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**ATTITUDE OF FEMALE SECONDARY SCHOOL STUDENTS TOWARDS MENSTRUATION AND MENSTRUAL HYGIENE PRACTICES IN ABOH MBAISE LOCAL GOVERNMENT AREA OF IMO STATE, NIGERIA**

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***Abstract***

*The purpose of the study was to determine the Attitude of Female Secondary School Students towards Menstruation and Menstrual Hygiene Practices in Aboh Mbaise Local Government Area of Imo State, Nigeria. Specifically, the study identified four objectives with the corresponding research questions, and two hypotheses were postulated which guided the study. The population for the study comprised of 3,805 female secondary school students in Aboh Mbaise local government area of Imo state. The study adopted the descriptive survey design, using questionnaire as tool for data collection. The instrument was validated by three experts. Three hundred and eighty (380) copies of the questionnaire were distributed but three hundred and thirty-eight (338) copies were returned and correctly filled which gave a return rate of 97.6 per cent. A multi-stage sampling procedure was used to select 380 female secondary school students representing 10 per cent of the population. Data generated were analyzed using percentages and mean while Chi-square and ANOVA was used in testing hypotheses at .05 level of significance and at appropriate degrees of freedom. The results revealed that female secondary school students have positive attitude towards menstruation and there was significant difference in the menstrual hygiene practices according to age f=104,df=3&28,p=.9517>.05). The study therefore recommends that there is need for health educators and parents to encourage safe and hygienic practices among the adolescent girls and bring them out of misconceptions regarding menstruation.*

***Keywords*:** Attitude, Menstruation, Menstrual Hygiene Practices, Adolescent girls

***Introduction***

Menstruation is a natural phenomenon which occurs throughout the reproductive life of every female and the onset is one of the most important changes occurring during the adolescent years. This change sometimes makes the adolescent to hide her feelings from others since they not may not understand the physiology of it. Dipali, Seema and Rupali (2009)explained that adolescents because of various myths, misconceptions and restrictions during menstruation, develop negative attitude towards this natural phenomenon. Busari (2012) observed that in Nigerian culture, the subject of menstrual and puberty hygiene is not properly discussed at home as well as at school in most parts of the country especially in the rural areas. This has prevented the flow of sufficient information about puberty hygiene resulting in some negative attitude about menstrual hygiene among many girls in this country.

Menstruation is still regarded as something unclean or dirty among this segment of the population. Adhikari, Kadel, Dhungel and Mandel (2007) observed that many young girls feel uncomfortable talking about menstruation and an issue like cleanliness is not a subject to be discussed openly. Menstruation and menstrual hygiene in the rural areas remain very sensitive, secretive and surrounded with negative attitudes of social taboos. From experience and observations, there is the culture of silence and shame on issues relating to sexuality and menstruation. In most families, it is often treated with great secrecy and fear. As a result, the girls are not motivated to take the event lightly. This may result in inadequate knowledge, misconception and wrong ideas leading to undue fear, anxiety and undesirable attitudes in the minds of young girls. Shame often associated with menstruation and the cruelties of people laughing at young girls when they find out they are menstruating seem to make them to have negative attitude towards this phenomenon. The situation gets even more complicated if young girls have to go to school or other public places where there is no toilet or no hygienic toilet facilities such as water and soap, and no facilities for disposal of used menstrual materials. Even in homes, a culture of shame forces adolescents to find well-hidden places to dry the rags used during menstruation.

Menstruation, according to Lawn, Natisa and Aisha (2010), is the periodic vaginal bleeding that occurs with the shedding of the uterine mucosa. Menstruation refers to the periodic discharge of blood from the uterus, which occurs every 28 to 32 days from puberty to menopause. It can also be the cyclic, periodic discharge of blood, mucosal tissue, cellular debris and unfertilized ovum from a non-pregnant uterus through the vagina. It is one of the signs of puberty which occurs one or two years following the appearance of secondary sexual characteristics. Dasgupta and Sarka (2008) opined that the first menstruation (menarche) occurs between 11-15 years with a mean of 13 years. This continues every month until late forties or fifties. Olds, London and Ladewig (1992) explained that menstrual blood mixes with the normal vaginal mucosal secretions and perspiration, and causes decomposition and odour when it comes in contact with air. This fermentation of the menstrual blood along with the vaginal mucosal secretions occurs in the perineal region (between the vaginal orifice and the anus), because the region is moist and warm, thus providing a medium for bacterial growth. In view of the blood which can accumulate and decompose in the perineal region, it is obvious that some degree of hygiene practices must be adopted for cleanliness and protection from stains as well as prevents infection. This strengthens the need for menstrual hygiene practices.

Menstrual hygiene is personal hygiene during menstruation. Menstrual hygiene is an issue adolescents have to deal with in their lifetime. Information on good menstrual hygiene is crucial for the health, education and dignity of female adolescents. Roose, Spijksms, Vandaalen and Singeling (2010) noted that menstrual hygiene is fundamental to the dignity and well-being of women and girls, and is an important part of the basic hygiene, sanitation and reproductive health services. Good hygiene practices such as the use of pads and adequate washing of the genitals are essential during menstruation (Subhash, Sushama, Monica, Nidhi, Ketaki & Suresh, 2011). Menstrual hygiene practices refer to those actions that are physically demonstrated by female adolescents during menstruation and which have influence on the female reproductive health, actions or behaviours which in turn promote the health of women. Menstrual hygiene practices include choice of the feminine hygiene products, how often and when to change menstrual protective products, disposal of used menstrual protective material, bathing and hand washing, care of the clothing used during menstruation and care of the vulva and vagina, as well as the supposed benefits of vaginal cleansing at the end of each menstrual period.

Dasgupta and Sarka (2008) stressed that hygiene-related practices of women during menstruation are of considerable importance, as it has a health impact in terms of increased vulnerability to reproductive tract infections (RTI), pelvic inflammatory diseases and other complications. The authors also observed that millions of women are sufferers of reproductive tract infections and its complications, and the infection is often transmitted to the offspring of the pregnant mother. Adolescent girls who have adequate knowledge regarding menstrual hygiene and safe practices are less vulnerable to reproductive tract infections and its consequences. Therefore, adequate knowledge about menstruation right from puberty may increase safe practices and help in mitigating the suffering of millions of women, including adolescent guts.

**Purpose of the study**

The purpose of the study was to determine the attitude and practices of female secondary school students towards menstruation and menstrual hygiene practices in Aboh Mbaise Local Government Area of Imo State. Specifically, the study was set to determine the:

1. attitude of female secondary school students towards menstruation;

2. menstrual hygiene practices among female secondary school students;

3. attitude of female secondary school students towards menstruation according to age and

4. menstrual hygiene practices among female secondary school students according to age?

**Research questions**

The following research questions were posed to guide the study.

1. What is the attitude of female secondary school students towards menstruation?

2. What are the menstrual hygiene practices among female secondary school students?

3. What is the attitude of female secondary school students towards menstruation according

to age?

4. What are the menstrual hygiene practices among female secondary school students

according to age?

**Hypotheses**

Two null hypotheses were tested at .05 level of significance.

1. There is no significant difference in the attitude of female secondary school students

towards menstruation according to age.

1. There is no significant difference in the menstrual hygiene practices among female secondary school students according to age.

**Method**

  Cross sectional survey research design was used for the study. The population for the study consisted of 3,805 female secondary school students in Aboh Mbaise Local Government Area of Imo state. A multi-stage sampling procedure was used to draw a sample of 380 female secondary school students in the Local Government Area. The sample was done in three stages. Stage one involved random selection of five secondary schools from the nine existing secondary schools in Aboh Mbaise Local Government Area of Imo State. The second stage involved simple random sampling of balloting with replacement to select seventy-six female students from each of the selected five schools in the local government area. The third stage involved systematic selection of twelve female students from each of the six classes in each of the selected five secondary schools giving a total of three hundred and eighty female secondary school students. The instrument for data collection was the researchers’ structured questionnaire Menstrual Hygiene Attitude and Practices Questionnaire (MEHAPQ). It had three sections. Section A was concerned with the bio-data of the respondents, section B consisted of eight questions on attitude towards menstruation while section C comprised of nine questions on menstrual hygiene practices arranged in four-pointscale. Based on the objectives of the study. The instrument was validated by three experts from the Department of Human Kinetics Health and Education, Alvan Ikoku College of Education, Owerri. Split-half method using Cronbach Alpha statistic was used to establish the internal consistency of the instrument. The validated instrument was administered by the researchers and three research assistants on face to face basis to the respondents. Data collected was analyzed using the Statistical Package for Social Science (SPSS) batch system. Research questions were answered using mean while ANOVA and Chi-square statistics were used to test the null hypotheses at .05 level of significance and at appropriate degrees of freedom.

**Results**

Table 1

**Percentage of Attitude of Female Secondary School Students towards Menstruation (N = 338)**

**Disagree Agree**

S**/n Statements** %%  Decision

1. I felt like a woman when I started menstruating. 16.9% 83.1% 3.28 +ve

2. Menstruation is an experience worth having. 25.1% 74.9% 3.00 +ve

3. I don’t feel like menstruating. 63.3% 36.7% 2.29 -ve\*

4. I am happy seeing my menses every month. 28.4% 71.6% 3.01 +ve

5. Menstruation is a disease. 65.6% 34.4% 2.13 -ve\*

6. I feel ashamed of myself when i’m menstruating. 27.77% 55.0% 19.5 -ve\*

7. I don’t feel comfortable discussing menstruation. 49.1% 50.9% 2.47 -ve\*

8. Onset of menstruation is a fearful and shocking. 33.2% 66.8% 2.81 +ve

**Grand Mean 2.67 Positive**

Table 2: **Frequency and Percentage of Menstrual Hygiene Practices of Female Secondary School Students (n=338)**

|  |  |  |  |
| --- | --- | --- | --- |
| S∕n | Items | F | % |
| 1. | Material used as menstrual protective material?  Piece of cloth  Tissue  Pad  Tampoon | 80  86  162  10 | 23.7  25.4  47.9  3.00 |
| 2. | Frequency of changing your menstrual protective material in a day?  Once         Twice  Thrice  Whenever it is soaked with menstrual blood | 28  74 140  96 | 8.3  21.9  41.4  28.4 |
| 3. | Methods for disposing soiled menstrual protective material?  Throw away into the dust bin/pit latrine  Flush in the water closet system  Wash and re-use  Burn in the fire | 189  37  60  52 | 55.9  10.9  17.8  15.4 |
| 4. | Care of piece of cloth or rag after use as menstrual protective material?  Wash with water only  Wah with soap and water  Wash with water, soap an d disinfectant  Do not wash at all | 13  114  194  17 | 3.8  33.7  57.4  5.0 |
| 5. | Frequency of hand washing after changing menstrual protective material?  As often as it is necessary  Before touching the menstrual protective material  After removing stained menstrual protective material  Do not remember to wash at all | 96  29  203  10 | 28.4  8.6  60.1  3.0 |
| 6. | Method of drying menstrual protective material after washing before re-use?  Spread inside a room without sunlight  Dry it outside the house without direct sunlight  Dry with pressing iron  Dry it outside the house with sunlight | 56  53  21  208 | 16.6  15.7  6.2  61.5 |
| 7. | Frequency of bathing during menstruation  Once a day Twice a day  Thrice a day  Anytime menstrual material is changed  W | 22  84  181  51  112  80  26  120  72  161  26  79 | 6.5  24.9  53.6  15.1  33.1  23.1  7.7  35.5  21.3  47.6  7.7  23.4 |
| 8. | Ways of care for the clothings/outfit and underwears during menstrual period?  Change clothing and underwears when soiled  Change them once or twice a day  Wash off stained and continue to use  Change them each time menstrual material is changed  Materials used in cleaning external genitalia during Menstruation?  Antiseptic and soap  Soap and water  Tissue or rag |
| 9. |

Table 1 shows that female secondary school students had positive attitude to items 1, 2, 4 and 8, and negative attitude to item numbers 3, 5, 6 and 7. The grand mean of 2. 67 indicates that the students had positive attitude towards menstruation.

Data in Table 2 show that 23.7 percent percent of girls used piece of cloth during menstruation, 25.4 percent used tissue, 47.9 used sanitary pad and 3.05 percent used tampon. Regarding how often female students change their menstrualprotective materials during menstruation in a day, 8.3 percent indicated they changed once, 21.9 changed twice, 41.4 percent  changed thrice while 28.4 changed theirs whenever it is soaked with menstrual blood. With respect to methods for disposing soiled menstrual protective material, 55.9 percent throw away into the dustbin or pit latrine, 10.9 percent  flush in the water closet cistern, 17.8 percent washed and re-used while 15.4 percent  burn theirs in the fire. With regard to care of clot after use, 3.8 percent admitted that they wash with water, 33.7 percent of the respondents washed with soap and water, 57.4 percent washed with water, soap and disinfectant while 5.05 percent did not wash at all.

The Table further revealed that 28.4 percent wash their hands as often as it is necessary during menstruation in a day, 8.6 percent washed their hands before touching the menstrual protective material, 60.1 percent of the girls wash their hands after removing stained menstrual protective material and 3.0 percent did not remember to wash at all. With respect to the ways menstrual protective materials are dried after washing before re-use, 16.6 percent of the respondents spread the cloths inside a room without sunlight, 15.7 percent dried it outside the house without direct sunlight, 6.2 percent dried the cloths with pressing iron while 61.5 percent dry it outside the house with sunlight.

As shown in the Table, 6.5 percent of the girls bath once in a day, 24.9 percent bath twice, 53.6 percent bath thrice in a day while 15.1 percent bath anytime menstrual material is changed. The Table further shows that 33.1 percent indicated they changed clothing and underwears when soiled, 23.1 percent changed them once, 7.7 percent washed off stained area and continue to use while 35.55 percent changde them each time menstrual material is changed. In cases of cleaning the genitalia during menstruation, 21.3 percent use antiseptic and soap, 47.6 percent used soap and water, 7.7 percent used only water while 23.4 percent admitted they used tissue or rag in cleaning their genitalia during menstruation.

Table 3

**Mean Response Regarding Attitude of Female Secondary School Students towards Menstruation According to Age (N=338)**

**Age**

**10-12 13-15 16-18 19 and above**

**(47) (94) (138) (59)**

**S/n Statements**  **Dec**  **Dec**  **Dec**  **Dec**

1. I felt like a woman when I started menstruating. 3.09 +ve 3.23 +ve 3.42 +ve 3.15 +ve

2. Menstruation is an experience worth having. 3.00 +ve 3.15 +ve 3.04 +ve 2.66 +ve

3. I don’t feel like menstruating. 2.3 -ve 2.18 -ve 2.24 -ve 2.49 -ve

4. I am happy seeing my menses every month. 2.94+ve 2.89 +ve 3.16 +ve 2.92 +ve

5. Menstruation is a disease. . 2.36 -ve 2.24 -ve 2.04 -ve 1.98 -ve

6. I feel ashamed of myself when i’m menstruating. 2.62 +ve 2.29 -ve 2.30 -ve 2.44 -ve

7. I don’t feel comfortable discussing menstruation. 2.66 +ve 2.46 -ve 2.39 -ve 2.51 +ve

8. Onset of menstruation is a fearful and shocking 2.81 +ve 2.57 +ve 2.86 +ve 3.05+ve

**Grand 2.73 +**ve **2.62 +**ve**2.68 +**ve**2.65 +**ve

**Key:** +ve = Positive**,**-ve = Negative.

Data in Table 3 show that female secondary school students irrespective of their age groups had positive attitude towards menstruation (10-12 years = **=**2.73; 13-15 years =**=** 2.62; 16-18 years =**=**2.68, and19 years and above = **=**2.65) when grand mean were considered. Specifically, the respondents in all the age groups did not feel like menstruating (**=**2.73**)**. In addition, all the age groups had negative attitude towards the item “menstruation is a disease”. Furthermore, with exception of respondents in age group of 10-12 years who have positive attitude towards feeling ashamed of themselves whenever they were menstruating (**=**2.62**)**, all other age groups had negative attitude as depicted by the respective means: 13-15 years (2.29), 16-18 years (2.30) and 19 years and above (2.44). The Table further shows that respondents within the age groups 13-15 years (2.46) and 16-18 years (2.39) had negative attitude towards “I do not feel comfortable discussing about menstruation”.

Table 4

**Proportion of Menstrual Hygiene Practices According to age (n=338) Age**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S/n** | **Items** | 10-12 | 13-15 | 16-18 | 19 and above |
| 1 | Materials used as menstrual protective material |  |  |  |  |
|  | Piece of cloth | 44.7% | 30.9 % | 3.8 % | 18.6% |
|  | Tissue/cotton wool | 19.1% | 27.7 % | 25.4% | 27.1% |
|  | Sanitary Pad | 34.0% | 41.5% | 56.5% | 49.2% |
|  | Tampoon | 2.1% | .0% | 4.3% | 5.1% |
| 2 | Frequency of changing menstrual protective material during menstruation in a day |  |  |  |  |
|  | Once | 10.6% | 7.4% | 10.1% | 3.4% |
|  | Twice | 25.5% | 20.2% | 21.7% | 22.0% |
|  | Thrice | 34.0% | 44.7% | 39.9% | 45.8% |
| 3 | Whenever it is soaked with menstrual blood  Ways used for disposing used menstrual protective material. | 29.8% | 27.7% | 28.3% | 28.8% |
|  | Throw away into the dust bin/pit latrine | 55.3% | 53.2% | 60.1% | 50.8% |
|  | Flush in the water closet system | 8.5% | 3.2% | 11.6% | 23.7% |
|  | Wash and re-use | 19.1% | 25.5% | 12.3% | 16.9% |
|  | Burn in the fire | 17.0% | 18.1% | 15.9 % | 8.5% |
| 4 | Care of use of piece of cloth or rag as menstrual protective material after use. |  |  |  |  |
|  | Wash with water only | 4.3% | 3.2 % | 3.6% | 5.1% |
|  | Wash with soap and water | 3.0% | 41.5% | 31.9 % | 25.4% |
|  | Wash with water, soap an d disinfectant | 57.4% | 51.1% | 60.9% | 59.3% |
|  | Do not wash at all | 4.3 % | 4.3% | 3.6% | 10.2% |
| 5 | Frequency of hand washing after use of menstrual protective material during menstruation in a day. |  |  |  |  |
|  | As often as it is necessary | 19.1% | 27.7% | 24.6 % | 45.8% |
|  | Before touching the menstrual protective material | 10.6% | 3.2% | 14.5% | 1.7% |
|  | After removing stained menstrual protective material | 66.0% | 66.0% | 57.2% | 52.5% |
|  | Do not remember to wash at all | 4.3% | 3.2 % | 3.6% | 0% |
| 6 | Ways of drying piece of cloth or rag as menstrual Protective material before re-use during menstruation. |  |  |  |  |
|  | Spread inside a room without sunlight | 21.3% | 12.8% | 15.9% | 15.3% |
|  | Dry it outside the house without direct sunlight | 14.9% | 5.3% | 5.1% | 3.4% |
|  | Dry with pressing iron | 53.2% | 66.0% | 59.4% | 66.1% |
|  | Dry it outside the house with sunlight | 10.6% | 16.0 % | 19.6% | 15.3% |
| 7 | Frequency of bathing during menstruation in a day |  |  |  |  |
|  | Once a day | .0% | 5.3% | 8.0% | 10.2% |
|  | Twice a day | 23.4% | 28.7%. | 23.9% | 22.0% |
|  | Thrice a day | 57.4% | 50.0% | 55.8% | 50.8% |
|  | Anytime menstrual material is changed | 19.1% | 16.0% | 12.3% | 16.9% |
| 8 | Ways of caring for the clothings/outfit and underwears during menstrual period. |  |  |  |  |
|  | Change clothing and underwears when stained | 27.7% | 35.1% | 36.2% | 27.1% |
|  | Change them once or twice a day | 27.7% | 21.3% | 23.9% | 23.7% |
|  | Wash off stained and continue to use | 8.5% | 9.6% | 3.6% | 13.6% |
|  | Change them each time menstrual material is changed | 36.2% | 34.0% | 36.2% | 35.6% |
| 9 | Materials used in cleaning external genitalia during menstruation. |  |  |  |  |
|  | Antiseptic and soap | 19.1% | 17.0% | 22.5% | 27.1% |
|  | Soap and water | 53.2% | 48.9% | 45.7% | 48.8% |
|  | Only water | 4.3% | 7.4% | 6.5% | 13.6% |
|  | Tissue or rag | 23.4% | 26.6% | 25.4% | 13.6% |

Data in Table 4 reveal that 47.7% of girls in the age groups 10-12 years used more of piece of cloth as a menstrual protective material, 21.5 % of those under 13-15 years used more of tissue/cotton wool, 56.5% of the students under 16-18 years used more of sanitary pads while 5.1% of those under 19 years and above used tampoon. The Table further reveals that a proportion of 10.6% of females aged 10-12years changed their menstrual protective material once during menstruation in a day, 25.5% of those aged 10-12 years changed twice in a day, 45.8% of the respondents under the ages of 19 years and above changed thrice during menstruation in a day and also 29.8% of those in this age group changed menstrual protective material more whenever it is soaked with menstrual blood.

