to send messages in text, video or voice form in seconds. This enhances the communication and

coordination among work groups and organizations.

The study also revealed six information management technologies/ practices greatly utilized in the IS units. The findings are in agreement with the opinion of O'Brien (2002) the rapid growth of telecommunications networks in computer-using firms has made telecommunications management a major technology management function; this function manages the wide area networks for applications such as online transaction processing, electronic data interchange, electronic mail and the local area networks which also require a major commitment of hardware and software resources. Eight information management technologies/practices were also found to be moderately utilized while four were found to be utilized in a little extent. The findings do not project the effective management of information in the universities. Veen, (2007) had earlier said that Information Technology Infrastructure is a combined set of hardware, software, networks, facilities, including all of the Information Technology, in order to develop, test, deliver, monitor, control or support Information Technology (IT) services. McKeen, and Smith, (2003) also noted that another telecommunications trend is recorded in its move toward easier access by end users to the computing resources of interconnected networks. The findings of the present study differ with the opinion of Bird (2010), who outlined the Information Technology Management Core Competencies include: Audio & Video Conferencing, Call Centers, Contingency Planning, Customer Relationship Management (CRM) , Disaster Recovery , End User Training , Firewall & Security, IP Telephony, Local Area Networks, Lotus Notes , Microsoft Office Suite, Microsoft Outlook/Exchange, Multi-Media Center Design, Power Systems & UPS, Premise Distribution Systems, Project Management, Technology Contract Negotiation, Telecom Carrier Networks, Voice Communication Systems (PABX) , Voice Messaging, Interactive Voice Response, & Voice Portals , Wide Area Networks, and Wireless Systems.

Conclusion

Information resource is a valuable asset in the university system. The study set out to assess the Information Technology Management of Information System units in Federal Universities in Nigeria. It was found that modern Information Management Technologies such as automated staff offices, conference rooms with computers, Internet bulletin board system, and internet ready computers for staff are not adequately available in the universities. The study further revealed that the extent of utilization of information management technologies and practices like implementation of client/server computing, having a strong acquisition process for acquired technologies, having a competent maintenance culture, end-user

involvement in the development of new systems among others is to a very low extent in the universities.

Recommendations

Based on the findings and conclusions drawn, the following recommendations were made:

- The administrators of the Federal Universities should adequately provide the necessary information management technologies to ensure effective information management which will in turn result to proper decision making, and indeed good administration.
- The federal government should increase the budget allocations for the acquisition of relevant technologies for information management in federal universities in Nigeria.
- The National Universities Commission (NUC) should mandate the universities to acquire the technologies that will bring value to the information generated the institutions.

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Entrepreneurship Skills for Youths in Ebonyi and Enugu States

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Abstract

The study investigated the entrepreneurship skills possessed and needed among youths in Ebonyi and Enugu States. Specifically, the study determined the entrepreneurship skills possessed by youths in Ebonyi and Enugu states, and the entrepreneurship skills needed by the youths in the study area. The study adopted descriptive survey research design. The population of the study comprised 1990 apprentices in 196 identified garment production centres in Ebonyi and Enugu states. Multistage sampling procedure was used to randomly select a sample of 362 respondents. Questionnaire was used for data collection and data were analyzed using means. Findings include: the youths in Ebonyi and Enugu states possess only seven out of 26 identified entrepreneurship skills. The youths need 19 entrepreneurship skills required in the utilization of tailoring fabric scraps. It was recommended that entrepreneurship skill acquisition should be incorporated into the vocational training for youths in Ebonyi and Enugu States.

Keywords: Entrepreneurship, Youths, Skill, Fabric, Scraps, Venture

Introduction

Entrepreneurship is the process of creating business enterprise capable of entering new market by developing resource and people in a unique way (Kimani 2004). Nwokolo (2007) noted that entrepreneurship is the acquisition of skills, ideas and managerial abilities necessary for personal self-reliance. This implies that creativity encourages the effective growth of a renowned entrepreneurship venture. Timo (2009) saw entrepreneurship as the creating and building something of value from practically nothing. It is the process of creating value through unique resource combinations to exploit opportunity by implementing innovation, skills and qualities by the entrepreneur. In other words, entrepreneurship involves creation of new things using special skills to make the things created beneficial or useful to the entrepreneur and the society at large. Entrepreneurship skill in the context of this research involves occupational skill development of the talent of youths in Ebonyi and Enugu states to build confidence in their

capability to become successful and self-reliant entrepreneurs. Thus Chevwitz (2006) listed three categories of skills needed for success in entrepreneurship as follow: Managerial skills, Accounting and financial skills, and Marketing skills. These entrepreneurship skills are properly needed in the utilization of tailoring fabric scraps.

The tailoring fabric scraps generated in tailoring skill acquisition centres in Ebonyi and Enugu states could be utilized by the unemployed youths in the states to produce valuable products like pot pads, patch work and among others if they possess entrepreneurship skills. Fabric scraps are textile off-cuts in textile industries garment production centres and footwear industries (Lexis 2008). Health (2008) noted that discarded tailoring fabric wastes are fabric scraps produced during cutting and sewing processes. These tailoring fabric scraps could be turned to wealth by the unemployed youths with necessary entrepreneurship skills.

Youth refers to a time of life that is neither childhood nor adulthood (Lippman, Mccleedon, Mognvson and Collamer 2000). The age range that constitutes youth varies according to various scholars Nwoke and Eze (2004) grouped age range of youth into three:

- early youth 14-16years
- medium youth 17-21years
- later youth 22-34years

Youth is any member of the society between the age of 19 and 34 years (World Health Organization 2008) while (united states Nation general Assembly, 20011) viewed the age range of youth as 15-24 years when the person is eligible for special treatment under the law. Youths when faced with uncertain employment prospects and financial insecurity are likely to engage in illegal activities.

Tchombe (2008) noted that when youths participate in entrepreneurship programmes, their occupational aspirations and leadership behaviour increase. Acquisition of entrepreneurship skill will thus inculcate job readiness and enhances social and psychological development in the youths. Tchombe also noted that youths exposed to entrepreneurship training frequently express that they have more opportunities to exercise creative freedom, high self-esteem and overall great sense of control over their lives.

Many Nigeria youths develop frustration and failure complex because they have not really acquired entrepreneurship skills that give meaning and satisfaction to them. The different qualities, combination of talents and abilities in the youths could be harnessed through appropriate utilization of tailoring fabric scraps especially when the youths possess the right entrepreneurship skills. Moreover, the scraps will not constitute environmental Lazard anymore. Nebo (2007) noted that unemployment among Nigerian youths is highly associated with lack of acquisition of appropriate entrepreneurship skills. It is meaningful therefore, to identify

entrepreneurship skills possessed and needed by youths in Ebonyi and Enugu states.

Purpose of the Study

The main purpose of the study was to identify entrepreneurship skills possessed and needed by youths in Ebonyi and Enugu states specifically the study determined the;

- entrepreneurship skills possessed by youths in Ebonyi and Enugu states.
- entrepreneurship skills needed by youths in the area of study.

Research Question

1. What are the entrepreneurship skills is the utilization of tailoring fabric scraps possessed by youths in Ebonyi and Enugu states?
2. What are the entrepreneurship skills in the utilization of tailoring fabric scraps needed by youths in Ebonyi and Enugu states?

Methodology

Design of the Study: The study adopted descriptive survey research design. Ezea (2004) described survey research design as one in which a group of people is studied by collecting and analyzing data from only a few considered to be representative of the entire population using a questionnaire.

Population for the Study: The population for the study was made up of 1990 apprentices in all the identified 196 garment production (tailoring) skill acquisition centres in Ebonyi and Enugu states. Information from the National Directorate of Employment and Co-operate Affairs offices in Abakaliki, Ebonyi state identified 73 garment production skill acquisition centres with 738 apprentices registered in the 13 local government area in Ebonyi state for 2011/2012.

Information from National Directorate of Employment and co-operate Affairs Commission offices in Enugu state revealed that there are 123 registered garment production skill acquisition centres with 1252 apprentices in the 17 local government areas in Enugu sate for 2011/2012.

Sample for the Study: The multistage sampling procedure was utilized to obtain the sample. The first stage involved random sampling of five local government areas from Ebonyi state and seven local government areas (LGAs) from Enugu state. This process yielded a total of 12 (LGAs) out of 30 local government areas in Ebonyi and Enugu states.

The second stage involved a simple random sampling of 16 tailoring skill acquisition centres from the five selected (LGAs) in Ebonyi state and 24 tailoring skill acquisition centres from the seven selected (LGAs) in Enugu state using balloting with replacement.

The third stage involved a proportionate sampling of 138 apprentices from the selected garment production skill acquisition centres in Ebonyi state and 224 apprentices from the selected garment production skill acquisition centres in Enugu state. This process yielded a total sample of 362 apprentices.

Instrument for data Collection: A structured questionnaire was used for data collection. The 4– point scale was of strongly agree, agree, disagree and strongly disagree to answer research question one and two.

Validation of the Instrument: The questionnaire was validated by two lectures in Home Economics Department Ebonyi State University, Abakaliki. The validators were given two copies of the questionnaire, and were requested to identify ambiguities and offer suggestions for improving the instrument to meet the stated objectives of the study. the input of the validations were used for the find drafting of the questionnaire for the study.

Reliability of the Instrument: In order to determine the reliability of the instrument, the questionnaires were administered on thirty apprentices in tailoring skill acquisition centres in Imo State. The data from the trial testing were analyzed using statistical package for the social science (SPSS). The cronbach Alpha Reliability Coefficient index was used to determine the reliability of the instrument, which yielded a reliability coefficient of 0.781. The reliability coefficient thus indicated that the instrument was reliable and was consistent in measuring what it is supposed to measure. Ogbazi and Okpala (1999) noted that if correlation coefficient obtained in an instrument is up 0.60 and above, the instrument should be considered good enough to be used for a study

Data Collection and Analysis Techniques: Three hundred and sixty two copies of the questionnaire were administered to the respondents by the researchers and five research assistants in the area of the study. Only 357 copies were returned. This represents approximately 98 percent return. Mean was used to analyze the data mean was based on 4-point scale. An item with mean value of 2.5 above was regarded as possessed or needed in their respective columns while items with mean value below 2.5 was regarded as rejected.

Findings of the Study

The following findings were made;

A. Six entrepreneurship skills are possessed by youths as shown in Table 1.
B. Eighteen entrepreneurship skills are needed by youths as shown in Table 1.

Table 1: Mean responses on entrepreneurship skills possessed and needed in operating business venture in tailoring fabric scraps (N = 327)

S/N	Entrepreneurship skills Ability to:	Ebonyi		Enugu		Overall		Remark
		$\bar{x}$ 1b	$\bar{x}$ 1a	$\bar{x}$ 2b	$\bar{x}$ 2a	$\bar{x}$ p	$\bar{x}$ n	
1.	Communicate using ideas verbally and in writing.	1.95	2.46	2.06	2.30	2.03	2.25	NP/NED
2.	Exhibit leadership skills.	2.46	2.55	2.30	2.69	2.25	2.63	NP/NED
3.	Make business plan	1.96	2.84	2.06	2.98	202	2.91	NP/NED
4.	Source raw material and tools.	1.40	3.21	1.81	3.11	1.66	3.16	NP/NED
5.	Understand basic steps involved in starting a business.	1.64	2.92	1.79	2.95	2.10	2.94	NP/NED
6.	Manage time and supervise work effectively	2.84	1.96	2.98	2.06	2.91	2.02	POS/ NONED
7.	Make appointment decisions relation to business	1.72	2.51	1.78	2.95	1.81	2.81	NP/NED
8.	Understand causes of failures of similar business.	3.21	1.40	3.11	1.81	3.16	1.66	POS/NONED
9.	Conduct personnel evaluation of the business operation.	1.74	3.03	1.87	2.41	1.82	3.22	NP/NED
10.	Determine personnel salary	1.97	2.71	2.08	2.95	2.03	2.81	NP/NED
11.	Maintain good human relations.	2.92	1.74	2.95	1.87	2.94	1.82	POS/NONED
12.	To follow-up business trend.	1.82	2.48	1.84	2.76	1.83	2.61	NP/NED
13.	Interpret cost of raw materials and production.	2.51	1.97	2.95	2.08	2.81	2.03	NP/NED
14.	Interpret and prepare financial statement.	2.32	3.05	2.49	3.16	2.47	3.11	NP/NED
15.	Identify sources of fund.	1.93	2.74	2.02	3.20	1.99	3.02	NP/NED
16.	Understand factors and procedures involve in obtaining lean for business and obtain loan.	2.24	2.40	1.94	2.70	2.31	2.62	NP/NED
17.	Understand and observe business laws and safety rules involved in business.	1.89	2.78	1.50	3.01	1.52	2.95	NP/NED
18.	Make use of advertising agents, lawyers and other bodies relevant to business.	1.81	2 .75	1.42	3.20	1.61	3.01	NP/NED
19.	Use insurance companies.	1.94	3.53	1.52	2.81	1.72	2.73	NP/NED
20.	Market products.	2.51	1.82	2.98	1.84	2.81	1.83	POS/NONED
21.	Identify seasonal function of goods.	2.48	2.32	2.72	2.49	2.61	2.47	POS/NONED
22.	Determine current and future trends in sale of products.	2.21	2.52	2.49	2.91	2.35	2.62	NP/NED

23.	Buy raw materials for production.	2.34	2.71	1.84	2.84	1.93	2.71	NP/NED
24.	Identify an interpret factors relating to competition in business.	1.95	3.05	2.04	3.14	1.10	3.08	NP/NED
25.	Understand customers and their needs.	2.74	3.21	2.01	3.30	1.11	3.21	NP/NED

$\bar{x}$ 1a = mean for Ebonyi "possessed" $\bar{x}$ 1b = mean for Ebonyi "Needed" NP = Not Possessed $\bar{x}$ 2a = mean for Enugu "possessed" $\bar{x}$ 2b = mean for Enugu "Needed POS = Possessed $\bar{x}$ P = Overall mean for "possessed" $\bar{x}$ n = Overall mean for "Needed" ND = Needed NONED = Not Needed

Table 1 indicates that six entrepreneurship skills are possessed while eighteen entrepreneurship skills are needed in the utilization of tailoring fabric scraps.

Discussion of Findings

The findings indicate that the youths posses only six out of twenty six (26) identified entrepreneurship skills in the study. They possess three managerial skills. These are, ability to: manage time and supervise work effectively; understand causes of failure of similar business; and maintain good human relationships. The youths also posses one accounting and financial skills ability, that is to cost items. They also possess marketing and sales skills namely ability to negotiate issues and identify seasonal fluctuation of goods. These skills possessed by the youths are not enough to embark effectively on entrepreneurial enterprise on tailoring fabric scraps. Versheul and Wenneken (2009) noted that entrepreneurs in skill oriented entrepreneurship venture should posses all the skills required to run the entrepreneurship.

The findings also reveal that the youths need managerial, financial accounting, marketing and sales skills. Managerial, skills needed include communication, planning leadership skills, among others. These are vital since business ventures cannot survive without effective oral and written communication. This is consistent with the views of Gillian and Tony (2006) who noted that effective communication is a step forward to a successful entrepreneurial venture. Leadership skills are also the core entrepreneurship skills in any business set up. It entails foraging people with different skills and ideologies into a business team. Thus Nebo (2007) maintained that leadership skill is a necessity and never an option in entrepreneurship venture.

The findings also showed that the apprentices in the study area need the skills in decision making. This agrees with Aldric (2009) noted that an entrepreneur must make sound decision on how to proceed with funding, product production and other issues that concern the business. He maintained that an entrepreneur

must make clear and concise decision in a short time frame to ensure that decision are calculative and intuitive to function well even in a chaotic and complex situations.

The finding also reveals that the ability to conduct personnel evaluation and determine personnel salary are lacking in the youths. The finding disagrees with Yarud, Sanjay and Arua, (2010) who noted that proper supervision helps the entrepreneur to master the ability and efforts of his employee thus determine personnel salary. The ability to supervise all the sections of a business and evaluated the workers uplifts and sustains every entrepreneurship venture.

The findings showed that the youths in the area of the study need reasonable number of accounting and finance skills namely ability to prepare financial statement, identify business law, identify sources of fund and among others. The finding is in line with Wilson (2004) who noted that determination of budget securing loans, raising funds and adhering to tax standard by the entrepreneur require keen understanding of finance and the economy. Strong finance and accounting knowledge is an entrepreneurial skill that helps the entrepreneur to understand the financial condition of the business. Wilson (2004) noted that determination of budget target securing loans, raising funds and adhering to tax standard by the entrepreneur require keen understanding of finance and the economy. Nebo (2007) noted that undercapitalized and persistent cash-flow problems due to poor financial control leads to business failures.

The finding reveals that the youths need necessary skills in marketing and sales. The marketing and sales skills needed includes ability to negotiate uses, determine in current and future trends on sales of products and so on. This finding is consistent with the view of Stuartwood (2005) who maintained that negotiation skill is one of the critical entrepreneurship skills a successful entrepreneur must possess.

Entrepreneurship skills therefore, could offer youths, particularly youths in Ebonyi and Enugu states, the opportunities for job experience, caring and savings of money even in a period of scarcity.

Conclusion

The youths in the area of study possess very few entrepreneurship skills required in the utilization of tailoring fabric scraps. The youths need managerial skills accounting and financial skills, marketing and sales entrepreneurship skills needed is the utilization of tailoring fabric scraps. Therefore, there is need for the youths in the area of to undergo training on the acquisition of entrepreneurship skills needed of the utilization of tailoring fabric scraps to turn waste to wealth.

Recommendations

- Government and individuals should establish entrepreneurship skill acquisition centres in the

local government areas in Ebonyi and Enugu States.

- The state and local government authorities in Ebonyi and Enugu States should organize seminars and workshops on entrepreneurship skills.

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Family Lifestyles and Counseling Skills for Promoting Entrepreneurship

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Abstract

This study investigated the family lifestyle and counseling skills for promoting entrepreneurship. Descriptive survey design is used. Area for the study was South East zone of Nigeria. Population for the study was 188, made up of parents/family members and managing directors of companies. Structured questionnaire was used for data collection. The data collected were analyzed using mean and standard deviation. The study revealed among other things, that hard work, harmonious living, continuity/longevity; initiative; innovation, education are family lifestyles that influence the entrepreneurship in family members while counselling skills identified for promoting entrepreneurship include empathy/continuity support, self-confidence/assertiveness and so on.

Keywords: Family lifestyles, Entrepreneurship, Entrepreneurship Importance, Challenges, Counseling, Counseling Skill.

Introduction

Family lifestyle depicts the way and manner family members behave in the family, their attitudes, characteristics, value system, interest, even their mannerism or whimsical behaviors. Lifestyles may be desirable or undesirable. Family lifestyle, according to Stebbin (2009) refers to a characteristic bundle of behaviours that make sense to both others and oneself in a given time and place, involving social relations, consumption, entertainment and dress codes. Park (2007) had earlier observed that the way people live embraces a whole range of social values, attitudes and activities. In general, lifestyle is not only the way people live but also how they socialize, have information and skills; how they develop positive mindset, positive thought, positive action and creativity. Family lifestyles influence various activities of its members, including their entrepreneurial ventures and innovations. Family members need ability to socialize, to venture, to create new ideas, to initiate for economic empowerment. Family life education is about the contribution family members make towards a healthy family living and survival of its members (Adams, 2008). Entrepreneurship should be of interest to the family and its members.

Entrepreneurship brings foresight for expansion of business, ability to

solve problems and brings about balance between supplies and demand. Onu (2010) sees entrepreneurship as platform for exchange of ideas, training and skill acquisition. Onu, further re-emphasized the entrepreneurship is ability to seek investment opportunities, desire for profit, and survival of an individual's own business, focused and energized by inner drive. Gibson (2001) sees entrepreneurship as a process of using private initiative to transform a business concept into a new venture or diversify existing venture or enterprise with high great potential. Geddes and Grosset (2007) succinctly define entrepreneurship as taking the commercial risk of starting up and running a business enterprise. It follows that entrepreneurship can be seen as exploring, initiating and creating a self-made business or venture in the face of uncertainty and risk.

Entrepreneurship is important. It brings about employment, a major poverty reduction strategy and there is the need for its sustainability. It is common that families recognize these. There are family businesses in Nigeria as in other counties of the world. These businesses employ family members and other people. In many cases generation of families keep their family businesses going. In many cases, however, family businesses which are important often do not survive for any length of time. They collapse and lack continuity. This situation could be attributed to unwholesome lifestyles of the members of the family among other things. Therefore, for the continuity of family businesses, there should be sustainable healthy lifestyles amid global challenges.

There are challenges that some families face in their entrepreneurial activities. Some of the challenges are compelling negative passion like hatred, envy, passiveness and inactive of the family members. This is common where children fail to cooperate with their parents in building up and expanding family businesses. As a result, the death of their parents could bring non-continuity and instability in family business. This easily leads to total extinction of the business. Further, undesirable, nonchalant, laissez-faire lifestyles of some members of the family can pull down the business. Ezedum (2010), reported that, unhealthy, negative or hazardous lifestyles of some family members are ways of living which constitute obvious danger to the entrepreneurial ventures of families. In some cases, authoritative parents could force their children to work against their interest in order to save family business. Some parents even force their children to study courses relating to the family business. Some entrepreneurs influence their children's career by forcing them to study business administration, business management, marketing, law, medicine and engineering (Egbule, 2002). Such negative actions may not augur well for the sustainability of family business. No wonder when such

parents grow old and die, their businesses die along with them and would fail to succeed their generation. According to Olinsky (2004), the health of older people depends on the income, living conditions and their health management by their family members. This emphasize the need to ensure sustainability of family businesses. This in turn, calls for family members, parents and their children alike, to adopt and sustain positive lifestyles that promote rather destroy family businesses or enterprises. So lifestyles should be able to foster children's interest in the family business and motivate them to work for the sustainability rather than extinction of the family businesses. This demands appropriate counselling skills for both parents (entrepreneurs) and professional counsellors.

The role of counselor is to facilitate the client's work in ways that respect the client's values, personal resources and capacity for choice within his or her cultural context (British Association for counseling (BAC) 1996:1). According to Onyilofor (2009), counseling is the process of helping individual discover and develop his education, vocational and psychological potentials. While Akinade (2005) sees counseling as human development principles, through cognitive, affective behavioural or systematic interaction strategies that address personal growth, or career development. Onyilofor (2009) succinctly opines that rapport, empathy, support, confidentiality and self-disclosure must not be found wanting in the counseling process. Counselling and the role of professional counsellor are crucial in ensuring positive family lifestyles that promote entrepreneurship.

It is necessary that family lifestyles and counseling skills for promoting sustained entrepreneurship be investigated. Hence, the problem of this study is: what are the family lifestyles and counseling skills for promoting entrepreneurship in south east zone of Nigeria?

Purpose of the Study

The general purpose of the study was to investigate the family lifestyles and counseling skills that could promote entrepreneurship. Specifically, the study determined.

1. Family lifestyles that influence the entrepreneurship in family members.
2. Counseling skills utilized by families to influence its members on entrepreneurship.

Research Questions

1.What are the family lifestyles that influence the entrepreneurship in family members?

2.What are the counseling skills utilizes by families to influence its members on entrepreneurship?

Methodology

Area of the Study: Descriptive survey design was used in carrying out the study. The study covers south-East zone of Nigeria. They are Anambra State, Abia State, Ebonyi State, Enugu state and Imo State.

Population of the Study: The population for the study was 188 made up of 156 parents/family members and 32 managing directors of companies who are involved in entrepreneurship from the south east zone of Nigeria.

***Sample and Sampling Technique*:** Sampling was drawn through simple random sampling technique. The sampling was 156 parents/family members and 32 managing directors of companies who were involved in entrepreneurial ventures which are distributed as follows: Anambra State 60 entrepreneurial ventures, Enugu State 40, Abia State 38, Imo State 30 and Ebonyi State 20 entrepreneurial ventures.

Instrument for Data Collection: Structured questionnaire was constructed by the researcher. The questionnaire contained 30 items on a four-point response scale (strongly Agree, Agree, Disagree and strongly disagree). The questionnaire was face validated using five experts in business administration, management, measurement and evaluation and guidance and counselling from three universities. The internal consistency of the instrument was determined using Cronbach alpha. It yielded an alpha value of 0.97 which was considered high enough.

Data Collection and Analysis Techniques: The researcher with 11 research assistants visited south-east zone to solicit the cooperation of the respondents as they were having their business company's annual general meeting (AGM). The research assistants were purposely trained to administer and collect data for this study. The researcher and research assistants established rapport with the respondents for easy administration of the questionnaire. The instrument was cross-checked and collated for data analysis. The data collected were analyzed using mean and standard deviation. A mean of 2.5 and above was accepted while any mean less than 2.5 was rejected.

Findings of the Study

The following findings where made:

1. Family lifestyles that influence entrepreneurship in family members. These are summarized in table one.
2. Counselling skills utilized by families to influence its members on entrepreneurship. These are summarized.

Table 1: Family lifestyles that influence the entrepreneurship in family members.

S/N	Family lifestyles that influence the entrepreneurship in family members	Parents/family members			Directors		
		$\bar{x}$ mean	SD	Remark	$\bar{x}$ mean	SD	Remark
1.	Hard-work	3.15	0.31	Strongly agree	3.17	1.40	Strongly agree
2.	Education	3.42	1.22	Strongly agree	3.41	1.28	Strongly agree
3.	Harmonious living	3.37	1.31	Strongly agree	3.35	1.28	Strongly agree
4.	Hatred/envy	2.0	1.25	Disagree	2.03	1.41	Disagree
5.	Parental impetus.	2.78	1.04	Agree	2.66	1.05	Agree

6.	Healthy management.	3.32	0.58	Strongly agree	3.21	0.63	Strongly agree
7.	Generation success	2.95	0.92	Agree	2.90	0.92	Agree
8.	Continuity/longevity	3.23	0.67	Strongly agree	3.01	0.77	Strongly agree
9.	Inactive of family members.	3.05	0.49	Strongly agree	3.12	0.31	Strongly agree
10.	Poor organization/ growth of crime.	2.00	0.98	Disagree	2.02	1.05	Disagree
11.	Initiative/innovation	3.05	0.49	Strongly agree	3.12	0.31	Strongly agree
12	Positive mind-set/motivation	3.37	1.29	Strongly agree	3.39	1.31	Strongly agree
13.	Non-continuity/nonchalant attitude.	2.25	1.05	Disagree	2.10	1.45	Disagree
14.	Value system/information/ collaboration	3.25	0.39	Strongly agree	3.01	0.59	Strongly agree
15.	Planning/implementation.	2.89	1.45	Agree	2.90	0.90	Agree

Table 1 shows the items 1, 2, 3, 6, 8, 11, 12 and 14, the mean ranges from 3.01 to 3.42on both sides of parents/family members and the managing directors of companies. This shows that both strongly agreed that hard-work, education, harmonious living, healthy management and continuity are family lifestyles that influence the entrepreneurship in family members. Furthermore, longevity, initiative/innovation, positive mind-set/motivation and value system/information/collaboration are another lifestyle that influence the entrepreneurship in family members.

Table 2: Counseling skills utilized by families to influence its members on entrepreneurship

S/N	Counseling skills utilized by families to influence its members on entrepreneurship.	**Parents/Family Members**			**Directors**		
		$\bar{x}$ **mean**	**SD**	**Remark**	$\bar{x}$ **mean**	**SD**	**Remark**
1.	Rapport/self-disclosure.	3.28	0.58	Strongly agree	3.12	0.76	Strongly agree
2.	Empathy/continuity/support.	3.11	0.63	Strongly agree	3.32	0.58	Strongly agree
3.	Self-esteem/self-worth.	2.91	0.95	agree	2.98	0.90	agree
4.	Self-confidence/assertiveness	3.20	0.70	Strongly agree	3.02	0.77	Strongly agree
5.	Coping/goal setting	3.42	1.32	Strongly Agree	3.41	1.28	Strongly Agree
6.	Identifying assets.	2.69	1.05	agree	2.74	1.04	Strongly agree
7.	Framing opportunities/challenges.	3.12	0.31	Strongly	3.05	0.49	Strongly Agree

				Agree			
8.	Lack of mobilization	2.02	1.09	Disagree	2.00	1.25	Disagree
9.	Planning	3.25	0.71	Strongly agree	3.26	0.58	Strongly agree
10.	Monitoring/assessing performance	2.92	0.50	Agree	2.98	1.11	Agree
11.	Proliferation of industries.	3.34	0.93	Strongly agree	3.24	0.93	Strongly agree
12	Solving problem	3.88	0.33	Strongly agree	3.72	0.6	Strongly agree
13.	Exploration/information	3.24	0.43	Strongly agree	3.16	0.99	Strongly agree
14.	Learning/managing	3.50	1.70	Strongly agree	3.46	0.10	Strongly agree
15.	Clustering/collaboration.	3.00	0.64	Strongly Agree	3.97	1.54	Strongly Agree

Table 2 shows that, items numbers 1, 2, 4, 5, 6, 7, 9, 11, 12, 13, 14, and 15, the means ranges from 3.00 to 3.88. This is an indication that both the parents/family members and managing directors of companies strongly agree that rapport/self-disclosure, empathy/ continuity/ support, self confidence/ assertiveness, are counseling skills utilized by families to influence its members. Similarly, solving problems, exploration/information, learning/ managing and clustering/ collaboration skills are counseling skills utilized by families to influence its members. It can be seen also that items 3, 6 and 10 had mean score that ranges from 2.64 to 2.98. This shows that the respondents agree that self-esteem/self-worth, identifying assets and monitoring/ assessing performance skills are counseling skills utilized by families to influence its members on entrepreneurship.