With respect to the method of disposal of the used absorbent, it was found that a majority (60.1%) of the girls between the ages of 16-18 years throw away in the dustbin or pit latrine, 23.7% of those from 19 years and above flush in the water closet cistern, 25.5% of females between the ages of 13-15 years wash and re-use while 18.1% of those between 13-15 years burned it in the fire. For care of menstrual protective material if piece of cloth was used, 4.3% of those between the ages of 10-12 years wash with water only, 41.5 % of females of those between the age of 13-15 years wash with soap and water, 60.9% of females aged 16-18 years wash with water, soap and disinfectant while 10.2% of females between the ages from 19 years and above do not remember to wash at all. With regard to how often the students wash their hands during menstruation in a day, greater proportion of those from 19 years and above 45.8% do it as often as it is necessary, 14.5% females aged 16-18 years wash before touching the menstrual material, 66.0% of ages 10-12 and 13-15 wash after removing stained menstrual protective material while 4.3% of those within the age of 10-12 years do not remember to wash at all.

In cases of re-used cloth, 19.6% of females between the age of 16-18 years spread inside a room without sunlight, 21.3% of students aged 10-12 years dry it outside the house without direct sunlight and 14.9% of them dry with pressing iron, while 66.1% of ages 19 and above dry it outside the house with sunlight. Regarding bathing during menstruation, 8.0% of those between 16-18 years bath once in a day, 28.7% of ages 13-15 years bath twice a day and 57.4% of this age group also bath thrice in a day while 19.1% of those between the age of 10-12 years bath anytime menstrual material is changed.

The Table further reveals that 36.2% of females between the age of 16-18 care for their clothing or outfit and underwears during menstrual period by changing it when stained, 27.7% of those between the age of 10-12 years change once or twice in a day, 13.6% of ages 19 years and above wash off stained area and continue to use, while 36.2% of those between 16-18 years of age change them each time menstrual protective material is changed. Finally, 27.1% of the female students between the age of 19 years and above clean their genitalia with antiseptic and water during menstruation, 53.2% of females between 10-12 years clean with only soap and water, 13.6% of ages 19 years and above wash with water only while 26.6% of 13-15 years clean their external genitalia with tissue or rag only.

Table 5

**Result of One-Way Analysis of Variance (ANOVA) Testing the Null-Hypothesis of no Significant Difference in The Attitude of Female Secondary School Students towards Menstruation according to Age**

**Attitude Sum of Squares Mean Square df F-cal P-value**

Between Groups .051 .017 3

.104 .957

Within Groups 4.523 .162 28

\*Not significant

Table 5 shows the F-value of .104 with its corresponding P-value of .957 which is greater than .05 level of significance at 3 and 28 degrees of freedom. The null hypothesis of no significant difference is therefore accepted. This implies that attitude of female secondary school students towards menstruation is the same for all the age groups.

Table 6

**Summary of Chi-Square(x2) Analysis on Menstrual Hygiene Practices according to Age**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S­∕n** | **Items** | X-**Cal value** | **df** | **X2-crit** | **P-Val** |
| 1. | Which of the following do you use as menstrual protective materials | 27.680 | 9 | 16.919 | .001\* |
| 2. | How often do you change your menstrual protective material during menstruation in a day | 4.38 | 9 | 16.919 | .887 |
| 3. | Which of the following methods do you usually use for disposing soiled menstrual protective material | 23.078 | 9 | 16.919 | .006\* |
| 4. | If piece of cloth or rag is used as menstrual protective material, how do you care for it after use | 8.199 | 9 | 16.919 | .514 |
| 5. | How often do you wash your hands during menstruation in a day | 24.470 | 9 | 16.919 | .004\* |
| 6. | If piece of cloth or rag is used as menstrual protective material, in which of the following ways is it dried after washing before re-use | 11.287 | 9 | 16.919 | .257 |
| 7. | How often do you bath during menstruation | 7.73 | 9 | 16.919 | .561 |
| 8. | In which of the following ways do you care for the clothing∕ outfit and underwear during menstrual period | 8.294 | 9 | 16.919 | .505 |
| 9. | Which of the following materials do you use in cleaning your external genitalia during menstruation | 9.128 | 9 | 16.919 | .426 |

\*Significant

Data in Table 6 show the Chi- square analysis on menstrual hygiene practices of female secondary school students according to age. The Table revealed that the Chi-calculated and the P-value for the following items 1(x-cal = 27.680, P-value= .001), 3(x-cal = 23.078, p-value = .006) and 5(x-cal =24.470, p-value = .004) with their corresponding values which were less than .05 level of significance. The hypothesis of no significant difference is therefore rejected. This implies that there was significant difference in the responses of students regarding these menstrual hygiene practices according to age. The Table further show that the Chi-calculated and the P-value for items 2(x-cal = 4.38, p-Val= .887, 4(X-cal = 8.199, P-value = .514), 6(x-cal = 11.287, P-val = .257), 7(x-cal = 7.738, P-val = .561), 8(x-cal = 8.294, P-val = .505), and 9(x-cal = 9.128, P-val = .426), were greater than .05 level of significance. The hypothesis of no significant difference is therefore accepted. This implies that there was no significant difference on the menstrual hygiene practices of female secondary school students regarding these items according to age.

***Discussion***

Result in Table 1 indicates that indicates that female secondary school students had positive attitude towards menstruation. This finding was expected and is in consonance with that of Busari (2012) which reported that the respondents had positive attitude towards menstruation. The female students may have been equipped with adequate information and skills on menstruation thereby empowering to have positive attitude. This may also be due to proper health education programme in schools which focused on sexuality education (menstrual health and hygiene practices) among girls.

Result in Table 2 show that greater percentage of the female students used sanitary pad. This finding was anticipated and therefore not a surprise. This finding is in consonance with that of Gharoro (2013) which observed that majority of the students used disposable pads as absorbent materials to collect their menstrual blood. The reason may be as a result of availability of sanitary pads in our local markets. Besides it is affordable and easy to apply. Moreover, the rate at which sanitary pads are advertised in the media has popularized the use as the best protective material. The Table further shows that most of the rural girls used old clothes as menstrual pads and that they re-used the clothes after washing them with soap and water. This finding is in line with that of Abioye-Kuteyi (2000) who observed that girls use unsanitary materials as menstrual absorbent. The reason is because the students could not afford sanitary pads due to low socio-economic status, lesser availability of the sanitary pads in the rural areas. The implication of this practice is that this can affect their health and increase their vulnerability to infection.

Result in Table 3 show that female secondary school students irrespective of their age have positive attitude towards menstruation when grand mean was considered. This was not expected and therefore a surprise. However this finding is in line with the findings of Mohammad and Farzaneh (2004) which reported that adolescent girls irrespective of age had positive attitude regarding menstruation. Female secondary school students between the ages of 13-15 years are still young, have little or ugly experience of menstruation and are expected to have negative attitude towards menstruation. However, those above 16 years are above and are expected to show positive attitude. This situation may be due to the high literacy status of the mothers and small inhibitions for the mothers in talking to their daughters regarding the significance, hygienic practices and a healthy attitude towards menstruation.

Result in Table 4 revealed that most of the female students of all ages used sanitary pad as menstrual protective material. This finding is in line with the findings of Lawan, Nafisa and Aisha, (2010) which reported that the students’ practice of menstrual hygiene was also associated with respondents’ age group. Female students of all ages live in the local government and probably may have been buying menstrual protective material from the same market at a cheaper and affordable price to the reach of everybody. They changed menstrual protective material once, twice, thrice and when it soaked with menstrual blood. The commonly method of disposal were by throwing it in the dustbin/pit latrine, flushing in the water closet cistern, wash and re-use and burning it in the fire. For care of menstrual protective material if piece of cloth was used, all ages washed with water, soap and disinfectant. With regard to how often the students wash their hands during menstruation in a day, all ages washed before touching the menstrual material, after removing stained menstrual protective material, was as often as it is necessary and some do not remember to wash at all. They spread menstrual cloth inside a room without sunlight, outside the house without direct sunlight, and used iron to press or spread outside the house with sunlight. Female students of all ages also changed their clothing/outfits once, twice, thrice in a day, when stained, washed off stained area and changed clothing or outfit each time menstrual protective material is changed. Female students of all ages cleaned their genitalia with antiseptic, water, soap, disinfectant and tissue or rag. Roose, Spijksms, Vandaalen and Singeling (2010) noted that menstrual hygiene is fundamental to the dignity and well-being of women and girls, and is an important part of the basic hygiene, sanitation and reproductive health services. Therefore, the inability of the female students to maintain menstrual cleanliness is likely to expose the girls to infections if the perineal region is not properly cared for.

Table 5 shows that female secondary school students of various age groups had positive attitude towards menstruation. This is in consonance with the finding of Mohammad and Farzaneh (2004) which reported that no significant difference was found between the three age groups regarding attitude towards menstruation. Female secondary school students between the ages of 13-15 years are still young, have little or ugly experience of menstruation and are expected to have negative attitude towards menstruation. However, those above 16 years are above and are expected to show positive attitude. The situation may be due to the high literacy status of the mothers and small inhibitions for the mothers in talking to their daughters regarding the significance, hygienic practices and a healthy attitude towards menstruation.

Table 6 show that there was significant difference in the menstrual hygiene practices according to age. This is expected and therefore not a surprise. This finding is in consonance with the findings of Subhash, Sushama, Monica, Nidhi, Ketaki and Suresh (2011) which reported that the difference on hygiene practices regarding menstruation according to age was not found to be statistically significant. Female secondary school students between the ages of 13-15 years are still young, have little or urgly experience of menstrual hygiene practices.

***Conclusions***

From the findings of the study, the following conclusions were drawn;

1. Female secondary school students demonstrated positive attitude towards menstruation.
2. Majority of the female secondary school girls adopted hygienic practices during menstruation.
3. Female secondary school students irrespective of their age groups demonstrated positive attitude towards menstruation.
4. Female secondary school students irrespective of their age groups adopted good practices of menstrual hygiene.
5. There was no significant difference in the attitude of female secondary school students towards menstruation according to age.
6. There was significant difference in the menstrual hygiene practices of female secondary school students according to age.

***Recommendations***

Based on the findings, discussion and conclusions of the present study, the following recommendations were made:

1. Ministry of health and Curriculum planners should therefore not relent in its efforts to institutionalize sexuality education in both public and private secondary schools and in tertiary institutions of learning in Nigeria.
2. There is need to for health educators and parents to encourage safe and hygienic practices among adolescent girls and also bring them out of misconceptions regarding menstruation.

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**EDUCATIONAL OCCUPATIONAL HEALTH SERVICES NEEDS AND NEEDS - MEETING STRATEGIES OF UNIVERSITY WOMEN ACADEMICS IN BENUE STATE, NIGERIA**

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***Abstract***

*The study investigated the educational occupational health services needs and needs-meeting strategies of university women academics in Benue State, to be provided with basic occupational health services needs for effective job performance. The study utililized the cross-sectional research design. The population of the study consisted of all women academics, and two key officers involved in provision of OHSNs in the state and federal government owned universities in Benue state. A sample size of two hundred and ninety-eight (298) participants comprising 296women academics and two key officers participated in the study. Four instruments were used for data collection. These were a 5-item adapted and modified community needs assessment questionnaire by Aparna, Mindy and Yolanda (2000), otherwise called Occupational Health Services Needs Assessment Questionnaire (OHSNAQ), A Focus Group Discussion (FGD) guide, Key Information Interview (KII) guide, and Occupational Health Services Needs-Meeting Strategies Questionnaire (OHSNMSQ) structured by the researcher were validated and utilized for data collection. The reliability co-efficient index of OHSNAQ was determined through split half method which yield reliability co-efficient index of .90 for section A, and .84 for section B as determined through Cronbach Alpha statistic. Data collected from 288 respondents were analysed. Using mean and percentages. The null hypothesis was tested using chi-Square statistics. Findings of the study indicated that EOHSNs of women academics were:the s by women academics while only 53.91 percent women academics indicated they needs were provided . Suggested EOHSNs were adjudged very impotant suggest Equipping the Faculty and Departmental libraries with current books, re-awakening NAWAS, and regular power supply. This was generated through FGD. Results further show that there was no significant differences in the EOHSNs responses of the women academics based on university type in EOHSNs (Calχ2value = 4.037, P= .284 > 0.05 ) EOHSNMS were formulated based on the identified EOHSNs. The study recommended among others that, the Benue State Government should collaborate with the State University to adopt the EOHSNMS formulated by this study for implementation. This could be achieved by building the strategies formulated into the government and university policy and implementing it correctly.*

**Key words:** Educational, Occupational Health, Health Services, Women Academics

***Introduction***

The need to provide educational services to workers cannot be overemphasized. This is because educational services constitute a major aspect of Occupational Health Services (OHS) needed by workers especially the women academics in universities who perform the duties of teaching and training students. The importance of training has been emphasized by Asogwa (2007). Training allows the worker to acquire skills and competencies in performing assigned jobs. Education and training have been identified by Muiruri and Mulinge (2014) as key activities in a work place that enables workers to acquire sufficient knowledge, skills and competencies to perform tasks belonging to the profession of choice. Through education, the professional has a duty to keep the professional competences on an appropriate level during the professional life. Similarly, Yu, Cheng, Tse, and Wong (2002) identified training and education in establishments in the form of health advice at regular intervals to be very important in improving the health of workers at the workplace. Training and education are feasible through the provision of undergraduate and post-graduate courses, participating in scientific or other relevant meetings especially in academic settings as found among university women academics. Chukwunenye and Amgbare (2010) stated that in the public service, which includes academic setting, the training services are provided through sponsorship of research studies, workshops and seminars, conferences, in-service education, and staff development programme which include on the job training. The intention is to keep academic staff abreast of new knowledge in the specific areas of specialization and to expose staff to modern working techniques that will reduce exposure to hazards in the physical, chemical and biological environment of the workplace. Gohil (2012) recommended education services to all workers to enhance knowledge, attitude and skills. Yu, cheng, Tse and Wong (2002) found that employers were provided with education and training services. However, Ekpo (2007) found out that there were insufficient educational facilities, poor library materials in the universities studied. Furthermore, Chukwunenye and Amgbare (2010) reported that staff of Patani Local Government Area were not provided with training opportunities such as workshops and seminars. Bankole and Ibrahim (2012) found significant differences between vulnerability to occupational health hazards of factory workers exposed to regular health education classes and those not exposed.

The provision of educational services is very important to the university workers which women academics are part of. This, therefore, means that providing the needed educational services to the women academics will amount to caring for the health of these workers. Unfortunately, due to scarce resources, or lack of commitment, or ignorance, all these services may not be provided in the university workplaces. In order to use limited resources and provide the necessary educational services for women academics, it is, therefore, important to first of all identify the Educational Occupational Health Services Needs (EOHSNs) of women academics in universities in Benue State.

Need is that important thing required by individuals which may not be readily available to help live a normal and functional life. Green (1999) defined a need as lacking of something that is important. This paper refers to need as important favourable educational occupational condition that is lacking in the universities in Benue State for effective and maximum performance of educational tasks by women academics. The present study identified the EOHSNs of university women academics in Benue State. This was accomplished through the process of needs assessment (NA).

Needs Assessment (NA)is a process for determining and addressing gaps between current and desired conditions. It is carried out to minimize wasting lean resources, so that most important needs can be achieved. National Institute for Assessment Health and Clinical Excellence from the UK’s National Health Services (2005) defined NA as a systematic method for reviewing the health care needs for a particular segment of the population. The segment could be university women academics in Benue State whose EOHSNs were assessed based on the objectives of OH. When NA is linked to educational occupational health services, it is termed educational occupational health services needs assessment (EOHSNA). EOHSNA, therefore, refers to a process of identifying gaps between the important and the provided EOHS of university women academics in Benue State, Nigeria. This was accomplished through identification of the EOHS that are important to the women academics and matching it against the services that are provided. The gaps in provision were therefore referred to as the identified needs. The identification of such needs was a necessary step to the formulation of strategies for meeting such needs.

A strategy is a plan of actions to attain one or more of the desired goals. Strategy refers to skillful formulation, co-ordination and application of objectives, using appropriate ways and means to promote and defend national interest (National Institute for Policy and Strategic Study –NIPPS (2008). Nickolas (2012) defines strategy as a complex web of thoughts, ideas and plans that provides general guidance for specific actions in pursuit of particular ends. In the context of this study, strategy is seen as a blue print of thoughts, plans, ideas, and actions and measures to be taken to meet the EOHSNs of university women academics in Benue State. This study involved the formulation of needs meeting strategies by choosing the most appropriate ways, actions and measures that are capable of meeting the EOHSNs of the university women academics in Benue State.

University women academics are females holding various academic positions in the university. In Benue State, such women are found in the Federal University of Agriculture, Makurdi and Benue State University Makurdi.. The present study therefore investigated educational occupational health of services needs of women academics in Benue State University.