Discussion

From the findings, hard-work, harmonious living, continuity/ longevity, initiative/innovation, positive mind-set/motivation and education are family lifestyles that influence the entrepreneurship in family members. This is in line with the assertion of Adams (2008) who opines that family life education is about the contribution family members make towards a healthy family living and the survival of its members. Also in line with the above, Egbule (2002), posits that parents sometimes consciously set up standards worth of emulation for their children and thus motivates them to be achievement-oriented. Also, value system/information/collaboration, parental impetus, generation success, planning/implementation/monitoring and healthy management are family lifestyles that influence the entrepreneurship in family members and this finding is in agreement with Linksys (2004) that health of older people depends on the … income, living conditions and healthy management of their family members.

Hatred/envy, inactivity of family members, poor organization/growth

of crime and nonchalant attitude are not family lifestyles that influence entrepreneurship in family members. It is in conformity with the assertion of Ezedum (2010) that unhealthy, negative or hazardous lifestyles of the members of some families are ways of living which constitute obvious danger to the entrepreneurial ventures of the families.

Empathy/continuity/support, self-confidence/assertiveness, coping/goal setting, framing opportunities/ challenges, planning, exploration/ information and rapport/self-disclosure skills and among others are counseling skills utilized in family lifestyles on entrepreneurship and innovative ventures of members. This is in line with Onyiliofor (2009) who succinctly opines that rapport, empathy, support, confidentiality and self-disclosure must not be found wanting in the counseling process.

Conclusion

In conclusion, if the family lifestyles of family members will involve all these family lifestyles mentioned like hard-work, harmonious living, continuity/longevity, positive mind-set/motivation, initiative/innovation, collaboration, planning, implementation, education and so on, they will make healthy living and continuity of family entrepreneurship. They will help them to develop to fullest capacity. They help them live harmoniously and to fulfill their role and a dynamic force in their families. They will socialize and venture to greatness, in the same vein, if the counseling skills are embedded in the family members by the professional counselors, when they graduate, will influence business expansion, longevity and generation success. As a result, all families and even generation to come will enjoy royalties.

Recommendation

The following recommendations were made based on the findings.

- Training of professional counselors nationally and internationally giving them all necessary incentives, plus better working conditions.
- Seminars and workshops should be organized at least three times a year for parents/family members and managing directors to improve their knowledge and skills in counseling for global competition.
- Parents should allow their children to make their career choice so that they would not be suspended.
- Family lifestyles skills should be embedded in the curriculum for entrepreneurship training of family members.

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Breastfeeding Practices of mothers in Obimo, Nsukka Local Government Area of Enugu State.

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Abstract

This study investigated the breastfeeding practices of mothers in Obimo, Nsukka LGA of Enugu State, Nigeria. One hundred and eighty (180) breastfeeding mothers participated in the study. Questionnaire was used to obtain data. Data were analysed using frequencies and percentages. The results show among others, that 95.0 percent of the respondents were aware of exclusive breastfeeding and 16.5 percent practiced it; 85.0 percent initiated breast milk a few hours after delivery, while 68.3 percent of the respondents did not offer colostrum to their babies. Advocacy and mobilization on breastfeeding through nutrition education is recommended

Key words: Breastfeeding, Mothers, Exclusive, Infants, Development

Introduction

Adequate nutrition during infancy and early childhood is essential to ensure the growth, health, and development of children to their full potential (World Health Organization, 2009). It has been recognized worldwide that breastfeeding is beneficial for both the mother and child. Breast milk is considered the best source of nutrition for an infant (Ku and Chow, 2010). The World Health Organization (WHO) recommends that infants be exclusively breastfed for the first six months, followed by breastfeeding along with adequate complementary foods for up to two years of age or beyond (Hanif, 2011). Exclusive breastfeeding can be defined as a practice whereby the infants receive only breast milk and no other food or liquid, not even water, tea and herbal preparations during the first six months of life, with the exception of vitamins, mineral supplements, or medicines (Nkala and Msuya, 2011). A major advantage of exclusive breastfeeding for up to six months is reduced morbidity due to gastrointestinal infection (Kramer and Kakuma, 2002). Several studies have shown that mothers find it difficult to meet personal goals and to adhere to the expert recommendations for continued and exclusive breastfeeding despite increased rate of initiation (Whalen and Gramton, 2010). Some of the major factors that affect exclusivity and duration of breastfeeding include

breast problems such as sore nipples or mother's perceptions that she is producing inadequate milk; societal barriers such as employment and length of maternity leave; inadequate breastfeeding knowledge; lack of family and societal support; lack of guidance and encouragement from health care professionals (Thurman and Allen, 2008). These factors in turn promote the early use of breast milk substitute. When breast milk or infant formula no longer supplies infants with required energy and nutrients to sustain normal growth and optimal health and development, complementary feeding should be introduced (More, Jenkins, King and Shaw, 2011). According to the WHO recommendations, the appropriate age at which solids should be introduced is by six months due to the immaturity of the gastrointestinal tract and the renal system as well as on the neurophysiological status of the infant before that age (Brown and Lee, 2010).

Breastfeeding is one of the oldest child-rearing practice known to mankind. The human infant has been successfully reared on breast milk in every culture and ethnic group. Breastfeeding is an unequalled method of providing food for the healthy growth and development of infants. It is also the feeding of an infant or young child with milk from woman's breast (Daigle, 2006). Breast-feeding is considered the most complete nutritional source for infants because breast milk contains the essential fats, carbohydrates, proteins, and immunological factors needed for infants to thrive and resist infection in the formative first year of life(Barry, 2004). Jones, Steketee, Black, Bhutta and Morris(2003) identified exclusive breastfeeding (EBF) in the first 6 months of life and continued breastfeeding from 6 to 11 months as the single most effective preventive intervention in reducing child mortality, with the potential of saving 1.3 million lives annually. Similarly, Leon-Cava, Lutter, Ross and Martins(2002) have observed that improved breastfeeding practices are crucial for child growth and development. However, advocates of breastfeeding have noticed a global decline in the breastfeeding behaviour among nursing mothers. This is particularly more pronounced in developing countries. Researchers have shown various factors that influence nursing mothers' decision to breastfeed their children. These actually include education, social class, culture, locale, nature of work, and health status of both the nursing mothers and their infants (Wagner, Mark, Wagner, Chatman, Chen and Hulsey, 2005). It should be as well stated that breastfeeding is a phenomenon that is deeply rooted in the tradition of human culture. It is also a post-natal activity of paramount importance and interest to diverse professional in paediatrics, nursing, endocrinology, psychology, as well as sociology and anthropology (Uwakwe, 1996).

In the study area, cultural and traditional beliefs, socioeconomic situation, mother's work outside home,

father's occupation, mother's lack of knowledge and misinformation, the delivery method and delivery location as well as health problems of the mother were the factors seen to influence the breastfeeding practices of the mothers (Ene-Obong, Davidson, Mbah and Akah, 2010), hence the study to know the breastfeeding practices of the mothers in Obimo, Nsukka Local Government Area, Enugu State.

Purpose of the study

This study focused on breastfeeding practices of mothers in Obimo, Nsukka Local Government Area of Enugu State, Nigeria.Specifically the study determined:

(1)infant feeding practices of the mothers.
(2) respondents' source of information on exclusive breastfeeding.
(3)views of the respondents on issues relating to exclusive breastfeeding practices.

Methodology

Study Area: The study was conducted in Obimo, one of the sixteen villages in Nsukka L.G.A. of Enugu State, Nigeria. Obimo is about nine kilometers from Nsukka urban and comprises five hamlets namely Agbo, Ajuona, Akutara, Akpotoro and Eziani. Each of these hamlets in turn consists of several quarters, the inhabitants are mainly Christians and a few still practice traditional religion. Farming and trading are the major occupations of the women in the community. The study adopted a survey design.

Population for the study: The population for the study was all breastfeeding women (at the time of data collection) at the time of the study. The mothers were mostly illiterate women whose major occupations were farming and trading.

***Sample for the study*:** A total of one hundred and eighty mothers were used. All the mothers in the study area as at the time of the study (2010) were used for the study.

Instrument for the study: Questionnaire was used to collect data. It was developed based on extensive review of literature and based on the objectives of the study. The questionnaire includes information on the socio-economic and education status of the subjects, infant feeding practices and source of information and views on issues related to breastfeeding practices of the mothers. The questionnaire was validated by expert lecturers in the Department of Home Science, Nutrition and Dietetics, University of Nigeria, Nsukka.

Data Collection for the study: One hundred and eighty copies of questionnaires were distributed to the subjects and retrieved by hand. All the one hundred and eighty questionnaires distributed were also all retrieved and used for the study. This represents 100 percent return rate.

***Data analysis*:** Data was analyzed using frequency distribution and percentages.

Results

Background information of the respondents: The background

information of the respondents showed that 40.6% were within the age range of 35 and 44 years; 46.1% of the respondents were farmers; 59.0% of the respondents spent one hundred to three hundred naira (₦100-₦300) on baby's food weekly, while 52.8% of them had West African Examination Council/ General Certificate of Education

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Table 1: Percentage Responses on Infant Feeding Practices of the Mothers

Breastfeeding Practices	Frequency	Percentage
Initiation of breastfeeding		
Immediately after delivery (within 30 minutes to 1 hour after delivery)	19	10.6
Few hours after delivery	153	85.0
Two days after delivery	8	4.4
Total	**180**	**100.0**
First food given to baby after birth		
Water	78	43.3
Water + glucose	22	12.2
Breast milk	80	44.4
Total	**180**	**100.0**
Food given to baby for the first 6 months of life		
Breast milk only	30	16.7
Breast milk + water	45	25.0
Breast milk + other foods	90	50.0
Breast milk + formula	15	8.3
Total	**180**	**100.0**
Frequency of breastfeeding / day		
1-5 times	69	38.3
6- 11 times	81	45.0
As many times as possible	30	16.7
Total	**180**	**100.0**

Table 1 shows that majority (85.0%) of the respondents initiated breast milk few hours after delivery while only 16.7% of the respondents breastfed their infants as many times as possible.

Table 2: Percentage Responses of Mothers' Source of Information on Exclusive Breastfeeding**.**

Sources of Information	Frequency	Percentage
Heard of exclusive breastfeeding		

Yes	171	95.0
No	9	5.0
Total	**180**	**100.0**
Sources of information		
Antenatal clinic	100	55.6
Radio/television	3	1.7
Friends	68	37.7
No response	9	5.0
Total	**180**	**100.0**

Table 2 shows respondents' source of information on exclusive breastfeeding. Majority (95.0%) of the respondents have heard about exclusive breastfeeding while more than half (55.6%) of them got the information during antenatal clinic.

Table 3: Percentage Responses on Some Issues Relating to Exclusive Breastfeeding

Issues Relating to Exclusive Breastfeeding	Frequency	Percentage
Have you exclusively breastfed?		
Yes	11	6.1
No	169	93.9
Total	**180**	**100.0**
Reasons for not exclusively breastfed		
It is forbidden	2	1.1
My job	15	8.3
My relations	74	41.1
The infants not satisfied	78	43.4
No response	11	6.1
Total	**180**	**100.0**
Do you give colostrums to your baby		
Yes	57	31.7
No	123	68.3
Total	**180**	**100.0**
Reasons for not giving colostrums		
It is forbidden	2	1.1
It is not real milk	40	22.2
It is poisonous	13	7.3
Breast milk does not flow	68	69.4
No response	57	31.7
Total	**180**	**100.0**

Table 3 shows the mothers' responses on issues relating to exclusive breastfeeding. Majority (93.9%) of the respondents have not exclusively breastfed their infants, about 41% and 43% of the respondents reported that the reasons for not exclusively breastfed their infants was because of their relations and that the practice was not a good one respectively. More

than half (68.3%) of the respondents did not give colostrums to their infants and about 69% of them said the reason for not giving colostrums was that the breast milk does not flow.

Discussion

The study revealed that a greater percentage of the mothers (40.6%) were in the age range of 35-44 years. It indicated that the mothers were in the child bearing age. This differed from the findings of a similar study done by Mustaphl, Mbhenyan Khozah and Amey (2008) where most of the mothers used in their study were below 30 years. Most of the mothers in this study were farmers and traders. This reflects the setting where the study was carried out. Obimo is a rural area where the main occupation of the people was trading and subsistence farming.

Majority of the mothers (85.0%) initiated breastfeeding few hours after delivery and only 10.6% of the mothers initiated breastfeeding within 30 minutes to 1 hour after delivery. This was higher than the findings of 2003 National Demographic Health Survey (NDHS) and study done by Shirimaa, Greinera, Kylberga and Gebre-Medhina (1999) where 38% and 58% respectively of mothers initiated breastfeeding within 30 minutes to 1 hour after delivery. Delayed initiation of breastfeeding and discarding of colostrum has also been found to be very common in a rural area in Bangladesh. Only 12 % the mothers used colostrum for the first feeding of their newborns and a relationship was found between mother knowledge and the practice of giving colostrum (Ahmed, Parveen and Islam, 1999). Breastfeeding initiation within the first 48 hours after birth is universal and is common in Sub-Saharan Africa (Ene-Obong, Davidson, Mbah and Akah, 2006). Early initiation within an hour of birth had been shown to ensure that the protective antibodies in colostrums that is the genesis of the newborn strong immunity to infections are available rapidly to infant. A few (16.7%) of the mothers practiced exclusive breastfeeding. This was similar to the findings of Lancet (2003) where it was found that less than 17% of infants under six months of age were exclusively breastfed but higher than the Exclusive Breastfeeding (EBF) rate of mothers in South Africa where approximately 10% of the mothers exclusively breastfed (Mustaphl *et al.*, 2008). The benefits of exclusive breastfeeding have been demonstrated; this includes high cognitive performance by infants (WHO and UNICEF, 1989). According to ACC/SCN (2002), exclusive breastfeeding minimizes exposure to water borne pathogens and reduces the risk of infant being fed nutritionally inferior foods. Research done elsewhere has established that when prepared under unhygienic conditions, complementary foods become contaminated with various pathogens and this causes diarrheal diseases and consequently malnutrition and sometimes even death (Hussein, 2005). The reasons given for the introduction of other

foods or liquids early before 6 months in this study were majorly based on the mothers' own perceptions that the infants were not satisfied with breastmilk alone and the influence of their relatives' advice. Other studies concur and report that the reasons for the introduction were indeed based on the mothers' own perceptions that the infants were not satisfied with breast milk alone (Hotz and Gibson, 2001).

A greater percentage of the mothers (45.0%) breastfed their infants 6-11 times per day. This shows that frequencies of breastfeeding practice of the mothers were far from optimal.Majority of the mothers (95.0%) have heard about exclusive breastfeeding and a greater percentage of them (55.6%) got the information from antenatal clinics. This was similar to the findings of Mustaphl *et al.*, (2008) where most of the mothers in their study got the information about exclusive breastfeeding from clinics /hospitals.

Conclusion

The practice of exclusive breastfeeding among lactating mothers in Obimo was low. In spite of the awareness of exclusive breastfeeding, majority of the mothers still maintained their old practice of not exclusively breastfeeding their infants. The high levels of malnutrition in under-five year old children in Nigeria that have not shown much changes over the years is a reflection of inappropriate breastfeeding and complementary feeding practices of mothers.

Recommendations

1. There is a need for more research work focusing on young child feeding practices, more specifically on exclusive breastfeeding and complementary feeding practices, nutritional adequacy and safety of complementary foods.
2. Strong advocacy on the importance of colostrum, exclusive breastfeeding especially for the first 6 months, on the dangers of prelacteal feeds and bottle-feeding and optimal complementary feeding practices to both health care providers, community and the policy makers is needed.

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Anthropometric Status and Nutrient Intake of Pre-School Children (2-5 Years) in Nsukka Local Government Area of Enugu State, Nigeria

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Abstract

This study investigated the anthropometric status and the nutrient intake of pre-school children. Two nursery schools (urban and rural) were purposely selected for this study. Four hundred pupils aged 2-5 from the schools were used. Data was collected by using anthropometric indices, structured questionnaire and a 3-day weighed food intake. Statistical tools used were frequencies, percentages, means and standard deviation. Results showed that for the rural pre-school, 20% children against 3% for the urban height-for-weight, 89% were wasted while urban pre-school children recorded only 7%. The 3-day weighed food intake revealed that for energy, protein, calcium, iron, vitamin A, thiamine, riboflavin, niacin and ascorbic acid, the urban pre-school children had intake above FAO requirements while the rural pre-school children had deficit in energy, riboflavin and niacin. Provision of breakfast or school lunch and sustainable community based programme could be launched in rural environment towards solving early childhood malnutrition.

Keywords: Anthropometric, Nutrient, Intake, Pre-school, Children, Enugu

Introduction

Nutrition is one of the basic requirements of any living organism to grow and sustain life. But the quality and quantity of nutrients necessary for normal growth and to keep an organism in good health during its life span vary with the age of the organism. Any major deviation in the nutrient intake either in quality or in quantity from its requirement can also affect growth and life span in a number of ways particularly in the later period/growth is more influenced by nutrition (Braja and Mishrq, 2007). Appropriate nutrition in early childhood is important for normal growth and may influence long-term health and chronic disease status (Field, 2009). There is concern that while the energy intakes of young children are increasing, this may not be matched by the nutrient density of their diets. This has been interpreted by some to indicate a modern phenomenon of malnutrition in the developed world – an increasing prevalence of childhood obesity co-

existing with key micronutrient deficiencies (Field, 2009).

Children below the age of five years constitute nearly 15% of the total population of many countries and from the nutritional standpoint constitute a vulnerable segment and suffers the highest rate of morbidity and mortality for almost a decade evidence that more children die from malnutrition and it is does serious damage to the physical growth and intellectual performance in the later life (Lloyd and Lederman, 2002). Generally, it is accepted that a child's growth is a very sensitive indicator of his health and nutritional status. A malnourished child is one that is not getting adequate nutrient to meet his physiological needs. The number of malnourished under-fives (pre-school children) in developing countries in 1995 was put at 167million-most one-third of developing-country children (World Health Organization [WHO], 2000). Childhood malnutrition lays a weak foundation for future health and well-being. This is because people who survive a malnourished childhood are less physically and intellectually productive. They equally suffer more chronic illness and disability. This is a great cost to a society. Control/prevention of malnutrition is still a big public policy challenge.

A host of factors determines a child's nutritional status. They range from the immediate determinants as child's dietary; intake and health, to underlying determinants as food security, adequate care of the mother and child. The basic determinants are the potential resources available in a community and how they are shared (Smith and Haddad, 2011).

The indices used to express the state of malnutrition in a child are stunting, underweight and wasting. In 2000, WHO estimated that 32.5% of children under five in developing countries were stunted; 26.7% underweight and 9.2% wasted (WHO, 2000). In Nigeria, a survey carried out by UNICEF in 2012 revealed a 41.0% stunting, 23.0% underweight and 9% wasting in children (UNICEF, 2012). Great strides have been made in the past decades to reduce child malnutrition. Malnutrition however, in all its forms still persists in many households. When a dietary pattern is not adequate, it can cripple a child's growth, increase the prevalence of underweight and lead to high mortality rate. Protein energy malnutrition (PEM) is the most prevalent form of malnutrition among preschool children (2-5 years) in Nigeria.

Purpose of the study

The general purpose of the study was to assess the anthropometric and nutrient intake of pre-school children in Nsukka Local Government Area, Enugu State. Specifically, the study:

1. determined the anthropometric status of pre-school children in urban and rural nursery schools in the area
2. assessed the adequacy of food intake of the children

Methodology

Study Area: The study was carried out in Nsukka urban and Okpaligbo both in Nsukka Local Government Area. The vegetation in Nsukka was principally guinea savannah. Foods produced by few peasant farmers dwelling in Nsukka are yam, cassava, groundnuts, palm produce, tropical fruits and green leafy vegetables. The major foods imported from the surrounding states are rice, maize, livestock and beans. The inhabitants are mainly Igbo's and Christian religion.

Population for the study: The population was made up of all preschool children in two nursery schools in Nsukka LGA. They were pre-school children from National Association of University Women (NAUW) Nursery school, University of Nigeria, Nsukka and Children of God Nursery School, (CODN), Okpaligbo.

Sample for the Study: One nursery school each was randomly selected from urban and rural nursery schools in Nsukka LGA for the study respectively. A total sample size of 400 was used. Two hundred pre-school children each made up of 100 males and 100 females were randomly selected from NAUW Nursery School and Children of God Nursery School respectively. In each of the schools, separate lists of all male and female children were obtained and every 3rd child in the list was selected.

Instrument for the Study: A validated questionnaire and anthropometric measurements were used to gather data. The questionnaire was validated by the five academic lecturers of the Department of Home Science, Nutrition and Dietetics, University of Nigeria, Nsukka.

Data Collection: Four hundred copies of the questionnaires were distributed to parents of the children of NAUW Nursery School. The preschoolers were mostly children of the staffs of University of Nigeria, Nsukka. However, interview was booked with parents of the pre-school children in the rural schools because they were mainly illiterate farmers. The questionnaire served as a guide in eliciting information from them. The questionnaires were used to obtain information on general socio-economic and demographic data. Provisions were made on the questionnaire to record individual anthropometric data of the under-fives.

Anthropometric status: The weight and height of each of the respondents were measured. The subjects, while on light clothes and without footwear, were weighed on a scale graduated in kilograms. The weight of each index child was measured and recorded twice with no or minimum clothing and shoe or stockings. The average of the two readings was taken and recorded. The weighting scales were adjusted to zero after each weighing prior to the next measurement. The readings were taken and weight recorded to the nearest 0.01kg.

The height was measured (without footwear) using microtoise height measure graduated in centimeters.

The average of the two readings was taken and recorded. The microtoise height measures were adjusted to zero after each measurement prior to the next measurement. The readings were taken and height recorded to the nearest 0.01m.

A 3-day weighed food intake was carried out on 16 pre-school children (8 from each schoool) in their homes from 6a.m to 8p.m. their snack intake was equally recorded, EKS 5kg scale and 450 health 0 meter Gourtment sensitive scales were used in taking the weight of food consumed.

Data Analysis: WHO standards growth charts (2007) was used for comparing the anthropometric measurements. The nutrient content of the food eaten was calculated from food composition table (FAO/WHO 1969 and Platt, 1968). Randomized complete block design was used to compare their nutrient intake.

Results

Anthropometric status

Table 1: Distribution of Nutritional Indicators for Subjects of NAUW Nursery School in Nsukka.

Nutritional level	Height-for –Age	Weight-for-Age	Weight-for-Height
Normal (Percentage)	97	89	93
Number examined	400	400	400
Number below Median -1SD	28	49	46
% below -1SD	14	25	23
Number below Median -2SD	6	4	13
% below median -2SD	3	2	7
Number below	-	-	2
Median -3SD	-	-	2
% below median -3SD	-	-	1

Table 1 shows that for the urban pre-school children; for height-for-age, 97% were normal, 3% were stunted; using weight-for-age, 89% were normal and 2% were underweight; with weight-for-height, 93% were normal and 7% was wasted.

Table 2: Distribution of Nutritional Indicators for Pre-school Children of Children of God Nursery School Okpaligbo Community.

Nutritional level	Height-for –Age	Weight-for-Age	Weight-for-Height
Normal (Percentage)	80	16	11
Number examined	200	200	200
Number below Median -1SD	94	16	20

% below -1SD	47	8	10
Number below	26	64	42
Median -2SD			
% below median -2SD	13	32	21
Number below	14	104	136
Median -3SD	-	-	-
% below median -3SD	7	52	68

Table 2 reveals that for the rural pre-school children, using height-for-age, 80% were normal and 20% were stunted. Using weight-for-age 16% were normal and 84% underweight, while weight-for-height, 11% were normal and 89% wasted.

Weighed food intake: The percentage nutrient intakes obtained were calculated and compare with FAO/WHO requirement (FAO/WHO, (1985). Table 3 shows that for energy, protein and most micronutrients (like iron, calcium, vitamin A, thiamine) the urban pre-school children obtained more than 100% of FAO requirements. Except for a sub-optimal intake of riboflavin however, reveals that the rural pre-school children could not meet up to 100% of the FAO requirement for energy, calcium, thiamine, riboflavin and niacin. However, they had enough protein, iron, vitamin A and ascorbic acid in their diet.

Table 3: Mean Percentage (%) Nutrients Intake of Pre-school Children of NAUW Nursery School in University of Nigeria, Nsukka

Age Group	Energy (MJ)		Protein (g)		Calcium (mg)		Iron (mg)		Vitamin A (RE)		Thiamin (mg)		Riboflavin (mg)		Niacin (mg)		Ascorbic Acid (mg)	
	M	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**
2-3 Years	5.6± 0.4	5.5 ±0.2	25.4 ±2.1	24 ±5.7	530 ±52.3	457 ±9.8	13.5± 0.7	116±15	1495.5 ±84.2	1458.5 ±133.6	0.77±0.1	0.65±0.1	0.9±0.2	0.75±0.1	8.65± 0.5	8.1±0 .1	31.0	33± 2.8
% Req.	107.7	105.8	175.8	165.5	117.8	101.5	158.8	136.5	112.2	109.4	154	130	112.5	93.8	100.6	94.2	155	165
FAO/ WHO Req.	5.2	5.2	14.5	14.5	450	450	8.5	8.5	1333	1333	0.5	0.5	0.8	0.8	8.6	8.6	20	20
4-5 Years	67±0.3	6.6±01	31.8± 1.1	31.3± 32	569.9± 1.6	456.5± 2.1	13.9± 0.1	13.2±1. 7	1593.3 ±56.1	150.5± 1930	0.86±0.0	1.81±0.0	1.0±0.1	0.9±0.3	13.7± 0.8	11.4± 0.2	32.5± 3.5	33.8 ±1.1
% Req.	103.1	101.5	181.7	178.9	126.6	101.4	154.4	146.7	119.5	114.8	122.1	115.7	90.9	81.8	121.9	101.3	162.5	169
FAO/ WHO Req.	8.5	6.5	17.5	17.5	450	450	9	9	1333	1333	07	07	11	11	112	112	20	20

According to Age and Sex compared to FAO/WHO Requirement for Age/Sex

Table 4: Mean Percentage (%) Nutrients Intake of Pre-school Children of Children of God Nursery School in Nsukka Rural Community According to Age and Sex Compared to FAO/WHO Requirement for Age/Sex.

Age Group	Energy (Mj)		Protein (g)		Calcium (mg)		Iron (mg)		Vitamin A (RE)		Thiamin (mg)		Riboflavin (mg)		Niacin (mg)		Ascorbic Acid (mg)	
	M	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**
2-3 Years	4.1±0.7	3.6±0.1	18.5±3.5	14.8±0.4	530±52.3	273.7±257.8	141.2±8.2	8.7±0.1	2.5±0.0	1351.3±194.7	1333±0.0	0.5±0.1	0.32±0.0	0.23±0.0	4.8±0.4	3.9±0.6	23.5±4.9	23±1.7
% Requirement	78.9	69.2	127.6	102.1	60.8	31.4	102.4	100	101.4	100	110	112	40	28.8	55.8	45.3	117.5	119
FAO/WHO Req.	5.2	5.2	14.5	14.5	450	450	8.5	8.5	1333	1333	0.5	0.5	0.8	0.8	8.6	8.6	20	20
4-5 Years	61±0.5	5.9±0.4	21.6±2.3	21.3±0.4	393.6±157.8	344.0±166.8	10.9±0.9	10.2±0.8	1334.3±1.7	1335.9±19.9	0.63±0.1	0.5 6±0.1	1.45±0.0	0.38±0.0	6.9±1.9	5.2±0.2	27.0±4.2	25.5±3.5
% Req.	93.8	90.8	123.4	121.7	87.5	76.4	121.1	112.8	100.1	100.2	90	80	40.9	34.5	56.3	46.4	135	127.5
FAO/WHO Req.	6.5	6.5	17.5	17.5	450	450	9	9	1333	1333	07	07	11	11	112	112	20	20

Socio-cultural Diet

Table 5: Forbidden Foods, Number of Families that Forbid the Foods and Reasons why they are forbidden for Pre-school Children of NAUW Nursery School.(Urban)

Food items forbidden	Frequency	%	Reasons
Snail	5	2.5	Causes excessive salivation in children
Rabbit	6	3.0	No reason
Rat	45	22.5	No reason
Termite	12	6.0	Tabooed
Pork	10	5.0	Tabooed
Snake	120	60.0	Unclean animal causes unsteady movement in children
Dog	45	22.5	Tabooed
Duck	1	0.5	No reason
Lizard	150	75.0	Tabooed

Table 5 shows that list of forbidden foods for pre-school children from the urban school. A great percentage of families forbid the eating of lizard (75%); snake (60%); dog (22.5%) and rat (22.5%).