EOHS are provided for workers to promote and maintain health. However, providing EOHS according to the needs of workers including women is problematic worldwide. This may be as a result of improper planning on the part of administrators who may not carry out needs assessment to know the exact services needs of women in the workplace. Women academics of higher institutions especially those in Benue State appear not to be provided with basic educational occupational health service needs for effective job performance.State. Following from this, the study identified the educational occupational health services needs and needs-meeting strategies of university women academics in Benue State, Nigeria. Specifically, the study identified the:

1. *Educational occupational health services needs of university women academics;*
2. *Educational occupational health services needs of women academics based on university type; and*
3. *formulated strategies for meeting the EOHSNs of the university women academics. Additionally, the study tested one null hypothesis that there was no significant difference in the EOHSNs of women academics of Federal and State universities.*

***Method***

The present study was a cross - sectional university based survey which was conducted in 2015 using Federal University of Agriculture and Benue University, all in Makurdi. Benue State.

**Population of the Study**

The population for the study consisted of 198 Federal University women academics and 98 State university women academics totalling296. These data were obtained from Personnel Services Departments in the two universities. The study also used two key officers (Registrar Establishment) one from each of the universities for Key Informant Interview. Focus Group Discussion was conducted.

**Sampling**

There was no sampling as all the 296 women academics were used for the study. This was based on the assertion by Anaekwe and Unigwe (2007) that if a topic demands studying a specific group of people that are distinguished from any other group and the number of the target population is small, it is preferable to utilize all the subjects in order to ensure representativeness and generalization of the findings. There was therefore no need for sampling of the women academics in this study. The same women academics constituted the FGD groups. 2 key officers were purposively (Registrar Establishment) one from each of the universities for Key Informant Interview (KII)

**Instruments for data collection**

Four instruments were utilized for data collection. An adapted and modified community needs assessment questionnaire designed by Aparna, Mindy, and Yolanda (2000). The modified questionnaire otherwise called Educational Occupational Health Services Needs Assessment Questionnaire (EOHSNAQ); Focus Group Discussion (FGD) Guide. Key Informant Interview (KII) Guide, and Educational Occupational Health Service’s Needs-Meeting Strategies Questionnaire (EOHSNMSQ) structured by the researcher based on the specific objectives of the study.

The EOHSNAQ centered on 5 items classified into two sections (A& B). Section A contained one item demanding the bio data of the respondents. Section B contained four items on EOHSNs of university women academics. All the items on sections B were divided into two columns of A and B. The items on column A focused on the types of EOHS that were important to the women academics and were assigned response options which range from Very Important need, Important Need, Unimportant Need, and Completely Unimportant need. These were rated 4, 3, 2, and1 respectively.

The items in section B focused on the provision of the EOHS to the women academics and were assigned two response options of Provided (P) and Not Provided (NP) and were rated 2 and 1 respectively. The respondents were requested to tick (√) against the option that was applicable to the university situation. The items in the questionnaire were organized to reflect the specific purposes of the study as well as the research questions and hypotheses.

The FGD guide and the KII contained two questions each prepared in line with the research objectives to elicit in-depth information on EOHSNs of women academics. The formulation of EOHSNMSQ started with the packaging of summary of major findings of the study, followed by a list of possible strategies for meeting the identified educational occupational health services needs of the women academics The suggested strategies had three response options: very appropriate, appropriate and not appropriate. These were rated 3, 2, and1 respectively.The EOHSNAQ and EOHSNMSQ was validated by experts in the Department of Human Kinetics and Health Education.

**Reliability of the instruments**

The reliability of the EOHSNAQ was determined through split half method. using Cronbach Alpha statistic. The reliability co-efficient index of EOHSNAQ was as follows: Column A 0.90, Column B 0.84.

**Method of data collection**

The instrument was administered to all the women academics in their respective universities. The FGD and KII were conducted and the proceedings of the discussion and interview were documented. The results were used in the discussion.

**Method of data analysis**

The data were analysed on item by item basis. The response options in column A were assigned four point scale ranging from Very Important (VI), Important (IM), Unimportant (UI) and Completely Unimportant (CU) with corresponding scores of 4,3,2, and 1 respectively. Limits of numbers were used to interpret the results. A mean score of 3.5 to 4 was interpreted as very important service, 2.5 to 3.49 was interpreted as important service while a mean score of between 1.5 to 2.49 represented unimportant service, and a score of 1.0 to 1.49 was interpreted as completely unimportant service. The qualitative data (FGD & KII) were organized in themes and were used to substantiate the quantitative data. The responses were weighted as follows: very appropriate (3 points), appropriate (2 points), and not appropriate (1 point). A criterion mean of 2.0 was adopted for taking a decision. In other words, for each suggested strategy, a mean value of 2.0 and above showed it was an appropriate strategy while any mean value below the criterion mean signified that the affected strategy was inappropriate for meeting the needs.The null hypothesis was tested at .05 level of significance using Chi- Square statistic.

***Results***

Table 1

**Mean Responses of Educational OHS of Women Academics (n = 288)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S/N | Education OHS |  | SD | Decision |
| 1. *1.* | Daycare centers and crèches | 3.62 | .54 | Very important |
| 1. *2.* | Conferences | 3.61 | .51 | Very important |
| 1. *3.* | Training through workshops and seminars | 3.69 | .49 | Very important |
| 1. *4.* | In-service training and staff development | 3.77 | .43 | Very important |
|  | **Grand mean** | **3.67** | **.49** | Very important |

Table 1 indicates a grand mean response of 3.67 which falls between 3.50 and 4.00, indicating that EOHS were very important for university women academics. The Table further indicates mean responses for day care centers and crèches (= 3.62); conferences (= 3.61); training through workshops and seminars (= 3.69); in-service training and staff development (= 3.77) which falls between 3.50 and 4.00, indicating that these were very important EOHS of university women academics.

Table 2

**Proportion of University Women Academics Provided With EOHS (N= 288)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **S/N** | **EOHS item Provision** | **Provided** | | **Not provided** | |  |
| **f** | **%** | **f** | **%** |  |
| 1. | Day care centres and crèches for staff children | 189 | 65.60 | 99 | 34.40 |  |
| 2. | Conferences | 184 | 63.90 | 104 | 36.10 |  |
| 3. | Training through workshops and seminars | 188 | 65.30 | 100 | 34.70 |  |
| 4. | In-service training and staff development | 187 | 64.90 | 101 | 35.10 |  |
|  | **Overall percentage** |  | **64.92** |  | **35.08** |  |

Table 2 shows that majority of university women academics indicated they were provided with day care centers (65.60%); training through workshops and seminars (65.30%); in-service training and staff development (64.90%); and conferences (63.90%). However, transcriptions from FGD revealed that the discussants had need for electricity and ICT, well equipped libraries with current text books, internet services, funding for research and to reawaken National Association of Women Academics for senior women lecturers to nurture younger ones.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **S/N** | **EOHS item** | **University**  **Federal Govt. owned (n= 192)** | | **Type**  **State Govt. owned (n= 96)** | |  |
|  | **Decision** |  |  | **Decision** |
| 1. | Day care centres and crèches for staff children | 3.54 | Very important | 3.79 |  | Very important |
| 2. | Conferences | 3.57 | Very important | 3.71 |  | Very important |
| 3. | Training through workshops and seminars | 3.65 | Very important | 3.76 |  | Very important |
| 4. | In-service training and staff development | 3.74 | Very important | 3.83 |  | Very important |
|  | **Cluster mean** | **3.63** | **Very important** | **3.77** |  | **Very important** |

**Table 3: Mean Responses of EOHS of University Women Academics According to University Type (n = 288)**

Data in Table 3 show that the mean responses of women academics in State Government owned university were slightly higher than those in the Federal Government owned university (State= 3.77 >Federal= 3.63), The mean responses fall between 3.50 and 4.00, indicating that the educational services were very important.

Table 4:

**Proportion of Women Academics Provided With EOHS Based on University Type (N=288)**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **S/N** | **EOHS items provision** | **University**  **Federal government owned(n=192)**  **Provided Not provided**  **%**  **f**  **f %** | | | | **Type**  **State govt. owned (n=96)**  **Provided Not provided**  **f % f %** | | | |
| 1. | Day care centers and crèches for staff children | 112 | 58.33 | 80 | 41.67 | 77 | 80.21 | 19 | 19.79 |
| 2. | Conferences | 119 | 61.98 | 73 | 38.02 | 65 | 67.71 | 31 | 32.29 |
| 3. | Training through workshops and seminars | 123 | 28.12 | 69 | 71.88 | 65 | 67.71 | 31 | 32.29 |
| 4. | In-service training and staff development | 129 | 67.19 | 63 | 32.81 | 58 | 60.42 | 38 | 39.58 |
|  | **Overall %** |  | **53.91** |  | **46.09** |  | **69.02** |  | **30.99** |
|  |  |  |  |  |  |  |  |  |  |

Table 4 indicates that majority of women academics in the State and slightly more than half of Federal government owned universities were provided with educational services of day care centres and crèches (State government owned = 80.21% > Federal government owned = 58.33%), conferences (State government owned = 67.71% > Federal government owned = 61.98%), and training through workshops and seminars (State government owned = 67.71%). The Table also indicates that majority of Federal and State government owned university women academics were provided with in-service training and staff development (Federal government owned = 67.19% > state government owned = 60.42%. However, majority (71.88%) of women academics in federal government owned university indicated that training through workshop and seminars were not being provided.

Table 5

**Mean Responses of Educational Occupational Health Services’ Needs-Meeting Strategies (n=20)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Identified EOHSNs** | **S/N** | **Objectives** | **Mean Responses** | **Decision** | **S/N** | **Strategies** | **Mean Responses** | **Decision** |
|  |  |  |  |  |  |  |  |  |
| Equipping the main, faculty and Departmental libraries with current books | 1 | To provide up to date information to women academics in the various fields of endeavours. | 2.55 | A | 1 | Formulation and implementation of workable education policy. | 2.60 | A |
| Re-awaken national Association of women academics (NAWAs) | 2 | *For senior women academics to nurture the junior ones through mentoring.* | 2.65 | A | *2* | *Establish mentoring programmes for women academics in various disciplines.* | 2.50 | A |
| Epileptic Power supply | 3 | To provide steady power supply to all campuses and women academics | 2.50 | A | *3* | *Advocacy* | 2.50 | A |
|  |  | ***Cluster mean*** | **2.57** | A |  | ***Cluster mean*** | **2.53** | A |

**KEY:**

A = Appropriate NA = Not Appropriate

Table 5 shows a cluster mean response of 2.53 which implies that all the proposed strategies of educational OHSNs were considered appropriate by experts. Table also show the highest mean response of 2.60 by item 1 (formulation and implementation of workable education policy) while the lowest mean response of 2.50 was shown by items 2, and 3 (establish mentoring programmes for women academics in various disciplines; and advocacy respectively).

Table 6: **Result of Chi-square Analysis Testing the Null Hypothesis of No Significant Difference in the EOHSNs of Women Academics Based on University Type**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| S/N |  | University Type  Federal govt. owned State govt. owned  Provided Not Provided Provided Not Provided | | | | Cal χ2 Value | df | P-value | Decision |
|  |  |  |  |  |  |  |  |  |  |
| 1. | Day care centers and crèches for staff children | 112 (126.00) | 80 (66.00) | 77 (63.00) | 19 (33.00) | 13.576 | 1 | .000 | Reject |
| 2. | Conferences | 119 (122.70) | 73 (69.30) | 65 (61.30) | 31 (34.70) | .911 | 1 | .340 | Accept |
| 3. | Training through workshops and seminars | 123 (125.30) | 69 (66.70) | 65 (62.70) | 31 (33.30) | .375 | 1 | .540 | Accept |
| 4. | In-service training and staff development | 129 (124.70) | 63 (67.30) | 58 (62.30) | 38 (33.70) | 1.289 | 1 | .256 | Accept |
|  | **Cluster χ2** |  |  |  |  | **4.037** | **1** | **.284** | **Accept** |

Data in Table 6 show the cluster calculated χ2 values with their corresponding P-values at one degree of freedom for educational OHSNs (χ2=4.037, P= .284 > 0.05) which the P- value is more than .05 level of significance at one degree of freedom. The null hypothesis of no significant difference was therefore accepted. This implies that the educational OHSNs did not differ according to university type. The Table further show the calculated χ2 values with their corresponding P-values at one degree of freedom for day care centres and crèches for staff children (χ2= 13.576, P= .000 < 0.05) which is less than 0.05 level of significance at one degree of freedom. The null hypothesis of no significant difference was rejected. This implies that these women’s educational OHSNs differed according to university type.

The Table further shows the calculated χ2 value with their corresponding P-values at one degree of freedom for conferences (χ2=. 911, P = .340 > 0.05); training through workshops and seminars (χ2= .375, P = .540 > 0.05); and in-service training and staff development (χ2= 1.289, P = .340 > 0.05) which are greater than 0.05 level of significance at one degree of freedom. The null hypothesis of no significance difference was accepted. This implies that the women’s educational OHSNs did not differ according to university type.

**Discussion**

Tables 1 and 2 revealed that educational OHS of women academics were all provided. The finding supports that of Yu, Cheng, Tse and Wong (2002) which found that the staff were provided with education and training services. However, the finding negates that of Chukwunenye and Ambare (2010) which reported that staff of Patani Local Government Council were not provided with training opportunities such as workshops, seminars and on the job training.

FGD results, however, indicated that women academics had need for current textual materials in the libraries, good power supply and the re-awakening of the National Association of Women Academics Staff (NAWAS) for senior rank women academics to train or nurture the younger or lower rank women academics. Transcriptions from FGD were supported by findings of Ekpo (2007) which found that there were insufficient educational facilities and poor library materials for effective work performance.

KII result revealed that universities had good educational policies that are well implemented; although there are times when power failure from the public power supply truncate academics activities. It also revealed that the university is also making efforts to stock the libraries with current books. The findings on educational OHSNs showed that the women academics had need for current books, re-awaking of NAWAS and good power supply which the study strategises for improved provision.

Data in Tables 3 and 4 showed that EOHSNs of women academics in the Federal and state government owned universities were educational services were very important and provided respectively. Gohil (2012) recommended educational services to workers of all categories in order to enhance knowledge and build competencies that improve productivity. Moreover, as a centre of learning, it is quite obvious that universities should be provided with educational services that will build and improve the human capacity of those who are teaching so that, they will be effective in the work of creating and generating knowledge and skills that are useful to the society. From the KII and FGD conducted, the result confirmed that educational OHS were the needs of university women academics in the Federal Government owned universities. Results in Table 4 revealed that there was no significant difference (χ2cal 4.037, P = .284 > .05) in the educational OHSNs responses of women academics based on university type. The finding is in line with that of Bankole and Ibrahim (2012) which found a significant difference between the vulnerability to occupational health hazards of factory workers exposed to regular health education and factory workers not exposed. The implication of this finding is that the women academics have education needs. Strategies were formulated to bridge the gap in education needs.

Data in Table 5 showed that the major objectives were accepted as very appropriate for inclusion in the OHSNMS. This is because the objectives were formulated based on comprehensive review of related literature, and was also validated by experts in Health and Physical Education. When objectives are precise, they tend to facilitate accomplishment of programmes intended to address. These were precise and in line with the findings of the study.

***Conclusion***

Based on the findings and discussion of the study, the following conclusions were made;

1. Equipping the Faculty and Departmental libraries with current books, re-awakening NAWAS, and epileptic power supply were the educational OHSNs of the women academics. This was generated through FGD.
2. All the proposed contents of OHSNMS were adjudged as very appropriate for inclusion and implementation for women academics in the universities in Benue state.. (Table5).
3. There was no significant difference in the mean responses of women academics with regards to educational OHSNs according to university type..

***Recommendations***

On the basis of findings of this study, the discussions and conclusions, the following recommendations were made:

1. The Benue state government should collaborate with the State University to adopt the EOHSNMS designed by this study for implementation. This could be achieved by building the strategies into the university policy and implementing it correctly.
2. The universities should adopt the strategies formulated by this study to plan for the needed service; formulate, enforce and support policies that will encourage the provision of the EOHSNs identified; and should put in place a machinery to monitor and evaluate the extent of provision of EOHSNs of women academics in the universities.
3. Women academics should use the result to take educational services seriously by making use of the available services judiciously.

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**PARENTALAGE AND PARITY AS PREDICTORS OF CHILD NEGLECT IN BAUCHI STATE, NIGERIA**

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***Abstract***

*Literature has revealed that there is child abuse and neglect in Nigeria including Bauchi State. The study therefore examined Predictors of Parental Child Neglect of Age and Parity in Bauchi State, Nigeria. To achieve these purpose two research objectives were posed with two corresponding research questions and one null hypotheses was postulated to guide the study. The correlation research design was utilized for this study. The population for the study consisted of all secondary school students in Bauchi State (550,421). A sample size of 1549 secondary school students was drawn from the population using a multi-stage sampling procedure using appropriate techniques was used. Instrument used for this study was designed by the researcher and subjected for validation by five experts from the Department of Human Kinetics and Health Education, Psychology, and Science Education all from University of Nigeria, Nsukka. The cronbach Alpha method of reliability index of was .88. Research questions were answered using multiple-regression analysis. The ANOVA statistic was used to test hypothesis at .05 level of significance. The findings reveal that the relationship between age of parents and child neglect was very low (overall r = 0.118, P = 0.003) while Fathers’ age and PCN (r = 0.125, P = .004), mother age and PCN (r = 0.103, P = 0.009) was very low, father age and - ECN (r = 0.101, P = 0.008), and mother age and ECN (r = 0.111, P = 0.000). Fathers’ age (P-value = .000) and mothers’ age (P-value = .001) were significant predictors of medical child neglect. The Bauchi State Ministry of Education in collaboration with State Universal Basic Education Board (SUBEB) should adopt the Child Abuse and Neglect Preventive Measures State wide for inclusion and implementation in the secondary schools. The Bauchi State Ministry of Education in collaboration with Ministry of Youth and Sport, Ministry of Information, Ministry of Culture and Tourism, and Ministry of Higher Education should lend logistic and manpower support to the secondary schools in the implementation of the Child Abuse and Neglect Preventive Measures in schools.*

***Keywords****: Parental Predictors, Child Neglect, Age, Parity*

***Introduction***

Neglect is a serious public health problem and occurs in varying proportions or magnitudes, resulting to burden imposed on children by parents or adults. Cases involving approximately 4.5 million children were referred to Child Protective Services throughout the country for investigation into allegations of neglect. Of these reported cases 30 per cent were neglect of children (U.S. Department of Health and Human Services-USDHHS, 2013).

In many African countries, the child neglect rate in rural areas is at least twice as high as that in urban areas and neglect in educational settings leads to high rates of school dropouts and low rates of school enrolment in this region, especially among girls (United Nations International Education Fund- UNICEF, 2012). In Nigeria, child neglect by parents seems to be relatively high. For example In Bauchi State, evidence showed that 59.8 per cent of school girls were neglected from being enrolled in schools (Targeted States High Impact Project- TSHIP, 2012). From the foregoing statistics, there is evidence of child neglect in the developed and the developing nations of the World including Nigeria and Bauchi State in particular.

The Nigerian Child Right Act bill was passed into law in July 2003 It received the assent of the then President of the Federal Republic of Nigeria, Chief Olusegun Obasanjo, in September 2003 and was promulgated as the Child Rights Act 2003. Report showed that there is lack of enforcement of the act by law makers and judiciary (UNICEF, 2012), Child neglect is one aspect of the Act. Child by care giver, parents or any person has trusted relationship.