Table 3b: Forbidden foods, Number of Families that Forbid the Foods and Reasons why they are forbidden for Pre-school Children of Children of God School (Rural)

Food items Forbidden	Frequency	%	Reasons
Snail	65	32.5	Causes excessive salivation in children
Rabbit	5	2.5	No reason
Rat	20	10.0	No reason
Termite	15	7.5	No reason
Pork	10	5.0	No reason
Snake	50	25.0	Dirty animal causes unsteady movement in children
Dog	60	30.0	Tabooed
Duck	5	2.5	No reason
Lizard	65	32.5	No reason

Table 6 shows list of forbidden foods for the rural pre-school children. Some nutritious foods like termites, snail, pork and lizard were rejected as foods because of taboo.

Discussion

This study revealed that the highest percentage of stunting was 20% which was lower than UNICEF estimated for Nigeria for the year 2012 and similar with the results of Braja and Mishra (2007) for Indian pre-school children. However, there was high level of underweight, 84% and 80% for wasting in this study. This study was equally at variance with WHO estimate of 36.5% for Western Africa. The WHO observation that wasting is not very common in developing countries, except in nutritional energy situation implies that for the rural pre-school children could not meet the FAO requirement for energy. FAO (2007) had found out that low energy level lead to inactivity and short attention span. This could explain why chronic under-nutrition could prevent a child from achieving his/her potential both mentally and physically.

Urban pre-school children were obtaining values more than 100% of the FAO requirements for energy and most other nutrients. A balance should be struck between minimal requirement and excess. This is to avoid obesity. It has been observed that childhood obesity is an important predictor of adult obesity. About 1/3 of obese pre-school children becomes obese adult. Besides, the risk of hyperlipidemia hypertension and abnormal glucose intolerance is somewhat high among obese child (Martorell, 2001).

According to Pi-Sunyer (1993) consequences of obesity are usually as a result of cumulative stress within the body over a long a long period and may not be fully reversible with weight loss. However, Dietz (1993) observed that effective management of support for overweight, especially in children, could significantly reduce weight problem in adulthood. So, the higher food intake should be matched with higher activity level.

Janes *et al*. (1981) have shown that underprivileged children or poor children (children in low social class) lag behind in growth relative to standard while the privileged children (children in high social class) compared favorably well with the standard. The finding of this study shows that the rural pre-school children could not meet the FAO requirement for some nutrients while those from the urban whose parents were mainly highly placed civil servants met the FAO requirements. Education is a powerful weapon against malnutrition. Increased knowledge and skill will enable parents to earn high income and thus enhance household food security. It implies that there is need to improving women's education in particularly, which has been found to improve the quality of day-to –day care women give to their children.

The effect of cultural beliefs of food habits was revealed from this study. Nutritious animal food like termites,

snails, pork was forbidden by families of both rural and urban pre-school children. Most families in Nigeria cannot afford the regular animal based foods like milk, beef, liver etc. hence; most of their meals are plant-based whose nutrient bioavailability is questionable. Yet, the locally available and safe animal based foods are forbidden due to ignorance and cultural beliefs. The use of these forbidden foods can significance improves the nutritional status of pre-school children, especially those in the rural area.

Conclusion

This study has shown that socio-economic/cultural factors do affect child growth. Efforts should be made towards sustainable poverty eradication programme by the government. Proper nutrition awareness campaign of food values of food values of indigenous and affordable foods should be intensified.

Recommendations

1. Efforts should be made by proprietors of urban nursery schools to provide recreational activities to take care of excess weight that might start accumulating insidiously.
2. Government should put policy in place for improving women's education and hence their earning power. It should complement the more direct nutrition intervention such as school feeding programmes of rural schools and nutrition education; which are also recommended from the findings of this study.
3. Through nutrition education, mothers could use locally available and affordable foods like groundnut, green leafy vegetables etc to improve the nutritional status of their children. Energy value of food for pre-school children could be increased with necessarily increasing the bulk.

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Strategies for Enhancing Information Communication Technology (ICT) Awareness among Secondary School Home Economics Teachers in Minna Niger State

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Abstract

This study identified strategies for enhancing information communication technologies (ICT) awareness among secondary school Home Economics teachers in Minna, Niger State. Three research questions were answered. The population was made up of 100 Home Economics teachers from thirty (30) public and private secondary schools in the area. It was a survey and the instrument was questionnaire. Data were analyzed using frequency and percentage. Findings include, among others, the following problems that hinder use of ICT: inadequate funding, irregular power supply, high cost of ICT tools, and lack of computer literate teachers. The nine recognized benefits of ICT included easy access to information, exposure to new teaching techniques, making learning interesting and exciting, and information retaining enhancement. Findings showed 12 measures that could enhance ICT utilization. The measures include supply of electricity to schools, employing and training new Home Economics teachers on ICT, procurement of ICT facilities and establishment of efficient ICT centres. It was recommended that government should provide enough funds, supply electricity to schools, and make ICT learning compulsory at all level in schools.

Key words: ICT, Awareness, Secondary School, Home Economics, Teachers

Introduction

Information and Communication Technology (ICTs) are means of accessing, receiving, storing, transferring, processing and sending ideas, perception and information through computer and telecommunication facilities (Keziah, 2004). These technologies are changing the teaching and learning processes through their potentials as a source of knowledge and medium for the transmission of content. ICT have significantly changed the speed of production and distribution of knowledge. ICT have been employed in teaching and learning and it makes teachers more effective in their teaching and more organized in their work (Lau and Sim, 2008). The use of video and audio recordings help both teachers and students to review and

monitor information for better understanding. The internet can link teachers and student in different locations. Teachers can contact and discuss with one another through email and share ideas, experiences and resources. Students can communicate with one another or with their teachers via websites or email. These create opportunities for both teachers and students to interact closely and thereby improve teaching and learning processes at all levels and in various subject areas, including Home Economics in secondary schools.

Home economics is a field of knowledge and services primarily concerned with strengthening the family life and self reliance through educating the individual for family living and improving the services and goods used by families. It also deals with research on changing needs of the individuals and family, and tries to maximize their productivity so that they can be helped to adjust to changes and shape their future (Anyakoha, 2008). The aim of Home Economics education is to ensure optimal quality of life for individuals, families and communities.

ICT constitute important tools in Home Economic education as teachers and students are enabled to access and use information. For the teachers and students to avail themselves of the benefits of ICT, they need to be aware of the benefits so that they could strive for such benefits. Presently the ICT awareness levels of secondary school Home Economics teachers remain questionable. This situation could be attributed to several factors which include lack of ICT facilities in rural areas, and the fact that teachers were not exposed to ICT during their pre-service training. Jegede (2008) also reported that teachers' level of awareness and use of ICT depend on factors such as teachers' attitude and competence which impact ICT use.

It is necessary to evolve ways of enhancing the utilization of ICT by teachers and students. Adequate utilization of ICT will enhance teachers teaching efficiency and students learning capacities (Lau and Sim, 2008). This enhancement could be brought about when teachers and students have access to information and communicate effectively with one another. ICT utilization will involve employing all necessary teaching and learning technologies such as teachers' use of electronic visuals as teaching aid, and students' use of modern information storage devices to boost learning (Hannesy *et al*., 2010).

Purpose of the Study

The major purpose of this study was to investigate ICT awareness and utilization status of secondary school Home Economics teachers in Minna metropolis. Specifically, the study determined:

1. The extent to which home economics teachers are aware of the benefits of ICT in teaching and learning of Home Economics in secondary schools.
2. The problems of ICT utilization to teaching and learning of Home Economics in the secondary schools.

3 Measures that could enhance ICT utilization in teaching and learning of Home Economics in secondary schools.

Methodology

Research design: The study adopted a survey method. The area of the study was in Minna Metropolis in Niger State, Nigeria

***Population for the Study*:** Population for this study comprised 100 of the secondary school Home Economics teachers in Niger State. The teachers were selected from 30 (20 public and 10 private) secondary schools in Minna Metropolis Niger State. All the 100 teachers were involved in the study. There was no sampling. There were nine secondary school male teachers and 91 female teachers; five teachers had M.Ed and taught senior students, 58 had B. Ed taught both senior and junior students, 22 had NCE and taught senior and junior students while the remaining 15 had Diploma and taught junior students..

Instrument for Data Collection: Questionnaire was used for data collection. It was developed based on the specific purposes. It was face validated by two Home Economics lecturers in a tertiary institution. It was a five –point scale instrument.

Data Collection and Analysis Techniques: The instrument was administered by hand to 100 Home Economic teachers in their schools in Minna, Niger State. All the 100 copies of questionnaire distributed were properly completed and retrieved. Data collected were analyzed using frequency count and percentages.

Findings

The following findings were made:

A. **Teachers' ICT Awareness:** Related findings are summarized in Table 1.

Table 1: Percentage Responses on the Teachers' Awareness of Benefits of ICT in Teaching and Learning of Home Economics in Secondary Schools.

S/N	Benefits of ICT in Teaching and Learning Home Economics	**Awareness(%)**	**Unawareness(%)**
ICT**:**			
1	facilitates interactions between teachers and students in Home Economics education.	32	68
2	makes for easy access to information	58	42
3	exposes teachers to new teaching techniques.	60	40
4	makes learning exciting and interesting.	80	20
5	enable Home Economics students to acquire necessary concepts with ease.	80	20
6	promote active participation of		

	students in the learning process	70	30
7	enhance retention of learning.	90	10
8	facilitate lesson presentation and saves the amount of time teacher spend on the teaching of a topic	85	15
9	discourage rote learning	85	15

Table 1 reveals that the teachers' awareness of the listed benefits of ICT in teaching and learning of Home economics in secondary schools ranged from 32 to 90%. This implies that the teachers were aware that with ICT, information is easily accessible, learning becomes exciting and interesting, and it enables Home Economic students to acquire necessary concepts with ease. The table reveals that despite the teachers' awareness of some of the benefits, many of the teachers (68%) had not realized that ICT increases interaction between students and teachers.

B. Problems of ICT utilization in teaching Home Economics: The findings are summarized in Table 2

Table 2: Percentage Responses on the problems of ICT utilization in Teaching and learning of Home Economics in Secondary Schools.

S/N	Problem of ICT utilization in Teaching and Learning of home economics	Problem(%)	Not problem(%)
1	Teacher's lack of competence in handling ICT.	70	30
2	Inadequate time for training in ICT	65	35
3	Poor power supply	80	20
4	Poor quality hardware	55	45
5	Phobia for ICT and its Utilization	65	35
6	Inadequate technical support for Teachers	80	20
7	Teachers' resistance to change and negative attitude towards the new.	28	72
8	Lack of incentives and motivation for teachers	30	70
9	Poor funding to procure ICT facilities	80	20
10	Teachers consider themselves old to learn about ICT	40	60
11	Lack of adequate awareness about ICT by school administrator	60	40
12	Students negative attitude towards ICT	70	30
13	High cost of ICT facilities	90	10

Table 2 reveals that 90 percent of the teachers recognize high cost of ICT facilities as a problem hindering the awareness and utilization of ICT. Only 10 percent of the teachers were unaware of the problem posed by high cost. This implied that many teachers would utilize ICT if the facilities were made available and cheap. The table also revealed that many of the teachers were aware that teachers' lacks competence in handling ICT, poor power supply, inadequate technical support for teachers and poor funding to procure ICT facilities hinder the utilization of ICT.

C. Measures for enhancing ICT utilization: Related findings on the measures are summarized in Table 3

Table 3: Percentage response on the measures for enhancing ICT utilization in Teaching and Learning of Home Economics in secondary schools**.**

S/N	Measures for Enhancing ICT Utilization in Teaching and Learning of Home Economics in Secondary Schools.	Measure(%)	Not measure(%)
1	Employing and training new home economics teachers on ICT	70	30
2	Allotting enough time for teachers to practice on ICT	87	13
3	PTA to organize and provide fund for the Procurement of ICT facilities/tools.	40	60
4	Curriculum of Home Economics should be reviewed to include the training of teachers and students on the use of ICT	90	10
5	ICT implementation in schools should be Taken serious by the government	90	10
6	Power supply that enhances the use of ICT should be regular	90	10
7	Government should provide more fund for ICT development in secondary schools	75	25
8	Hiring ICT experts outside the school system to give informal lecture to teachers and students	85	15
9	Establishing efficient ICT centres capable of servicing large number of students from nearby school	85	15
10	Creating proper awareness on the benefits of ICT in development among teachers	70	30
11	Involving of teachers of home economics in planning and discussion on issues relating the use of ICT	68	32
12	Affording home economics teachers opportunities for in-service training on ICT	80	20

Table 3 shows that majority (90%) of the teachers believed that a curriculum that includes training of teachers and students on the use of ICT, provision

of regular power supply and taking ICT implementation in schools serious would enhance utilization of ICT in teaching and learning home economics. It could also be observed from the table that providing incentives such as involving home economics teachers in planning issues relating to ICT would promote ICT utilization among teachers. However, many of the teachers (60%) had not realized that Parents Teachers Associations could play vital roles in enhancing ICT utilization.

Discussion

Table 1 shows that teacher awareness of the benefits of ICT in teaching and learning of Home Economics in secondary school is significantly high. An average of 65 percent of the teachers are aware that ICT makes learning exciting and interesting, reduces the time teachers would ordinarily spend on a topic, and enhances retaining of knowledge while at the same time discourages learning by role. The findings in Table 1 is consistent with the observations made by Jenkin, Mimbs and Tracy (2009) that awareness requires that a person have understanding of how ICT influences their day to day life as well as the large society. Similarly, Ho and Kitty (2010) had reported that despite the large benefit that comes from the use of ICT, little progress had been made in the adoption of ICT in Home Economics Education in Hong Kong. Lau (2005) also stressed in his paper that little success had been made in the incorporation of ICT in Home Economics. Boakye and Banini (2008) measured secondary school teachers' readiness for use of ICT from schools in Benin, Cameroon, Ghana and Mali and reported that, of the teachers questioned, 71 percent had never used the computer in class. In exploring the extent of ICT adoption in Malaysia, Lau and Sim (2008) found that teachers agree that use of ICT makes them more effective in their teaching and more organized in their work.

Table 2, revealed that factors such as poor power supply, inadequate technical support, teacher's lack of competence in handling ICT, resistance to change on the part of teachers, poor power supply in Nigeria and negative attitude towards the new, especially among the people of the area of study, slow down progress in both awareness and utilization of ICT. The findings are consistent with those of Jenkins, Mimba and Tracy (2009). Jenkins *et al* reported that unstable power supply was a hindering factor in computer literacy in developing nations. Adedoyin (2008) identified some problems associated with the use of ICT in Nigeria as poor funding by the governments, lack of knowledge and expertise in the use of the new technology and poor condition of infrastructure especially electricity. Also, Farrel and Shafika (2007) highlighted that challenges facing ICT operations in Africa include lack of ICT equipment and lack of affordable access to connectivity with acceptable bandwidth. This implies that a

regular supply of affordable electricity with improve computer literacy and utilization of ICT in Niger State.

It could be seen in table 2 that high cost of ICT facilities, poor funding to procure ICT facilities as well as lack of awareness about ICT by school administration constitute obstacles to the use of ICT in Home Economics in Minna. ICT facilities are imported into Nigeria at costs that are often beyond the reach of an ordinary citizen who earns less than a dollar a day. To reduce the cost of computers, government can reduce or remove import duties on computers and its accessories. The government should also create and fund public ICT centres at different rural and urban areas to help the citizens have access to ICT facilities. Erjemue, Lilly and Igbemi (2010) in her work observed that high cost of ICT facilities was a barrier to the use of ICT.

Measures for enhancing utilization of ICT are listed in Table 3. The result shows that regular power supply, regular training programmes in ICT for Home Economic teachers and establishment of telecentres across schools will enhance awareness and utilization of ICT. The findings lend support to that made by Olurankinse (2007). Olurankinse summarized that a home maker without ht e basic knowledge of ICT and its operation would be unable to utilize these services. Aburime and Uhomoibhi (2010), in their work to determine the impact of technology and culture on Home Economics and nutrition science education is developing countries found that special requirement for application are important for successful establishment and use of information systems in higher education. In a study to explore factors that influence classroom use of ICT in Sub-Saharan Africa, Hannesy et al. (2010) noted that introducing technology into schools is largely dependent on the availability and accessibility of ICT resources. In addition to power supply, the measures listed in table 3 are important for ICT utilization.

Conclusion

High level of awareness of the use and benefits of information communication technologies (ICT) in teaching and learning is necessary for the proper utilization of ICT in education. ICT awareness and subsequent utilization among secondary school Home Economics teachers in Minna is inadequate. This places their students at the risk of receiving little or no exposure to the use and benefits of ICT facilities. There is need, therefore, for policies and regulations to enhance ICT awareness among teachers. The policies should require governments and the private sector to employ and train new teachers on ICT, provide funds for ICT development in secondary schools, provide regular power supply, and create proper awareness on the benefits of ICT in development among teachers and to provide other programmes that will promote ICT awareness among teachers. Without these, the benefits of ICT will continue

to elude both the teachers and students.

Recommendations

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

- Government should provide more funds for procuring ICT facilities and maintaining available ones.
- Electric power supply should be provided
- There should be regular training programmes on ICT for teachers.
- Government should make ICT learning compulsory at all levels in schools.

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Prevalence and Assessment of the management procedures of severely malnourished children (0-5 years) in Enugu State University Teaching Hospital, Enugu State, Nigeria

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Abstract

This study investigated the prevalence and management procedures of severely malnourished children (0-5 years) in Enugu State Teaching Hospital (ESUTH), Enugu State. Sixty (60) respondents (medical and paramedical team) were used for the study. Questionnaire was used for data collection. Data collected were analyzed using frequencies and percentages. Results revealed that the cases of marasmus were 46%, marasmic-kwashiorkor (35%) and kwashiorkor (20%). More than half (61%) of the respondents indicated emergency care facilities were used in the management of severely malnourished children, 35.1% and 81.7% reported growth charts and anthropometric facilities were used. There is need to improve the dietetic practices of the hospital for efficient management of severely malnourished children.

Keywords: Dietetics, Malnutrition, Prevalence, Assessment, Children, Kwashiokor, Marasmus

Introduction

Globally, PEM continues to be a major health burden in developing countries and the most important risk factor for illnesses and death especially among young children (Muller & Krawinkle, 2005). The World Health Organization estimates that about 60% of all deaths, occurring among children aged less than five years in developing countries, could be attributed to malnutrition (Faruque *et al.*, 2008). The improvement of nutrition therefore, is the main prerequisite for the reduction of high infant and under five mortality rates, the assurance of physical growth, social and mental development of children as well as academic achievement (Anwar, Khomsan, Sukandar, Riyadi & Mudjajanto, 2010). Sub-saharan Africa bears the brunt of PEM in the world. On the average, the PEM associated mortality in sub-Saharan Africa is between 25 and 35% (Gernaat, Dechering & Voorhoeve, 1998). In Nigeria, 22 to 40% of under-five mortality has been attributed to PEM (Ibekwe & Ashworth, 1994). PEM is also associated with a number of co-morbidities such as lower respiratory tract infections including tuberculosis, diarrhea diseases, malaria and anaemia (Le Rouxl *et al.*, 2010). These co-morbidities may prolong the

duration of hospital stay and death among affected children.

The effects of malnutrition on human performance, health and survival have been the subject of extensive research for several decades and studies show that malnutrition affects physical growth, morbidity, mortality, cognitive development, reproduction, and physical work capacity (Pelletier and Frongillo, 2002). Malnutrition is an underlying factor in many diseases in both children and adults, and it contributes greatly to the disability-adjusted life years worldwide (Murray and Lopez, 1996). Malnutrition is particularly prevalent in developing countries, where it affects one out of every three preschool-age children (United Nations Sub-Committee on Nutrition, 2004). Malnutrition is a condition that develops when the body gets too little or too much of one or more of the micro and macronutrients it needs to maintain healthy tissue and organ functions, which affects the body. Protein-energy malnutrition (PEM) is defined as a range of pathological conditions arising from coincident lack in varying proportion of proteins and calorie occurring especially in infants (Weller & Wells, 1987). PEM can be mild, leading to underweight and growth retardation or severe, presenting as marasmus, kwashiorkor or both (marasmic-kwashiorkor). Marasmus can be defined as a severe and chronic malnutrition producing a gradual wasting of tissues owing mainly to insufficient or unassimilated energy-giving food and at times combined with protein lack, occurring especially in infants (Hendrickse, 1990). Kwashiorkor is a condition of severe protein malnutrition occurring mainly in children of under privileged population (Weller & Wells, 1987). In kwashiorkor, adequate carbohydrate consumption and decreased protein intake lead to decreased synthesis of visceral proteins (Scheinfield & Mokashi, 2010).It is predominantly seen in older infants and young children, and affects both sexes. Children with Kwashiorkor are apathetic, weak and inactive. The hair and skin change to lightly or brownish colour. Hepatomegaly (enlargement of the liver) occurs, ocular signs of vitamins A deficiency are common, and anorexia (loss of appetite) and growth failure are present.

WHO (1998) also noted that successful management of children with severe malnutrition is divided into three phases which include: initial treatment, rehabilitation and follow up. In most cases, this sequence is not being followed because of one or more problems peculiar to hospitals or residential facilities. In ESUTH, the management of severely malnourished children is yet to follow these phases though it has improved in recent times.

Purpose of the study

The general purpose of the study was to investigate the prevalence and management procedures of severely malnourished children (0-5 years) in Enugu State University Teaching Hospital (ESUTH), Enugu State.

Specifically, the study determined the

(1) Prevalence of severely malnourished children (0-5 years) in ESUTH.
(2) Management procedures of severely malnourished children (0-5 years) in ESUTH.

Methodology

Area of study: The area of study is Enugu State. Enugu, the capital city of Enugu State, is approximately 2½ driving hours away from Port Harcourt, where coal shipments exited Nigeria. The average temperature in this city is cooler to mild (60 degrees Fahrenheit) in its cooler months and gets warmer to hot in its warmer months (upper 80 degrees Fahrenheit) and very good for outdoor activities with family and friends or just for personal leisure. Enugu has good soil-land and climatic conditions all year round, sitting at about 223 metres (732 ft) above sea level, and the soil is well drained during its rainy seasons. ESUTH also known as Parklane hospital, Enugu. It is a state government hospital which has staff strength of 41 medical doctors, 75 nurses, 3 dietitians and 174 other paramedical staff. The study adopted the survey design.

***Population of the study*:** The population of this study consisted of seventeen medical doctors, forty nurses and three dietitians. A total number of 60 subjects were used for the study. They were from the Pediatric wards and the Out-patient Clinic of the hospital. The subjects were purposefully selected because the size of the population that has the particular set of characteristics (i.e those that deal with infants and children under five years) in the hospital is very small. Therefore, if a small number of units were not included in the sample that is investigated, it may be felt that a significant piece of the puzzle was missing.

Instrument for Data Collection: The instrument used for this study was a structured and a validated questionnaire. This was developed based on extensive review of literature and the objectives of the study The questionnaire contained information on distribution of forms of malnutrition, causes of severe malnutrition, diseases associated with PEM and treatment and management procedures of severely malnourished children. Face validation of the questionnaire was performed by some Academic staff of the Department of Home Science, Nutrition and Dietetics, University of Nigeria, Nsukka.

Data Collection and Analysis Techniques: Seventy questionnaires were distributed and sixty questionnaires were retrieved which is 85.7% of the questionnaires distributed. Data was entered on Excel spreadsheets and analyzed using descriptive statistics: frequencies and percentages.

Findings of the study

1. **Distribution of the different forms of Protein-Energy Malnutrition (PEM) in ESUTH.**

The result showed that the prevalence of marasmus was the highest (46.0%) followed by marasmic-kwashiorkor (35.0%) while kwashiorkor accounts for only 20.0%.

2. **Causes of Severe Malnutrition**

Table 2: Percentage Responses on causes of Severe Malnutrition

Causes	Strongly agree		Agree		Neither agree nor disagree		Disagree		Strongly disagree		Total	
	F	%	F	%	F	%	F	%	F	%	F	%
Poverty	49	80.0	10	16.7	1	1.7	-	-	-	-	60	100
Infection	21	35.0	49	65.0	-	-	-	-	-	-	60	100
Early weaning	3	5.0	52	86.7	5	8.3	-	-	-	-	60	100
Ignorance	3	5.0	52	86.7	5	8.3	-	-	-	-	60	100
Single parenthood	-	-	13	21.7	28	46.7	4	6.7	15	24.9	60	100
Carelessness	16	26.7	17	28.7	15	25.0	8	13.3	4	6.7	60	100

Table 2 shows the respondents' opinion on the causes of severe malnutrition in children admitted in the hospital. According to the respondents, the factors responsible for PEM included early weaning (86.7%), poverty (80.0%), ignorance (71.7%), infection (65.0%), carelessness (28.0%) and single parenthood (21.7%).

3. **Diseases that Usually Accompany PEM**

Table 3: Percentage Responses of Diseases that Usually Accompany PEM

Causes	Strongly agree		Agree		Neither agree nor disagree		Disagree		Strongly disagree		Total	
	F	%	F	%	F	%	F	%	F	%	F	%
Gastrointestinal infection	54	90.0	4	6.7	2	3.3	-	-	-	-	60	100
Diarrhoea	48	80.0	11	18.3	1	1.7	-	-	-	-	60	100
Dysentry	-	-	41	68.4	17	28.3	-	-	-	-	60	100
Anaemia	-	-	8	13.3	50	83.3	2	3.3	-	-	60	100
Malaria	-	-	8	13.0	51	85.0	2	3.3	1	1.7	60	100
Tuberculosis	-	-	10	16.7	45	75.0	3	5.0	2	3.3	60	100
Measles	-	-	4	6.7	45	75.0	9	15.0	2	3.3	60	100
Retroviral infection	-	-	43	71.7	14	23.0	2	3.3	1	1.7	60	100

Sepsis	-	-	43	71.7	43	71.7	-	-	-	-	60	100
Respiratory infection	-	-	46	76.6	27	45.0	9	15.0	3	6.7	60	100

Table 3 presents the respondents' indication on the infectious diseases commonly seen in admitted severely malnourished children. These infectious diseases included gastrointestinal tract infection (90%), diarrhea (80%), respiratory tract infection (96.6%), retroviral infection (71.7%), sepsis (70.0%) and dysentery (68.4%).

4. Treatment/Management Procedures of Severely Malnourished Children

Table 4: Treatment/Management Procedures of Severely Malnourished Children

Treatment/management Procedures	**F**	**%**
a. Place of admitted severe malnourished child		
Children's general ward	35	58.3
Emergency unit	24	40.0
Nutrition unit	1	1.7
Total	60	100.0
b. First line of management		
Intravenous injection	1	1.7
Blood transfusion	3	5.0
Dietary prescription	56	93.3
Total	60	100.0
c. Treatment of hypoglycaemia		
50ml of 10% glucose	53	88.4
Formula diet by mouth	4	6.7
Intravenous feeding with glucose solution	3	5.0
Total	60	100.0
d. Treatment of hypothermia		
Covering the child with extra cloths	28	46.7
Bathing once a day	2	3.3
Keeping the child from window side	8	13.3
All of the above	22	36.7
Total	60	100
e. Treatment of dehydration		
Oral feeding using ORS	18	30.0
Intravenous infusion	5	8.3
Both ORS and intravenous infusion	37	61.7
Total	60	100.0
f. Treatment of septic shock		
Introduction of broad spectrum antibiotic	48	80.0
Minimizing frequency handling	8	13.3
Oral feeding using ORS	3	5.0

Use of nasogastric tube feeding	1	1.7
Total	60	100.0

Table 4 shows the treatment/management procedures being practiced in ESUTH. According to the responses obtained, 58.3% of the admitted severely malnourished children were kept in the children's ward while 40.0% were in emergency ward. Majority (81.4%) of the respondents went first for dietary prescription. In the treatment of hypoglyceamia, 88.4% of the respondents indicated that they administer 30ml of 10% glucose while 6.0% introduced F-75 diet orally.