Child neglect is inability to provide basic of the child by care giver, parents and any person in a trusted relationship. Neglect occurs when a caregivers fails to provide basic needs such as adequate food, sleep, safety, supervision clothing, or medical treatment. National Society for the Prevention of Cruelty to Children-NSPCC (2014)viewed it aspersistent failure to meet a child's basic physical and/or psychological needs, likely to result in the serious impairment of the child's health or development. This study refers to child neglect as used here is the failure of parent or caregiver to provide for the child’s basic needs such as clothing, medical care, love, school uniform among others. This means that any neglectful act or deed meted on any person under the age of twenty is regarded as child neglect.

Neglect has been classified into four different forms, This include physical, emotional, educational and medical (USDHHS, 2013). Child neglect is categorized into four forms, namely: physical, emotional, educational and medical.

Neglected children are at considerable risk. These children are more likely than other children to suffer from a serious physical injury due to an accident such as falling, drowning, fire, or ingestion of poison. They are also at a greater risk than other children of being physically and sexually abused from an unrelated caregiver, often times a significant other or friends to their parent(s) (Greenfield, 2010) Literature indicates that children are often neglected at home, school and other settings by parents and other caregivers. This neglect would emanate from a number of factors called predictors.

Predictor is any attribute or characteristic that can show what will happen in the future. Collins (2005) posited that predictor is a fact or data point that can be used to foretell an outcome. In other words, to predict means to state, tell about, or make known in advance about a given phenomenon especially on the basis of special knowledge. In this study, predictors refer to potential attributes or characteristics that can be used to foretell the occurrence of child neglect. Examples of predictors in any given population may include: gender (male or female), marital status (married, single, divorced, separated, widowed) and other variables such as age, socioeconomic status (income, occupation) and residential location. This study investigated of attributes age and parity of parents in relation to child neglect.

Age varies with individuals. Lange (2008) reported that parents were less likely to yell if they are older, thus age might be a predicting factor. Malik (2010),found that there was no significant relationship between socioeconomic class and use of physical abuse against children in Paskistini family. This may be common among parents with many children who may not be able to carter for.

Parity has to do with number of deliveries or childbirth a woman had. Having so many children is seen as much achievement by many tribes especially the people of Bauchi State. It is believed that mothers with too many pregnancies. (*Grand multigravidae*) are exposed to health problem, than older women in their first pregnancies (primigravidae). Sadeghi et al. (1998) added that high parity is also considered to be one of the most important factors leading to child abuse and neglect. Parity is the number of children in a family. The larger the family the more the parent’s responsibility. Malik(2010) posited that neglect is related to the family size (number of children in a family). Continue to be a effect of belonging to a large family on child abuse continue to be subject of investigation. It is considered that large families are far more common among the poor, socially and culturally deprived families. Children from families with greater number of children faced more child abuse as compared to children from the families with lesser number of children. The finding by Malik is consistent with UNICEF-Eastern Caribbean Area (2014) who posited that evidence has showed that neglect was found to be related to the larger family size the greater the number of children in a family, the more likely the parents, especially, mothers feel frustrated and overwhelmed that may lead to child abuse. It means that children from larger families face physical abuse and neglect as well as psychological neglect due to a large number of family members to be taken care of by the parents. The smaller the family the better for the family to be managed. However, this study examined parity if it is a potential variable for predicting child neglect by parents among secondary school students in Bauchi State. There are factors to consider in relation to perpetration of child neglect by parents.

Parent may be a man, woman, young or old who takes care of a child. A parent is the child's mother, father or another person who exercises parental control over the child (Department of Justice Attorney General, 2014). However, a person temporarily acting in the place of the parent is not considered to be a parent. Parent in this study are people who (i.e., biological or non-biological) take care of children who are of secondary school age in Bauchi State. Parent may not be biological related to their children. Adoptive parents are those who nurture and raise the offspring of biological parents, but can take care of children and protect them from child neglect.

UNICEF East Asia and Pacific Regional Office (EAPRO, 2012) defined child as in the Convention on the Rights of the Child (CRC) to include a human being below the age of 18 years unless under the law applicable to the child, majority is attained earlier. In this study, a child is any person in primary and secondary schools in the area of study.

In Nigeria, Child Rights Act- CRA ( 2003) incorporates all the rights and responsibilities of children; consolidates all laws relating to children into a single law; and specifies the duties and obligations of government, parents and other authorities, organizations and bodies. Some of the basic provisions include: No Nigerian child shall be subjected to physical, mental, emotional injury, abuse, neglect, maltreatment, torture, inhuman or degrading punishment, attacks on their honor or reputation. Every Nigerian child is entitled to rest, leisure and enjoyment of the best attainable state of physical, mental and spiritual health. The act provides for medical and health care, prohibited betrothal and early marriage, tattoos or marks as well as female genital mutilation are all punishable offences under the Act. The Actmandates parents, guardians, institutions and authorities in whose care children are placed to provide the necessary guidance, education and training to enable the children to live up to expected responsibilities.

Regrettably, it was observed that parents in Bauchi State still send children to hawk, farm for longer period of the day while girls are given out for early marriage, and children are treated with herbs when they fall sick instead of going to the health facilities for proper diagnosis and treatment. Children are forced to abandon western education for quaranic education (meaning boko haram) and other unacceptable act by the society. They also faced diverse forms of neglects such as educational neglect, medical neglect, physical neglect and emotional neglect in most of the communities in Bauchi State. Parents regard these as acceptable ways of instilling discipline in children. Literature has also revealed that there is child abuse and neglect in Nigeria including Bauchi State.However, what predicts this was uncertain as the question then arose if parity and age were capable of predicting child neglect by parents and child care givers in Bauchi state.One hypothesis was formulated to guide the study. Thus Age and parity were not significant predictor of child neglect

***Method***

The study employed the correlational research design. Gall, Gall and Borg (2007) defined correlational research design as investigation that seeks to discover the direction and magnitude of the relationship among variables through the use of correlational statistics. The use of the design are highly useful for studying problems in education and in other sciences, enable researchers to analyze the relationship among large number of variables in a single study and it provide information concerning the degree of the relationship between the variables being studied. This design has successfully been utilized by Budd, Holdsworth, and Hoganbruen (2006) to examine whether parenting variables (childrearing beliefs, quality of parent-child interactions, and child abuse risk) and personal adjustment variables (emotional distress and social support) at initial assessment predicted parenting stress. This suggests success in its application in the present study.

The population for the study consisted of public and private secondary school students in Bauchi State which was 550,421 (public = 356391; private = 193830) (Bauchi State Annual School Census/ Report, 2013/2014).

The sample size for this study consisted of one thousand five hundred and forty nine (1,549) public and private secondary school students in Bauchi State, Nigeria and 20 experts from Departments Psychology, Human Kinetics and Health Education, University of Nigeria, Nsukka.The sample size for the study was computed using Bennett et al. (1991) and Sarnda, and Swensson (2003) sample size determination formula resulted in sample of 1549 secondary schools students. of Predictors of Child Abuse and Neglect Questionnaire was the instrument for data collection questionnaire. The questionnaire consisted of consisted of the respondent’s on neglect and parity of parents. The items in were assigned “Always (AL), Sometimes (ST), Occasionally (OC) and Never (NE)” which were weighted as 4,3,2 and one respectively. Real limits of numbers were used to answer the research questions as follows.

**Reliability of the instrument**

To determine the reliability of the instrument split half method was used. Frankfort-Nachmias and Nachmias (2006) explained split half as a method of assessing the reliability of an instrument by dividing the items into two equal parts and correlating the scores in one part with scores in the other. For this study, twenty (20) copies of questionnaire were administered on twenty (20) respondents in Government Secondary School Dengi, Kanam LGA Plateau State who were not included in the study but who have the same characteristics (religion, language) with the study population. The reason for using split half was to estimate the internal consistency (Gall, & Borg, 2007). Spearman Brown was applied to make it a complete test. The reliability of the instrument for section B was established through the use of Cronbach Alpha technique, since the items of the instrument were polychotomously scored (Nwogu, 2006). The was given to 5 experts in Health and Physical Education Department University of Nigeria. The result of the reliability was .88 therefore the instrument was adjudged reliable and suitable for this study.

In order to gain access to the respondents, a letter of introduction was obtained from the Head, Department of Health and Physical Education, University of Nigeria, Nsukka, and was presented to the respective school principals who introduced the researcher to the heads of department, and class teachers. The researcher administered (1,549) copies of the questionnaire to the respondents with the help of teachers. The teachers were briefed on the modalities of completing the instrument. The researcher and the teachers supervised the respondents to ensure that there was no exchange of ideas during the process of completing the questionnaire. The completed copies of the questionnaire were collected on the spot to ensure high return rate, and the returned rate of 91.5 per cent was obtained. One hundred and thirty two were not properly filled and therefore were discarded.

Research questions were analyzed using multiple regression. In this regard, .01 - .19 was considered very low relationship, .20 - .39 was considered low relationship, .40 - .69 was considered moderate relationship, .70 - .89 was considered high relationship, .90 - .99 was considered very high relationship and 1.00 was considered perfect relationship. The hypothesis was tested using ANOVA statistics at .05 level of significance.

***Results***

Table 1:

**Relationship Between Age of Parents and Child Neglect (n =1417)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S/N** | **Items statement** | **Correlation (r) value** | **P-value** | **Decision** |
| **Father’s Age and Physical Child Neglect** | | | |  |
| 1 | Clothes | .171 | .000 | Very low relationship |
| 2 | Soap for bathing | .075 | .005 | VLR |
| 3 | Good shelter | .056 | .034 | VLR |
| 4 | Enough food | .117 | .000 | VLR |
| 5 | Security | .170 | .000 | VLR |
| 6 | Good supervision at home | .163 | .000 | VLR |
| 7 | Shoes | .114 | .000 | VLR |
| 8 | Personal hygiene | .135 | .000 | VLR |
|  | **Cluster Value** | **0.125** | **0.004** | **VLR** |
| **Mother’s Age and Physical Child Neglect** | | | |  |
| 9 | Clothes | .093 | .000 | VLR |
| 10 | Soap for bathing | .047 | .078 | VLR |
| 11 | Good shelter | .106 | .000 | VLR |
| 12 | Enough food | .101 | .000 | VLR |
| 13 | Security | .132 | .000 | VLR |
| 14 | Good supervision at home | .104 | .000 | VLR |
| 15 | Shoes | .091 | .001 | VLR |
| 16 | Personal hygiene | .150 | .000 | VLR |
|  | **Cluster Value** | **0.103** | **0.009** | **VLR** |
| **Father’s Age and Emotional Child Neglect** | | | |  |
| 17 | Love | .121 | .000 | VLR |
| 18 | Warmth | .075 | .005 | VLR |
| 19 | Care | .123 | .000 | VLR |
| 20 | Assistance | .125 | .000 | VLR |
| 21 | Affection | .118 | .000 | VLR |
| 22 | Inspiration | .094 | .000 | VLR |
| 23 | Comfort | .105 | .000 | VLR |
| 24 | Happiness | .050 | .062 | VLR |
|  | **Cluster Value** | **0.101** | **0.008** | **VLR** |
| **Mother’s Age and Emotional Child Neglect** | | | |  |
| 25 | Love | .086 | .001 | VLR |
| 26 | Warmth | .094 | .000 | VLR |
| 27 | Care | .124 | .000 | VLR |
| 27 | Assistance | .112 | .000 | VLR |
| 29 | Affection | .115 | .000 | VLR |
| 30 | Inspiration | .107 | .000 | VLR |
| 31 | Comfort | .158 | .000 | VLR |
| 32 | Happiness | .092 | .001 | VLR |
|  | **Cluster Value** | **0.111** | **0.000** | **VLR** |
| **Father’s Age and Education Child Neglect** | | | |  |
| 33 | School fees | .094 | .000 | VLR |
| 34 | Books | .083 | .002 | VLR |
| 35 | Pocket money to school | .155 | .000 | VLR |
| 36 | Uniform | .110 | .000 | VLR |
| 37 | Games wear | .136 | .000 | VLR |
| 38 | Provisions | .117 | .000 | VLR |
| 39 | Moral support | .178 | .000 | VLR |
| 40 | School levy | .087 | .001 | VLR |
|  | **Cluster Value** | **0.12** | **0.000** | **VLR** |
| **Mother’s Age and Education Child Neglect** | | | |  |
| 41 | School fees | .175 | .000 | VLR |
| 42 | Books | .160 | .000 | VLR |
| 43 | Pocket money to school | .113 | .000 | VLR |
| 44 | Uniform | .178 | .000 | VLR |
| 45 | Games wear | .128 | .000 | VLR |
| 46 | Provisions | .104 | .000 | VLR |
| 47 | Moral support | .162 | .000 | VLR |
| 48 | School levy | .099 | .001 | VLR |
|  | **Cluster Value** | **0.139** | **0.000** | **VLR** |
| **Father’s Age and Medical Child Neglect** | | | |  |
| 49 | Transport to the hospital | .130 | .000 | VLR |
| 50 | Money for treatment | .092 | .001 | VLR |
| 51 | Dental care and immunization | .132 | .000 | VLR |
| 52 | Insurance services/scheme | .124 | .000 | VLR |
| 53 | Money for drugs at the right (appropriate) time | .139 | .000 | VLR |
| 54 | Competent health professionals | .102 | .000 | VLR |
|  | **Cluster Value** | **0.119** | **0.000** | **VLR** |
| **Mother’s Age and Medical Child Neglect** | | | |  |
| 55 | Transport to the hospital | .135 | .000 | VLR |
| 56 | Money for treatment | .109 | .000 | VLR |
| 57 | Dental care and immunization | .128 | .000 | VLR |
| 58 | Insurance services/scheme | .122 | .000 | VLR |
| 59 | Money for drugs at the right (appropriate) time | .119 | .000 | VLR |
| 60 | Competent health professionals | .117 | .000 | VLR |
|  | **Cluster Value**  **Overall Value** | **0.122**  **0.118** | **0.000**  **0.003** | **VLR**  **VLR** |

Table 1 shows overall correlation value (r = 0.118; P=0.003) which falls between .01-.19 which indicates a very low correlation between age of parents and child neglect. The Table further shows the correlations values and the corresponding P values for father’s age and physical child neglect -PCN (r = 0.125, P = .004), mother age and PCN (r = 0.103, P = 0.009); father age and emotional child neglect- ECN (r = 0.101, P = 0.008), and mother age and ECN (r = 0.111, P = 0.000). These imply that there was very low relationship between father’s and mother’s age and PCN and ECN respectively since these values fall between .01 and .19.

The Table also shows the correlation values and the P – values for father’s age and educational child neglect -EdCN (r = 0.12, P = .000), mother’s age and EdCN (r = 0.139, P = .000), fathers’ age and medical child neglect-MCN (r = 0.119, P = 0.00) and mother’s age and MCN (r = 1.222, P = .000). These imply that there were very low relationship between father’s and mother’s age and educational and medical child neglect respectively since these values fall between .01 and .09.

Table 2

**Relationship between Parent’s Parity and Child Neglect (n =1417)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S/N** | **Items statement** | **Correlation(r) value** | **SD** | **Decision** |
| **Parents Parity and Physical Child Neglect** | | | |  |
| 1 | Clothes | -.008 | .761 | Very low relationship |
| 2 | Soap for bathing | .022 | .412 | VLR |
| 3 | Good shelter | -.044 | .100 | VLR |
| 4 | Enough food | .000 | .994 | VLR |
| 5 | Security | -.003 | .915 | VLR |
| 6 | Good supervision at home | -.008 | .759 | VLR |
| 7 | Shoes | .029 | .283 | VLR |
| 8 | Personal hygiene | -.008 | .775 | VLR |
|  | **Cluster Value** | **-0.003** | **0.625** | **VLR** |
| **Parents Parity and Emotional Child Neglect** | | | |  |
| 9 | Love | .076 | .004 | VLR |
| 10 | Warmth | .058 | .028 | VLR |
| 11 | Care | .041 | .128 | VLR |
| 12 | Assistance | .053 | .048 | VLR |
| 13 | Affection | .055 | .040 | VLR |
| 14 | Inspiration | .060 | .024 | VLR |
| 15 | Comfort | .077 | .004 | VLR |
| 16 | Happiness | .101 | .000 | VLR |
|  | **Cluster Value** | **0.065** | **0.035** | **VLR** |
| **Parents Parity and Education Child Neglect** | | | |  |
| 17 | School fees | .009 | .723 | VLR |
| 18 | Books | .010 | .702 | VLR |
| 19 | Pocket money to school | .036 | .182 | VLR |
| 20 | Uniform | -.017 | .535 | VLR |
| 21 | Games wear | .001 | .956 | VLR |
| 22 | Provisions | .039 | .147 | VLR |
| 23 | Moral support | .013 | .629 | VLR |
| 24 | School levy | .018 | .488 | VLR |
|  | **Cluster Value** | **0.011** | **0.545** | **VLR** |
| **Parents Parity n and Medical Child Neglect** | | | |  |
| 25 | Transport to the hospital | .042 | .111 | VLR |
| 26 | Money for treatment | .072 | .007 | VLR |
| 27 | Dental care and immunization | .055 | .039 | VLR |
| 28 | Insurance services/scheme | .041 | .199 | VLR |
| 29 | Money for drugs at the right (appropriate) time | .026 | .323 | VLR |
| 30 | Competent health professionals | .031 | .251 | VLR |
|  | **Cluster Value** | **0.045** | **0.142** | **VLR** |
|  | **Overall Value** | **0.029** | **0.337** | **VLR** |

Table 2 shows the correlation values and the corresponding P value for parent’s parity and physical child neglect – PCN (r = - 0.003; P = 0.626). This value falls below .01 - .19, implying that there was very low negative relationship between parent’s parity and PCN. The Table further shows the correlation and the corresponding P – values for parent’s parity and ECN (r = 0.045; P = 1.42), parent’s parity and EdCN (r = 0.011; P = 0.545) and parent’s parity and MCN (r = 0.029, P = 0.337) respectively. These values fall between .01 - .19 which imply that there was very low relationship between parent’s parity of ECN, EdCN and MCN and child neglect in Bauchi State. The Table also reveals overall correlation value of (r = 0.029 worth P = 0.337) which falls between .01 - .19 which indicates a very low relationship between parent’s parity and child neglect.

Table 3

**Summary of Multiple Regression Analysis Testing the Null Hypothesis that are not Significant Predictors of Child Neglect.**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Model** | **Summary** |  | **Test for Coefficients** |  |  |  |  |  |  |
| R2 | F-cal | P-value | Coefficient | Beta (B) | t-cal | P-value | Decision | | |
| .033 | 4.758 | .000 | Constant | 16.385 | 16.169 | .000 | Rejected | | |
|  |  |  | Father’s age | .768 | 3.821 | .000 | Rejected | | |
|  |  |  | Mother’s age | .559 | 3.300 | .001 | Rejected | | |
|  |  |  | Parity | .264 | 1.535 | .125 | Accepted | | |

Table 3 reveals that R2 is equal to .033. This implies that the demographic variables (age, marital status, level of education, religion, location, occupation and parity) explained medical child neglect by 3.3%. The Table further reveals F-cal is 6.249 with P – value = .000 which is less than .05 level of significance, implying that the model is adequate and can be used to predict child abuse. Furthermore, data in the Table show that the P-value for parents parity (.125) was greater than .05 level of significance. This implies that parents parity was not significant predictors of child neglect. On the other hand, the P-values for fathers’ age (.000) and mothers’ age (.001) were less than .05 level of significance. Therefore, the null hypothesis was rejected. This implies that fathers’ age and mothers’ age were significant predictors of child neglect by parents in Bauchi State. Fathers’ age and mothers’ age can be used to predict MCN in Bauchi State.

***Discussion***

The finding in Table 1 revealed that the relationship between age of parents and child neglect was very low. This finding was expected and because some parents are experienced, they marry early and may have been employed and might have known the principles of child rearing, and therefore providing the needs for their children becomes very important. This finding agrees with that of Epstein (2001) who found that the relationship of parents’ age and child neglect was very low. The Table further shows that the relationship between father’s age and physical child neglect was very low. This finding was not surprising but expected. This finding contradicts that of [Stith and colleagues (2009)](http://www.ncbi.nlm.nih.gov/books/NBK195983/#ref_000285) who revealed that there was moderate relationship between parents' age and physical child neglect. The Table also shows that the relationship between mother’s age and physical child neglect was very low. This finding was not surprising because it agrees with that of Allen (2008) who noted that age of mother and physical child neglect was very low.

Furthermore, the findngsshowed that the relationship between father’s age and emotional child neglect was very low. This finding was expected and because ideally fathers are the head of the family who are expected to provide a conducive environment for children to promote social and emotional health. This finding is in line with that of [Sedlak et al. (2010](http://www.ncbi.nlm.nih.gov/books/NBK195983/#ref_000275)) who submitted that fathers who are living with their biological children had very low rates of emotional child neglect. The Table also showed that the relationship between mother’s age and emotional child abuse was very low. This finding was expected and therefore not surprising because the finding contradicts that of Sedlak, et al. (2010) who found that single mothers who live with their children had the highest rate of emotional child neglect. The result also revealed that the relationship between father’s age and educational child neglect was very low.This finding agrees with the finding of Budd, Holdsworth, and HoganBruen (2006) who found that age of fathers had very low relationship with the payment of their children school fees.

The Table further revealed that the relationship between mother’s age and educational child neglect was very low. In Bauchi State, culture and beliefs determine mothers’ educational attainment, some mothers who are opportune to attained school assist greatly in providing educational needs of their children. This finding agrees with that of NSPCC (2012) which reported that mothers who are 35 years of ages exhibited very low relationship with their children’s education. The finding also shows that the relationship between father’s and mother’s age and medical child neglect was very low. This finding was expected and because the finding is in line with that of Schutte, et al. (2013) who found that father’s age and mother’s age had low relationship with access to medical services for their children. The finding also agrees with that of Roberts, Izuka, and Ekanem and Mabogunje (2013) who reported that proportion of children who had received routine immunization was 99.7%, for those whose parent’s age was from 50 years and above. This finding also agrees with their finding of Schutte, et al. (2013) who reported that father’s age and mothers’ age had low relationship with those children who had been immunized with PCV at Lagos University Teaching Hospital.

The finding in Table 2 showed that the generally the relationship between parents’ parity and child neglect was very low. This finding was not surprising because religion and cultural beliefs in Bauchi State allow men to marry many wives and have children merely, This finding is in line with that of Ogundele and Ojo (2007) who found that large family size contribute greatly to child neglect. This finding also agrees with that of Prinz, Sanders, Shapiro, Whitaker and Lutzker (2009) who found that the few number of children in the family had low relationship with child neglect. Furthermore, the relationship between parent’s parity and physical child neglect was very low. This finding contradicts with that of Sadeghi et al. (1998) who submitted that high parity is considered as one of the most important factors leading to physical child abuse in the family. The finding of very low relationship between parent’s parity and emotional child neglect was not surprising but expected because Begle, Dumas and Hanson (2010) noted that few number of children in the home had very low association with emotional child neglect.

The finding of very low relationship between parent’s parity and educational child neglect was not surprising expected. Ideally, people respect this adage which says “if you say education is hard you can try ignorance”. This means that educated parents are aware of what consequences of not practicing the right type of parity for a family could cause. This finding disagrees with that of Bolanle et al. (2005) who reported that there was high relationship between increasing number of children in the family and parent’s education and child neglect. The finding further showed that the relationship between parent’s parity and medical child neglect was very low. The finding was not surprising but expected. This is in line with that of Stolk et al. (2008) who noted that primiparas (i.e., first-time mothers) showed a very low relationship towards medical attention of their children.

Finding in Table 3 showed that father’s age was significant predictor of medical child neglect. The finding was expected and therefore not surprising because National Child Abuse and Neglect Data System – NCANDS (2005) found that fathers who are older are not common victims of medical child neglect in the United States. This finding agrees with that of USDHHS (2013) which noted that father’s age significantly predicted medical child neglect. Data in the Table also revealed that mother’s age was significant predictor of medical child neglect. The finding was not surprising because the finding agrees with that of Jenny (2007) who found that mother’s age was adequate for predicting medical child neglect. These imply fathers’ age and mothers’ age are capable of predicting child medical neglect in Bauchi State.

**Implication of the Study**

The finding may have the following implications on the secondary school child in Bauchi State as follows:

1. The finding on child neglect has implication for proactive rather than active to child neglect by parents. Hope is not lost if government through health educators and social workers in their various work places will mount seminars, workshops and health education, it is then, perpetuation of child abuse and neglect will be reduced.
2. The findings on child neglect indicated that it is sometimes perpetuated, which have consequences on the rights of children. However, need for designing programme through seminar, workshops, home visits by social welfare workers and health educators and awareness to help reduce the neglect is necessary.

***Conclusions***

Based on the findings and the discussion of the study, the following conclusions were made

1. The relationship between parents’ age and parity and child neglect were very low
2. Fathers’ age; and mothers’ age were significant predictors of child neglect.

***Recommendations***

Based on the finding of the present study, the discussions, and conclusions thereof, the following recommendations were made:

1. The Bauchi State Ministry of Education in collaboration with State Universal Basic Education Board (SUBEB) should adopt the Child Abuse and Neglect Preventive Measures State wide for inclusion and implementation in the secondary schools. This can be achieved through employing the train the trainers workshops by experts to train principals, Health and Physical Educators, This will help them to detect children who are at potentially at risk; and it will help to guide student on the right moral instruction; and Guidance Counsellors, will be equipped with skill in handling issues that concerns child neglect.
2. The Bauchi State Ministry of Education in collaboration with Ministry of Youth and Sport, Ministry of Information, Ministry of Culture and Tourism, and Ministry of Higher Education should lend logistic and manpower support to the secondary schools in the implementation of the Child Abuse and Neglect Preventive Measures in schools.

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**ATTITUDES OF MALE TEACHERS IN SECONDARY SCHOOLS TOWARDS FEMALE GENITAL MUTILATION IN ABAKILIKI LOCAL GOVERNMENT AREA, EBONYI STATE**

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***Abstract***

*This research study is designed to find out the attitude of male teachers in secondary schools towards female genital mutilation on Abakiliki Local Government Area of Ebonyi State. The design of the study was descriptive survey research design. In order to realize this, three research questions were raised to guide the study. The population for the study was 120 respondents. The researcher used all the one hundred and twenty (120) male teachers in the secondary schools. The number is small and can be studied. Therefore, there was no sampling. The data for this work was collected using the questionnaire. The data generated from this study was analyzed using mean score and standard deviation. Findings of the research revealed that from the criterion mean, the attitude of male teachers towards female genital mutilation in the area is positive, there is male teachers’ justification for supporting FGM. Male teachers’ resistance of total abandonment of FGM is moderately low, attitude of male teachers towards the health implication of the practice is moderately high. At the end recommendations were made which include: the need for abolition of this unhealthy practice. A multidisciplinary approach involving legislation, health care professional organizations, empowerment of the women in the society, and education of the general public at all levels with emphasis on dangers and undesirability of FGM should be paramount in the health advocacy. There is a need for legislation in Nigeria with health education and female emancipation in the society to increase campaign to reduce FGM. The process of social change in the community with a collective, coordinated agreement to abandon the practice “community-led action” is therefore essential.*

**Keywords:** Attitude, Female genital mutilation, Secondary school, Male teachers.

***Introduction***

Female genital mutilation is recognized globally as a violation of human rights of girl-child. The practice also violates a person’s rights to health, security and physical integrity, the right to be free from torture and cruel, inhuman or degrading treatment, and the right to life when the procedure results in death (UNICEF, 2016). Female genital mutilation (FGM) comprises all procedures that involve partial or total removal of the external female genital organs for non-medical reasons. Eke (2010) reported that Nigeria was among the countries in the world that practices FGM. From the author’s report, FGM is practiced in Abakiliki Local Government Area of Ebonyi State. Meanwhile, in some areas where FGM was common, such as Enyigba, Amagu, Ekpuitumo, Nmachi, Odda and Idiagu, female child are circumcised between seven to ten days after birth. The practice was done with a razor blade and the operation is carried out by a traditional birth attendant. The people of these communities carry out FGM on the female child with the aim of reducing the rate of promiscuity among girls in the communities (Eke, 2010).

Female genital mutilation is mostly carried out by traditional circumcisers, who often play other central roles in the communities such as attending childbirth. Meanwhile, in many settings, health care providers perform FGM due to the erroneous belief that the procedure is safer when medicalized. In the attempt to stop the practice among health care professional, World Health Organization (WHO, 2016), strongly urges all health professionals not to perform such procedures. This is so because FGM includes procedures that intentionally alter or cause injury to the female genital organs for non-medical reasons. It is procedures which can cause severe bleeding and problems urinating, and later cyst, infections, as well as complications in childbirth and increased risk of new born child, hence such procedures have no health benefits for girl child and women in general.

Moreover, it is not known from where the tradition of female genital mutilation originated. It ia a tradition that has been practiced for thousands of years, starting long before the establishment of both Christianity and Muslim religions. This was proven from the fact that the ancient Egyptian mummies have been found circumcised, indicating the practices dating from as far as the fifth century BC female genital mutilation was performed by Christians and Islam and animists (Persson, 2007).

Female genital mutilation, though a global issue, Nigeria in the past has had the highest absolute number of cases of FGM in the world, amounting to about one quarter of the estimated 115-130 million circumcised women in the world (Eke, 2010). The practice is founded in traditional beliefs and societal pressure to conform. The government of Nigeria in the last decades recognized the practice as harmful to children and women and have embarked on corrective measures, aimed at addressing the end of the practice openly and energitcally through the formulation of policies and programmes, legislation and behavioural changes that have currently impacted reduction in prevalence.

Female genital mutilation demands urgent attention, hence it is still practiced among countries today, especially Nigeria. It is based on the inequality between the sexes and constitutes an extreme form of discrimination against women. As a result, Okwudili (2002) discovered that some men see an uncircumcised female as not being a “woman” yet. In the developed world, FGM is regarded as the practice that has health and human right implication and also a menace to the society and should be stopped. In line with this, the general assembly of the United Nations (2006) condemned Female genital mutilation as a form of cruelty, torture, harm and maltreatment of the female folk. Based on this, men’s attitudes towards uncircumcised women in Abakiliki need to be known.

Attitude, according to Fazio and Olson (2003), can be a positive or negative evaluation of people, objects, events, activities, ideas or just about anything in your environment, but there is debate about price definition. Allport (2005) defined attitude as an expression of favour or disfavor towards a person, place thing or event. As a result of the above definition, attitude can be formed from a person’s past and present lifestyle. Attitude when related to female genital mutilation, can be positive or negative evaluation of practice towards girl-child and women circumcision by males in Abakiliki LGA.

Male is opposite of female. According to Ferguson (2004) male is seen as that which is relating to, or designating the sex that has organ to produce spermatozoa for fertilization of ova. This means that male play vital role in human reproduction. In this context, a male is the opposite of female being who can have sexual intercourse with female with the aim of procreation, which sexual desire from both may proceed the act. A male can become a teacher in secondary schools.

Secondary school, according to Njue (2004), is an educational institution and the second stage of the three schooling periods. Three schooling periods includes primary, secondary and tertiary educational institutions. Secondary school follows elementary or primary education and is sometimes followed by university education. In secondary school, male and female can be a teacher thereby educating students for the betterment of the society at large. As a result, the attitudes of male teachers in secondary school towards female genital mutilation will be verified.

Female genital mutilation is the removal of part or all the female genitalia. It has immediate and late complication. WHO (2012) condemns Female genital mutilation practice and prohibits healthcare professionals from such approach. Based on the increased negative effect of FGM, in many communities, men still see female genital mutilation as a good thing. To them it will help reduce or even stop promiscuity among women.

**Purpose of the Study**

The purpose of the study was to find out the attitudes of male teachers of secondary schools towards female genital mutilation in Abakiliki Local Government Area, Enugu State. Specifically, the study seeks to find out:

1. The male teacher’s attitudes towards FGM in Abakiliki LGA of Ebonyi State?
2. The male teacher’s attitudes towards total abandonment of FGM in Abakiliki LGA of Ebonyi State?
3. The attitude of male teachers towards the health implication of FGM practice in Abakiliki LGA of Ebonyi State?

**Research Questions**

In order to accomplish this task, three research questions were posed.

1. What is the male teacher’s attitude towards FGM in Abakiliki LGA of Ebonyi State?
2. What are male teacher’s attitudes towards total abandonment of FGM in Abakiliki LGA of Ebonyi State?
3. What is the attitude of male teachers towards the health implications of FGM practice in Abakiliki LGA of Ebonyi State?

***Method***

In order to accomplish the purpose of this study, descriptive research design was adopted. The population for the study consisted of all the male teachers in secondary schools in Abakiliki LGA, numbering one hundred and twenty male teachers (Ministry of Education, Abakiliki, 2014). The sample for the study consisted of all the one hundred and twenty male teachers. The instrument for dada collection was questionnaire. For reliability, the Spearman Rank Order Correlation Coefficient was used to establish the internal consistency of the instrument. The obtained reliability was 0.85. Therefore, the instrument was considered reliable for the study by experts. The data collected were coded and analyzed on item-by-item basis to indicate the mean scores of the various categories. The data were analyzed into tables and converting the responses using mean and standard deviation.

***Results***

Table 1

**Male Teachers’ Attitudes towards FGM in Ebonyi State (N=120)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S/N | Items | **Mean score** | **Standard deviation** | **Decision** |
| 1 | FGM is our custom and tradition | 2.47 | 1.08 | -ve |
| 2 | FGM is a religious requirement | 3.50 | 1.66 | -ve |
| 3 | FGM is essential for social acceptance, especially for marriage | 3.36 | 1.52 | -ve |
| 4 | FGM is essential for preservation of virginity/chastity | 2,47 | 1.08 | -ve |
| 5 | FGM is good for hygiene and cleanliness of the female reproductive organ | 2.10 | 1.66 | -ve |
| 6 | FGM helps to maintain family honour | 3.36 | 1.52 | -ve |
| 7 | FGM other sense of belonging to the group and conversely the fear of social exclusion in the community | 2.47 | 1.08 | -ev |
| 8 | It has ability to enhance fertility | 2.36 | 0.96 | -ev |

Key: positive = +ve, Negative = ve

The data presented on table 1 above shows that the average means response value of respondents is 2.80 which is greater than the criterion mean value of 2.50. This implies that male teachers ‘attitudes towards female genital mutilation is positive. The table also indicated that FGM is custom and tradition has a means score of 2.47. The FGM is a religious requirement has a means score of 3.50. FGM is essential for social acceptance, especially for marriage has a mean score of 3. 36. FGM is essential for preservation of virginity/chastity has a mean score of 2.47. FGM is good for hygiene and cleanliness of the female reproductive organ has a mean score of 3.36. FGM offers sense of belonging to the group and conversely the fear of social exclusion in the community has a mean score of 2.47. While FGM ability to enhance fertility has a mean score of 2.38. From the responses in table 1, items 2, 3, and 6 were accepted while items 1,4,5,7 and 8 were rejected.

Table 2

**Male Teachers Attitudes towards Total Abandonment of FGM (=120)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S/N | Items | **Mean score** | **Standard deviation** | **Decision** |
| 1 | Teachers do not accept the FGM rituals | 2.89 | 1.43 | +ve |
| 2 | Teachers see FGM as an essential element in raising a girl child | 3.50 | 1.66 | +ve |
| 3 | Most teachers accept that FGM helps in the promotion of female virginity and fidelity | 3.36 | 1.52 | +ve |
| 4 | Most of teachers resist to support that FGM concentrate on curbing premarital sex | 2.47 | 1.08 | -ve |
| 5 | Teacher should not allow external forces to brainwash their community members on the gains of FGM. | 2.46 | 0.93 | -ve |

Positive = +ev, Negative = -ve

The data presented on table 2 above indicated that Teachers do not accept FGM rituals have a means score of 2.89. Teachers see FGM as an essential element in raising a girl child has a mean score of 3.59. Most teachers accept that FGM helps in the promotion of female virginity and fidelity has a means score of 3.36. Most teachers resist to support that FGM concentrate on curbing premarital sex has a mean score of 2.47. While teacher should not allow external forces to brainwash their community members on the gains of FGM has a mean score of 2.46. From the table 2 above, items 1,2 and 3 were accepted, while items 4 and 5 were rejected. This implies that there are positive reactions to male teachers’ resistance of total abandonment of FGM.

Table 3

**Attitude of Male Teachers Towards the Health Implication of the Practice (=120)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S/N | Items | **Mean score** | **Standard deviation** | **Decision** |
| 1 | Teacher turn deaf ear to genital mutilation which causes painful sexual intercourse and reduce sexual feelings | 2.67 | 1.43 | +ve |
| 2 | Male teachers do not teach FGM’s health implication in Abakiliki School | 3.05 | 1.66 | +ve |
| 3 | Male teachers do not agree that FGM has health implications | 3.40 | 1.52 | +ve |
| 4 | Male teachers’ in Abakiliki do not accept that FGM is capable of giving depression and post-traumatic stress disorder to the girls involved | 2.77 | 1.08 | +ve |
| 5 | Male teachers disagree that FGM is capable of damaging healthy and normal female genital tissue. | 2.85 | 1.08 | -ve |
| 6 | Male teachers do not accept that FGM can increase risk of childbirth complications and newborn deaths. | 2.66 | 0.93 | +ve |

The data presented on table 3 above indicated that male teachers turn deaf ear to genital mutilation which causes painful sexual intercourse and reduces sexual feelings has a means score of 3.67. Male teachers do not teach FGM’s health implication in Abakiliki Schools has a mean score of 3.05. male teachers agrees that FGM practitioners have medical training has a mean score of 3.40. Male teachers’ in Abakiliki do not accept that FGM is capable of giving depression and post-traumatic stress disorder to the girls involved has a means score of 2.77. Male teachers disagree that FGM is capable of damaging healthy and normal female genital has a mean score of 2.85. While male teachers do not accept that FGM on increased risk of childbirth complications and newborn deaths has a mean score of 2.66. From the responses in table 3, items 1, 2, 3, 5 and 6 were accepted while item 4 was rejected. Form the table 4 above, all the items were accepted except item four, FGM is capable of giving depression and post-traumatic stress disorder to the girls involved.