In the treatment of hypothermia, a greater percentage of the respondents (46.7%) reported that their management strategy was to cover the child with extra clothes, hat and a pair of stockings while 80.0% of the respondents indicated that their first approach in treatment of septic shock was immediate introduction of broad spectrum antibodies.

5. Dietary Management of Severely Malnourished Children

Table 5: Dietary Management of Severely Malnourished Children

Treatment/management Procedures	**F**	**%**
a. Use of formula diets (F-75 and F-100)		
Yes	53	88.3
No	1	1.7
Occasionally	6	10.0
Total	60	100.0
b. Prescription of the meal		
Dietitians	5	8.3
Doctors	53	88.3
Nurses	2	3.3
Total	60	100.0
c. Encouragement of the use of feeding bottles		
Yes	7	11.7
No	51	86.0
Occasionally	2	3.3
Total	60	100.0
d. Keeping record of the children's food intake		
Yes	54	90.0
No	2	3.3
Occasionally	4	6.7
Total	60	100.0
e. Encouragement of mother to enrich the children diet		
Yes	46	76.7
No	-	-
Occasionally	14	23.3

	Total	60	100.0
f.	**Encouragement of the mothers to continue breastfeeding**		
	Yes	56	93.3
	No	-	-
	Occasionally	4	6.7
	Total	60	100.0
g.	**Use of road to health chart**		
	Yes	1	1.7
	No	54	90.0
	Occasionally	5	8.3
	Total	60	100.0

Table 5 shows the dietary treatment/management procedures practiced in ESUTH. About 88% of the respondents indicated that the two formula diets (F-75 and F-100) were always given at the initial rehabilitation phase. Another 88% showed that the meals of the severely malnourished children were prescribed by the doctors and 50% showed that mothers were responsible for the meal preparation. Majority (86.0% and 90.0%) of the respondents discouraged the use of feeding bottles and kept records of children's food intake respectively. A total of 76% of the respondents indicated that mothers were encouraged to enrich their children's diet with vitamin mix. Majority (90.0% and 93.3%) of the respondents encouraged mothers to continue breastfeeding and also the use of road to health chart respectively

Discussion

The result of the study showed that the prevalence of marasmus was the highest clinical type of malnutrition among the subjects. This is similar to a work done by Mbah and Eme (2012) in Usman Danfodiyo University Teaching Hospital, Sokoto and another work done by Hamidu, Salami, Ekanem & Hamman (2003) in University of Maiduguri Teaching Hospital but dissimilar to a study done in University of Port-Harcourt Teaching Hospital where it was found that marasmic-kwashiokor formed the highest clinical type of malnutrition among the subjects (Jamabo & Onwukwe, 2010). More than a three quarter of the respondents (80.0%) opined that poverty is a major cause of malnutrition. Others reported that infection, early weaning and carelessness were other causes of malnutrition. This is in line with the report from WHO (2000) which listed poverty, family problems, early weaning practices as the major contributing factors to malnutrition. Diseases such as GIT infection, diarrhea, dysentery, HIV and sepsis was reported in this study as strong predisposing risk factors of malnutrition in children. According to Saloujee, De Maajer, Garenne and Kahn (2007) such infections as mentioned too, including HIV, also

contribute to the development of severe malnutrition, but traditional risk factors such as poor nutrition, parental disadvantage and illness, poverty, and social inequity remain the important contributors to the prevalence of severe malnutrition. The management procedures of malnutrition among the subjects ranged from use of formula diets (F-75 and F-100), blood transfusion, treatment of hypoglyceamia, hypothermia, use of ORS to improvement of mothers' ability in child feeding and care practices. According to Ubesie and Ibeaziakor (2012) there are packaged high-energy therapeutic foods like F75 and F100 being distributed by non-governmental organizations such as UNICEF for the management of children admitted for severe PEM. According to WHO (2000), F-75 is considered the "starter" formula, and F-100 the "catch-up" formula. The designations mean that the product contains respectively 75 and 100 kcals per 100 ml. Both are very high in energy, fat, and protein, and provide a large amount of nutrients. Similar preparations are made at the various hospital settings in Nigeria and go by names such as high-energy mixture (HERMIX), Kwash pap in Nigeria. We do not need to wait for our children to develop severe PEM before giving them food. Mothers can be taught how to prepare such mixtures at home for their children using mentor mothers. Also mothers can encouraged to exclusively breastfeed their infants because of its numerous advantages in the prevention of children to be severely malnourished.

Conclusion

It can be thus concluded that the marasmus is the highest form of malnutrition among the children admitted in the hospital. The causes of malnutrition were poverty, infection and carelessness of the caregivers/parents. Gastrointestinal tract infection and diarrhoea were major the diseases that accompanied PEM among the patients. Management and treatment of malnutrition was a team work which all the health workers i.e the doctors, nurses and dietitians played significant roles.

Recommendations

Based on the findings, the following are recommended:

1. Individuals and communities should be made aware of available health services and encouraged to make adequate use of them.
2. Members of various local communities and villages should be encouraged to partake in mass health education on personal/environmental hygiene
3. Mothers should be taught good weaning and breastfeeding techniques and its importance.

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Female Adolescents' Awareness of Reproductive Concepts and Issues

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Abstract

This paper focused on female adolescents' awareness of reproductive concepts and issues. It adopted a survey research method. The sample of 200 girls was randomly selected from a population of 1000 female adolescents from three secondary schools in Nsukka Urban. A structured questionnaire was used for data collection. The findings indicate among other things, that these female adolescents had a high level of reproductive health knowledge although some of them had low knowledge on issues such as sexual intercourse, female infertility, female sexual drives, sexuality in marriage and sexual fantasy. A greater percentage of the respondents had a good knowledge on the impact of nutritional practices on reproductive health. There is need for programmes to educate adolescents on reproductive health topics such as sexual maturity, female infertility and sexuality in marriage.

Key words: Adolescents, Awareness, Reproductive, Concepts, Issues

Introduction

Adolescents are persons in the age range of 10 and 19 years (Freedman, Khan, Serdula, Dietz, Scrinivasan & Berenson, 2004). Adolescence is a time when teenagers begin to explore and assert their personal identities. During this developmental period, teenagers engage in a process of searching for where they fit in with peers and society at large. It is common for adolescents to have an unstable sense of self and try out new personal labels and associate with various peer groups. Additionally, adolescents might struggle to define their sexual and gender identity during the teenage years. Adolescence is a period of increased risk-taking and therefore susceptibility to behavioral problems at the time of puberty and new concerns about reproductive health (United Nation Fund for Population Activities, 1998). Reproductive health, therefore, implies that people are able to have a responsible, satisfying and safer sex life and that they have the capability to reproduce and the freedom to decide if, when and how often to do so (Stidam, Moreau and Trussell, 2012). One interpretation of this implies that adolescents ought to be informed of and to have access to safe, effective, affordable and acceptable methods of birth control; also access to appropriate health care services of sexual, reproductive medicine and implementation of

health education programs to stress the importance of women to go safely through pregnancy and childbirth could provide couples with the best chance of having a healthy infant (Stidam , Moreau and Trussell, 2012). On the other hand individuals do face inequalities in reproductive health services. Inequalities vary based on socioeconomic status, education level, age, ethnicity, religion, and resources available in their environment. It is possible for example, that low income individuals lack the resources for appropriate health services and the knowledge to know what is appropriate for maintaining reproductive health (Stidam, Moreau and Trussell, 2012). According to the WHO, reproductive and sexual ill-health accounts for 20% of the global burden of ill-health for women, 14% for men and 16% for adolescents (WHO, 2008).

Majority of adolescents still do not have access to information and education on sexuality, reproductive health and nutrition, nor do they have access to preventive and curative service to reproductive health. Providing adolescents with access to seek information, education and services on reproductive health is thus the main challenge for future programmes. The status of girls and women in society and how they are treated or mistreated is a crucial determinant of their reproductive health. Educational opportunities for girls and women powerfully affect their status and the control they have over their own lives and their health and fertility. The empowerment of women is therefore an essential element for health (International Population Conference, 1994). In some countries, complications of unsafe abortion are leading causes of death among teenage women. On his study of causes of deaths among under 19 Nigerian women, Shane (1997) found that 72 percent of all deaths. He also found in the same study young women who survive unsafe abortion may suffer complication leading to infertility (Shane, 1997).

A study on rural adolescents reported that school children in the rural area of the Mtwara region in Tanzania lack credible knowledge about safe sex (Mushi, Mpembeni and Jahn, 2007). Using a sample of 2,749 including girls and boys, a cross-sectional survey was conducted among 'in school' and 'out of school' unmarried adolescents 10 to 19 years old (Kazaura & Masatu, 2009). They reported that more than 32% of adolescents were sexually active, which indicated the importance of sexual education for girls and boys in the school environment. Many young people become sexually active at an early age, yet lack fundamentally important knowledge and skills. Bearinger, Sieving, Ferguson & Sharma (2007) recognized that boys and girls needed equal knowledge concerning reproductive health to reduce risk behaviors and to promote sexual health.

Pregnancy in unmarried adolescents poses serious problems

because it comes at a time when the mother is not yet ready for parenting physically, mentally or financially. In addition, becoming pregnant at a young age also increases risks to the mother and child. The first priority is to provide knowledge about reproductive health; the second is to educate this young generation to make appropriate decisions for their daily life. These actions will help to increase educational opportunities for girls and boys and encourage girls to stay in school longer.

Purpose of the study

The general purpose of the study was to determine female adolescents' awareness of reproductive concepts and issues.

Specifically, the study determined adolescents' awareness levels of

(1) reproductive knowledge related concepts.
(2) implications of sexual behaviours
(3) effects of nutritional practices on reproductive health knowledge of the respondents.

Methodology

Study Area: This study was carried out in Nsukka in Nsukka Local Government Area. Nsukka is an urban area of about 70km North of Enugu, the state capital. It is the headquarters of Nsukka L.G.A. The vegetation of Nsukka is purely Guinea Savannah, with an average daily temperature of 21^{o}C. According to the National Population Census (2006), the population of Nsukka is about 309,633. It is a University town with administrative establishments and apart from workers in the university; most of the people living in the urban area are civil servants, petty traders and business men. There were seven secondary schools in the area as at the time of the study.

Population for the study: The population for this study consisted of adolescent girls in Senior Secondary Schools within Nsukka urban. The population was made up of female adolescents (10-19 years) in three secondary schools in Nsukka urban that were selected randomly from seven senior secondary schools by balloting. These were Urban Girls Secondary School (U.G.S.S.), Nsukka, St. Cyprian Special Science School, Nsukka (S.C.S.S.S) and Model Secondary School, Nsukka (M.S.S).

Sample for the study: The sample size was obtained by making use of 20% of the population size of the female adolescents from each school. The female population within the age ranges of 10-19 years in U.G.S.S was 200 students, it was 500 and 300 for S.C.S.S.S and M.S.S respectively. The sum of 20% of the population size of the female adolescents from the three senior secondary schools was 200. All the respondents from their classes were selected using a balloting method without replacement. All the two hundred (200) respondents returned their completed questionnaires.

Instrument for Data collection: A structured questionnaire was the instrument used for data collection. The questionnaire was validated by

five lecturers in the Department of Home Science, Nutrition and Dietetics, University of Nigeria, Nsukka. Information in the questionnaire include background information of the respondents, knowledge on reproductive health topics, awareness of implication of sexual behaviours and knowledge of effect of nutritional practices on reproductive health. The instrument was made up of 30 structured items. The respondents were expected to provide information on the subject based on a four-point scale was as follows: strongly agree (4), agree (3), disagreed (2) and undecided (1).

***Data Collection and Analysis Techniques*:** Two hundred copies of questionnaire were distributed and all were retrieved. Data was analyzed using for mean and standard deviation.

Findings of study

1. ***Background data of the respondents:*** More than half (68.7%) of the respondents were within the age range of 16 and 19 years and a few of them (4.5%) were within the age range of 10-12 years. Majority of the respondents (94.5%) were single. Less than half (46.0%) of the respondents had a household size of 4 to 6 members while 9.5% of them had a household size of 1 to 3 members.

2. Level of Adolescents' Awareness of Reproductive Health Concepts

Table 1: Means Responses on levels of adolescents' awareness on Reproductive Health Concepts

S/No	Reproductive health concepts	Mean$\bar{x}$	SD	Remarks
1	Love and marriage	3.22	1.14	High level
2	Sexual intercourse	1.74	0.08	Low level
3	Dating	2.81	9.40	High level
4	Menstruation	3.04	5.40	High level
5	Female reproductive system	2.51	0.90	High level
6	Female frigidity or infertility	1.64	6.10	Low level
7	Pregnancy	2.91	4.10	High level
8	Maternal mortality	1.12	0.51	Low level
9	Maternal morality	1.65	0.63	Low level
10	Birth control and contraceptives	2.72	0.41	High level
11	Venereal or sexual transmitted diseases	2.61	1.21	High level
12	Abortions	1.31	0.91	Low level
13	Female sexual drives	1.04	2.11	Low level
14	Sexuality in marriage	1.67	0.41	Low level
15	Sexual fantasy	1.69	0.43	Low level
16	Sexual maturation	2.51	1.46	High level
17	Use of condom	2.63	0.41	High level
18	Ante-natal care	2.72	2.11	High level

19	Post-natal care	1.79	0.21	Low level
20	Safe child delivery	2.53	0.41	High level
21	Family Planning	2.90	1.21	High level

Table 1 shows the mean ratings on level of awareness on reproductive health concepts of the respondents. The respondents had a high level of knowledge on love and marriage (3.22±1.14); dating (2.81±9.40); menstruation (3.04±5.40); female reproductive system (2.51±0.90); pregnancy (2.91±4.10); birth control and contraceptives (2.72±0.41) and a low level of knowledge on sexual intercourse (1.74±0.08); female frigidity (1.64±6.10); maternal mortality (1.65±0.63); female sexual drives (1.04±2.11) and post-natal care (1.79±0.21).

3. Awareness of Implications of Sexual Behaviours

Table 2: Means ratings on Respondents' Awareness of Implication of Sexual Behaviours.

S/No	Awareness indicators	Mean $\bar{x}$	SD	Remarks
1	Do you acknowledge uncontrolled or indiscriminate sex can have serious and adverse effect?	2.731	0.431	Agreed
2.	Are you aware that unwanted pregnancy can be as a result of indiscriminate sex?	3.251	0.212	Agreed
3.	Are you aware that complications arising from abortion can cause permanent infertility and sometimes even death?	3.014	1.213	Agreed
4.	Are you aware that contraction of sexually transmitted disease can cause impotency/infertility and even death	2.815	1.415	Agreed
5.	Are you aware that HIV/AIDS which is a sexually transmitted disease is still incurable?	3.013	1.101	Agreed

Table 2 shows that the respondents are aware of uncontrolled or indiscriminate can have serious and adverse effect (2.73±0.43); unwanted pregnancy can be a result of indiscriminate sex (3.25±0.21); complications arising from abortion can cause permanent infertility and sometimes death (3.01±1.21); contraction of sexual transmitted disease can cause impotency (2.81±1.41) and HIV/AIDS is incurable (3.01±1.10).

4. Awareness of the effect of Nutritional practices on Reproductive Health Knowledge

Table 3: Means Responses on Respondents' Awareness of the effect of Nutritional practices on Reproductive Health Knowledge of the respondents

S/No	Indicators of Awareness	Mean ($\bar{x}$)	SD	Remarks
1.	Good nutrition is important for the maintenance of good body weight in adolescents	3.72	0.42	Agreed
2.	Good nutrition practices prepares adolescent for parenthood	3.61	0.53	Agreed
3.	Adequate diet is required for proper functioning of sex hormones	3.54	0.33	Agreed
4.	Poor nutrition may lead to maternal and neonatal morbidity and mortality at the point of delivery	2.81	1.21	Agreed
5.	Good nutrition can help in the health of an unborn child	3.91	0.83	Agreed

Table 3 shows that the respondents had a good knowledge on the importance of good nutrition for the maintenance of good body weight (3.72±0.42); good nutrition practices prepares adolescent for parenthood (3.61±0.53); adequate diet is required for proper functioning of sex hormones (3.54±0.33); poor nutrition leads to maternal and neonatal morbidity and mortality at the point of delivery (2.81±1.21) and good nutrition can help in the health of an unborn child (3.91±0.83).

Discussion

The findings of the study indicate that an appreciable proportion of the respondents had good knowledge on reproductive health. The respondents displayed a high level of knowledge on issues of reproductive health such as love and marriage, dating, menstruation, pregnancy, use of condom etc. This was dissimilar to the findings of a work done by Prateek (2011) in an urban slum of Mumbai, India. Their findings revealed that more than half of the secondary school children had poor knowledge on reproductive health. This disparity may be explained by the cultural differences in the two regions. Indian culture seems to have inhibited acquisition of knowledge by adolescents on their sexuality. Sexuality is a natural and intrinsic part of an individual's personality and needs to be nurtured and developed like all other facts of life. This fact is completely ignored by parents and teachers in our society, because they themselves do not feel comfortable in discussing these issues with the youngsters, and moreover they themselves may not be very knowledgeable on this subject. Indians have been shown to have inhibition about discussing and expressing themselves on sex-related issues. They rather discourage the children from any form of sexual expression and

encourage them to hide their sexuality (Kotwal, Gupta and Gupta, 2008). For instance In the Indian socio-cultural setting sex is a taboo, and hence the society does not provide them with channels for being appropriately educated in this area. The adolescents generally do not get any advice and guidance regarding, various aspects like puberty, menarche, reproductive health, HIV/AIDS from their parents and teachers or any other groups of professionals (Kotwal, Gupta and Gupta, 2008). To date, condoms remain the single most effective means to reduce the transmission of sexually transmitted infections (STIs) and to protect against HIV (Weller and Davis-Beaty, 2006). A number of studies have shown an association between increased condom use and declined rates of STIs, including new HIV infections (Riedner, Hoffmann and Rusizoka, 2006). Even though the production and distribution of condoms have increased worldwide and safer sex messages continue to reach adolescents through social marketing, behavior change communication strategies, and public health policies, these efforts have not always resulted in consistent condom use (McNeill, Gillmore, Finger, Lewis and Schllstede, 2008). All sexual decision making involves the weighing up of a number of risks, where some risks will be accepted and others will not be accepted. It may also imply that safer sex knowledge and the dynamics of sexual behavior are two different phenomena, neither of which necessarily influences the other when the sexual encounter is being contemplated (Keogh, 2005)

The findings in table 2 showed that all respondents agreed with all the items. The highest level of acceptance was observed in item 2 which was on the implication of unwanted pregnancy. In line with this, Boyd (2000) noted that teenage pregnancy is a major public health and social problem in the world over and its incidence is on the increase. Concern about the increase in unmarried adolescent pregnancy has been expressed throughout Africa (Aderibigbe, Araoye, Akande, Musa, Monehin and Babatunde, 2011). The main issues that have strongly influenced the pattern of adolescent pregnancy include the declining age at menarche and the increase in the number of years spent in school which in turn, influences the timing of marriage (Salako, Iyaniwura, Jeminusi and Sofowora, 2006). Other implications agreed by the respondents in this study include complications arising from abortions which cause permanent infertility; contraction of sexually transmitted disease which causes impotency and HIV/AIDS which is still incurable.

All the respondents had a good knowledge on the effect of nutritional practices on reproductive health. This was dissimilar to the findings of a work done in Bangladesh where it was found that knowledge of the effect of nutrition on reproductive health among adolescents was poor and they are generally unaware of the need to consume healthy quantities of foods

such as fish, meat, eggs, milk, vegetables and fruits during pregnancy and lactation (Hossain, Bhuiya, Rob and Anam, 1998). Short maternal height (a nutritional problem) has been found to account for a sizeable number of low birthweight babies who are subsequently more susceptible to infections and death in infancy. Those who survive grow up as undernourished adults giving rise to an intergenerational cycle of undernourishment.

Conclusion

The respondents had a high level of knowledge on reproductive health issues such as dating, menstruation, pregnancy, use of condom, family planning etc and low level of knowledge on reproductive issues such as sexual intercourse, infertility, maternal mortality and morality etc. They were also aware of the implications of sexual behavior and had a good knowledge of the effect of nutritional practices on reproductive health.

Recommendations

Based on the findings, the following are recommended:

- Youth friendly services provide good milieu for the adolescents to interact and learn more about their reproductive health.
- The government and developing partners should tap from these wealth of experience and facilitate access to these services for all adolescents both in schools and at home.
- Seminars, symposiums and group discussions regarding these issues should be organized in the vocational skills training institutes as well in order to make school dropout aware about the same. Awareness campaigns should be organized often.
- Teacher and parents should encourage their students to ask questions related to reproductive health issues.

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Knowledge Economy and Promoting Entrepreneurship: Implications for Entrepreneurship Education

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Abstract

This paper discusses knowledge economy and how it promotes entrepreneurship. It defines the concept of knowledge economy, entrepreneurship and establishes a relationship between the both. It also highlights the role that entrepreneurship education in developing knowledge economy-driven entrepreneurship.

Introduction

Knowledge economy has been described as an economy based on the creation, evaluation and the trading of knowledge. Knowledge is used as the resource and it is utilized for generation of tangible resources. In a knowledge economy, labour costs become less important over time and also traditional economic concepts, such as economies of scale and scarcity of resources cease to apply. Knowledge is also used interchangeably with education and technology. According to Barte *et. al*.(2008), knowledge economy involves the use of knowledge, technical know-how and technology to create economic benefits as well as employment. Entrepreneurship has been defined as the capacity and willingness of individual or group of individuals to build, organize and manage a business venture, bearing all the inherent financial and non-financial risks in order to make profit. Entrepreneurship is characterized by innovation, creativity and risk-taking (Aladekomo, 2004). Knowledge economy relates to entrepreneurship because it involves the resourceful utilization of knowledge, which is a readily available resource in creation of tangible assets. Creativity is a hallmark of knowledge economy and it helps the entrepreneur in creating wealth, employment and other tangible assets from existing resources which few people is able to decipher. Knowledge economy therefore is an important contributor to entrepreneurship because it promotes the utilization of human resource, which is the most important, widely available and replaceable resource, in creating wealth. It also reduces reliance on other natural resources such as precious metals (like gold, silver), fuels (crude oil) but instead creates ways of being able to utilize these resources more effectively, create cost-effective and better substitutes. Knowledge economy, just like entrepreneurship is best replenished through education. This paper thus aims at providing in-depth description into the relationship between knowledge economy and entrepreneurship, the importance of knowledge economy to a society or nation, the importance of entrepreneurship and entrepreneurship education to society, and the importance of

entrepreneurship education in the promotion of knowledge economy.

Concept of Knowledge Economy

There has been some slight vagueness over the definition of knowledge economy. However, some schools of thought have described knowledge economy has been described as an economy in which knowledge is the key resource. Knowledge economy has been defined as an economy of knowledge focused on the production and management of knowledge, or a knowledge –based economy (Powell and Snellman, 2004). Also, according to Barter et. al. (2008), knowledge economy is defined as the use of knowledge create economic benefits. Amidon (2005) described knowledge economy as the combination of new technologies with intellectual and knowledge assets – "the intangibles" - research, design, development, technology, creativity, creativity and human capital for creating wealth and transforming economies. Knowledge economy emerges from the knowledge intensity of economic activities and also the increased rate of globalization of economic affairs. Knowledge intensity is brought about by information and communications technology (ICT) revolution and increased pace of technological change, while globalization of economic affairs occurs as a result of national and international deregulation of business and commerce.

The initial foundation of knowledge economy (KE) was laid by Peter Drucker in his 1966 book titled *The Effective Executive*. Drucker emphasized that there is a marked difference between the manual worker and the knowledge worker. The manual worker works with his/her hands and produces "stuff" while the knowledge worker works with his/her head and not hand, in order to produce ideas, concepts, knowledge and information.

Knowledge economy differs from traditional economy in the following ways:

- The economics in knowledge economy is not that of scarcity but that of abundance. Knowledge, unlike most resources, does not deplete when used, can actually be shared and grows through application
- The effect of location constraints is limited because with the use of appropriate technology and methods, virtual marketplaces and virtual organizations which offer benefits of speed, round the clock operation and global reach can be created.
- Knowledge enhanced products are more expensive than similar products with lower embedded knowledge intensity
- Human capital is the key component of knowledge economy and not natural resources.
- Communication is increasingly fundamental to knowledge flows. Social structures, cultural context and other factors influencing social relations are therefore of fundamental importance to knowledge economy.

Knowledge economy is driven by globalization, information and communications technology (ICT), and knowledge intensity. Globalization takes place because there is a lot more openness in the world economy via the reduction of tariff barriers to the trade of both goods and services, the reduction of barriers to foreign direct investment, international capital flows and also transfer of technology. While this openness has created tremendous opportunities for some individuals and organizations, it has also rendered some business organizations moribund because they were not able to keep abreast with standards and compete effectively. Increased knowledge intensity has been seen from the ICT revolution in the business world. The cost of computerizing business operations have been reduced considerably as a result of increase in knowledge and this has enabled businesses to function more effectively and efficiently.

Ingredients of Knowledge Economy

A successful knowledge economy is characterized by close links with academic science and industrial technology. High level of importance should be placed on innovation for economic growth and competitiveness, lifelong learning and greater investment in education. According to Cheng and Chen (2004), ICT and knowledge are the two main ingredients of a knowledge economy. Blankley (2010) also stated that a highly skilled labour force is necessary for the growth and sustainability of a knowledge economy. He also posited that innovation, research and development (R&D) and high level of investment in education are also important ingredients for knowledge economy.

Importance of Knowledge Economy

The role of the knowledge economy in development cannot be exaggerated. Economic competitiveness depends on the productivity level and knowledge economy level. Seki (2008) posited that knowledge based economies have always competed effectively and had the advantage over resource based economies. This he said is because the knowledge based economies have utilized not only their own resources, but resources of other countries (through imports, trade arrangements, joint ventures) in order to increase their capacity utilization. K.E. also strengthens the economy of the country by providing more efficient means of producing goods and services and also delivering these goods and services at lower cost and to a greater number of people. Powell and Snellman (2004) stated that it is through R&D (which is an ingredient of K.E.) that more efficient products and services have been launched into the world, and that these nations which produce these products are at a competitive advantage over countries with lower level K.E. Global competition has made businesses across the board strive to take advantages of economies of scale and

also the elimination of barriers of trade in order to make their products or services available to a wider client base at cost effective rates. This also helps the organizations home country to have net positive capital inflows and a good balance of payment position.

Concept of Entrepreneurship

Entrepreneurship can be described as the willingness to undertake a venture, taking on the inherent risks, with the view of making financial profit. Shane (2003) defined entrepreneurship as the capacity and willingness to manage a business venture, being able to bear the inherent risks and uncertainties and driven by a desire to not only for financial gain but to have a market share of the industry and create a niche for himself/herself. Abubakar (2010) described entrepreneurship as the pursuit of opportunity beyond resources that are available. It involves the ability of an individual or group of individuals to create "something out of nothing", turn "waste to wealth" and also leverage on their creative abilities in order to make profit, create jobs and also bring about improvement in the socio-economic well being of not only the individual but his employees, business partners and the community. Brockhaust et. al. (2004) described entrepreneurship as the process whereby and individual commercializes his/her innovation in order to reap financial benefits.

Ingredients of Entrepreneurship

Risk is the main ingredient of entrepreneurship. There is always an element of uncertainty, especially when an individual sets out to do something innovative. Shane (2003) posited that there is an element of risk in every entrepreneurship endeavour, and that the higher the risk, the greater the financial return that is expected from the endeavour. Devoting financial resources towards a project without immediate returns or uncertainty about any return on the investment is a characteristic of entrepreneurship. Also, creating a new product or service and there is uncertainty about how the public will accept the product/service is also risky. However, an astute entrepreneur usually engages in feasibility studies in order ascertain the target market for his product/service, the available market size that can be captured, and also how the public could react to the features contained in his product/service.

Creativity is also an important ingredient in entrepreneurship. Creativity is defined as the ability to make new things, fashion out new ideas and also modify old ideas and concepts in order to fit to modern ties. Creativity can also be described as the process of producing something which is original and worth the while. Also, Anna Craft and Jeffery (2004) defined creativity as the both the innovation of a new idea, product/service and also the extension of what already exists. Creativity involves bringing a new innovation that meets a need and that

can be paid for. It is geared towards solving existing problems. It also adds value to what already exists. Entrepreneurship is about adding value that people are willing to pay for.