***Discussion***

The study revealed that male teachers in secondary schools demonstrated positive attitude towards female genital mutilation. This is so because the data presented on table 1 above shows that the average means response value of respondents is 2.80 which is greater than the criterion mean value of 2.50. This implies that male teachers’ attitudes toward female genital mutilation is positive. Toubia and Sharief (2003) revealed that the justification of attitude towards FGM by men include custom and tradition, religion because FGM is mistaken as a religious requirement. Meanwhile, this finding contradicted what World Health Organization (WHO, 2016) revealed that FGM has no health benefit, and therefore should be stopped.

Data in Table 2 indicated that male teachers’ attitudes towards the total abandonment of female genital mutilation has the average means response value of 2.94 which is greater than the criterion mean value of 2.50. This implies that male teachers exhibited positive attitude towards resistance of total abandonment of female genital mutilation. The finding was not a surprise, hence the finding supports Udom (2007) who maintained that men see female genital mutilation as a good thing. To men it will help reduce or even stop promiscuity among women. In line with this, the finding discovers that secondary school teachers in Ebonyi State believed that female genital mutilation reduces the high rate of prostitution among female from the area. This is so because the cultural belief that FGM practice is good and should be encouraged was upheld by the respondents. In contrary, World Health Organization (2016) stipulated that health care professionals should not partake nor carry out female genital mutilation among female.

Data in table 3 unveiled that the attitude of male teachers towards the health implication of the practice was positive since its average means response value is 3.10 which is greater than the criterion mean value of 2.50. This finding is in line with the finding of Salganik (2004) who reported that female genital mutilation has no known health benefits. This shows that FGM has immediate and late complications, which depend on several factors: the type of FGM, the conditions in which the procedure took place and whether the practitioner had medical training, whether unsterilized or surgical single-use instruments were used,

The data presented on table 3 above indicated that male teachers turn deaf ear to genital mutilation which causes painful sexual intercourse and reduces sexual feelings has a means score of 3.67. Male teachers do not teach FGM’s health implication in Abakiliki Schools has a mean score of 3.05. male teachers agrees that FGM practitioners have medical training has a mean score of 3.40.The findings supports the finding of Izett and Toubia (2006) who state that female genital mutilation is often motivated beliefs about what is considered proper sexual behaviour, linking procedures to premarital virginity and marital fidelity. Female genital mutilation in many communities is believed to reduce a woman’s libido and therefore believed to help her resist illicit sexual acts. Female genital mutilation is regarded by some communities as a dirty and ugly practice, but contrary, the finding indicates that female genital mutilation was upheld by the secondary school teachers in Ebonyi State.

***Conclusions***

Based on the outcome of the results, the study concludes that

* **Male teachers’ attitude towards FGM.**

The data presented above indicated that male teachers turn deaf ear to genital mutilation which causes painful sexual intercourse and reduces sexual feelings. Male teachers do not teach FGM’s health implication in Abakiliki Schools has a mean score of 3.05. Male teachers agrees that FGM practitioners have medical training has a mean score of 3.40. Majority of male teachers in secondary schools demonstrated positive attitude towards female genital mutilation.

* **Male teachers’ attitudes towards total abandonment of FGM**

implies that male teachers exhibited positive attitude towards resistance of total abandonment of female genital mutilation.

* **Attitude of the male teachers towards the health implication**.

The attitude of male teachers towards the health implication of FGM practice was positive

***Recommendations***

Based on the findings, discussions and conclusion of this work, the following recommendation were made:

1. There is need for abolition of this unhealthy practice. A multidisciplinary approach involving legislation, health care professional organizations, empowerment of the women in the society, and education of the general public at all levels with emphasis on dangers and undesirability of FGM is paramount to reduce the practice.
2. There is a need for legislation in Nigeria with health education and female emancipation in the society in order to reduce FGM among communities, local government areas and the society at large. The process of social change in the community with a collective, coordinated agreement to abandon the practice “community-led action” is therefore essential.
3. There is need for effective and massive education on FGM. The more educated, more informed, and more active socially and economically a woman is, the more she is able to appreciate and understand the hazards of harmful practices like FGM and sees it as unnecessary procedure and refuses to accept such harmful practice and refuses to subject her daughter to such an operation.

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**INCREASING WOMEN ADVANCEMENT IN SPORTS LEADERSHIP IN NIGERIA THROUGH MENTORING**

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***Abstract***

*The 1975 United Nations international women’s year and the 1995 Beijing conference set the stage for equality between women and men in all sphere of life. In Nigeria, women are marginally underrepresented in leadership positions in sports sector despite the 1975 United Nations and 1995 Beijing conference declaration on removal or elimination of all forms of discrimination and obstacles to women active and equal participation in all spheres of life. Full participation of women in key decision making in sports has not been achieved. Very few women in Nigeria serve as directors, coaches, officials, members of Sport boards and at other strategic positions in Sports sector. This paucity of women in leadership position within sports sector are probably attributed to several socio- cultural roles of women like parenting (procreation and care of the children and family), religion, male dominance, and women’s poor perception of their abilities. Mentoring strategy need to be adopted as catalyst to encourage women to vigorously pursue careers that will afford them the opportunity of assuming leadership roles in the field of sports. This paper examined factors that negatively influence women leadership and factors that positively influence them. The paper highlighted on mentoring as a tool for facilitating and improving on women leadership development. The paper discussed types of mentoring and reasons for adopting mentoring as a possible solution to dearth of women in sports leadership roles. Some suggested roles of mentors and skills needed for effective mentoring were enumerated. Some recommendations were made to help develop future women leaders in sports.*

**Keyword**: women, advancement, sports leadership, mentoring

***Introduction***

Sport in contemporary society has established itself as a force to be reckoned with in the world, in realization of its potentialities for gaining national prestige and international recognition. It also strives to dictate the pace for social, political, economic, scientific and technological advancement of a nation over others or superiority of a tribe over others. Over past few decades women have wriggled out of exclusion to inclusion and have made waves in active sports participation. The past few decades have witnessed a growing interest of women in the field of sports. The increasing involvement of women in sports demands that women be equitably represented in the leadership positions in line with the 1975 United Nations international women’s year and Beijing platform of action 1995 declaration which was a turning point for rights of women and elimination of all forms of discrimination against women or obstacles to women’s advancement in all spheres of life (United Nations Women, 1979 & Purcel, 2000).

Sports in the context of this paper refer to all organized physical activities engaged in outdoors or indoors in which skillful individuals or teams compete under specific rules and regulations for victory over their opponents. Nigerian women like Mary Onyeali-Omagbemi, Falilat Ogunkoya Ocheku, Mary Tombiri, Fatima Yusuf, Bose Kafo, Chioma Ajunwa, Lovelyn Obiji, Oludamola Osayomi, Charity Opara, and Cynthia Uwak among others have participated in sports at various levels. These women have brought significant successes and glory to Nigeria globally, yet despite these successes, women are marginalized at the decision making level in sports. In Nigeria only very few women are directors, coaches or officials or in senior leadership roles like membership of boards at any level in the sport sector. Adeyanju (2005) asserted that the day to day experiences of women at work show that leadership is still dominated by male norms and values. Women are therefore severely under-represented in leadership roles in sports. She stressed that the fewer number of women in leadership positions shows that the decisions of women have only a limited impact on the sports industry as a whole. This under representation of women is attributed to marginalization and discrimination against women. Lucuanan (1995) emphasized that discrimination against women begins at the earliest stages in life and continues unabated throughout life, with sex selection and son preference of parents. Adeyanju (2005) expressed that pscho-social and cultural factors exert pressure on women through the immediate family, community, religion, media, peer groups and other sources of socialization to reinforce expected behaviour and teaching of gender roles. In line with this Ofili (2010) expressed that in Nigeria women are docile, dutiful, obedient, and considered inferior to men. The traditional mother indoctrinates the daughter accordingly, thus women place their traditional roles topmost in their priorities. Adeyenju stressed further that religion and religious belief are major constraint which dampen women aspiration in sports leadership positions. She pointed out that many religions define women’s roles as that of living in complete obedience and subjection to the whims and caprices of their husbands and men in general.

In Nigeria, there are no legal barriers that prevent women from exploring their talent in the field of sports but there are traditional and social sanctions against women which are severe enough to stop women from venturing too far into areas regarded as the prerogative reserve of men (Okonkwo, 1993). Following from above, the under representation of women in sports leadership may probably not be due to lack of interest or not being capable but perhaps due to their upbringing which was highly influenced by long history of direct and indirect systematic form of discrimination and stereo-typing as well as other problems. Licuanan (1995) stressed that the girl child today is the woman of tomorrow, that the knowledge, skills and experiences of the girl child are vital for full attainment of the goals of equality.

Increase according to Hornby (2015) is to make greater in quantity or number. In the context of this paper increase means to become larger in number. Advancement as stressed by Merriam (2016) is the process of promoting a course or plan. Hornby emphasized that it is development or improvement of something. In this paper advancement means promoting a person in rank, status or upgrading in position. Increasing advancement of women in sports leadership therefore implies promoting or offering women opportunity of career development in sports leadership.

Leadership according to Weihrich and Koontz (2005) is the act or process of influencing people so that they will strive willingly and enthusiastically towards the achievement of group goals. Robbins and Coulter (2007) conceptualized leadership as the process of influencing a group towards the achievement of a goal. From their perspective, one need to have managerial authority to be able to influence a group toward attainment of a goal and such authority is normally given by superiors. Leadership as defined by Northouse (2007) is a process whereby an individual influences a group of people to achieve a common goal. In this paper, leadership is a process by which a person influences others to accomplish an objective and directs the organization in a way that makes it more cohesive and coherent. Leadership according to Jago (1982) is learned and good leaders develop through a never ending process of self-study, education, training and experience. Jago stressed that the skills and knowledge of the leader can be influenced by beliefs, values, ethics and character which make the person unique. That the cornerstones of leadership include the ability to inspire trust and convey competence. Weihrich and Koontz highlighted important characteristics of an ideal leader as a good listener, a problem solver, a visionary, a role model who has clarity of purpose, charisma, enthusiasm, passion, integrity and credibility. He or she is patience, organized, consistent, trustworthy, persuasive, knowledgeable, a team builder, shows appreciation, attitude of service, leads by example, understands followers, empowers other people and adapts to change. Following from above, leadership therefore is not created by job title but what a person is (qualities), what the person have learned (skills) and what the person can do (action).

Sports provide a training ground to cultivate and practice leadership skills by presenting challenges that help a person develop leadership abilities. Sports coaches and astute sports leaders can facilitate women leadership desires by inviting female participants to sports opportunities that make other people successful as a way of developing enthusiasm in them. An increase in number of females participating in sports definitely will lead to an increase in women aspiration to sports leadership. Robbins and Coulter (2007) emphasized that leading by example and committing 100 percent to an effort in ensuring success by maintaining focus can help the younger females rise up to their potentials in sports leadership. They stressed that anybody who helps someone advance towards his or her highest potential is seen as a leader. Leaders in the field of sports therefore can identify ways for females to succeed in sports leadership whether the person engages in an individual or a team sport, through interaction with other people who have achieved success. For instance, one can mentor those new to a sport, share equipment, point to a safer or more efficient way of doing a move or executing a play or pass a ball to allow another person to score. At the end of the event or competition the initiator may not shine as the most valuable player”, but will shine as a leader because the person has conveyed competence while extending helping hand of a trustworthy person.

There is no scientific evidence that women are bereft of leadership qualities as enunciated by Blog (2011). It all depends on opportunity and exposure. William (1993) observed only two female directors of sports in the whole of south-east zone. Personal observation of the writer identified two females state acting directors of sports in Imo State and Anambra State in south-east zone of Nigeria and both could not function beyond two years because of antagonism from male colleagues. These women were never confirmed substantive directors by their State Governors simply because they are females. This confirms Adeyanju (2005) emphasis that politics and power use in sports constitute a significant constraint to women advancement in the field of sports. Adeyanju stressed that men constitute a large presence in the field of sports and they wield a great deal of power over the development and management of female sports. She pointed out that the input by women in the formulation of policies for the development of female sports is insignificant and this is also true in the allocation and use of resources to implement policies and programmes designed for the development of women sports.

Besides male dominance, few females who are opportune to climb the leadership position always face challenges posed by family roles. In line with this, Obasi (1992) pointed out that even where women manage to get to top leadership positions in sports, they meet great difficulties especially as the demand of the position will conflict with traditional roles in their families. Some of these challenges have far reaching influence on female pursuit and aspiration to leadership positions in sports. For women to surmount these challenges, mentoring strategy need to be adopted to serve as catalyst to encourage women to vigorously pursue careers that will afford them the opportunity of assuming leadership roles in the field of sports.

**Factors Negatively Influencing Women Leadership**

The paucity of women in sports leadership roles and the limited opportunities or role models to encourage future female leaders according to Lynn (2011) are caused by the following factors.

1. **Challenges confronting women:** Lynn expressed three notable challenges that women face when engaging in leadership roles in sports as family conflict, cost, time constraints and a lack of network and mentors. That women still bear the lion’s share responsibilities of child rearing thus family conflict is seen as a key issue of consideration when women consider taking on a leadership role. That women often feel guilty of abandoning their responsibilities at home while they pursue leadership goals, Obasi (1992) expressed the same view that even where women manage to get to top leadership positions in sports, they meet great difficulties especially as the demand of the position will conflict with traditional roles in their families. From the foregoing having capabilities to cope with family roles and leadership roles are major determining factors when women want to pursue leadership roles. This is probably why many women in leadership roles have either older children requiring less attention or have not children at all.

Due to family commitments women generally have less available time to commit to extraneous roles. The cost of time away from home often associated with sport including extensive travel and week-end work, combined with the financial cost of petrol, airfares and accommodation to attend events or training courses, means that women are less likely to pursue leadership roles due to high costs.

1. **Inadequate network**: There are few established formal women network that can mentor or help develop women. This means that women in leadership roles often work in isolation. There is also a perceived lack of female mentors or role models for women already in leadership to model their leadership.
2. **Women style of leadership:** Many women in the Sports sector do not see themselves as leaders. Yet if you look at their abilities and accomplishment often with very limited resources, they are obviously leading. Despite the barriers that face many women, there are still a large number of women taking on leadership roles. According to Brown (2011) most women see themselves as members of a team that work cooperatively with others. They prefer to describe themselves as facilitators or team leaders rather than as leaders. Brown stressed that a transformational style of leadership approach is needed where women can inspire and transform the thinking and behavior of others to create change.
3. **Poor recognition**: Many women do not consider themselves as leaders because they lack specific recognition from within their community or organization. They are often taken for granted due to their more collaborative style of operating, coupled with societal view which relegates women to the background as weaker sex and this probably results in lack of public acknowledgement for their desire and aspiration to leadership position. Lynn (2011) emphasizing on the need to offer women opportunities in sports leadership stated that one of the key characteristics of women in sports is their resilience to overcome barriers in their path. That a few women in leadership are committed to making a difference and regard honesty and trustworthiness as key aspects of their leadership style.

**Factors that positively influence women’s leadership ability**

Researchers have highlighted universal factors that make a real difference in encouraging young women to reach success. It is mostly hard work and perseverance that bring women to the top of their fields. These are the women who never settle for the mediocre, are perpetually restless and striving and who know that real success can only be found by crossing time zone, cultures and cruising through stop signs. Marcus (2011) emphasized that most successful women in the world have grabbed every opportunity afforded to them, and have created opportunities for themselves, harnessing their fears and doubts as rocket fuel instead of rocks in their pockets. Marcus highlighted some of the characteristics of successful people, as motivation, natural curiosity, courage, self- management, enjoying being stretched and rising to a challenge, personal will and fortitude, drive and flexibility may be innate, but there is no doubt that these characteristic also need to be nurtured and encouraged.

The factors that contribute to the development of the next generation of women leaders can be gleaned from their experiences as follows.

1. **Basic skills:** There are certain basic skills that everyone should be given access to beyond standard education. These include public speaking, writing, negotiation, and effective networking. Some people might have natural skills in some of these areas, but if not, seeking out courses and opportunities to practice these worthwhile skills they will not manifest or develop. Also some employers will give women access to courses in these areas through career development opportunities, at least in their mid-career but more valuable and impactful if started earlier. If these are not forthcoming from work, they are worth seeking for independently. We need to ensure that young women have access to building these skills that help them move to success early in their career (Marcus, 2011).
2. **International exposure:** Travel brings on invaluable exposure to other cultures and ways of thinking. It is essential for advancement in any profession. This is very relevant especially as the world becomes increasingly globally interdependent and actions that occur in a place which seem far away, inevitably affect, directly or indirectly every one.

According to Marcus (2011) International experiences challenge thinking in a healthy way. Also skills acquired from living and working in unfamiliar settings are valuable and the opportunity enable one to see how other cultures deal with issues. It forces people to think and challenges them to find and apply solution beyond their comfort zones.

1. **Role models:** Role model according Merton (2016) is any person whose behavior is emulated by others. In this paper role mole is a person looked onto by others as an example to be imitated. Role models are extraordinarily fruitful way to inspire women to aspire to great heights in sports. Price-Mitchell (2010) asserted that a role model should possess qualities like compassion fearlessness, listening skill and most of all ability to inspire others. Marcus (2011) emphasized two kinds of role models which includes:
2. Those who help us to think about the kind of people we want to be through examples of kindness, fortitude, courage, bravery, integrity, and other admirable characteristics displayed.
3. Role models who help us to aspire to roles that we have not thought of before or encountered personally like political leaders and heads of multinational corporations.
4. **Recognition**: Women need to personally recognize and acknowledge themselves as leaders in order to lead effectively. They need to gain a sense of awareness of their leadership abilities and identify what they want to achieve.

Sports organizations must also recognize the leadership potentials of women and encourage or support them to take on additional responsibilities or educational opportunities. Clubs and organizations need to recognize women ability, show that they value and appreciate the contributions of the women. This builds confidence in the women and both motivate and encourage them to take more risks. Brown (2011)

1. **Goal setting:** in order to achieve leadership or career ambitions, a woman will need to develop a plan and set a number of goals. This exercise will enable her to identify potential leadership opportunities that she can tap or highlight deficiencies in skills or knowledge that she needs to address in order to improve her leadership capabilities. The goal setting needs to take into consideration, the time-poor status of many women as expressed by Lynn (2011). With so many compelling demands, it is vital that a realistic time frame is set and that there is a balance between work, personal, family and sporting commitments.
2. **Networks:** Access to network and peer support is another area that women can benefit enormously from. Many women tend to work in isolation and lack access to other females in leadership roles. By having the opportunity to share experiences through a network they realize that their situation is not unique. Women can use this type of forum to act as a sounding board to help themselves solve Problems and provide strategic support (Brown, 2011).
3. **Start Early:** we need to start early to make sure girls know they are capable of reaching great heights. It starts in the early years of their schooling with words of encouragement and aspiration. Creating an environment where women can succeed is vital. Public policy that encourages women to be successful, workplaces that offer reward for encouragement and advancing women education systems that educate women to the highest standard are just some of the things that are needed to help create an environment in which women are prepared and encouraged to rise to leadership position. The hallmarks of most senior women and men in leadership positions is being driven and always seeking new experience (Macus, 2011). We must all play a part in helping women succeed as stakeholders to contribute in the country’s economy.
4. **Mentoring:** Having a mentor is a very important facet of a women’s development as a leader. A mentor can provide guidance or advice when the woman is faced with challenging decisions or barriers. Someone with experience and knowledge of the sporting industry is ideal and often a supportive male can be an excellent adviser. At different points in a person’s career, different types of mentoring are needed. The needs for mentoring change from student years. To the first years out of school, to mid-career and to the most senior career position (Eric, 2011).

During student years, meeting and personal exposure to senior figures in the field all help to inspire young women to aspire to something greater. It helps to be able to see what success looks like in any given field, and to get a sense of accessibility. Seeing the fruits of hard work and hearing the stories of career paths can help inspire young women. Access to as many people as possible, in many fields can help to open up the vast horizons of opportunity that are available. It can spark the imagination of young females about where their paths can take them. University alumnae networks are useful and alumnae returning to speak openly about their experiences can make a real difference by making success accessible. (Marcus, 2011).

The early period in a person’s career is a time of exploration, of further learning and discovering of career options, preferences and interest. During this period, it is most useful to have exposure to a wide array of people in a chosen profession and perhaps create a group of people or mentors where young women can seek advice and ideas and begin to champion their ideas on their true career path. These mentors can be professionals in sports who are admired.

During mid- career it is helpful to have networks as a means of meeting people in the field and getting to know like-minded and like-skilled people. It can be very close and familiar individuals who can counsel them directly and specifically about options, direction and concrete ways of achieving goals. This can be a very effective means of creating clear paths for career development. (Marcus, 2011).

Career success is the year when women are at the top of their careers. It is a time of consolidation, solidification and fulfillment. It is a time when women can stretch themselves or get greater depth in areas of interest. At this stage mentoring one another via peer relationship and networks can be very effective and satisfying. Having a close group of trusted friends and peers who can be frank, generous and have passion for each other’s success can help bring the goals that seem distant more achievable (Brown, 2011).

**What is mentoring?**

Mentoring according to Bozeman and Feeney (2007) is a process for the informal transmission of knowledge, social, capital and psychosocial support perceived by the recipient as relevant to work, career, or professional development. Mentoring entails informal communication usually face –to – face and during a sustained period of time, between a person who is perceived to have greater relevant knowledge, wisdom, or experience (the mentor) and a person who is perceived to have less the (mentee or protégé). Asha (2011) conceptualized mentoring as a developmental partnership through which one person shares knowledge, skills, information, and perspective to foster the personal and professional growth of someone else. Human Resource (2011) defined mentoring as a system of semi-structured guidance whereby one person shares knowledge, skills and experience to assist others to progress in their own lives and careers.

A mentor according to Reh (2011) is an individual usually older, always more experienced who help and guides another individual’s development without personal gain. A mentor is a guide who can help mentee to develop solutions to career issues. A mentor can be one’s boss, father, older sibling or someone that has enough experience to help one succeed in life or in whatever endeavour in mind. A mentor in this paper is someone who inspires, encourages, supports or lends helping hand in another person’s early career in the field of sports to ensure success.

**Why the need for mentoring?**

Mentoring has been shown to have a positive effect on one’s career. Kram (1986) discovered that mentoring facilitates the socialization of new hires into the organisation, reduce turnover, minimize mid-career adjustments, enhance transfer of knowledge and values, and facilitates the adjustment of retirement. Research study by Roche (1979) found that of the 63.5% of the 1, 250 respondents who had a mentor were on the average better paid, reached their positions faster, were more satisfied with their work and careers than their non-mentor counter-parts. Mentoring thus, has a positive effect on career. Successful women in sports who have attained firm and are stars in their various areas need to establish mentoring relationships to foster ambition of younger women to climb the career ladder.

**Types of Mentoring:**

1 **Informal mentoring:** is a spontaneous, causal relationship where a senior person takes a junior person and provides long term guidance and counsel. Chao, Walz, and Gardner (1992) found that mentees in informal relationship received more career-related advice and had better career outcome.

2 **Formal or Structured Mentoring:** Here people can proactively support the development of one another. Mentors are generally matched with mentees to support specific goals such as: leadership development, diversity or retention (Desimone, Werner & Harris, 2002).

**Some suggested roles of a mentor as specified by Desimone, Werner and Harris (2000) are:**

1 **Coaching:** to assist in professional development, carrying out specific tasks or activities.

2 **Facilitation:** to create opportunities for the mentee (or learner) to practice their new skills.

3 **Counselling**: to help the mentee (learner) to explore the consequences of potential decisions.

4 **Networking:** to refer the mentee (learner) to others when the mentor’s experience is insufficient.

**Skills needed for effective mentoring:** Desimone, Werner and Harris highlighted skills needed for mentoring as follows:

1 **Building relationship:** relationship that provides backbone to a good mentoring relationship is built on trust and mutual co-operation.

2 **Positive and empowering attitudes:** wanting the mentee to succeed requires a positive spirit.

3 **Building Confidences:** praise and acknowledge actions and achievements of people doing things right.

4 **Effective feedbacks:** giving and receiving feedback skill that can make or break the relationship.

5 **Confidentiality:** agreement needs to be established to confidentiality within the relationship. Establishing these agreements from the start will help establish a relationship of trust and facilitates the mentoring process for both parties.

***Summary and Conclusion***

It is obvious that in Nigeria women are under-represented in sports leadership. Several factors have been identified as potent motivators of women’s pursuit in leadership position. Due to a dearth of women in leadership, fewer role models are available and less people are willing to mentor emerging female leaders, hence the number of mentors available does not match demand.

To counteract male dominance in senior leadership in sports, women need to recognize themselves as potential leaders and aspire to attain leadership position in sports’. There is urgent need to develop the future generation of female leaders in sports through mentoring. Women only networking groups need to be developed. A few senior women at the top can provide feedback for junior women working their way to top. There should be plenty of ambition in women. Every woman needs to keep a finger on the pulse of what is happening around the world and be proactive in instituting these changes to live up to the highest standards from around the world.

***Recommendations***

1. Organisations can assist women in developing quality leadership program for strategic career plan to help more women progress through ranks with sports.
2. Sports organisations should implement a mentoring program and provide mentors from across other organisations for up- coming women leaders in sports.
3. There should be periodic recognition awards of women achievements in sports as source of motivation to younger females to aspire to leadership position in sports.
4. Clubs may need to identify and approach a group of women who have leadership qualities and strategically support and position them on a path to higher coaching, officiating and administrative roles in the field of sports.
5. Organisations can assist women to develop long term plan that formalizes where women want to go in the field of sports and identify path ways and areas of skill development through coaching, officiating, accreditation, training or mentoring.
6. Government, non-governmental organizations and private sectors should take strategic action to ensure equal treatment in sharing of power and decision process at all levels in sports sector.

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**UTILIZATION OF CHILD HEALTH SERVICES IN PRIMARY HEALTH CARE CENTRES IN NSUKKA HEALTH DISTRICT**

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***Abstract***

*The study was designed to determine the level of utilization of child health services in primary health care centres in Nsukka health district. Four specific objectives with corresponding research questions were posed and three hypotheses were postulated to guide the study. The study used the descriptive survey design with sample of 366 mothers. The instrument for data collection was questionnaire. Means and percentages were used to analyze the descriptive data, while t-Test and ANOVA statistics were used to test the hypotheses. Major finding of the study were as follows: Mothers utilized child health services effectively. There was no significant difference in the level of utilization of child health services according to level of education at .05. There was no significant difference in the level of utilization of child health services according to mothers’ occupation. There was significant difference in the level of utilization of growth monitoring, nutritional services, curative services and immunisation services according to residential location of mothers. The researcher recommended that government should see that primary health centres are located equally in both urban and rural area and that health workers should strengthen their teaching on the utilization of all the components of CHs especially growth monitoring and curative services during antenatal visit.*

**Keywords:** Utilization, Child Health Services, Primary health Care Centres.

***Introduction***

People seek to improve quality of life in both developed and developing countries. Incidentally most people in developing countries live in overcrowded houses with inadequate sanitation and unsafe water supply. Infectious diseases and malnutrition are common especially among children. Death rate is high and life expectancy is low. One explanation for poor health outcome among children is the non-use of available child health services by sizeable proportion of mothers. Haddad (2005) stated that the cost and utilization of health services in developing countries clearly showed that the utilization of available child health services is very low in developing countries. This, according to Haddad, is influenced by culture, economics, access, perceptions and lack of knowledge by mothers on existing child health services (CHs).

Child health services are an aspect of the health care delivery system established for the care of children. It is a services meant to ensure as much as possible that every child lives and grows up in a healthy environment and receives adequate nourishment for health living (Turmen, 2006). Hetch and Shiel (2006) described child health services as aspect of modern health care specifically designed for the health promotion of the child. William (2004) asserted that child health services are those aspects of medical services that provide essential health services to protect, promote and maintain health and wellbeing for each individual child up to school age. Child health services as used in this paper, refers to efficient strategies provided by health workers in health facilities in order to promote health of the child, and prevent diseases, disabilities and deaths in children through simple cost effective measures. These cost effective measures are immunization, ORT, dietary supplements and promotion of exclusive breast feeding. These are available for mothers to utilized for their children.

Utilization of specific services or actual coverage is expressed as the proportion of people in need of services who actually received it in a given period usually a year. Stewart and Sommerfelt (2004) described utilization as the patronage of health services by the target population or by the group whom the services are designed for. In the present study, utilization refers to extent to which available CHs are being put to use by mothers of child bearing age for their children. WHO (2005) reported that at the community level the extent of utilization of child health services will depend on community factors such as cultural values, beliefs, norms, ecology and locations among others things. Factors such as availability of these services, accessibility, and quality of other health services (private and public) around, food, energy, water supply and sanitation will determine and influence the extent of use of child health services (CHs).

On the other hand, factors such as government policies and actions on healthy nutrition, population, health financing and expenditure, evaluation and monitoring will make a way for effective utilization. Other governmental policies such as infrastructure, transportation, energy, agriculture, water supply and sanitation can also influence the extent of use of child health services. The study considered education, occupation and location as factors that can influence the level of utilization of CHs in PHC centres in Nsukka Health District, Enugu State. Utilization level will determine whether the available CHs are ineffectively used or effectively utilized in primary health centres in Nsukka health district.

Primary health care centres are health care facilities providing promotive, preventive, curative and rehabilitative services to a community. They may be well built and equipped with adequate human and material resources and well-funded with tax payers’ money (Lucas & Gills, 2006). Primary health care centres can be held responsible to account for improvement in child health care (Schor, 2004). They have to meet the health care standard and improving the provision of services for children must be integral to the plan. Primary health care centres as used in this study refers to as building or a place where health care services are provided for preventive, treatment and management of diseases and preservation of mental wellbeing through the services offered by the medical, nursing and allied health professions to the mothers to utilized for their children. The study sought to determine the level of utilization of child health services in primary health centres in Nsukka health district, Enugu State.

**Purpose of the Study**

The purpose of the study was to determine the level of utilization of child health services in primary health centres in Nsukka health district, Enugu State. Specifically, the study was to find out the:

1. level of utilization of child health services in PHC centres in Nsukka Health District,
2. level of utilization of child health services according to level of education,
3. level of utilization of child health services according to location,
4. level of utilization of child health services according to occupation,

**Research Questions**

To guide this present study, the following research questions were posed

1. What is the level of utilization of child health services by mothers in PHC centres in Nsukka Health District?
2. What is the level of utilization of child health services by mothers according to level of education?
3. What is the level of utilization of child health services by mothers according to occupation? What is the level of utilization of child health services by mothers according to location?

**Hypotheses**

The following null hypotheses were tested at .05 level of significance.

1. There is no significant difference in the level of utilization of child health services according to level of educational attainment of mothers of child bearing age.
2. There is no significant difference in the level of utilization of child health services according to mother’s occupation.

3 There is no significant difference in the level of utilization of child health services according to mothers’ residential location.

***Method***

To achieve the objective of this study, the descriptive survey design was employed. Descriptive survey design was suitable for the study because it involves observing and describing, the behaviour of participants without influencing it in any way. It involves describing, recording, analyzing and interpreting existing conditions. (Udo & Joseph, 2005).

The study was conducted in Primary Health Centres in Nsukka Health District, Enugu State. The population of the study comprised the mothers of child bearing age attending primary health care centres for child health services in Nsukka Health District, Enugu State. A sample of 366 mothers were used for the study. The instrument used for data collection was the researcher-structured questionnaire tagged “Utilization of Child Health Services Questionnaire consisted of two sections: A and B. Section A consisted of three items on socio-demographic variables of level of education of the mother, occupation and location. Section B consisted of 15 items designed to elicit information on level of utilization of CHs using 4-point scale. To categories utilization into effective and ineffective utilization of child health services the criterion group mean response value of 2.50 and above was considered effective utilization while those with group mean response value below 2.50 was considered ineffective. It was face validated by five lecturers from the Department of Human Kinetics Health and Education University of Nigeria, Nsukka. Using Cronbach’s Alpha Statistic to determine the internal consistency of the instrument, index of .83 was obtained. Means, frequencies and percentages were used to answer the research questions while null hypotheses were tested using ANOVA and t-Test statistics.

***Results***

Table 1 shows the mean scores in the level of utilization of growth monitoring (**** =2.63, SD=1.17), nutritional services (****=2.73, SD=.92), oral rehydration therapy (****=2.72, SD = 1.00), and immunization services (****=3.37, SD=.80). These means were greater than the criterion mean of 2.50. This implies that these services were effectively utilized by mothers

Table 1: **Level of Utilization of child health services (n = 361)**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Child health services** | **­­­­­­­­­­­\_\_** | SD |
|  | **Growth monitoring** |  |  |
| 1 | Child weighing | 3.23 \*\* | 1.044 |
| 2 | Measurement of height | 2.41 \* | 1.233 |
| 3 | Measurement of mid-arm circumference | 2.25 \* | 1.230 |
|  | **Overall mean** | **2.63 \*\*** | **1.17** |
|  | **Nutritional services** |  |  |
| 4 | Vitamin A supplement | 2.73 \*\* | .931 |
| 5 | Micronutrient supplementation | 2.44 \* | 1.002 |
| 6 | Education on breast feeding | 3.02 \*\* | .830 |
|  | **Overall mean** | **2.73 \*\*** | **0.92** |
|  | **Curative services** |  |  |
| 7 | Physical examination | 2.98 \*\* | .830 |
| 8 | Laboratory examination | 1.92 \* | 1.123 |
| 9 | Treatment of ailment | 3.17 \*\* | .925 |
|  | **Overall mean** | **2.69 \*\*** | **0.96** |
|  | **Oral rehydration therapy** |  |  |
| 10 | Oral rehydration sachet | 2.52 \*\* | 1.157 |
| 11 | Education on salt, sugar solution | 2.82 \*\* | .917 |
| 12 | Education on use of available home fluid | 2.83 \*\* | .913 |
|  | **Overall mean** | **2.72 \*\*** | **1.00** |
|  | **Immunization** |  |  |
| 13 | Needed vaccine | 3.40 \*\* | .762 |
| 14 | Documentation | 3.39 \*\* | .850 |
| 15 | Health education | 3.31 \*\* | .823 |
|  | **Overall mean** | **3.37 \*\*** | **0.81** |
|  | **Grand mean** | **2.83 \*\*** | **0.92** |

**Key**

**\*\* Effective utilization**

\***Ineffective utilization**

Table 2: **Level of Utilization of CHs According to the Mothers Educational Level of Attainment**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Child health services** | **Non-formal education (n=25)** | | **Primary education (n=88)** | | **Secondary education (n=40)** | | **Tertiary education (n=108)** | |
|  |  |  | SD1 |  | SD2 |  | SD3 |  | SD4 |
|  | **Growth monitoring** |  |  |  |  |  |  |  |  |
| 1 | Child weighing | 3.76 | .523 | 3.19 | 1.123 | 3.20 | 1.054 | 3.19 | 1.034 |
| 2 | Measurement of height | 3.16 | 1.068 | 2.53 | 1.193 | 2.41 | 1.258 | 1.12 | 1.190 |
| 3 | Measurement of mid-arm circumference | 2.80 | 1.258 | 2.30 | 1.224 | 2.34 | 1.256 | 1.99 | 1.148 |
|  | **Overall mean** | **3.24** | **0.95** | **2.67** | **1.18** | **2.65** | **1.15** | **2.43** | **1.13** |
|  | **Nutritional services** |  |  |  |  |  |  |  |  |
| 4 | Vitamin A supplement | 3.08 | .997 | 2.55 | .921 | 2.74 | .0910 | 2.78 | .931 |
| 5 | Micronutrient supplement | 2.76 | 1.012 | 2.52 | 1.028 | 2.34 | 1.009 | 2.44 | .960 |
| 6 | Education on breast feeding/weaning diet | 3.04 | .889 | 3.00 | .788 | 3.11 | .778 | 2.90 | .896 |
|  | **Overall mean** | **2.96** | **0.97** | **2.69** | **0.91** | **2.73** | **0.90** | **2.71** | **0.93** |
|  | **Curative services** |  |  |  |  |  |  |  |  |
| 7 | Physical examination | 2.88 | 1.092 | 3.02 | .830 | 2.92 | .823 | 3.06 | .771 |
| 8 | Laboratory examination | 2.80 | 1.000 | 1.82 | 1.078 | 1.96 | 1.184 | 1.75 | 1.015 |
| 9 | Treatment of ailment | 2.68 | 1.108 | 3.17 | .985 | 3.21 | .846 | 3.24 | .906 |
|  | **Overall mean** | **2.79** | **1.01** | **2.67** | **0.96** | **2.70** | **0.95** | **2.68** | **0.90** |
|  | Oral rehydration therapy |  |  |  |  |  |  |  |  |
| 10 | Oral rehydration sachet | 2.76 | 1.128 | 2.40 | 1.180 | 2.51 | 1.172 | 2.56 | 1.150 |
| 11 | Education on salts, sugar solution | 2.68 | 1.145 | 2.67 | .931 | 2.91 | .877 | 2.86 | .891 |
| 12 | Education on use of available home fluid | 2.56 | 1.044 | 2.78 | .964 | 2.85 | .881 | 2.92 | .877 |
|  | **Overall mean** | **2.67** | **1.11** | **2.62** | **1.03** | **2.76** | **0.98** | **2.78** | **0.97** |
|  | **Immunization services** |  |  |  |  |  |  |  |  |
| 13 | Needed vaccine | 3.00 | 1.080 | 3.45 | .710 | 3.43 | .711 | 3.42 | .763 |
| 14 | Documentation/recording note | 2.88 | 1.236 | 3.78 | .875 | 3.44 | .789 | 3.46 | .766 |
| 15 | Health education or talk on immunization | 3.04 | 1.098 | 3.16 | .933 | 3.38 | .754 | 3.42 | .712 |
|  | **Overall mean** | **2.97** | **1.14** | **3.33** | **0.84** | **3.42** | **0.75** | **3.43** | **0.75** |
|  | **Grand mean** | **2.93** | **1.03** | **2.80** | **0.98** | **2.85** | **0.95** | **2.81** | **0.9** |

Table 2 shows the cluster mean scores of mothers with no formal education (****=3.24) primary education (****= 2.67), secondary education (****= 2.65) and tertiary education (****=2.43) which were above the criterion mean of 2.50 except that of mothers with

tertiary education (****=2.43). This implies that growth monitoring was effectively utilized by mothers of all levels of education except mothers with tertiary education who utilized growth monitoring ineffectively.