Planning is also an important ingredient of entrepreneurship. Planning can be defined as the process of organizing activities required to achieve a given goal. Before any business venture is embarked on, a business plan is written. This business plan tells the story of the business, what the business will produce (whether good or service), how it will produce, the target market, the risks involved in the venture, financial projections, performance forecasts, past performances and also the profile of the individuals behind the business. Every entrepreneurship endeavour goes through a planning phase before it commences. The planning process involves choosing a target or destination, evaluating the alternative routes to achieving the target and deciding the specific course of the plan. Planning always has a purpose, and this purpose is the achievement of certain goals or targets. Planning is an important ingredient in entrepreneurship. Lee and Peterson (2000) stated that planning increases the efficiency of an organization. It reduces the risks involved in modern day business activities. It facilitates coordination within an organization and also helps organizations to make efficient use of their available resources. Yiftachel (2006) also stated that planning helps in maintaining good control in an organization, motivates personnel and also encourages the managers' creativity and innovation.

Importance of Entrepreneurship

Entrepreneurship is a key driver of the economy. Wealth and jobs are created by small and big businesses which were started by entrepreneurially minded individuals. People who are exposed to entrepreneurship express their creativity at all times in all circumstances, utilizing available opportunities and create positive changes. As a result, economists and political leaders have seen that fostering a robust entrepreneurship culture will bring about an improvement in economic well-being of the society

Entrepreneurship also contributes to research and development systems of a country. In a bid to decipher better ways of producing products or services, producing new products or improving on already existing products, extensive research is carried out in order to arrive at viable solutions to existing problems.

Knowledge Economy and Entrepreneurship

K.E. and entrepreneurship are closely related. Innovation is a key ingredient of K.E. and it is also vital for entrepreneurship. Knowledge is the source of entrepreneurial opportunities. Knowledge is required in order to decipher opportunities that exist in any given circumstance. Knowledge is also necessary in order to ascertain the resources that are

available. Brockhaust *et. al*.(2004) pointed out that firms that are located near knowledge sources introduce innovations faster than firms located elsewhere. Lee and Peterson (2000) stated that knowledge rich regions tend to develop entrepreneurial ideas faster that knowledge poor regions. Entrepreneurs who are located in knowledge rich regions have the tendency to discover opportunities faster than those who are located in knowledge poor locations

K.E. is also important or not only developing new entrepreneurial ventures but also for preserving existing firms. K.E. helps existing firs in continually being innovative, changing product specifications to current market trends and needs in order to remain viable and sustainable. K.E. enables firms to keep on improving their product characteristics and also produce new and innovative products.

Knowledge driven entrepreneurship has been the key driver for sustainable economic growth and development. Innovative products and services are vital for sustained economic growth and these products are arrived at after extensive research and development (R&D). R&D is a key ingredient in the K.E., as new knowledge is used to develop innovative products that meet human needs that have not been met before.

The combination of K.E. and entrepreneurship has led to the concept known as "knowledge-based entrepreneurship". This has been described by Akpomi (2009) as the ability to utilize and create opportunities and take action, aimed at realizing creative knowledge practice. The knowledge-based entrepreneurship focuses on improving production research and knowledge.

Implications for Poverty Eradication

K.E. and entrepreneurship are vital for poverty eradication in society. This is because it enables individual members of society to ethically, efficiently and effectively utilize the knowledge resource at their disposal. This utilization will create wealth in the society and improve the socio-economic wellbeing of the given community. K.E and entrepreneurship increases resourcefulness and creativity in individuals. Knowledge is a resource that is more widely available than natural resources such as precious metals, and if productively employed, is capable of drastically improving a society's financial fortunes.

Implications Youth Employment

Entrepreneurship is a key driver for youth employment. According to Small Business Administration (SBA) report of the United States of America, 68% of private sector employment is provided by Small and Medium scale Enterprises (SMEs) (World Bank, 2002). In Germany and the U.K., SMEs account for 64% of total industrial employment (Akpomi, 2009). However, in Nigeria, SMEs provide only 31% of industrial employment. This is attributed to the low level of

capacity utilization of SMEs (which is 37%), difficulty in accessing funding, inadequate infrastructure and insecurity. K.E. and entrepreneurship increase youth employment because the ventures which are created by innovation employ individuals, thereby creating prosperity in the society.

Implication for families

Family is the most integral part of the society. Every societal change, whether positive or negative, affects the family. Increase in employment rate and general economic well-being affects the family. It will lead to higher level of disposable income. On the other hand, a reduction in employment rate will adversely affect the family by reducing amount of disposable income. Smith (2002) opined that the increase in K.E. also helps in efficient family resource management. It enables families, both as individuals and as a unit to utilize knowledge in creating wealth, alleviating poverty and creating an avenue for employment.

Implications for the society/nation

K.E. and entrepreneurship has been seen to be the main driver of the world super-per economies. Both combined have become a highly effective method of bringing about rapid and sustainable economic growth and development. According to Russell (2008), the economic success of the south east Asian countries can be attributed to innovation driven entrepreneurship. He also stated that knowledge-driven economies on the average have faster rates of economic growth and more sustainable growth than resource based economies. Also, K.E. and entrepreneurship helps in effective utilization of available resources and also the creation of resources practically out of nothing. Knowledge as a resource does not diminish, but rather can be replenished through education and training.

K.E. and entrepreneurship increases business competition in a country. This competition makes businesses to offer better products/services at lower prices to consumers, thus benefitting the consumers.

Implication of K.E. and Entrepreneurship for Entrepreneurship Education

Entrepreneurship education can be defined as a course of study which seeks to provide students with knowledge, skills and motivation aimed at encouraging them to achieve entrepreneurial success. Fayolle (2009) defined entrepreneurship education as all activities aimed at fostering entrepreneurial mindsets, attitudes and skills and covering a wide area such as idea generation, start up, growth and innovation.

Entrepreneurship education in vital for K.E. and entrepreneurship because entrepreneurs need to be trained and groomed for promoting K.E. Lifelong learning is important for developing K.E. because entrepreneurs need to always keep abreast of current trends in

development. They also need for entrepreneurs to utilize R&D in meeting current market needs and also ascertain more cost-effective ways of producing these goods and services in be competitive

In order for youths to become knowledge-based entrepreneurs or entrepreneurs in K.E., they need entrepreneurship education. Entrepreneurship education enables these youths to introduce and implement cutting-edge ideas and also to help them to utilize the knowledge resource for creating viable entrepreneurial ventures. Entrepreneurship education thus needs to be taught students at all levels of schooling so as to will enable students to develop the technical competencies and also the right attitudes needed for entrepreneurial success.

Role of Stakeholders

The stakeholders in promoting entrepreneurship education are the teachers, students, school authorities and the government. Each of these stakeholders have vital roles to play in promoting entrepreneurship education and K.E.

Teachers are expected to have a high level knowledge of the subject content of entrepreneurship education. This will enable them to effectively disseminate the knowledge across to students. Teachers should also be able to select appropriate methods of instruction, facilitate student discussion of entrepreneurship and should have ideas of running start-up businesses themselves.

Students also have a role to play in promoting entrepreneurship education. It is important that students develop keen interest in the subject area so as to reap its benefits. They should apply what is being taught the by establishing business ventures that they can engage in part-time while studying. Students should also endeavour to develop at least one workable business plan before graduating from the university. They should also inculcate within themselves a problem solving attitude.

Conclusion

K.E. and entrepreneurship are two inter-related concepts and both when effectively combined promote rapid economic growth and development. Knowledge as a resource is renewable by education and lifelong learning. Entrepreneurship education is very important for the development of entrepreneurship amongst youths and also the inculcation of K.E. into entrepreneurial practice.

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Family and Information Communication Technology (ICT): Opportunities, Threats and Strategies for Maximizing the Gains

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Abstract

This paper reviews opportunities afforded and threats posed to family by the Information Communication Technology (ICT). Strategies for maximizing the gains by families were also discussed. It is recommended, among others, that families should move with the times to keep abreast with relevant knowledge and skills in an ever changing society if it is to overcome the threats. Acquisition of ICT skills is also recommended to all; as a necessity for maximizing the gains by families.

Key words: Family, Information, Communication, Technology, Opportunities, Threats, Strategies

Introduction

Family is a group of persons united by ties of marriage, blood or adoption, having in most cases a common residence and economic cooperation. (Anyakoha, 2008, Ononuju, 2004, DeGenova and Rice, 2001) The family is the core of every society upon which all human activity revolve. (Genyi, 2008). Communication is a crucial aspect of family living. It is like a thread that holds family members and their relationship together (Anyakoha 2013).Communication is also the means through which the family and the wider society interact. This communication is today being facilitated by Information Communication Technology (ICT).These technologies are widely used in families in urban and rural areas.

The term ICT is a generic term referring to technologies that are used for collecting, storing, editing and passing on information in various forms (Liverpool, 2002).There are different types of ICT. They include electronic communication gadgets such as fax machines, telephone (GSM), computer, telecom, internet, and other multi-media. It also encompasses radio, television, cellular phones, satellite systems, Video conference and distance learning. Describing the ICT, Ochonogor and Eurobane (2008) posit that these are basic technologies that are available for improved family living and may include items like home computers, internet, radio, multi channel television and cell phones. These technologies according to Ezechi (2003) are important for achieving essential

practical purposes for human comfort and family sustainability.

Families are living in a period of profound change and critical transformation of the society by the ICT. The rising knowledge intensity and the speed with which it is distributed have increased its value to all (John and Peter, 2000). There is thus no area of family life that is not impacted by the ICT. Child care, household management, laundry, shopping, food preparation among others, families must thus accept the ICT as a `necessary evil` which must be tapped. Buttressing this fact, Anyakoha (2009) stated that, today families are faced with a barrage of challenges occasioned by a new world order, that is ICT with its various facets and challenges. ICT have both advantages and disadvantages. They constitute both opportunities and threats, which have serious implication for survival of the family. It is very necessary to find out ways of helping families maximize the gains of ICT. This paper therefore, focuses on:

- Opportunities open to families by the ICT
- Threats posed to families by the ICT
- Strategies families can adopt in order to maximize the gains of ICT.

Opportunities Open to Families by the ICT

There are many ICT applications and services that families can make use of for its sustainable survival which cannot all be discussed within the scope of this paper. However, major opportunities for families include the following:

***Access and Availability of Information*:** Through the ICT, family share knowledge and gain access to information that can better the life of its members. Members can have easy access to information at home, work or school not only through the computer but also digital television (TV). Knowledge is obtained on issues bordering on health, child care, environment, transportation, food production and many other goods and services.(Simard,2006)

***Improved Communication*:** Communication can be made with ease and speed. According to Rogiff (2003), ICT is used to keep in touch with extended family and friends. The ICT offer any time, any place access for families. Distance is no longer a problem in communication. For instance pictures can be sent by email. ICT increases the options available for communicating with family members living far away. It is much more convenient for child guidance. ICT enables inclusive communication. Members with hearing impairment can be communication clearly through the internet and computer while the visually impaired can be included through voice devices like activated dialing. Families can always find a new point of conversation using one application or the other.

e - business transactions: ICT has made available to families and

individuals various opportunities to do business electronically. Such opportunities include e- mail, e-banking, e- commerce, e- marriage and many more. These help to reduce transaction costs, saves time and energy. For instance prospective travelers can now view available transport, book accommodation and flight without having to leave their homes, (Mansel and when (1998).With e- business transactions , families can buy and sell from the comfort of their homes. Families are now able to find out, compare prices and purchase goods and services through the internet. Many producers provide facilities for business transaction online. Consumers can now have 24-hour access to the internet shopping facility and home delivery. The home-maker can now save time, money and energy that could have been used to go shopping in person. Some items that may not be available on the local market can also be obtained by families. Olurankinse (2007) noted that the computer through the internet provides shopping information on how to read food labels, determine unit prices and make wise purchases.

***Online Banking*:** ICT also makes online banking possible for families through the use of ATM cards, credit cards. This allows for home banking to make payments and transfer funds. Transaction alerts on mobile phones also offers financial advice for families to be able to keep within their budget and resources.(Olurankinse,2007)

***Leisure and Entertainment*:** With the stress family members encounter in daily tasks, the ICT affords the opportunity for family relaxation and stress reduction. Family can share relaxation time together in many different ways. Examples are online games, listening to music, watching videos, news update and watching television. Collaboration this fact, Melgosa and Posse (2005) stated that television provided a positive and enjoyable option for free time and recreation.

e- Learning: In as much as family members may want to study and acquire skills, some may not afford time off jobs because they have to earn to make ends meets. According to Wagner(1999), the ICT thus has brought a solution through online learning, programmed instruction. Families can access class, notes, submit assignment join discussion groups, learn new skills by watching video demonstration. Food preparation lessons, use of new kitchen gadgets and home making skills can be learnt at home. This can bring more job opportunities for members of the family.

Home Automation: This refers to combination of appliances, information technology services insides and outside homes that are adjusted to suit specific needs of users (Bos and Van Leest, 2001) Emphasis have stiffed from the traditional control technology in the home to services based on ICT. Families now

have access to many automated home appliances that make home tasks easy and fast. Remote controlled temperatures, heating, ventilation and cooking (such as the microwave), computers now control many household devices such as on/off switch, burglar alarm and water temperature (Pickett, 2010). This makes home management much more easier and effective thereby improving quality of life for the family.

Catering for family members with Special Needs: ICT can be extremely helpful in providing access to communication and learning for members of the family with special needs Pickett(2010) stated, the use of Braille keyboards and printers, and voice activated dialing for the visually impaired, the use of short message services (SMS) for the hearing impaired makes communication better between family members and those with special needs. Remote controlled doors and wheel chars came in handy for the physically challenged.

Threats Posed to Families by the ICT

With all its versatility and value, the ICT pose some potential threats to the user especially families. Some of the major side effects of the ICT usage by families include:

***Addiction*:** This is perhaps the most common threat from the ICT. There is increasing number of people who are becoming addicted to the internet, television, face book, 2go, twitter or games. Every spare moment is spent online or they are glued to the television. There have been reports of families breaking up and people not performing their jobs properly due to this problem. Several studies prove that ICT addiction is on the increase and affection the health, relationship and productivity of users. Arnold (2008) James (2006) explored mobile phone and television addiction reported that blackberry e-mails can be so addictive that owners may need to wean off them with treatment similar to drug addicts. A key sign of ICT addiction is when the user focus on the application (GSM, television or computer) ignoring those around them.

Health Hazard: Although ICT makes life easier for families, Daudi(2004) stated, long term exposure without precaution may lead to possible health hazards such as:

- Eye problems: watery, red, itchy and heaviness of eyelids and difficulty in focusing.
- Back ache as a result of prolonged sitting.
- Wrist pains
- Headaches, tiredness and ringing in the ears.
- Damage to ear drums.

There are various problems with health as consequences of ICT usage. People are susceptible to stress, eye strain and injuries to back, neck, wrist, fingers and brain (www.teach.ict.com)

***Cyber Crime*:** Many times, there have been incidence of people having their

accounts hacked into and money withdrawn, others have been duped by 419 syndicate while in extreme cases even assassins have traced people from information they placed on line. People's identity relating to ATM pins, password, account numbers and addresses are all subject to risk of being stolen (James 2006).

Deterioration in Family Relationship and Changing Family Patterns: Family relationships have been affected enormously by the ICT. Parents are lost in the too busy world while children are caught under the influence of global technologies such as internet, face book, twitter, GSM, 2-go and computer games. According to Melgosa(2005), family members are thus drifting apart with no time for each other. Family patterns are also changing as more and more people enjoy solitary manipulation of ICT tools. It is not uncommon to see a family where the father may be watching news on television, mother may be teleshopping over the internet while children may be playing games or are busy on face book or twitter all oblivious of one another. (James, 2006) there is increasing concern about disruption of family cohesion.

Influence on the Child: ICT threats for children are enormous and have for reaching effects on the child leading to child problems for the family. When children gain unlimited access to the internet they became addicted and access inappropriate information. They are soon carried away by alien cultures as can be seen in their dress, hair styles, behaviours. ICT threats for children include:

- Ponography
- Sexual grooming / harassment
- Arranging to meet stranger
- Violence
- Social Isolation
- Poor school performance
- Discipline problems

Children have often been lured into abuse through the ICT. The child is deceived into sending erotic self images that are later used to bully the child into submission (Rogiff, 2003).

Strategies Families can Adopt in order to Maximize the Gains of ICT

Information is key for families to be aware of the risks encountered by interaction with ICTs and above all the way to safeguard against them. Some of these strategies include:

Limiting Access to Internet and other ICT Application: This has been identified as paramount in the wise use of ICT for families. For instance limiting days for connecting to the internet (perhaps only on week ends); limiting time to no more than 2 hours; night or early morning hours. Parents should also install operating system with parental control so as to monitor Childs ICT activities and restrict access to undesirable sites. (Garitoanadia, and Garmendia, 2007). Limitations of monthly expenditure on ICT especially subscriptions and downloads. Melgosa (2005) observed that proper control and administration

of television programs and limiting hours spent in viewing are valuable tools to use in avoiding harmful "addictive" use of ICTs.

Sensitization of Family Members: Families could sensitize its members especially children, never to divulge their identities, pin codes and passwords to unknown person. Nor should they arrange to meet strangers alone.(James,2006 and Daudi,2004)

Maintaining Good Posture and Environment: To overcome strain from the use of ICT applications, regular breaks, stretching to relax the body will be found helpful, keeping application at appropriate eye level helps to reduce stress and strain. James (2006) suggested 20^0 below eye level of 30cm distance from the eyes. It should be positioned away from light reflections or glare.

Conclusion

ICTs are now used in almost every aspect of family life. It can be impassible to carryout everyday activities without the ICTs. As more and more people and families come into contact daily with the ICTs, it can affect families, positively by affording opportunities to improve quality of life. At the same time ICT can affect the family negatively by posing potential threats to family survival if not managed or used appropriately. This invariable means that it is necessary for families to understand the ICT by acquiring relevant skills in order to maximizing the gains from these technologies while minimizing or eliminating the (threats) side effects.

Recommendation

For successful utilization of ICTs by families, the following recommendations are proffered

- ❖ Acquisition of ICT skills should be a matter of necessity to all. As knowledge become increasingly obsolete, lack of knowledge is today perceived as poverty. ICT skills are therefore necessary to access knowledge.
- ❖ Families should strive towards continuous learning in order to acquire the skills to operate in an automated home and environment.
- ❖ Families should be conversant with threats from the ICT and adopt appropriate measures to avoid them.
- ❖ Government and ICT marketers should ensure security of their services so as to protect the users from hacking abuse and theft.

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Educational Cartoons in Child Rearing among Families in Port Harcourt

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Abstract

This study focused on the use of educational cartoon in child rearing. Two research questions guided the study. The area of the study was Port Harcourt City. A sample of 300 parents was used for the study. It was survey and questionnaire was used for data collection. Data were analyzed using mean. Findings include 19 reasons why parents use educational cartoons and eight guidelines they adopt in sourcing of educational cartoon for their children. It was recommended that enlightenment campaign on uses of educational cartoons be encouraged among parents on issues relating to use of educational in child rearing.

Key Words: Educational, Cartoons, Television, Child Rearing, Parents

Introduction

Children are very important in any society since they are the future leaders and hope of the society. The importance of children emphasizes the importance of their optimal development. The optimal development depends on the care given to the children. This care stems from child rearing practices which, among others include the provisions of appropriate enabling environment for the child. Enabling environment in turn includes provision of such needs as food, clothing, play materials including toys and educational cartoon. Educational cartoons play vital role in child development. These have to be effectively utilized by parents (father and mother) so as to facilitate optimal child development.

Educational cartoon is animated cartoon. It is used to deliver learning with some humour without the issue of comedic timing being a factor and can avoid issues that might be related to cultural background of children. According to Gamble (2007), educational cartoons are those cartoons that are used to teach children alphabets, numeracy, colours, drawing, English language and its vocabulary. It encourages reading among children and aim at developing skills in mathematics, sciences and other discipline Nilofer (2009) and Gamble (2007), listed educational cartoons for kids as follows:Gali Gali sim sim, Beebles, Tom and Jerry, Make way for Noddy, Mickey Mouse club House, Baby Einstein, BrainyBaby, Teletubbies, Cailou, Lazy Town, Barney,Highly Town Heroes, Little Einsteins, Dora the Explore/Go Diego Go, Blues chees. Doring (2002) noted that educational cartoons help

children relax and encourage flexible thinking although they must be carefully selected, monitored and supervised by parents for the educational objectives to be achieved. He also noted that cartoon has been found to be attractive to children of all ages especially, the middle childhood age (6-12years) who watch cartoons at all times-in the morning, before going to school, after school, during lunch and even when doing home work. Children of different ages watch and understand educational cartoons in different ways, depending on the length of their attention span, the ways in which they process information, the amount of mental effort they invest, and their own life experiences. According to Wendy (1995), infants (children up to 18 months old) can pay attention to an operating television cartoons set for short periods of time, but the attention demands a great effort and infants are usually more interested in their own activities. Even when they do pay attention to the television cartoons, children likely miss most of what adults consider to be program content. Children experience it primarily as fragmented displays of light and sound which they are only intermittently able to group into meaningful combination such as recognizable human or animal characters. In Port Harcourt children watch cartoons all the time because of the easy accessibility and their parents are busy outside the home in their work places and most times do not supervise what children watch. Educational cartoons are used in child rearing with advancement in technology. Guidelines parents adopt in purchasing educational cartoons for children include: considering the age of a child, the health/sight challenges of a child, buying within the family income, timing of purchase, example once year, presenting cartoons as gifts to children upon good academic performance, presenting cartoons as gifts to mark special occasions such as birthdays, considering the content or the theme, that is whether is educational or otherwise and purchasing based on usefulness/importance placed on the cartoons.

Child rearing is just another term for children upbringing. It is not just all about provision of basic food, biscuit; snacks, noodles, fruit juice and others that make children happy, shelter and buying of clothes that have cartoon characters, but also molding of character, personality, talents, emotional and physical well being of the child. Child rearing or the act of child upbringing refers to all the activities and practices that help the growth of a child from childhood through adulthood. According to Kembe (1995) feeding, clothing, health care, discipline and socialization practices are various aspect of child rearing. She further noted that children require physical care and psychological well- being when young to be able to grow into useful adults. Furthermore, that adequate nutrition, shelter, medical care and safe surrounding are physical child rearing

attributes, while emotional well being of the child are shown in child rearing practices that involves love, a sense of value, a sense of belonging and discipline.. For effective parenting, it is important for parents to have quality time with the children- play with them, access and watch educational cartoon with them, time, control and supervise what their children watch on television.

There is need to put checks on children's viewing of educational cartoons just as in most other programmes. Given that some cartoons have been proved to teach violence and aggression among children (Healy, 1990). These will be most effective when enforced by parents, guardians and other adult members of the household who all are responsible for the up-bringing of the children.

Port Harcourt is a city rich in communication facilities such as the internet, satellite television stations and other modern technologies. The level of investments made by firms (example DSTV and hi TV) and individuals (including parents in the homes), it is easier to have access to the viewing of programmes from various parts of the world. It's easy accessibility makes it affordable for families to subscribe to and thus have the privilege of viewing various channels including "cartoon network" among others that are strictly dedicated to cartoons, it becomes necessary to control their children's cartoons viewing, choose the cartoons that are educational, control the time children spent in viewing and assess the impact of these cartoons on their children academics, as well as in other sphere of their lives. The nature and composition of Port Harcourt city is such that many parents are working class, who though earn high income compared to other towns, but spend less time with their children, so may not supervise and monitor the programmes their children watch. Television viewing becomes the order of the day and particularly television cartoon viewing, especially for children within the middle childhood age (6-12 years). Children are left at the mercy of educational cartoons, thus educational cartoons seem to be for leisure than as a means of education. There is need to evaluate the output of the television cartoon viewing of the children.

While cartoon are increasingly being used as educational tools in many parts of the world (Doring 2002, Fleischer 2009 and Yaman 2010), others are only incidentally educational. Ha (2004) reported however that most parents, Port Harcourt parents inclusive use the educational cartoons to keep their children busy and engaged while parents do their own work. The busy parents in Port Harcourt are working class, artisans, or even traders who spend most time outside the home. They often tend to spend less time with children at home. This is in a bid to earn a living. Parents are often busy to be aware of what they present to their own children as other purposes of cartoons, they cultural setting for

cartoon, guidelines for the child to follow and how to get the best out of cartoons, with respect to the wellbeing of the children consequently children do what seems best for them with the cartoon and learn what may not be in their interest or that of the family and the society at large.

Watching educational cartoon is meant to improve the intellectual ability of children, since what one sees and hears tend to stick more. Educational cartoons are designed to be educational, but sometimes actually teach children things totally different (violence and aggression). Some are fun to watch, though might have no measurable positive educational effect. Parents are not able to differentiate between educational cartoons and others that portray violence and aggression. Some educational cartoons are designed with educational purpose in mind, although they might rely heavily on entertainment to communicate the educational message or lesson.

Purpose of the Study

The general purpose of this study was to investigate the educational cartoon utilization of parents among families in child rearing in Port Harcourt. Specifically, the study determined:

1. the reasons why parents use educational cartoons in child rearing.
2. the guidelines parents adopt in purchasing educational cartoons for children.

Hypotheses

The following null hypotheses were tested in this study at 0.05 level of significance.

1. There is no significant difference in the mean responses of male and female parents on the reasons why parents use educational cartoons in child rearing.
2. There is no significant difference in the mean responses of parents with O level, NCE/OND, HND/Degree and postgraduate qualification on the guidelines they adopt in purchasing educational cartoons for children.

Methodology

Area of the study: The area of the study was Port Harcourt City. It has twelve communities and is the capital of Rivers state. The economic activities of people in Port Harcourt include manufacturing, food processing, car assembly, manufacture of paper products, paints, petroleum product refinery and road construction, metal works and cement making, enamelware, bicycle, furniture and soap making, services including legal services, hospitality, medical, educational and engineering services. The prevalent economic situation in Port Harcourt is such that 80% of literate parents (father or mother) are either working/civil servants or self employed. Hence many parents can afford to own television, buy cartoon DVDs and pay for cartoon channels for their children to watch. Hence most families in Port Harcourt have children that watch cartoon and need to utilize educational cartoon in their

child rearing. This study adopted survey research design.

Population for the study: The population consisted of literate parents (father or mother) between the ages of 25 to 50 across the twelve communities in Port Harcourt. Parents in Port Harcourt are mainly oil company worker, bankers, civil servants and some self employed, based on this fact majority of parents are literate. Hence many parents can afford to own television, buy cartoon DVDs and pay for cartoon channels for their children to watch. Hence most families in Port Harcourt have children that watch cartoon and need to utilize educational cartoon in their child rearing. According to the report of National Bureau of Statistics (NBS, 2009), there are 1,123,998 families in Port Harcourt with literate heads.

***Sample for the study*:** The sample was made of 300 literate parents (150 fathers or 150 mothers). Multi-stage sampling was adopted in selecting the respondents from the six communities in Port Harcourt. Six communities were randomly selected from communities in the area (representing 50% percentage of the total communities).

A total of 30 streets randomly sampled from six communities the study (that is 5 streets per community). Ten parents (father or mother) with children between 6 to 12 years old were purposively sampled from each of the streets. The total respondents for the study were therefore 300 parents (150 male or150 female).

***Instrument for Data Collection*: A** structured questionnaire which was developed based on literature and research objectives was used to collect for the study. To determine the reliability of the instrument, 30 copies were administered to 30 literate parents, both fathers and mothers. The data obtained were analyzed using the Cronbach Alpha reliability technique. A reliability coefficient of 0.757 was obtained. This indicated that the instrument was about 76% reliable and was considered thus.

***Data Collection and analysis techniques*:** Three hundred questionnaire were distributed to respondents. Only 273 were properly completed and retrieved. This represents 91 percent of the entire questionnaire. The data collected were analyzed using mean for answering research questions, while t-test and ANOVA were used for testing hypotheses

Findings

The following findings were made:

1. A total of 19 reasons why parents use educational cartoons are identify.
2. Eight guidelines parents adopt in purchasing educational cartoons identified.
3. There is significant difference in the mean rating of male and female parents on 17 at of 21 reasons why parents use educational cartoons for child rearing in Port Harcourt while on the remaining 4 reasons; there is significant difference in the mean ratings of the two groups of respondents.

4. There is no significant difference in the mean ratings of parents based on educational background on 6 out 9 guideline parents adopt in purchasing educational cartoons for child rearing in Port Harcourt while on the remaining 3 guidelines, there is significant difference in the mean ratings of the respondents.

Table 1: Mean Responses and t-test Results on Reasons why Parents Use Educational Cartoons in Child Rearing. (N = 273)

	Reasons why parents use educational cartoons.	$\bar{x}_M$	$\bar{x}_F$	$\bar{x}_G$	**SD**	**t-cal**	**Remarks RQ Ho**	
1	Cartoons for developing the intellectual ability of the children	4.37	4.48	**4.44**	0.62	1.52	**A**	**NS**
2	Increasing the reasoning ability of children.	4.17	4.23	**4.21**	0.76	-0.57	**A**	**NS**
3	Teaching children alphabets and numeracy.	4.22	4.05	**4.11**	0.88	1.51	**A**	**NS**
4	Teaching children science.	3.70	3.48	**3.55**	1.01	1.75	**A**	**NS**
5	Encouraging reading among children.	3.55	3.67	**3.53**	1.17	0.81	**A**	**NS**
6	Teaches children English and its vocabulary.	4.08	4.09	**4.08**	0.83	0.12	**A**	**NS**
7	Helps children develop skills in mathematics.	3.64	3.72	**3.68**	0.99	-0.61	**A**	**NS**
8	Increases academic performance of children.	3.77	3.76	**3.77**	0.92	0.01	**A**	**NS**
9	Helps children to identify animals, objects, and things generally, Arouses a child's curiosity in the things around him.	4.65	4.65	**4.65**	0.56	0.03	**A**	**NS**
10	Teaches children how to draw.	3.81	3.55	**3.67**	1.08	1.98	**A**	**S***
11	Keeps children occupied while parents are busy.	4.21	4.30	**4.26**	0.99	0.72	**A**	**NS**
12	Identifying children's area of strength and weakness.	3.22	3.29	**3.26**	1.12	0.48	**D**	**NS**
13	Stimulating the interest of children in a particular field.	3.74	3.77	**3.75**	1.01	-0.22	**A**	**NS**
14	Teaching children creativity.	4.13	4.17	**4.16**	0.80	0.43	**A**	**NS**
15	Helps children to relax, when carrying out a difficult task.	4.42	4.44	**4.43**	0.78	0.02	**A**	**NS**
16	Entertains children.	4.23	4.58	**4.35**	0.81	3.51	**A**	**S***
17	Fun to children and make them laugh.	4.21	4.53	**4.41**	0.81	3.20	**A**	**S***
18	Helps children to know how to socialize.	3.70	3.67	**3.78**	0.96	0.24	**A**	**NS**
19	Builds the spirit of team work in children.	3.69	3.74	**4.75**	0.99	-0.39	**A**	**NS**
20	Helps to keep the child busy.	4.11	4.34	**4.25**	0.78	2.30	**A**	**S***

21	Helps children learn how to control emotions.	3.07	3.09	**3.08**	1.13	0.15	**D**	**NS**

$\bar{x}_M$ = Mean of Male Parents; $\bar{x}_F$ = Mean of Female Parents; $\bar{x}_G$ = Overall Mean; SD = Standard Deviation; t- cal = t-calculated; t-table = 1.96; RQ = Research Questions; Ho Hypothesis; A = Agree; D = Disagree; S*= Significant; NS = Not Significant.

Table 1 reveals 19 reasons why parents use educational cartoons. This is because the mean values that ranged between 3.53 to 4.75 which are greater than the cut-off point value of 3.50. This shows that the respondents agreed that the 19 items are reasons why parents use educational cartoons for children in Port Harcourt Rivers State. The mean ratings on the remaining two items specifically items 12 and 21 were 3.26 and 3.08 which are less than the cut-off point value of 3.50. This showed that the respondents disagreed with the two items as part of the reasons why parents use educational cartoons for children in the study area.

Table 1 on hypothesis one also shows that there is no significant difference between the mean responses of male and female parents for 17 reasons, because the t-calculated (t-cal) values ranging from -0.61 to 1.75 which were all less than t-table (t-tab) value of 1.96 at p≤0.05 level of significance and at 271 degree of freedom. This indicated that there were no significant differences in the mean ratings of the responses of male and female parents on 17 reasons why parents use educational cartoons. The Table also shows that the t-calculated (t-cal) values of the remaining four items specifically items 10, 16, 17 and 20 were 1.98, 3.51, 3.20 and 2.30 respectively which are all greater than the t-table (t-tab) value of 1.96 at p≤0.05 level of significance and at 271 degree of freedom. This indicated that there were significant differences in the mean ratings of the responses of male and female parents on four reasons why parents use educational cartoons.

Table 2: Mean Responses and Analysis of variance (ANOVA) Results on the Guidelines Parents Adopt in Purchasing Educational Cartoons for Children. (N = 273)

SN	**Guidelines in the purchase of educational cartoons.**	**Total Sum of Square**	**Mean Square**	$\bar{x}_G$	**SD**	**F-cal**	**Remark RQ**	**Ho**
1	Consider age of a child.	188.330	1.794	**4.67**	0.58	3.48	**A**	**S***
2	Consider health/sight challenges of a child	323.370	0.464	**3.76**	1.09	2.38	**A**	**NS**
3	Buying within the family income.	315.480	1.242	**4.39**	1.07	1.07	**A**	**NS**
4	Timing of purchase, example once year.	381.253	0.485	**3.87**	1.18	0.34	**A**	**NS**

5	Presenting cartoons as gifts to children upon good academic performance.	354.095	3.716	**4.28**	1.14	3.92	**A**	**S***
6	Presenting cartoons as gifts to mark special occasions such as birthdays.	355.480	3.547	**4.20**	1.14	3.77	**A**	**S***
7	Considering the content or the theme, that is whether is educational or otherwise.	164.139	1.186	**4.47**	0.77	1.99	**A**	**NS**
8	Considering cartoons to depict economic and social status.	410.908	2.979	**3.42**	1.23	1.99	**D**	**NS**
9	Purchase based on usefulness /importance placed on the cartoon.	229.370	0.103	**4.32**	0.92	0.12	**A**	**NS**

$\bar{x}_G$ = Overall Mean; SD = Standard Deviation; F-tab value = 3.00; RQ = Research Questions; Ho=Hypothesis; A = Agree; D =Disagree; S*= Significant; NS = Not Significant.

Table 2 on research question two showed that the mean ratings of the responses of the respondents on 8 out of 9 identified guidelines for purchasing educational cartoons by parents had mean values that ranged between 3.76 to 4.67 which are greater than the cut-off point value of 3.50. This showed that the respondents agreed that the 8 items are guidelines for purchasing educational cartoons by parents for their children in Port Harcourt, Rivers State. The mean ratings on the remaining one item specifically item 8 is 3.42 which is less than the cut-off point value of 3.50. This showed that the respondents disagreed with item 8 as a guideline for purchasing educational cartoons by parents in the study area.

Table 2 on hypothesis two revealed further that 6 out of the 9 identified guidelines in purchasing educational cartoons had F-calculated (F-cal) values ranging from 0.12 to 2.38 which were all less than F-table (F-tab) value of 3.00 at $p \leq 0.05$ level of significance. This indicated that there were no significant differences in the mean ratings of the responses of parents with O level, NCE/OND, HND/Degree and postgraduate qualification on the 6 guidelines for purchasing educational cartoons. On the other hand, the F-calculated (F-cal) values of the remaining 3 items specifically items 1, 5 and 6 were 3.48, 3.92 and 3.77 respectively which are all greater than the F-table (F-tab) value of 3.00 at $p \leq 0.05$ level of significance. This implied that there were significant differences in the mean ratings of the responses of parents with O level, NCE/OND, HND/Degree and postgraduate qualification on the 3 guidelines for purchasing educational cartoons.

Discussion

The findings of this study as regards to research question one showed that parents agreed that reasons why

parents use educational cartoons for children include: developing the intellectual ability of the children, increasing the reasoning ability of children, teaching children alphabets and numeracy, teaching children science, encouraging reading among children, teaches children English and its vocabulary, helps children develop skills in mathematics, increases academic performance of children, helps children to identify objects and things generally arouses a child's curiosity, teaches children how to draw, keeps children occupied while parents are busy, stimulating the interest of children in a particular field, teaching children creativity, helps children to relax and when carrying out a difficult task among others.

The finding of this study on reasons why parents use educational cartoons for children agreed with Yaman (2010) who reported that cartoons are vital and effective as educational tool. In addition, the findings of the study corroborated the result of the study of Adetunji, Bamidele, and Awodele, (2013) who conducted a study on effects of historical simulations as narrative and graphic advance organizers on Nigerian Junior Secondary School Students' learning outcomes in Basic science. The findings showed that the use of educational cartoons increased students' retention of learning which is one of the reasons why parents adopt educational cartoons for their children. The findings of the study also agreed with the findings of VanWyk (2011) who carried out a study on the use of cartoons as a teaching tool to enhance student learning in economics education with the objective of investigating why economics subject didactics students prescribed to cartoon as a teaching tool to enhance their learning. The findings of the study revealed that cartoons positively enhance constructive learning, cooperative learning and collaborative learning amongst peers.

The findings of this study as regards to research question two showed that parents agreed that the guidelines parents adopt in purchasing educational cartoons for children include: considering the age of a child, the health/sight challenges of a child, buying within the family income, timing of purchase, example once year, presenting cartoons as gifts to children upon good academic performance, presenting cartoons as gifts to mark special occasions such as birthdays, considering the content or the theme, that is whether is educational or otherwise and purchasing based on usefulness/importance placed on the cartoons.

Parents adopt different strategies for purchasing educational cartoons for their children. Some strategies as reported by Mark (2006) include; presenting cartoons to children as gift during birthday, for success in examination, for motivation and building an aspect of the child such as numeracy ability. The findings of this study on guidelines parents adopt in purchasing educational cartoons for

children agreed with the result of the study of Nwafor (2010) who investigated child training practices among nursing mothers in Enugu state and found that, most of the principles adopted by parents in selecting cartoons for children include: age of the child, the health condition, academic performances of the child, economic status of the parents, presenting gift items inform of cartoons to children during birthday and during any festive period.

Conclusion

Educational cartoons are those cartoons that are used to teach children alphabets, numeracy, colours, drawing, English language and its vocabulary. It encourages reading among children and aim at developing skills in mathematics, sciences and other disciplines. With all the mix up in presenting educational cartoons to children and how it will be possible for Port Harcourt parents to acquire or access the correct educational cartoons for their children considering their busy schedule constitute the major thrust of this study.

Recommendations

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

- There should be more enlightenment campaign on importance and difference sources of educational cartoons among parents for awareness towards the betterment of the children socially and academically.
- The state and federal government should ensure that television programmes inform of educational cartoons for children are censored to match the intellectual capacity of the children.

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Career Women and Clothing Selection Issues

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Abstract

The study investigated career women and clothing selection issues in the University of Nigeria Nsukka. The purpose of the study was to determine factors that will guide career women in the selection of their clothing, challenges career women face in the selection of their clothing, and the possible solution to the challenges of clothing selection by the career women. The population of the study was 500 academic career women while the sample size was 100. The findings of the study show that the career women are confused during apparel selection due to homogenous styles that flood the market, failure to plan their purchases, among others. The study made some recommendations based on the findings, which among others include that career women should not buy clothes on impulse and that the career women should plan their purchases according to their job demands.

Keywords: career women, clothing, selection, challenges, purchase information.

Introduction

Career women are experts through training and experience having certain professional degrees from professional schools, a license or certificate, experience or references (Walker, 1992). They include lecturers, medical doctors, lawyers, social workers, politicians, engineers, bankers, and secretaries, among others.

Career women are employed outside their homes and they often juggle household chores and official responsibilities together. At home, they also plan, prepare and serve meals, carry out laundry work, go for shopping and see to personal needs of the children and husband and also engage in community services. In the office too, she is always busy. If for instance she is a school teacher, she will in addition to her household chores read and search for information that will enable her write lesson notes, attend classes, give assignments, set and administer examinations and give

feedback to the students or pupil as the case may be. All these activities take the time and energy of the career woman.

Clothing consumption involves effective selection, buying and utilization of items of clothing. Clothing is an important component of physical body protection and appearance. It includes all different garments worn by the body in order to protect, adorn or communicate an intent (Johnson and Foster, 1990). According to Anyakoha (1997), clothing is an article placed on the body for protection, modesty and adornment.

The career woman's public appearance necessitates professional business clothing that will enhance her personality. She should be committed to looking her best in clothes that complement her personality, creates a goal oriented authentic appearance that gets them noticed positively. Their dress should convey the appropriate public image and give them respect in the work environment. In the opinion of Spillane (1993), career women attire should communicate and reflect confidence, elegance and sophistication.

Schor (2005) also surveyed some female career women in different attires or clothes and their perceptions of ten occupational attributes which include responsibility, competency, knowledge, professionalism, honesty, reliability, intelligence, trustworthiness, willingness to hard work. The result showed that career women who dressed professionally were overwhelmingly professional, responsible and confident. As a result, Schor (2005) is of the opinion that career women should dress professionally instead of casually because they can be perceived wrongly.

Weber (1990) also stated that ill-fitted clothes that are too tight and short in length can cause career women to be disrespected by client and committee. Career women should not ear sexually suggestive clothes that show too much body curves. Bimbo (2002) further stressed that career women that want to increase their employability skill should not neglect appropriate work environment clothing.

In the same direction, Hawkins and Motherbaugh (2010) state that career women that dress carelessly and casually will be perceived as flexible, friendly and sympathetic while those that wear formal professional attire are perceived as better organized, more knowledgeable and better prepared. These inferences were only made through appearance and not interaction.

Enright and Flynn (2003) stipulate that this 21st century career women are facing diverse environment and are meeting clients from diverse cultures who have their different values and beliefs due to business tours. According to Green (1998), there is need for career women to select and wear appropriate clothing that will put them in a credible position in order for their business clients to accept their opinion in business

transactions. They suggest that career women when selecting professional workplace attire should buy classic clothing that are durable, with good workmanship other than trendy fashion. They also added that career women should not compromise fit and good style in clothing.

Career women should spend their clothing budget in buying clothing that has good quality in terms of fabric content, and maintenance.

Nothing is better for job performance that to be comfortable while performing the task at hand. Professionals such as career women should not wear over sized or under sized dresses. Oversized dresses look lumpy while under sized ones tend to diminish one's credibility. Clothes for work environment should fit smugly, should not pucker and have unwelcome gathers, the buttons should not look as if they are about to blast off. It is important that career women put on clothes that allow arm movement to the head, bend downwards and upward and forward without stretching a seam beyond its capacity. Career women should not be lost in dress and become shapeless.

For career women to meet work place clothes needs, they need to be guided in their clothing consumption. This is because they are increasingly demanding In what they look for in clothing products and increasingly discerning in what they find acceptable.

This notwithstanding, the apparel market is full of clothing products with unknown performance characteristics, poor workmanship, poor sizing system, no label and brand and country of origin (Inyang, 2004). Career women are also not experts in clothing selection while clothes constitute a very important need in her life style. In this regard, Baruch (2001) opined that career women lack objective information to make satisfactory purchase in the market place due to scarce clothing purchase information obtainable in the market place. Consequent upon these, career women sometimes buy clothing that are unsatisfactory. Based on these therefore, there is need to investigate into career women's clothing consumption challenges in order to find solution to the challenges thereby improving their clothing consumption practices.

Purpose of the Study

The major purpose of the study was to investigate some issues relating to career women and their clothing consumption practices. Specifically, the study determined the following:

1. Factors that should guide career women in the selection of their clothing selection in the University of Nigeria Nsukka;
2. Challenges career women face in selection of clothing;
3. Possible solutions to the challenges of clothing selection by career women.

Research Questions

The following research questions were formulated to guide the study.

1. What are the factors that guide career women in clothing selection in the University of Nigeria Nsukka?
2. What are the challenges the career women face in clothing selection?
3. What are the possible solutions to the challenges career women face in clothing selection?

Methodology

***Area and Design of the Study*:** The study was carried out in the University of Nigeria Nsukka. University of Nigeria is situated in Enugu State. It is one of the first generation universities with undergraduate and postgraduate academic programmes and comprises fifteen faculties. The study adopted a survey research design.

***Population for the Study*:** The population for the study consisted of 500 career women who are academic staff from the fifteen faculties in the University. These women possess University degrees in their various fields.

***Sample for the Study*:** Stratified random sampling technique was used to select 5% from each faculty, bringing the total number to 100 from the 15 faculties in the University.

Instrument for Data Collection: The instrument for data collection was a structured questionnaire, guided by the research questions for the study. It was based on four point scale and validated by three experts in the field of Home Economics. The reliability of the instrument was test re-test. The instrument was found to be consistent.

Data Collection and Analysis Techniques: One hundred are twenty copies of the instrument were administered by hand and one hundred were collected and properly filled. Data were analysed using mean. A cut off point of 2.5 mean was used for decision making.

Table 1: Mean Responses Factors that should Guide Clothing Selection by Career Women

S/N	Factors that should guide clothing selection by Career women:	Mean $\bar{x}$	Remarks
1	clothing expenditure should fit into family income/budget	3.34	Agreed
2.	clothing should fit body figure type	3.50	Agreed
3.	enhance personality	3.47	Agreed
4	be durable	3.54	Agreed
5	be fashionable	3.27	Agreed
6	be ease of movement	3.55	Agreed
7	be classic in fashion	2.89	Agreed
8	be easy care quality	2.66	Agreed
9	have care instruction label	2.79	Agreed
10	be of good workmanship	3.16	Agreed
11	be suitable for mix matching	2.81	Agreed
12	have multi-purposed	2.88	Agreed
13	have brand name	2.56	Agreed

14	have tags for country of origin	2.41	Agreed
15	be light weight	2.85	Agreed
16	be comfortable	3.01	Agreed
17	be suitable for work/activities	2.63	Agreed

Table 1 reveals that all the career women agreed to all 17 factors that should guide career women in selecting their clothing. All the factors had mean ratings above 2.5, which implies that all the items are qualities needed in career women clothing selection.

Table 2: Mean Response on the Clothing Selection Challenges of Career Women

S/N	Challenges in clothing selection	Mean$\bar{x}$	Remarks
1	Buying in hurry due to lack of time	2.68	Agreed
2	Lack of inventory of existing clothing	2.57	Agreed
3	Failure to budget before purchasing	2.76	Agreed
4	Buying without due consideration of the colour and accessories	2.43	Disagreed
5	Irregular or none availability of garment sizes	2.11	Disagreed
6	Not fitting clothing to ascertain the fit	2.19	Disagreed
7	Non durability of clothes	2.16	Disagreed
8	Not considering the weather condition before buying clothes	2.44	Disagreed
9	Fast fashions that are short-lived	2.44	Disagreed
10	Clothes that have no care label	2.39	Disagreed
11	Clothes with unknown fibre characteristics	2.50	Agreed
12	Poor return policy among clothing retailers	2.52	Agreed
13	No warrantee or guarantee from shop owners	2.71	Agreed
14	Misdirection by clothing retailers on brand names and quality of clothing	2.79	Agreed
15	Flooding of the clothing market with homogenous styles	2.72	Agreed
16	Buying of clothing without consideration of maintenance cost	2.69	Agreed
17	Poor workmanship of clothes and inability to evaluate or assess good workmanship	3.01	Agreed
18	Inability to plan for purchases	2.58	Agreed

Table 2 shows that out of the 17 items, 11 were agreed upon by the respondents as challenges of career women in clothing selection.

Table 4: Mean Responses on Possible Solutions to Challenges of Clothing Selection

S/N	Possible solutions to challenges of clothing selection	Mean$\bar{x}$	Remarks
1	Make proper clothing budget before buying	3.56	Agreed
2	Consider colour and the available accessories before buying so as to ensure colour harmony in clothing	3.46	Agreed

3	Avoid buying clothes without size	3.46	Agreed
4	Ensure proper fit of clothing before buying	3.34	Agreed
5	Avoid buying fast fashion clothes	3.21	Agreed
6	Consider weather condition before buying	3.08	Agreed
7	Avoid buying clothes without care label and go for those with care labels	3.99	Agreed
8	Make enquiry about the return policy of the shop concerning the clothes to be bought	2.93	Agreed
9	Read care labels and consider maintenance cost to ensure you can care for clothing	3.02	Agreed
10	Check clothing for good workmanship and finishing	3.24	Agreed

Table 4 shows that all the items had mean scores above 2.5 which was the criterion level of acceptance. It revealed that all the solutions listed were identified by the respondents as solutions to the clothing consumption challenges of career women.

Discussion of the Findings

The findings on the factors that guide career women in selecting their clothing show that many factors guide career women in their clothing selection. Career women are not ordinary people but experts through training and experience, women of calibre such as lecturers, lawyers, medical doctors, engineers, bankers, politicians, secretaries, among others. As such, they need clothes that specially fit their profession and as a result, they put a lot of factors into consideration when making their clothing purchases. This is in agreement with the opinion of Johnson and Foster (1990), that the career women's public appearance necessitates professional business clothing that will enhance their personality. In addition, they noted that career women should be committed to looking their best in clothes that complement their personality. Some of the clothing needs of career women as revealed by the study include the need of clothing that: fit one's figure type; enhance personality; ease movement; as well as clothing that are durable, fashionable, classic, multi-purposed, etc.

According to Marshall, Jackson, Stanley, Kefgen and Tochie-Specht, fit is the correspondence in form of a piece of clothing to one's body. Proper fitted garments give one a feeling of physical comfort and self confidence while improperly fitted clothing can never appear attractive or give the look of quality clothing. This is in line with Spillane (1993) who noted that career women's attire should communicate and reflect confidence, elegance and sophistication, and that their dress should convey the appropriate public image and give them respect in the work environment. His view agrees with Marshall et al (2000) statement that the society puts people into a kind of supermarket competition and as such, they must be "packaged" to make the right visual image. If there is any group of people

who must be "packaged", to make right visual image, career women should be the first group.

Career women's clothing should also enhance personality. According Clayton (1994), your personality is a blend of all the characteristics, behaviours, and feelings that make you a special person. For instance, the career women should select colour that enhances their skin complexion, eye and hair colour. Career women need clothing that are durable and easy to care for. A wise consumer should always consider the durability of the clothing selected as well as the care needed to maintain its durability. In discussing about durability, Ukpore (2006) pointed out that although two pieces of clothing may look the same, they may differ considerably such that one may last longer than the other. According to Weber (1990), the ease of care required by a clothing is an important factor and that washable, easy-to-care-for clothing are appreciated.

The findings as summarized in table 2 showed that career women face many challenges in their clothing selection. These challenges include the problem of buying in hurry due to lack of time, lack of inventory of existing clothing, failure to budget before making purchases, proliferation of the market with clothes that have no known fibre characteristics, buying of clothing without maintenance cost in mind, poor workmanship of clothing and inability to assess good workmanship which result to spoilage of fastening, seams, ripping, etc, within a short time, flooding of clothing market with homogenous styles. The findings are in line with the statement of Enright and Flynn (2003) that the 21st century career women are facing diverse challenges in their clothing as they meet clients from diverse cultures in their business tours, who hold different values and beliefs about clothing. To this regard Schor (2005) noted that there is need for career women to select and wear appropriate clothing that will put them in a credible position in order for their business clients to accept their opinion in business transactions.

In commenting about some of these challenges, Lowe, Malouf and Jacobson (2003), noted that as clothing apparel proliferate the market, career women are less able to make price and quality comparison due to inappropriate information. According to them, this has lead to increased shopping confusion, irritation, resentment, waste of time and energy, and finally, unsatisfactory purchases, and may also lack the knowledge of the means to seek redress. All these problems according to Maiden (1998) are because the consumer lacks knowledge of fibre characteristics and understanding of what is involved in textile production, and clothing construction in relation to its use and care.

Finally, various ways of finding solution to the clothing selection challenges of career women were also revealed by the study. They include among others, making proper clothing budget before buying, ensuring proper

fit of clothing before buying, avoiding buying fast fashion clothing, avoiding buying clothing without size, making enquiry about the return policy of the shop concerning the clothing to be bought. In reacting to this, Lowe et al (2003) stated that the secret of enjoying clothing choices is a well planned wardrobe. According to them, a well planned wardrobe meets your clothing needs and wants and reflects careful buying decisions. To this regard, Weber (1990) advised that if your time is limited because of commitments to family, work or school activities, a well thoughtful wardrobe plan is essential. It will help you to know exactly what you are looking for before going to shop.

Conclusion

This study has appraised career women and their clothing selection challenges. Important approaches were agreed upon as solutions to the challenges faced by career women in their clothing selection issues. The adoption of these approaches will help to reduce the negative experiences encountered by career women in the clothing market such as confusion, irritation, waste of time and energy, unsatisfactory purchases. This will go a long way in helping career women to be committed to looking their best in clothings that complement their personality. By so doing, they will through their clothing, manifest important occupational attributes which include responsibility, competency, knowledge, professionalism, honesty, reliability, intelligence, trustworthiness, willingness, and hard work. In expressing the importance of putting on appropriate clothing attire by career women, Oleck (2001) commented that companies have been calling on fashion designers to teach their employees about appropriate work-place dress. When career women appear in appropriate clothing, they look professionally responsible and confident.

Recommendations

The study made the following recommendations:

- Career women should always assess their present wardrobe in order to identify their real clothing need before making a clothing purchase
- Career women should look at their wardrobe as an investment to their appearance. So, they are advised to invest on middle priced classic garment that will enhance their appearance rather than invest in cheap fast fashion that is short lived.
- Career women should always consider their figure type and fit when purchasing clothes. This is because clothes that have ease of movement are always better than the ones that are too tight and show too much curves in work environment.
- Career women should read care labels and long tags in order to follow manufacturer's instruction during maintenance.
- Proper examination of clothing workmanship should be carried out by career women, to ensure the

durability of the clothing features before making purchases.

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Effect of Cooking Methods on Chemical and Organoleptic Characteristics of West African Bullfrog (*Hoplobatrachus occipitalis*)

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Abstract

The study determined the effect of cooking methods on the chemical and organoleptic characteristics of West African Bullfrog (*Hoplobatrachus occipitalis*). A total of 120 West African Bullfrog (*Hoplobatrachus occipitalis*) were harvested with funnel and basket valved traps. Three of the fresh samples were used to determine the morph metric parameters (total length, snout vent length and body weight), the remaining 117 samples were divided into three equal portions and prepared using three cooking methods (frying, roasting and boiling). Proximate composition of the samples was ascertained using AOAC analytical procedure while the sensory evaluation was carried out by a panel of 10 trained judges. The instrument for data collection was a 9 point hedonic scale which graduated from like extremely (9) to dislike extremely (1). Data obtained was analysed using Mean and standard error. Findings revealed that the protein values for the roasted sample was higher that the other cooking methods; the cooking methods had no difference on the organoleptic characteristics (appearance, taste, texture, flavour) and the overall acceptability of West African Bullfrog. Based on the findings the researchers recommend that low income families and families that reside in riverine communities should introduced West African Bullfrog as meat in the preparation of local dishes because of its high nutritive value, low cost and availability, amongst others.

Key Words: *Bullfrog* (*Hoplobatrachus occipitalis*), Chemical, Evaluation, Organoleptic Characteristic, Cooking Methods.

Introduction

The West African Bullfrog (*Hoplobatrachus occipitalis*) is one of the largest frogs in Africa. It measures up to 9.5 inches (24cm) and weighs over 4 kg. It has a chubby body with a broad head and olive greenish coloured bumpy skin. The male has yellow throat while the female throat is cream. They belong to the family of *Ranidae*, a class of amphibians and order of *Anura* (Cooke, 2001).

The most obvious characteristic that differentiates West African bullfrog from other frog is its size as they provide about 6cm of soft substrate to burrow into. They feed on any living thing (food) that will fit into their mouths as far as they can overpower that living thing, for example, mice, lizards and other smaller frogs. They have tooth like projection on their upper jaws which help to restrain struggling prey from escaping. They live well in warmer temperature (up to 83^0F).

The West African bullfrog is found mostly in open grassland and at low elevation in the sub-Saharan African countries such as Nigeria. They spend much of their years underground but come to the surface after a heavy rain to breed. In the dry seasons they burrow deep into the soil and cloak themselves in a winter tight skin cocoon which will prevent skin layers. This cocoon will prevent the body fluids from evaporating thus helping the frog to go into hibernation (www.anapsid.orgbullfrog.html, 2003).

The West African bullfrogs are like all amphibians, cold blooded animals that maintain their body temperature with the use of the atmospheric temperature of the environment of their habitats. On land, they obtain oxygen primarily with their sack-like lungs by using the movement of the throats to push air into the lungs. They also obtain oxygen through thin, moist skin which is richly supplied with tiny blood vessels while on land. Under water, West African bullfrogs like all other frogs obtain their oxygen through their skin like on land (Thomas, 2002).

Frogs generally are of great importance to man because of their habitual consumption of crop damaging insects and mosquitoes. They also serve as protein source for some very poor consumers because they are harvested at no cost. Although over 4000 species of frog have been identified, scientists continue to explore the tropical rain forest and other remote part of the globe (Rozum, 2002), researches show that the identification process of frogs is still in progress by scientists. Frogs have high nutritive values, the nutritive value of the leg of a frog are protein 16.40g; calcium 18.00mg; iron 1.50mg; potassium 285.00mg; folate 15.00mcg; vitamin A 15.00mcg and vitamin D 8.00IU (www.nutritivevalue.org/frograwnutritionalvalue). West African bullfrog can be cooked using various methods to enhance its nutritive value, palatability and acceptability. Shirley (2000); El Fielhe (2005); Monila, Gudiel and Bressani (2002) assert that different cooking methods have different effect on the nutritive value, colour and other organoleptic characteristics of food.

The West African bullfrog is a good source of first class protein. This means that the inadequate intake of protein which is a major nutritional problem in developing countries could be stemmed-off should the consumption of West African bullfrog become acceptable to most or all consumers. This protein source is at no

cost especially during rainy season when the harvesting of fishes and larger animals are greatly reduced. It will be of great benefit to low income families in developing countries like Nigeria and will also help to prevent the much dreaded monster called malnutrition especially protein malnutrition.

Furthermore, the world is saddled with how she can produce the livestock necessary to meet her future demand come 2020 to stem-off malnutrition (WHO, 2002). If not, going by the demand even in developing countries like Nigeria and looking at the cost of available livestock, there is need to look for alternative cheap source of protein from less utilized sources for the maintenance of adequate nutrition and good health to all classes of consumers irrespective of their age. This study therefore explored the use of West African bullfrog as the alternative cheap source of protein by determining the effect of cooking methods on the chemical and organoleptic characteristics of West African bullfrog (*Hoplobatrachus occipitalis*).

The study will be of significant importance to families especially the low income families because West African bullfrog is readily available and at no cost. Also its acceptability will promote government and rural farmers' interest, which in return will boost the production of the West African bullfrog through little and large scale farming. This production of West African bullfrog will to a large extent promote its consumption by most families in developing countries especially in Nigeria.

Objectives of the Study

The main purpose of the study was to determine the effect of cooking methods on chemical and organoleptic characteristics of West African Bullfrog (*Hoplobatrachus occipitalis*). The specific objectives were to:

(1) prepare West African Bullfrogs using different cooking methods (roasted, fried and boiled);
(2) determine the chemical composition of West African Bullfrog;
(3) assess the organoleptic attributes of West African Bullfrogs prepared using various cooking methods.

Materials and Methods

Design of the Study: Experimental research design was used to carry out this study. The study adopted this research design because West African Bullfrogs used for the study were allocated different experimental groups and treatments (cooking methods).

Procedure for the Study: A total of 120 West African bullfrogs were harvested from the river banks in Ikot Nkpene, Nsit Atai Local Government Area of Akwa Ibom State using funnel and basket valved traps. Three of the samples were taken to Fisheries Laboratory, University of Uyo for the biological assessment to ascertain morph metric parameters (total length, snout vent length and body weight). One hundred and seventeen were

taken to Home Economics Laboratory University of Uyo for cooking. They were divided into three equal portions and cooked using three cooking methods (roasting, frying and boiling). A portion of each of the prepared samples was taken to the Animal Science laboratory of the same University for proximate analysis while the remaining was used for sensory evaluation in the Home Economics laboratory.

Preparation of Samples: The West African bullfrogs were prepared by disserting the stomach to remove waste material, washed, cut into desirable sizes, put in a small basin and seasoned using the ingredients below. Thirty nine samples each were; turned into a pan and put in the oven for 20minutes until it was done; fried using deep fat frying method and boiled with 100ml of water in a sauce pan, they were turned into three separate food flask for evaluation. The samples were coded: WABFR = Roasted sample; WABFF = Fried sample; WABFB = Boiled sample.

Recipes:	Ingredients	Quantities
	West African bullfrog	117
	Ground dry pepper	2 tsp
	Table Salt	a pinch
	Star Maggi	2 cubes
	Groundnut oil	500ml
	Chopped Onions	3 tsp
	Chopped 'Ntong' spice	3tsp

Chemical Analysis: The protein, fat, fibre, ash, carbohydrate and energy contents of the West African bullfrog were determined by using the standard procedures of the Association of the Analytical Chemists (AOCA, 2000).

Organoleptic Assessment: To ascertain the organoleptic characteristics, sensory evaluation was done by 10 judges/panelists in the Home Economics Laboratory, University of Uyo. The panelists were students in the institution. They were trained to be acquainted with the desired sensory attributes. The coded samples were presented to the panelists. The instrument used for data collection was a 9-point hedonic scale of dislike extremely (1) to liked extremely (9) was used by the panelist to score for appearance, texture, taste and flavor of the samples.

Statistical Analysis: Data collected from the chemical composition and the sensory scores of the West African Bullfrog were analysed using Mean and standard deviation.

Findings of the Study

The Chemical Compositions (nutritive value) of West African Bullfrogs

Table 1: Chemical Composition of West African Bullfrog

Parameters	Roasted frog	Fried frog	Boiled frog
Protein	44.01 ± 0.20	39.28 ± 0.12	40.26 ± 0.16
Fat	6.20 ± 0.11	10.16 ± 0.16	5.8 ± 0.07
Fibre	11.12 ± 0.11	10.13 ± 0.45	11.12 ± 0.11
Ash	6.11 ± 0.33	6.12 ± 0.06	6.22 ± 0.03
Carbohydrate	32.56 ± 0.22	34.31 ± 0.08	36.60 ± 0.25
Energy (kcal)	362.08	385.80	358.74

Table 1 shows the chemical composition of West African bullfrog based on the three cooking methods (roasting, frying and boiling). The table indicates varying chemical composition based on the different cooking methods. From the table the roasted sample had the highest protein value (44.01 ± 0.20); the fried sample had the highest fat value (10.16 ± 0.16); the roasted and boiled samples had equal fibre values (11.12 ± 0.11); the boiled sample had the highest ash and carbohydrate values respectively (6.22 ± 0.03); (36.60 ± 0.25) while the fried sample had the highest energy value (385.80).

Organoleptic attributes of West African Bullfrogs prepared using different cooking methods

Table 2: The organoleptic assessment of the West African Bullfrog

Parameters	**Roasted sample**	**Fried sample**	**Boiled sample**
Appearance	8.60 ± 0.52	8.20 ± 0.79	7.90 ± 0.88
Texture	8.00 ± 0.82	8.10 ± 0.74	8.00 ± 0.94
Taste	8.60 ± 0.70	8.20 ± 0.79	7.80 ± 1.14
Flavor	8.60 ± 0.52	8.20 ± 0.92	7.70 ± 1.34

Table 2 shows the organoleptic assessment of West African Bullfrog (appearance, texture, taste and flavour) by trained judges using the 9 point hedonic scale. The table shows that the cooking methods (roasting, frying and boiling) did not affect the appearance of the West African bullfrog (8.60 ± 0.52, 8.20 ± 0.79, 7.90 ± 0.88), from the result, all the samples were accepted for their texture, taste and flavor as illustrated in the table. 8.0 ± 0.82 , 8.1 ± 0.74 and 8.0 ± 0.94 were the values of texture for roasted, fried and boiled samples respectively. The taste values for the samples based on cooking methods were 8.60 ± 0.70 for roasted; 8.20 ± 0.79 for fried sample and 7.80 ± 1.14 for boiled sample. 8.60 ± 0.52, 8.20± 0.92 and 7.70 ± 1.34 respectively were the flavor values for the samples.

Discussion of Findings

West African Bullfrog is a unique type of frog because of its characteristics of

being one of the largest frogs and possessing a chubby body. This attribute makes it meaty and therefore a dependable source of meat for low income families in riverine communities in Akwa Ibom State, where they are predominant. West African Bullfrog like other foods can be prepared using different cooking methods to enhance its chemical and organoleptic characteristics as asserted by Shirley (2000); El Fielhe (2005); Monila, Gudiel and Bressani (2002) who establish that different cooking methods have different effect on the nutritive value, colour and other organoleptic characteristics of food. The result of the study revealed that West African Bullfrog has high nutritive value and therefore could serve as a good source of protein to stamp out malnutrition which is the bane of rural and low income families (WHO, 2002).

However, the findings of the study show that the chemical composition of the sample varied according to the cooking method. Roasted West African Bullfrog had the highest protein and fiber values; the fried sample had the highest fat and energy values while the boiled sample was high in ash and carbohydrate. The difference in the protein value of the fried and boiled samples when compared to roasted samples must have been because the protein was leached into the fluid used for frying (oil) and boiling (water) (Molina, Gudiel and Bressani, 2002). The increase in fat in fried sample when compared to the other samples is attributable to the fact that fat was used as the medium for cooking. The difference in the cooking methods must have been why the difference in nutrient density existed (El-fiethe, 2005). The fried sample also had the highest energy value while the least energy value was recorded for boiled sample. This is because fat is inevitably taken up by the food being fried thus contributing to an increased energy density (www.bmj.com/ content/3441bmj.e). Also the high energy density in the fried sample must have been because the food lost its water and took up the fat in the oil which eventually increased the fatty acid composition and automatically the energy density (Guallar-Castillon, *et. al*, 2007).

Table 2 shows the result of the organoleptic characteristic of the frog. Findings revealed that the cooking methods had no difference on the appearance, texture, taste and flavor of West African Bullfrog meaning that the cooking method had no effect on the acceptability of the samples, be it boiled, fried and roasted. And although there was a slight difference existing between means scores of the samples, acceptability level of the different samples were not affected when compared.

Conclusion

In view of the result of the study, the researchers conclude that West African bullfrog has high nutritive value and can be cooked using different cooking methods (roasting, frying and boiling) to increase its

chemical composition. However, roasted West African bullfrog had the highest protein value compared to the other samples. The result also revealed that cooking methods have no effects on the appearance, texture, taste, flavor and overall acceptability of West African bullfrog. Based on the findings, families should consume West African Bullfrog because of its economic and nutritive values.

Recommendations

Based on the findings of the study the following recommendations are made:

- West African bullfrog should be introduced as meat in the preparation of local dishes because of its high protein content, low cost and availability.
- The most appropriate cooking method for West African bullfrog that individuals and families should adopt is roasting. This is because this cooking method retains the protein value of the frog.
- Families should consider rearing West African bullfrog to aid in wadding off protein energy malnutrition of low income households.

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Perception of Mothers on Malnutrition Issues Among Children (6 -12 Years) in Rural Areas of Ogba/ Egbema/ Ndoni Local Government Area of Rivers State

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Abstract

This study focused on mothers' perception on issues relating to malnutrition in children in rural areas of Ogba/Egbema/Ndoni Local government Area of Rivers State. The study determined awareness indicators, consequences and ways of minimizing malnutrition in rural areas. The population was made up of mothers who attended health centers in the area of the study. A sample of 150 mothers was randomly selected. Questionnaire was used for data collection. Data collected were analysed using percentage. Major findings include mothers' awareness of malnutrition especially anaemia, and malnourishment of children in poor families. Based on the findings, recommendations on enlightenment and appropriate nutritional practices were made.

Keywords: - Growing, Children, Malnutrition, Diet, Over-nutrition, Under-nutrition.

Introduction

Development of children is a major issue of concern in their wellbeing. Child development refers to the biological, psychological and emotional changes that occur in human beings between birth and the end of adolescence. Child development occurs across a range of skills areas such as physical skills, language skills, social and emotional skills, and cognitive and intellectual abilities. Therefore, child development is a sequential progression of changes in the body and abilities as the child grows from birth to adolescence. Development refers to how a child becomes able to do more complex things as he/she gets older while growth refers to increase in size (www.childdevelopment.com.au/what; Boyse, 2013). Ellah (2010) noted that children at the age of 6 – 12 years eat a lot of food because at this period nutrition is very important for the growth of the body and rapid brain development. In low income families, in rural areas, there could be sufficient calorie foods for children, but often children do not receive sufficient protein intake to meet their physiological needs.

Children need adequate nutrition to grow up properly and reach their

full potential. World Health Organization – WHO (2013) reported that more than 200 million children in developing world do not fulfill their potential because of poor nutrition. United Nations (2004) attributed insufficient protein consumption, often in the face of adequate supplies to: food pattern, which do not secure adequate protein intake; marginal incomes, resulting in edible protein being sold; and protein losses during harvest, storage, processing and/or cooking.

Children are vulnerable to malnutrition. They need adequate amount of body-building, protective and energy-giving foods to ensure proper growth and development. Malnutrition is a condition which occurs when there is a deficiency of certain vital nutrients in a person's diet. It is a poor nutritional status resulting from dietary intake either above or below which is optimal (Odigbo, 2002; Grosvenor and Smolin, 2002; Mandal, 2000-2013). Wardlaw, Hampl and DiSilvestro (2004) noted that malnutrition is a failing health that results from long-standing dietary practices that do not coincide with nutritional needs. Alozie (2008) said that malnutrition is a pathological condition that brought about inadequate or over consumption of one or more essential nutrients necessary for survival and growth. According to Ifeanacho (2009) malnutrition is a state of failing health that results from a long-standing dietary intake that fails to meet nutritional needs or excessive intake of nutrients in relation to body needs. Simply put, malnutrition is caused by insufficient or excess or faulty consumption of food nutrients which may be due to poor diet or illness.

It is estimated that 195 million children suffer malnutrition in developing countries especially rural areas because children are given diets that are significantly below the recommended allowances of nutrients established by nutritional bodies of the different countries (Brown and Politt, 1998). United Nations (2004) reported that consistent consumption of poor diet (wrong balance of food groups) makes growing children suffer malnutrition. Children who are fed poorly for any number of economic or social reasons may be prone to deficiency diseases such as scurvy, anaemia and so on. According to Mandal (2000 – 2013) malnutrition affects all age groups but is more common among children who are more liable than adult to deficiency diseases. Malnutrition is by far the largest contributor to child disease and mortality. Malnutrition during childhood usually results in worse health condition and lowers educational achievement of children. This is so because it complicates diseases like pneumonia and diarrhea (WHO, 2002; World Food Programme, 2013). Nordqvist (2010) said that children who are severely malnourished typically experience slow behavioral development and even mental retardation (www.medicalnewstoday.com/../179316.php).

Proper nutrition means the diet should have the right quantity and proportion of nutrients to one another for the sustenance of good health and proper growth in children. According to Anyakoha (2007) older children's meals must be balanced by containing good sources of body building and protective foods as well as energy foods because they spend much energy at play. Ifeanacho (2009) said that balanced meals should be given to children to ensure proper growth and development. Grosvenor and Smolin (2002) said that consuming a well-balanced diet allows children to meet their nutrients for growth and development and to prevent or delay the onset of chronic diseases.

Malnutrition has two dimensions namely under nutrition and over nutrition. Under nutrition can be described as a situation that arises when nutrients are under supplied as a result of inadequate intake, mal-absorption, abnormal systematic loss of nutrients due to diarrhoea, haemorrhage, renal failure or excessive sweating, and infection or addiction to drugs. Over nutrition can be defined as a situation that arises when nutrients are over supplied as a result of over eating, insufficient exercise, over prescription of therapeutic diets/ drugs, including excess intake of vitamins and minerals (Moses, 2004). Malnutrition could also be classified as primary or secondary in nature. According to Maxiya-Dixon in Alozie (2008) primary malnutrition occurs when there is faulty food selection, and or lack of money to buy nutritious food or famine. This essentially, is as a result of nutrients in relation to body's requirement. Secondary malnutrition is a result of interference with ingestion or absorption or from stress or other factors which increase the body's requirement (trauma, growth, and infection) or the destruction or exertion of nutrients (mal-absorption syndrome, diarrhoea and vomiting).

Children within the age bracket of 6 – 12 years are mostly of primary school level. Their growth rate is high, which is about average height of 2.5 inches and average weight of 5 – 7 pound per year. Children generally progress at different rate and have diverse interest in activities but they all like play. This implies that apart from growth, children of this stage are active, so they need adequate nutrition to meet their special needs (Packard, 2013; Boyse, 2013).

Rural area is a geographical area located outside urban city. It is the opposite of urban area. Rural areas are susceptible to malnutrition of growing children. Ifeanacho (2009) stated that anaemia, marasmus and kwashiorkor are dietary deficiency diseases that are common amongst children in poor countries. The problem could be traced to child feeding practices, especially poor breakfast foods such as *indomie* alone diet, pap without milk or other ground protein source, *golden morn* without milk, excessive intake of poorly prepared beverages and drinks, and other high calorie food without protein. National Population Commission – NPC (2002) reported a

study where 26.6 percent of fewer than 5 children met their recommended dietary allowance for energy while 8.5 percent were mildly deficient and 13.5 were severely deficient. The report noted that, children ability to meet their energy requirement increased slightly with age for children less, because the older the child the greater access to starchy foods and cereals in rural areas. According to Nordqvist (2010) food shortages, high cost of food and ignorance on the proper use of available foods are significant causes of malnutrition in rural areas. By implication, ONELGA in Rivers State is not an exception. Igba (2009) observed that even where food supplies are adequate, poverty impedes access for quantity and quality of food family needs.

Adequate nutrition implies the eating of meals that contains all the nutrients in the right proportion for a given person. Anyakoha (2007) advised that young children in the family should be given food rich in protein, because they are growing. According to Brown and Politt (1998), dietary requirement of children can be met by giving them several servings a day from each of five food categories which are staple foods/starchy food (bread, rice, garri, yam, plantain, cornflakes, golden morn, crisp rice), proteinous foods (meat, fish, eggs, nuts, legumes, pulses), vegetables (carrot, cucumber, leafy vegetables), fruits (banana, pawpaw, pineapple, oranges, mangoes, water melon), and milk/milk products (milk, ice cream, yoghurt). A cup of milk (cow milk or soya milk) a day is good for growing children.

Malnutrition of children is a challenge to mothers because they are the meal managers of most families. Children of growing age make up above 30 percent of the entire population (NPC, 2002), yet their nutritional wellbeing is determined by poverty, faulty food selection and poor dieting habit of children. Malnutrition is rampant in rural areas because more poor families live there, and even when food is in abundance, the right choices of meal are not made for children. This situation has resulted in noticeable malnutrition in rural communities. It therefore becomes of interest to seek opinions of mothers on the issues of malnutrition.

Purpose of the Study

The major purpose of the study was to investigate perceived mothers' perceptions on malnutrition issues in growing children in rural communities of ONELGA. Specifically, the study determined mothers' perceived awareness of:

1. indicators of malnutrition of growing children aged 6 – 12 years,
2. consequences of malnutrition on growing children,
3. ways malnutrition could be minimized.

Methodology

Design and area of the study: - Survey research design was used for the study. The area of the study is Ogba/Egbema/Ndoni Local

Government Area (ONELGA) of Rivers State.

Population for the study: - The population for the study consisted of about 500 literate mothers above 16 years who patronized the general hospital and six health centers in ONELGA. The population was arrived at from attendance records of February, 2012 in the health institutions. Literate mothers were used because they can comprehend the subject matter as the researcher cannot speak the native language.

Sample for the study: - The sample consisted of 150 mothers. Random sampling technique was used to select 150 mothers. Thirty each from Ndoni health center, Ogbogu health center, Okwuzi health center and 60 from Omoku health center.

Instrument for data collection: - The instrument for data collection was a questionnaire. It was made up of 21 items and 3-point scale of "true", "false" and "not sure". It dealt with the variables covered by the specific purposes. The questionnaire was validated by two Home Economists. The reliability of the instrument was established using split-half method. The reliability coefficient obtained was 0.84.

Data collection and analysis technique: - One hundred and fifty copies of the questionnaire were distributed by hand and all were retrieved after a week. This gave one hundred percent return. Data collected were analyzed using frequency and percentages.

Findings

The following findings were made:

A) Extent of mothers' awareness of malnutrition

Table 1: - Percentage Responses on mothers' Awareness of malnutrition

S/N	Awareness Indicators N=150	Yes%	No%	Not Sure%
1	Malnutrition is common among children in rural areas.	55*	32	13
2	Children are more malnourished in poor families.	65*	19	16
3	Anaemia is still a common malnutrition case of children.	70*	28	2
4	Kwashiokor (bulging stomach, scanty and pale hairs and tiny legs) is still rampant among children.	45	22	33
5	Obese (fat) children are malnourished.	41	54	5

Table 1 shows that the mothers are aware of three out of the five indicators of malnutrition in children aged 6 – 12 years.

B) Consequences of malnutrition among growing children

Table 2: - Percentage Response on mothers' Awareness of the Consequence of Malnutrition

S/N	Awareness Indicators N=150	Yes%	No%	Not Sure%
1	Malnutrition is a health problem.	75*	24	1
2	Malnutrition can expose children to infection.	57*	32	11
3	Malnutrition causes retardation in growth of children.	49	26	25
4	Malnutrition could affect the education of children.	41	56	3
5	Malnutrition could cause death of children.	39	41	20

Table 2 shows that the mothers are only aware of two out of five possible consequences of malnutrition among children aged 2 – 12 years.

C) Ways of minimizing malnutrition among children

Table 3: - Percentage Response of Mothers' Awareness on Ways Malnutrition could be Minimized

S/N	Awareness Indicators N=150	Yes%	No%	Not Sure%
1	Growing children should be given a cup of milk daily.	62*	11	27
2	Health and nutrition officials should visit mothers at home to enlighten them.	66*	19	15
3	Ready-made foods should have adequate nutritional information.	69*	21	10
4	Mothers should come together and share knowledge on rich local meals.	83*	17	-
1	*Indomie/pastas* should be served with egg/fish/meat to make it adequate.	62*	27	11

Table 3 shows that mothers are aware of all the five ways malnutrition could be minimized in growing children.

Discussion of Findings

The study has shown that the mothers are aware of the existence of malnutrition in rural communities. This is in line with Brown and Politt (1998) who said that the prevalence of malnutrition is staggering because children are given diets that are significantly below the recommended allowances of nutrients. This is also supported by United Nations (2004) report that insufficient consumption of protein is due to food patterns, marginal income and protein losses during processing and or cooking. Also, Maxiyan-Dixon in Alozie (2008) attributed the problem of malnutrition to lack of money to buy nutritious food. Table 2 reveals that malnutrition is a health problem that could expose children to infection as well as cause retardation in children. Though the mothers do not subscribe to malnutrition causing dead, the implication of susceptibility to infection could increase mortality rate of children. This agrees with Mandal (2000-2013) assertion that protein-energy malnutrition in early childhood makes children to be

susceptible to infection. National Population Commission (2000) noted that the best diet gives rise to proper growth, development, maturity, resistance to disease and ensures longevity. Malnutrition is preventable problem as the mothers affirmed in table 3. The table shows that the mothers responded positively to all the items which are: children should be given proteinous food especially milk; there should be adequate information on convenient foods, mothers should serve indomie, golden morn and pastas with protein complement /supplement; and mothers should come together to share their knowledge on weaning foods. This is in line with Brown and Politt (1998) statement that dietary requirement of children can be met by giving them several servings a day from each of five food categories which are staple foods/starchy food, proteinous foods, vegetables, fruits, and milk/milk products. According to Anyakoha (2007) young children in the family should be given food rich in protein, because they are growing. Therefore children do not need to be malnourished if they are given proteinous foods like milk, egg and meat/fish with their staple foods.

Conclusion

The prevalence of malnutrition in a food endowed environment is questionable, yet the problem is facing us. Often growing children are given staples and convenient foods such as pastas, golden morn and biscuits without noting the lack of protein and essential nutrients. The cause of malnutrition in rural areas could be attributed to lack of nutritional knowledge and inability to come to terms with fact that growing children need protein in all their meals.

Recommendations

From the above findings and discussions, the study put forth the following recommendations.

- ❖ There is need for enlightening mothers on foods and meals suitable for growing children. This is possible through extension services of nutritionists, and home economists, on planning adequate meals (menu planning) from locally available foods. Also advocacy through the mass media available in rural areas should be made by these professionals.
- ❖ Mothers need financial assistance. Rural mothers are impoverished, so government should give them soft loans to help finance their farming activities and trading businesses.
- ❖ Health officials should routinely teach mothers who visit the health centres and general hospitals how to balance meals from locally available foods.
- ❖ Mothers should come together (as they do in social clubs and church women groups) to share their knowledge on rich meals and how to enrich locally available foods.
- ❖ Children are treasures to the nation, so the comatose school feeding programme by government should be resuscitated to help children in rural areas.

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Enhancing Entrepreneurship Education in Tertiary Institutions in Nigeria

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Abstract

The paper focuses on enhancing entrepreneurship education in tertiary institutions in Nigeria. Entrepreneurship education is a dynamic process of vision, change, and creation. It is also seen as the practice of combining resourcefulness and opportunity to address the problems facing the society. The philosophy is based on the understanding that current methods for effecting changes appear not effective hence new ideas should be evolved to solve long standing problems .The importance and scope of entrepreneurship education were discussed .The skills needed for entrepreneurship education, constraints to the implementation ,ways of implementing and enhancing the implementation of entrepreneurial education were also discussed .Retraining of teachers, among others ,was recommended for success of entrepreneurship education.

Key Words: Enhancing, Entrepreneurship, Education, Skills, Tertiary, Institutions

Introduction

In Nigeria today, youth under-employment and unemployment is a great challenge. The greatest challenge is how to transform and manage the enormous resources to achieve economic development. Nigeria is the largest oil producer in Africa but at home the world's third largest concentration of poor people [NEPAD Nigeria 2010].The situation has been attributed in part to the scarcity of employment opportunities and the inability of youths to create employments for themselves as entrepreneurs. The National Universities Commission [NUC] recently rose to the challenges and introduced entrepreneurship education in the undergraduate curricular of universities .The focus is on helping youths acquire economic and social skills that will enable them become self employed and contribute meaningfully in the society. This will afford youths a self satisfying, self

rewarding and self reliant life. They need entrepreneurship education to equip them for entrepreneurship. There are relevant skills to be acquired. There are also the need to provide enabling environment for teaching entrepreneurship education in the universities as well as in other tertiary institutions.

Entrepreneurship is a dynamic process of problem solving .It involves an application of energy and passion towards the creation and implementation of new ideas and creative solutions. Entrepreneurship involves the willingness to take calculated risks, the ability to formulate an effective venture team, the creative skills to mobilize needed resources, build good business plan, and recognize opportunity where others see flaws, contradictions, and confusions [Kuratko &Hodgetts, 2004]. Entrepreneurship has also been seen as the practice of combining innovations/resourcefulness and opportunity to address critical social and environmental challenges, a phenomenon for the empowerment of people on a sustainable base [Drayton, 1996]. It empowers people by freeing them to exploit themselves rather than to be exploited by others.

Entrepreneurship education helps to make better those services and processes that are created to meet some demands in the society .It helps one to be relevant in the present fast changing world .It enables one to keep a step ahead of other competitors and provides the consumers with fresh ideas that go beyond mere problem solving [Thompson,2002]. Entrepreneurship education focuses on recognizing when part of the society is stuck ,what is not working and seeks to solve the problems by changing the system ,spreading the solutions and persuading the entire society to embrace the solution [Drayton,1996]. The scope of entrepreneurship education is wide and varied in line with the society of the participants (poverty, environmental, educational, financial and health challenges) [Howkins, 2001 & Florida, 2002]. Entrepreneurship education is a lifelong learning process, starting from as early as primary school and progressing through all levels of education, including adult education.

It follows that entrepreneurs are agents of change, visionaries and realists. They are mission driven, with a passion to achieve results in the society by addressing root causes of the needs of their beneficiaries (Drayton, 1996 & Munoz, 2010). Entrepreneurs are fearless, not shy or embarrassed about whom they are what their thoughts are. They belief in themselves with a flair that unlocks the wild, uncontrolled and untamed natural thoughts and ideas which some might refuse to grasp. Succinctly their philosophy appears to be that the greatest change might happen when sets of multiple skills are working together .The philosophy is most likely rooted in their understanding that current methods for effecting changes appear not effective therefore new ideas , opportunities, and technologies ought to be evolved to help solve long

standing problems .The problem is to find out those entrepreneurial skills to be learnt and conditions that would enhance the implementation of entrepreneurship education in tertiary institutions.

Entrepreneurship education is introduced in the under graduate curricula as a way of meeting the challenges of under employment and unemployment among youths. It is a process of problem solving which involves risk taking, ability to formulate an effective venture team and the creative skills to mobilize needed resources .The paper therefore focuses on entrepreneurial skills to be acquired by undergraduates, conditions necessary for entrepreneurship education, ways of implementing it, constraints to the implementation, and ways of enhancing the implementation. Recommendations were also made.

Entrepreneurial skills

Entrepreneurship education is a multi disciplinary programme of study. It therefore includes varied disciplines. The entrepreneurial skills are so diffused that any teacher of entrepreneurial education will be facing various challenges.. However because there are skills involved they can be taught. Some of the entrepreneurial skills that can be taught to students are:

Decision Making – Decision making skill: In everyday life, individuals and organizations make decision that governs their activities. Decisions made will have either short-term orientation or long-term perspective (Udu, 2011). The ability to make such decisions rests on one being able to define the problem clearly and generate alternative solutions (Lubart, 2000) and not merely adapting what worked for the individual in the past. Where the individual is facing many difficult decisions it may be useful to prioritize those problems and deal with them one at a time (Robinson, 2002), examine each of the options, how to implement the solutions and potential drawbacks.

No one can deny that the ability to make decisions is a core skill that every entrepreneur must possess if he or she wants to be successful. From the very beginning of your entrepreneurial journey, you must make sound decisions, first of all, about which business to go into. From there, decisions on how to proceed with marketing, funding, product production (in some cases), vendor selection, and a host of other judgments need to be made. The key is to be decisive and learn from mistakes, rather than fearing mistakes to the point that you avoid decisions thereby losing your relationship with others.

People Skills – It's often said that no matter what business you're in, you're in the people business. How true that is! Even if you have a dog grooming business, it's the people who bring their dogs to you who pay you and make the decision to use your service over your competitors, so you'd better know how to deal well with

people. This is a skill that nearly every highly successful entrepreneur has, and those who don't have recognized the need to hire experts. Whether dealing with customers, vendors, investors, the press, or employees, well developed people skills can mean the difference between success and failure (Toren, 2010). In other to avoid failure good planning is needed.

Planning – Being able to project into the future and build a plan to accomplish your objectives is a skill that can take any entrepreneur far. Plans are guidelines of necessary actions and steps to be taken before venturing in to any enterprise. Planning is very important in anything one does including business and should be the first step in attempt to start up ventures. Through planning, an entrepreneurs should know the of venture to set up, location, required space, capital, assets, accommodation, number of personnel and remunerations for them as well as other necessary machine, materials and protocols (Ogbu, 2011). Effective planning is what will guide your company and ultimately define what you're all about. The skilled business planner knows that planning is only an effective skill when combined with action, so they don't get bogged down in planning, and they keep their plans focused but somewhat flexible. With so many facets to effective planning, it could be called as much an art as it is a skill (Toren, 2010). After planning the entrepreneur will have to communicate to the wide society.

Communication A key to good relationship is practicing communication skills. That means learning to express your thoughts clearly and listening to what others say. Good communication brings people closer together (Nanalee, 2000). The skill of communication plays a role in the execution of all of the other skills above. If you don't have this skill, none of the other skills will be fully developed, no matter how hard you try. You can't be a great salesperson without good communication skills; your planning skills won't matter if you aren't able to effectively communicate your plans; you can hardly claim to have strong people skills without being a good communicator; and it won't matter what decisions you make if they aren't communicated properly to those who are in a position to execute them. So of all the skills listed here, start working on your communication skills first, if they aren't 100%. It will pay off in immeasurable ways by reducing business risks (Toren, 2010).

Risk Taking: Entrepreneurship entails intellectual, social, psychological and emotional risks (Mgboro 2003). Risk taking, like freedom, entails the willingness to experiment without being afraid of failing. Such willingness is premised on how students are helped to perceive themselves as being highly efficacious. This is because highly efficacious students persist longer on tasks, expend more effort when tackling threatening or difficult task (Mgboro

2002). Verbal persuasion/emotional arousal by teachers can promote students self efficacy.

Conditions necessary for entrepreneurial education

Specific conditions are necessary for entrepreneurial education /skills to be inculcated in students. These are teachers, students, school and society related conditions:

Teacher related conditions: Entrepreneurship education as currently articulated appears to be a new subject in the school curriculum. As a result some teachers are not yet equipped with the skills necessary for inculcating the subject to students. The current ways of teaching seem not to 'light the torch' of students thinking; students are modeled as tools whose subjectivity and individuality are overlooked and deprived (Mgboro 2006). Teachers should be trained to organize the education environment to communicate vision using formal and informal ways. Such environment allows for exploration of new ways of doing things, collaboration, and healthy competition.

School related conditions: The social structures/systems –education and political-are currently relatively unstable. Where the polity has no relatively stable policy which encourages youth entrepreneurship, and the educational system, due to incessant strikes, produce ill-equipped graduates, the turbulence in the social structures/systems do not encourage the real passion and innovation for a dream, an idea, an emotion which fuel/inspire youth entrepreneurship (Goleman, Ray & Aufman, 1992).

Student related conditions: Students should flood themselves with information in their chosen area of entrepreneurship, and further expose themselves to information outside their area (Egwu, 2011).Such information can come from books, conferences, software products/ internet and other people who are successful entrepreneurs; who love, respect, and encourage students to take risks. Furthermore Yu-le (2004) affirmed that the training of students through practical experiences is necessary for entrepreneurship education. The training might involve teachers as creators and constructors of knowledge with students instead of knowledge transmitters.

Society related condition: The inadequate provision of laboratories and libraries in most tertiary institutions by the society negate the inculcation of entrepreneurship education. Firsthand information is hardly acquired by students in such institutions. Moreover establishing industries for practical, life, on- the job experiences of what is learnt in the classroom encourages entrepreneurship education. Where the society pays little attention to the above provisions entrepreneurship education remains theoretical (Oduma, 2012),

Ways of implementing entrepreneurship education

Different ways of implementing entrepreneurship education might include:

• ***Encouraging freedom with focus:*** This would enable teachers to inculcate in students the skill of personal decision making. In order to achieve these, teachers can vary their teaching methods instead of relying merely on demonstration, discussion, copying notes and showing examples. Experimentation which helps to question the entrenched ways of thinking (Bartel, 2010) can be included in conjunction with other methods.

• ***Teaching problem solving /experimentation methods instead of providing answers:*** The ability to acquire the skill of risk taking demands that students master the process of problem solving. Teachers should not answer students' questions always rather they should assist students to identify the problem solving skills adopted by entrepreneurs. For instance Bartel (2010) observed some entrepreneurs move things around till they become better, some merely simplify the issues, and some create new order from chaos. Through the above ways students are taught to devise ways to experimentally test their ideas instead of running away from risks.

• ***Asking open ended questions rather than providing suggestions:*** Open ended questions lend themselves to several possibilities (Bartel, 2010), it helps students to acquire the skills of identifying problems and generating alternative ideas to solving a particular problem. 0pen ended questions help students to understand that problems of the society can be approached through different ways (Oduma 2012), lead to brainstorming, divergent thinking and discipline ones mind to create many solutions (Simonton, 2000).

• ***Organizing workshop/conferences for students:*** During such workshops/conferences students will be encouraged to learn skills of management, creativity, and delegation of duty, among others, in other to tap into their inner talents (Lubart, 2000). Such workshops should de-emphasize workplace features-collectivity and solidarity ,rights ,and entitlements-rather self reliance , ambition ,competition and talent which move the burden of workplace protection /security away from employer to the shoulders of the individual freelance are emphasized (Howkins 2001).The above situation would lead to what Thompson (2002) described as talent led economy.

• ***Individual volunteers*** can be mobilized to support the provision of human and material resources for implementing entrepreneurship education. The volunteers can seek new ways, ideas, and technologies to help solve long standing problems. They can organize field trips and seminars for students and equip the school library. During such seminars experts in different fields – health, education, agriculture and environment can be invited as guest speakers.

Constraints to Implementation of Entrepreneurship Education

The implementation of entrepreneurial education is hampered broadly by what Bertone (1993) outlined as values (stiffness to defy dominant accepted values); perception (unable to widen ones perspectives); subjective (shyness, fear of making mistakes or being laughed at); strategy (accepting only one answer to be correct for a question). Based on the above broad barriers specific constraints can be identified.

(a) ***Routine and Conformity:*** Entrepreneurial education is hampered because teachers accept set ways of doing things to be entrenched in their teaching thereby limiting the range of responses available to students. Conformity might be a negative indicator especially in entrepreneurship (Bartel 2010). Routine answers to questions may encourage students not to think for themselves but to depend more on teachers. The teachers castigate students who do not conform. Students therefore make the need to conform to established order a priority and curiosity is stifled (Mgboro 2003).

(b) ***Assigning Grades without Providing Informative Feedback:*** It implies there is no supervisory encouragement (Simonton 2000). The current normative grades adopted in the school assume that everybody must achieve a certain equal standard. It appears like forcing every student to be of the same height at a particular age. The structure of the educational system does not permit students to have feedback acceleration which help students to defend their choices and approaches, persevere in a task and mentor themselves (Mgboro 2007).

(c) ***Fear of Criticism:*** This arises from the wrong notion some students have of themselves. Some believe they are not naturally entrepreneurs because they base their opinion on the skill they do not have (Egwu 2011). Where students fear criticism they lack confidence in their abilities, accept limits imposed by others and engage in self defeating behaviours in the classroom (Mgboro 2003).

(d) ***Resources:*** Egwu (2011) observed that environmental context: physical space, time, equipment and supplies – are not always supplied for students to acquire entrepreneurship education. Teachers and students might sometimes short-circuit the available resources. Teachers also feel the pressure to rush through the year's curriculum in order to meet external requirements hence time for exploring ideas is overlooked.

(e) ***Organizational support*****:** The programmes in the educational system appear not to support emotional stability in students and teachers. The emotional climate in the educational environment appears too hectic and does not allow quiet time for reflection and introspection; it does not feed the senses with necessary information; it demands for quick production of results (Lubart, 2000). Moreover harsh words from others and rigid rules in the school account for why creative entrepreneurship flourish more outside the school system (Mgboro, 2002).

Ways of Enhancing the Implementation of entrepreneurial Education

- Different ways of implementing entrepreneurial education might be devised. Specifically, the following ways can be adopted: Giving students' freedom to diversify their search for solutions instead of showing them regimented examples which encourage lock-up-step matching allows them to approach problems/issues in diverse ways (Mgboro, 2002).
- Encouraging teachers to change their wrong perception of students. Wrong perceptions lead to outright criticism of students efforts. Students should also be encouraged to see themselves as potential achievers and to avoid self defeating behaviors.
- De-emphasizing grades as the focus of learning as it encourages students to copy from others and adopt short-cuts to learning.
- Providing students with information that led to the grades assigned to them. In the course of this feedback the process of learning should be emphasized and encouraged more than the end result (grades) of learning.
- Retraining of teachers to handle the challenge of entrepreneurial education should be the paramount interest of "engineers "in education industry.

Conclusions

Entrepreneurship education is needed by all students as it is the foundation for change and innovation, and solution to many problems facing the society. It is the responsibility of education system to foster entrepreneurship skills in the students. The skills are so diffused in the interaction between the students and teachers; hence few of them are examined in this paper. However, the current teaching culture-conformity to rules, assigning grades without feedback, criticism – are constraints to inculcating the entrepreneurial skills. Re-training of teachers to implement educational structures that enhance learning of entrepreneurial education should be the focus of education engineers.

Recommendations

Based on the above issues it is recommended that:

- ❖ Special training programmes and sections should be mounted for teachers.
- ❖ Teachers should emphasize more the process of learning for students to master them.
- ❖ Since resources are in short supply individual volunteers and organizations should be encouraged to assist the school authorities.
- ❖ The systems within the society – government, corporate bodies and NGOs should emphasize values of creativity, achievement, dedication to work, and encourage risk taking, independence, team work and questioning the status quo of things.

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Acceptability of Raffia Fabrics for Diversified Household Products: Implication for Creativity and Wealth Creation

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Abstract

The general purpose of this study was to determine the acceptability of raffia fabrics for diversified household products. Specifically the study assessed the mean ratings of male and female undergraduates on the acceptability of raffia fabrics as embellishment for apparel design and on the acceptability of raffia fabrics for clothing accessories (handbags, shoes and hats).The study was a survey design. The population were male and female undergraduates in Faculty of Agriculture, University of Uyo. Purposive and simple random sampling techniques were employed to obtain eighty (80) respondents. Two research questions and two hypotheses guided the study. Questionnaire was used for data collection. Mean and Analysis of Variance (ANOVA) were used for data analysis. The result revealed satisfactory acceptance of raffia as an embellishment on apparel design and for the production of clothing accessories. In all the variables there were no significant differences in the mean responses of male and female undergraduates except for one item. It is therefore concluded that raffia fabrics are very acceptable for diversified household products. The recommendations includes, among others, that market for raffia products should be open so as to encourage exportation of the products to other countries for income generation.

Keywords: Acceptability, Raffia, Fabric, Diversified, Clothing, Creativity, Wealth.

Introduction

Raffia fabrics refer to the fabrics that are woven by a primitive vertical loom using leaf fibres of raffia palms as the material. In the modern era in which manufactured cotton fabrics are widely used, raffia fabrics are used for everyday garments or ceremonial costumes among some ethnic groups in Africa and in Nigeria specifically (Ndon, 2003). Obahiagbon (2009) states that in recent times within the areas that produce cotton fabrics, some ethnic groups weave raffia fibres into fabrics for various household use.

The raffia strip when twisted together can be used as twine to weave mats, baskets, hats, shoes, school bags, conference bags, (Obahiagbon, 2008). It has also been observed that raffia fabrics are utilised as embellishment on cotton or linen fabrics for value addition in fashionable apparel products by few designers in Nigeria. The utilisation of raffia for fashionable products both for direct consumption or marketing is

mainly concentrated around the South-South geopolitical zone of Nigeria chiefly because the raffia palm grows in tropical rainforests along the river banks of the savannah marshes and swamps in the areas stretching across the distribution areas of the coastal belt. As a result, the consumption of raffia products is rather limited. There is therefore a need to introduce new creative end uses for raffia fabrics to popularize it. Creativity according to Koberg and Bagnal (1981) is defined as both the art and science of thinking and behaving with both subjectivity and objectivity. Hennessey & Amabile (2010) conclude that creativity is the act of turning new and imaginative ideas into reality and that creativity involves two processes: thinking and producing.

In Nigeria, various creative initiatives have been made by designers to promote the use of these products by fashion promotional activities like fashion shows and product exhibitions. According to Mital (2005) these activities can boost the morale of this rural industry and contribute towards the sustainable development of the rural population. In an attempt to boost the socioeconomic status both of the urban and rural populace, Nigeria came up with the National Economic Empowerment Development Strategy (NEEDS, 2004) to address as one of its core values, wealth creation which recognizes that effective local level planning in product development is critical to reduce inadequate resource allocation and to ensure integrated rural development and poverty reduction. This was a major reformative action to economically empower people in diverse small and medium scale enterprises typically the raffia weaving trade

In the past the raffia fabric were traditionally used for dance costumes and sparingly for household needs like table mats, runners, coasters and twisted into bags. Considering its versatility raffia fabrics can be efficiently used as home textiles furnishings and fashion accessories to diversify its monotonous utility by creating other diversified designs which emphasize quality, aesthetics, comfort and functionality. The secret of success in this creative initiative demands careful planning and sensible budget. Modern lifestyles and changing family needs require a practical and innovative approach to sustainable clothing design where an emerging sustainable and innovative clothing designer will also arise.

Most clothing products including accessories are quite simple and easy to make. However, to add value to these products, embellishments are added to enhance beauty and grace to the product designs. For a product to be acceptable by its consuming public both elements and principles of design must come together to create aesthetically pleasing products. Thompson (2011) opines that other utilitarian benefits like quality; durability, affordability; ease of care; ease of production and comfort must necessarily harmonise to satisfy the potential consumer of the product.

Based on this situation, it therefore became necessary to carry out a study on the acceptability of diversified raffia clothing products and to examine its implications on creativity and wealth creation.

Purpose of Study

The general purpose of this study was to assess the acceptability of raffia fabrics for diversified clothing products. Specifically, the study

- assessed the mean ratings of male and female undergraduates on the acceptability of raffia fabrics as embellishment for apparel design.
- assessed the mean ratings of male and female undergraduates on the acceptability of raffia fabrics for clothing accessories.

Research Questions

- What are the mean ratings of male and female undergraduates on the acceptability of raffia fabrics as embellishment for apparel designs?
- What are the mean ratings of male and female undergraduates on the acceptability of raffia fabrics for clothing accessories?

Hypotheses

Two null hypotheses were tested in this study at 0.05 level of significance:

H_{O1} There is no significant difference between the mean ratings of male and female undergraduates on the acceptability of raffia fabrics as embellishment for apparel designs

H_{O2} There is no significant difference between the mean ratings of male and female undergraduates on the acceptability of raffia fabrics for clothing accessories.

Methodology

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

Procedure for Study: Design as stated by Watkins (1995), is a highly organised mental process capable of manipulating many kinds of information, blending them all into a coherent set of ideas and finally generating some realisation of those ideas. According to Koberg and Bagnal in Thompson & Anyakoha, (2012) it is the process of creative problem solving; the process of creative constructive behaviour that results in reality. In this study, after the creation of product style and ideas within the user's identity and specifications, design sketches were made and the final design idea was selected. Patterns were thereafter produced for the final design idea. After this stage the designer sourced for materials which, was used in executing the design. When this was done, the sample patterns or prototypes were produced and eventually presented for assessment. During the assessment of the product, certain criteria were outlined to enable the assessors evaluate the product for quality and its ultimate acceptability. Frings (2003) outlines these stages to include (a) design idea (b) sketches (c) materials sourcing (d) sample patterns (e) sample products (f) product evaluation. The diversified raffia product samples were exhibited in the

Clothing and Textiles laboratory of the Home Economics Department, University of Uyo for the assessment of acceptability by the study participants. Each of the product sample was adequately labelled for ease of identification. The embellished cotton apparel sets were first displayed. The judges evaluated them based on the variables for assessment. After that, the clothing accessories were displayed and evaluated. All the assessment instruments were collected by the researcher and the assistant for data analysis.

Population of the Study: The population of the study was all the male and female undergraduates of Faculty of Agriculture, University of Uyo, Akwa Ibom State. This population was chosen because it consists of departments within the faculty that offer courses related to cultivation and usage of raffia palms. In the Faculty of Agriculture, there are eight departments: Agric Economics & Extension, Animal Science, Crop Science, Fisheries & Aquaculture, Home Economics, Forestry & Wildlife and Soil Science. The total number of persons within the population was Eight Hundred and Two (802) as at the time of study.

Sample of the Study: The sample mainly consisted of two categories (male undergraduates and female undergraduates) that were purposively selected from two departments (Crop Science and Home Economics) in Faculty of Agriculture, because they offer courses related to cultivation, harvesting and utilisation of raffia for product development. The sample size of eighty (80) respondents was drawn using simple random sampling technique which was a representation of ten percent (10%) of the population. The names were written according to their sex in pieces of papers and dropped in a box. From the box, forty males and forty females were randomly selected.

Instrument for Data Collection: Self-structured Acceptability of Raffia Fabrics for Diversified Clothing Questionnaire (ARFDCQ) was used. The instrument was divided into two parts A and B. Part A consisted of items pertaining to demographic information of the respondents and Part B consisted of items soliciting information on the acceptability of raffia fabrics as embellishment for apparel design and in the production of clothing accessories. The structured questionnaire was subjected to criticism by professionals in Faculty of Agriculture in order to ascertain the validity of the instrument. Pilot study was conducted to establish reliability of the assessment instrument. After the pilot study, required modifications in the questionnaire were made. Pearson Moment Product Correlation Co-efficient was used to determine the reliability. The result revealed the reliability co-efficient of 0.86.

Data Collection: Eighty questionnaires were distributed to the respondents. The products for assessment were displayed. The respondents were trained on mode of assessment based on the variables outlined for assessment. The responses

were restricted to five-point Likert-type scale of excellently satisfactory, very satisfactory, satisfactory, unsatisfactory and very unsatisfactory. The general utilitarian attributes employed were quality, durability, affordability, ease of care, aesthetically pleasing, texture, colour, structural design and acceptability. The embellished cotton apparel sets with raffia were first displayed. The judges evaluated them based on the variables mentioned above. After that, the clothing accessories were displayed and evaluated. Responses from the eighty questionnaires were collated for data analysis.

Data Analysis: Data obtained were analysed using mean and Analysis of Variance (ANOVA). The mean scores were used to determine the extent of acceptance expressed on a five point Likert-scale for each of the variables tested. A mean of 3.00 was considered as satisfactory and the optimum level of acceptance. The scaling points for the upper and lower limits of mean were 3.35 and 2.60 respectively.

Results

Research question 1: What are the mean ratings of male and female undergraduates on the acceptability of raffia fabrics as embellishment for apparel designs?

Table 1: Mean Ratings of male and female undergraduate on the acceptability of raffia as embellishment for Apparel Design.

S/N	General acceptability Attributes	Male undergraduate mean	Female undergraduate mean	Decision
1.	Quality	3.00	2.95	Satisfactory
2.	Durability	3.12	3.09	Satisfactory
3.	Ease of care	3.12	3.14	Satisfactory
4.	Easy in production	3.00	3.00	Satisfactory
5.	Aesthetically pleasing	3.12	3.04	Satisfactory
6.	Texture	2.75	3.00	Satisfactory
7.	Colours	2.87	2.90	Satisfactory
8.	Structural design	3.00	3.04	Satisfactory
9.	Affordability	3.12	3.18	Satisfactory
10.	Acceptability	3.00	2.90	Satisfactory

Table 1 indicates that 10 variables were used to assess the general acceptability attributes of raffia as embellishment on apparel design. The result as shown in the table above yielded a satisfactory decision as the level of acceptance for male and female undergraduate were above 2.60 which was the minimum level of acceptance.

Research Question 2: What are the mean ratings of male and female undergraduates on the acceptability of raffia fabrics for clothing accessories?

Table 2: Mean Rating of male and female undergraduate on the acceptability of raffia for clothing accessories.

S/N	General acceptability Attributes	Male undergraduate mean	Female undergraduate mean	Decision
1.	Quality	3.00	3.00	Satisfactory
2.	Durability	3.00	2.80	Satisfactory
3.	Easy to care	2.75	3.00	Satisfactory
4.	Easy in production	3.12	3.04	Satisfactory
5.	Aesthetically pleasing	3.12	2.95	Satisfactory
6.	Texture	3.00	3.00	Satisfactory
7.	Colours	3.00	2.95	Satisfactory
8.	Structural design	3.12	3.09	Satisfactory
9.	Affordability	2.87	2.86	Satisfactory
10.	Acceptability	3.00	3.18	Satisfactory

Table 2 indicates that male and female undergraduate rated the clothing accessories made with raffia satisfactorily in all the variables.

HO_1: There is no significant difference between the mean ratings of male and female undergraduate on the acceptable of raffia for male apparel design.

Table 3: ANOVA on the Acceptability of Raffia for Apparel Design.

S/N	General acceptability Attributes	Male undergraduate mean	Female undergraduate mean	F – cal	P. Value	Decision
1.	Quality	3.00	3.00	-	-	NS
2.	Durability	3.00	3.04	0.6	0.45	NS
3.	Ease of care	3.00^a	2.90^b	-	0.00	S
4.	Ease in production	3.12	3.13	0.01	0.94	NS
5.	Aesthetics	3.12	3.09	0.03	0.86	NS
6.	Texture	2.75	3.09	0.30	0.59	NS
7.	Colour	2.75	2.75	1.85	0.21	NS
8.	Structural design	3.00	3.00	-	-	NS
9.	Affordability	3.00	3.04	0.64	0.45	NS
10.	Acceptability	3.00	3.00	-	-	NS

ab, means with different superscripts are significantly different ($P< 0.05$). S= significant; NS = not significant

The null hypothesis above compares the mean ratings of male and female undergraduates on the acceptability of raffia for apparel design. The mean ratings were tested item by item for the variables used in the assessment. The levels at which F-values are significant were indicated as P-values in the table. The result in the table shows no significant difference in all the ten variables except one (item 3). For ease of care there was significant difference, therefore the null hypothesis was rejected for that item.

HO_1: There is no significant difference between the mean ratings of male and female undergraduates on the acceptability of raffia for clothing accessories.

Table 4: ANOVA on the Acceptability of Raffia for Clothing Accessories.

S/N	General acceptability attributes	Male undergraduate mean	Female undergraduate mean	F – cal	P. Value	Decision
1.	Quality	2.87	2.95	0.00	1.00	NS
2.	Durability	3.12	3.04	0.30	0.59	NS
3.	Ease of care	3.64	3.12	0.64	0.45	NS
4.	Ease in production	3.00	3.12	0.37	0.56	NS
5.	Aesthetics	2.87	3.13	1.00	0.35	NS
6.	Texture	3.12	3.00	0.37	0.56	NS
7.	Colour	3.12	2.95	2.29	0.17	NS
8.	Structural design	3.00	3.00	0.00	1.00	NS
9.	Affordability	3.12	3.95	0.30	0.60	NS
10.	Acceptability	2.87	2.95	0.00	1.00	NS

NS = not significant

Table 4 shows the ANOVA analysis on the mean ratings of male and female undergraduates on the acceptability of raffia for clothing accessories based on the general acceptability attributes tested. Male and female undergraduate scores were satisfactorily accepted. Therefore the null hypothesis for table 4 is accepted as there were no significant differences in the mean responses.

Discussion of Findings

The findings revealed that male and female undergraduates were of positive view regarding the acceptance of raffia fabrics as an embellishment for apparel design. The mean ratings on general acceptability attributes depicted that items received scores ranging from 2.60 – 3.35 as shown in Table 1. Judges' mean ratings showed a higher value which signifies general acceptability. The finding is in agreement with the statement of Obahiagbon (2008) that raffia can be used in the production of apparel. The general acceptability attributes scale also received positive ratings with raffia fabrics used in the production of clothing accessories like handbags, hats and shoes. The mean

ratings of male and female undergraduates as shown in table 2 range from 2.80 – 3.12, which portray a satisfactory level of acceptance.

The first hypothesis sought to find out the significant difference in the mean ratings of male and female undergraduate on the use of raffia as embellishment on apparel design. The summary of the statistics for the acceptability attributes tested is shown in table 3. The table shows no significant difference in all the variables expect in item 3 "ease of care" where there is significant difference, based on this the null hypothesis is rejected in item 3. This may have been attributable to the fact that raffia fabrics are best dry-cleaned and not directly washed with water. This finding in a way contradicts Thompson's (2011) statement that included "ease of care" as one of the attributes required for satisfaction in any consumer product. The general acceptability in the other variables supported the opinion of (Obohiagbon, 2008) that raffia brings out the aesthetic value of cotton fabric when used as embellishment.

In table 4, the findings revealed that raffia can satisfactorily be used for clothing accessories. The statistics in table 4 showed that in all the variables tested there were no significant differences as the P-values were above 0.05. Therefore the null hypothesis there was upheld. This finding is in line with Ndon (2003) that raffia can be used for articles like bags, table mats and foot wear.

Implication for creativity and wealth creation

Raffia has been used for centuries by men and women in Nigeria to produce mats and baskets for household use. Now with the support of NGOs, private sector organisations, communities are producing raffia products to generate much-needed income for their families and to boost other creative initiatives. External demand for quality raffia products has been recognised as a potential income generating activity for some time. However despite the demand and potential, Namrata (2006) observes that production is constrained by a lack of clearly identified markets, poor pricing, and little capital to invest. Building business skills in the community is at the head of the initiative. Raffia group members are trained in business development, including how to improve the quality of their products, conduct market research and sell their products. If there is market for raffia products, people are ready to work hard and change the lives of many families and in return contribute to wealth creation. Raffia products can be produced in large quantities and exported to Western countries that appreciate the value. If this is positively done, it will help to move the economy of the country forward.

Conclusion

Raffia in the past was traditionally used for dance costumes but now it can be diversified into the production of different articles for its value to

appreciate. Raffia is found aesthetically pleasing as an embellishment on cotton fabric. This has exposed the creative use of raffia in apparel design. Raffia has been found generally acceptable for the production of clothing accessories like bags, shoes and hats. When these articles are produced in large quantity, they can be exported to boost wealth creation.

Recommendations

Based on the findings of the study the following recommendations were made

- ❖ Market for raffia products should be open and clearly identified so as to encourage exportation of the product to other countries of the world for income generation.
- ❖ Seminars should be organised to encourage local apparel designers in the use of raffia for product development both for local and foreign consumption to encourage creativity and innovation.
- ❖ Entrepreneurship training should be encouraged among students both at secondary and tertiary levels of our educational system because it provides exploiting opportunities by bringing together resources in innovative ways in the raffia cottage industry.

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