Table 3: **Level of Utilization of CHs According to Mothers Occupation**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Child Health Services** | | **Farming (n=24)** | | | | **Trading**  **(n= 76)** | | | | **Public/civil servant (n=114)** | | | | **Cloth weaving/hair dressing (n=837)** | | | | **House wife (n=45)** | | | | **Student (n=15)** | | | | | |
|  |  |  | | SD1 | |  | | SD2 | |  | | SD3 | |  | | SD4 | |  | | SD5 | |  | | SD6 | | |
|  | **Growth monitoring** | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | | |  | |
| 1 | Child weighing | | 3.17 | | 1.090 | | 3.07 | | 1.100 | | 3.40 | | .919 | | 3.17 | | 1.102 | | 3.56 | | .841 | | 2.47 | | 1.090 | | | | |
| 2 | Measurement of height | | 1.87 | | 1.116 | | 2.28 | | 1.162 | | 2.47 | | 1.228 | | 2.61 | | 1.267 | | 2.51 | | 1.272 | | 1.80 | | 1.116 | | | | |
| 3 | Measurement of mid-arm circumference | | 1.87 | | 1.154 | | 2.16 | | 1.108 | | 2.36 | | 1.284 | | 2.33 | | 1.270 | | 2.33 | | 1.264 | | 1.93 | | 1.154 | | | | |
|  | **Overall mean** | | **2.30** | | **1.12** | | **2.50** | | **1.12** | | **2.74** | | **1.14** | | **2.70** | | **1.21** | | **2.80** | | **1.13** | | **2.06** | | **1.08** | | | | |
|  | **Nutrition** | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | | | | |
| 4 | Vitamin A supplement | | 2.62 | | 1.013 | | 2.61 | | .834 | | 2.77 | | .922 | | 2.80 | | .907 | | 2.89 | | 1.092 | | 2.33 | | .816 | | | | |
| 5 | Micronutrient supplement | | 2.04 | | .999 | | 2.28 | | .944 | | 2.57 | | 1.039 | | 2.43 | | .990 | | 2.80 | | .869 | | 1.93 | | .799 | | | | |
| 6 | Education on breast feeding/weaning diet | | 2.83 | | **.**963 | | 3.00 | | .800 | | 3.12 | | .822 | | 3.00 | | .781 | | 2.84 | | .928 | | 3.00 | | .655 | | | | |
|  | **Overall mean** | | **2.49** | | **0.99** | | **2.63** | | **0.87** | | **2.82** | | **0.93** | | **2.74** | | **0.89** | | **2.84** | | **0.96** | | **2.45** | | **0.76** | | | | |
|  | **Curative services** | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | | | | |
| 7 | Physical examination | | 2.87 | | .992 | | 2.96 | | .662 | | 3.02 | | .872 | | 2.95 | | .779 | | 2.96 | | .999 | | 3.13 | | .834 | | | | |
| 8 | Laboratory examination | | 2.00 | | 1.216 | | 1.99 | | 1.113 | | 1.95 | | 1.120 | | 1.93 | | 1.145 | | 1.69 | | .996 | | 1.93 | | 1.335 | | | | |
| 9 | Treatment of ailment | | 3.17 | | .917 | | 3.33 | | .737 | | 3.29 | | .849 | | 3.08 | | .913 | | 2.73 | | 1.250 | | 3.40 | | .828 | | | | |
|  | **Overall mean** | | **2.68** | | **1.04** | | **2.76** | | **0.84** | | **2.75** | | **0.95** | | **2.65** | | **0.95** | | **2.46** | | **1.08** | | **2.82** | | **1.00** | | | | |
|  | **Oralrehydration therapy** | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | | | | |
| 10 | Oral rehydration sachet | | 2.21 | | 1.141 | | 2.47 | | 1.160 | | 2.66 | | 1.151 | | 2.41 | | 1.148 | | 2.64 | | 1.151 | | 2.40 | | 1.242 | | | | |
| 11 | Education on use of salt sugar solution | | 2.75 | | .897 | | 2.84 | | .910 | | 2.89 | | .890 | | 2.89 | | .950 | | 2.56 | | .918 | | 2.60 | | .986 | | | | |
| 12 | Education on continuous breast feeding and use of available home fluid | | 2.75 | | .897 | | 3.01 | | .825 | | 2.78 | | .938 | | 2.87 | | .974 | | 2.64 | | .908 | | 2.67 | | .976 | | | | |
|  | **Overall mean** | | **2.57** | | **0.98** | | **2.77** | | **0.97** | | **2.78** | | **0.99** | | 2.72 | | **1.01** | | **2.61** | | **1.99** | | **2.55** | | **1.07** | | | | |
|  | **Immunization** | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | | | | |
| 13 | Needed vaccine | | 3.29 | | .751 | | 3.37 | | .814 | | 3.46 | | .718 | | 3.36 | | .758 | | 3.40 | | .863 | | 3.47 | | .640 | | | | |
| 14 | Documentation recording note | | 3.21 | | .977 | | 3.37 | | .936 | | 3.39 | | .837 | | 3.35 | | .778 | | 3.47 | | .894 | | 3.60 | | .632 | | | | |
| 15 | Health education or talk on immunization | | 3.50 | | .722 | | 3.46 | | .807 | | 3.25 | | .847 | | 3.33 | | .816 | | 3.20 | | .894 | | 3.40 | | .632 | | | | |
|  | **Overall mean** | | **3.33** | | **0.82** | | **0.85** | | **0.85** | | **3.37** | | **0.80** | | **3.31** | | **0.78** | | **3.36** | | **0.88** | | **3.49** | | **0.63** | | | | |
|  | **Grand mean** | | **2.67** | | **0.99** | | **2.81** | | **0.93** | | **2.89** | | **0.96** | | **2.82** | | **0.96** | | **2.81** | | **1.21** | | **2.67** | | **0.91** | | | | |

The table further shows the grand mean score of mothers with no formal education (****= 2.93), secondary education (****= 2.85), tertiary education (****= 2.81) and primary education (****=2.80) which were greater than the criterion mean of 2.50. This implies that child health services were effectively utilized by mothers of all level of education.

Table 3 indicated the grand mean scores of mothers who were students (****= 2.67), traders (****= 2.81), public/civil servants (****= 2.89), house wives (****= 2.81), farmers (****=2.67) and cloth weaving/hair dressers (****= 2.82) which were above criterion mean of 2.50. This implies that child health services were effectively utilized.

Table 3 further revealed that mothers who were farmers and students utilized growth monitoring services (farmers****= 2.30, students ****= 2.06) and nutritional services (farmers

****= 2.49, students ****= 2.45 ) ineffectively since their cluster mean values were below the criterion mean of 2.50. The table again shows that mothers who were housewives ( ****= 2.46) utilized curative services ineffectively since the cluster mean value is below the criterion mean of 2.50.

Table 4: **Level of Utilization of CHs by Mothers According to Location**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | **Urban (n=208)** | | **Rural (n=153)** | |
|  | Child health services |  | SD |  | SD |
|  | **Growth monitoring** |  |  |  |  |
| 1 | Child weighing | 3.54 | .797 | 2.81 | 1.185 |
| 2 | Measurement of height | 2.61 | 1.266 | 2.14 | 1.136 |
| 3 | Measurement of mid-arm circumference | 2.48 | 1.262 | 1.95 | 1.120 |
|  | **Overall mean score** | **2.88** | **1.108** | **2.30** | **1.147** |
|  | **Nutritional services** |  |  |  |  |
| 4 | Vitamin A supplement | 2.79 | .912 | 2.63 | .951 |
| 5 | Micronutrient supplement | 2.60 | .943 | 2.23 | 1.042 |
| 6 | Education on breast feeding/weaning diet | 3.12 | .796 | 2.88 | .850 |
|  | **Overall mean** | **2.84** | **0.88** | **2.58** | **0.95** |
|  | **Curative services** |  |  |  |  |
| 7 | Physical examination | 3.09 | .820 | 2.84 | .823 |
| 8 | Laboratory examination | 2.22 | 1.178 | 1.52 | .904 |
| 9 | Treatment of ailment | 3.22 | .942 | 3.11 | .900 |
|  | **Overall mean** | **2.84** | **0.98** | **2.49** | **0.88** |
|  | **Oral rehydration therapy** |  |  |  |  |
| 10 | Oral rehydration sachet | 2.61 | 1.166 | 2.39 | 1.136 |
| 11 | Education on use of salt sugar solution | 2.86 | .955 | 2.77 | .862 |
| 12 | Education on continuous breast feeding and use of available home fluid | 2.93 | .947 | 2.66 | .836 |
|  | **Overall mean** | **2.81** | **1.02** | **2.61** | **0.94** |
|  | **Immunization** |  |  |  |  |
| 13 | Needed vaccine | 3.50 | .709 | 3.27 | .813 |
| 14 | Documentation recording note | 3.45 | .833 | 3.31 | .864 |
| 15 | Health education or talk on immunization | 3.36 | .857 | 3.25 | .772 |
|  | **Overall mean** | **3.44** | **0.80** | **3.28** | **0.82** |
|  | **Grand mean scores** | **2.96** | **0.96** | **2.65** | **0.95** |

Table 4 shows that mothers utilized growth monitoring services (urban****= 2.88, rural ****= 2.30) and curative services (urban****= 2.84, rural****=2.49) effectively in urban PHCs since their cluster mean values were above the criterion mean of 2.50 while those in rural

PHCs utilized them ineffectively since their cluster mean value were below the criterion mean of 2.50. The table further reveals that both urban and rural mothers in PHCs utilized nutritional services (urban ****= 2.84, rural ****= 2.58) oral rehydration therapy (urban ****= 2.81, rural ****= 2.61) and immunization services (urban ****= 3.44, rural ****= 3.28) effectively since their cluster mean values were above the criterion mean of 2.50.

Table 5: **Summary of ANOVA in the Level of Utilization of Child Health Services According to Level of Education.**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **S/N** | **Utilization of CHs** | **Source of variation** | **Sum of squares** | **d.f.** | **Mean square** | **F** | **p-value** |
| 1 | Growth monitoring | Between group | 123.837 | 3 | 41.279 | 4.828 | .003 \*\* |
|  |  | Within group | 3052.163 | 357 | 8.459 |  |  |
|  |  | **Total** | **3176.000** | **360** |  |  |  |
| 2 | Nutritional services | Between group | 13.875 | 3 | 4.625 | 1.264 | .287 \* |
|  |  | Within group | 130.690 | 357 | 3.660 |  |  |
|  |  | **Total** | **1320.565** | **360** |  |  |  |
| 3 | Curative services | Between group | 2.553 | 3 | .851 | .216 | .885 \* |
|  |  | Within group | 1404.117 | 357 | 3.933 |  |  |
|  |  | **Total** | **140.670** | **360** |  |  |  |
| 4 | Oral rehydration therapy | Between group | 14.262 | 3 | 4.754 | 1.017 | .385 \* |
|  |  | Within group | 1669.670 | 357 | 4.675 |  |  |
|  |  | **Total** | **1683.352** | **360** |  |  |  |
| 5 | Immunization services | Between group | 42.910 | 3 | 14.303 | 3.296 | .021 \*\* |
|  |  | Within group | 1549.090 | 357 | 4.339 |  |  |
|  |  | **Total** | **1592.000** | **360** |  |  |  |

**Key: \*\* Significant**

**\* Not significant**

The Table 5 shows the calculated F-value with their corresponding P-values for growth monitoring (F= 4828, p = .003 < 0.05) and immunization service (F = 1.264, p = .021 < .05). Since their P-value were less than .05 level of significance at 3 and 357 degrees of freedom the null hypothesis of no significance difference was therefore rejected. This implies that the level of utilization of growth monitoring and immunization services by mothers in PHCs differed according to their level of education. The table further shows the F-value with their corresponding P-value for nutritional services (F = 1.264, p = .287 > .05), curative services (F = .216, p = .885 > 0.05) and oral rehydration therapy (F=1.017, P=.385>.05). Since the P-values were greater than .05 level of significance at 3 and 357 degrees of freedom. The null hypothesis of no significant difference in the level of utilization of child health services according to level of education was accepted. This implies that there was no significant difference in the level of utilization of nutritional service, curative services, and oral rehydration therapy by mothers of different level of education.

Table 6: **Summary of ANOVA in the level of utilization of Child Health Service According to Mother’s Occupation.**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **S/N** | **Utilization of CHs** | **Source of variation** | **Some of squares** | **d.f.** | **Mean square** | **F** | **p-value** |
| 1 | Growth monitoring | Between group | 108.160 | 6 | 18.027 | 2.080 | .055 \* |
|  |  | Within group | 3067.840 | 354 | 8.666 |  |  |
|  |  | **Total** | **3176.000** | **360** |  |  |  |
| 2 | Nutritional services | Between group | 46.737 | 6 | 7.790 | 2.165 | .046 \*\* |
|  |  | Within group | 1273.828 | 354 | 3.598 |  |  |
|  |  | **Total** | **1320.566** | **360** |  |  |  |
| 3 | Curative services | Between group | 32.689 | 6 | 5448 | 1.404 | .212 \* |
|  |  | Within group | 1373.981 | 354 | 3.881 |  |  |
|  |  | **Total** | **1406.670** | **360** |  |  |  |
| 4 | Oral rehydration therapy | Between group | 22.993 | 6 | 3.832 | .817 | .557 \* |
|  |  | Within group | 1660.359 | 354 | 4.690 |  |  |
|  |  | **Total** | **1683.352** | **360** |  |  |  |
| 5 | Immunization services | Between group | 16.040 | 6 | 2.673 | .600 | .730 \* |
|  |  | Within group | 1575.960 | 354 | 4.452 |  |  |
|  |  | **Total** | **1592.000** | **360** |  |  |  |

**Key**

**\*\* Significant**

**\* Not significant**

Table 6 shows the F-values with their corresponding P-value for growth monitoring services (F-cal = 2.080, p-value = .055 > .05), curative services (f = 1.404, P = .212), oral rehydration therapy (F = .817, P = .557). Since their P-values were greater than .05 level of significance at 6 and 354 degrees of freedom, the null hypothesis of no significant difference in level of utilization of child health services according to occupation was accepted. This implies that the level of utilization of growth monitoring services, curative services and oral rehydration therapy in PHCs by mothers of different occupation was the same.

The table further reveals the F-value with its corresponding P-value for nutritional services (F-Cal = 2.165, P-value = .046) which is less than .05 level of significance at 6 and 354 degrees of freedom. Hence, the null hypothesis of no significant difference in the level of utilization of child health services according to occupation was rejected. This implies that level of utilization of CHs in PHCs by mother of different occupation were not the same.

Table 7: **Summary of t-Test Analysis of no Significance Difference in Level of Utilization of CHs According to Location.**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **Urban (n=205)** | | **Rural (n= 153)** | |  |  |  |
| **S/N** | **CHs** |  | **SD** |  | **SD** | **t-Cal** | **d.f.** | **P-value** |
| 1 | Growth monitoring | 8.62 | 2.749 | 6.90 | 2.984 | 5.678 | 359 | .000 |
| 2 | Nutritional services | 8.51 | 1.862 | 7.75 | 1.904 | 3.818 | 359 | .000 |
| 3 | Curative services | 8.53 | 2.073 | 7.47 | 1.659 | 5.206 | 359 | .000 |
| 4 | Oral rehydration | 8.43 | 2.304 | 7.82 | 1.904 | 2.697 | 359 | .007 |
| 5 | Immunization services | 10.31 | 2.027 | 9.83 | 2.179 | 2.143 | 359 | .033 |
|  | **Cluster mean score** | **8.88** | **2.202** | **7.95** | **2.126** | **3.908** | **359** | **0.008** |

Table 7 shows the calculated t-values with their corresponding p-values for growth monitoring (t = 5.678, p = .000 < .05), nutritional services (t = 3.818, p = .000 < .05), and curative services (t = 5.206, p = .000 < .05). Since the p-value were less than .05 level of significance at 359 degrees of freedom, the null hypothesis of no significant difference in level of utilization of CHs is therefore rejected. This implies that the level of utilization of all the CHs in PHCs differed according to location.

***Discussion***

Result in Table 1 shows that child health services were effectively utilized by mothers’ in PHC centres. This finding was expected and therefore not surprising. This is because these mothers’ might have been attending antenatal clinics where trained nurses and mid wives taught them the need for proper child caring and upbringing. This finding is inconsonance with that of Nteta et al (2010) who stated that there was effective utilization of CHs in PHC centers by mothers’ who were attending them.

The finding in Table 2 revealed that the level of utilization of CHs by mothers with no formal education in PHC centers was effective. This was a surprise because Rockvill (2004) reported that people with higher levels of education had more knowledge and positive attitude towards child health. They were likely to be healthier. The author added that better educated mothers were more knowledgeable of health problems and knew more about availability of health care services and use this information more effectively to maintain or achieve good health status. The finding may be so due to the fact that most educated mothers are gainful employed and they may be busy in their workplace. Therefore, they may find it difficult or stressful to go to health centres for child health services.

Finding in Table 3 shows that the level of utilization of CHs by mothers who were public servants was effective. The finding was not surprising and therefore it was expected because mothers with high income should utilize CHs effectively than low income earners. Olise (2001) stated that income has a positive effect on utilization of modern health services. They observed that mothers who are employed are more likely to utilize modern health care services to treat complication in children. The finding is in consonance with the finding of Simoe (2005) who reported that high rates of utilization were found for the categories of top management executive position and skill workers while unskilled workers, trainees, students and housewives used less of child health services.

The results in Table 4 revealed that mother in both urban and rural PHC centers effectively utilized CHs. This finding is not surprising because Nteta et al (2010) and Vijaya (2008) found that people utilized health services if the facilities are available and accessible to them. The table also revealed that growth monitoring and curative services were effectively utilized in rural PHC centers. The finding was not surprising because Vogl (2004) reported that immunization services and diarrhea management were adequate in PHC centers while supply of essential drugs and facilitates for emergency treatment were inadequate and these influenced the rate of the utilization of services. Barlow and Proschan (2002) stated that there is positive relationship between adequacy of services and utilization.

Result in Table 5 revealed that there was no significant difference in the level of utilization of nutritional services, curative services and oral rehydration therapy according to level of education. This finding is surprising and not anticipated because mothers of high educational attainment are expected to utilized CHs effectively. The reason may be that those mothers have received health education on the available CHs and its importance in child growth and development. The finding disagrees with the findings of Simoe (2005) and Vogi (2004) which showed that prompt accessing of child health services is positively correlated with educational level.

Result in Table 6 indicted that there was no significant difference in the level of utilization of child health services (growth monitoring, curative services, oral rehydration and immunization services) according to mother’s occupation. This finding was a surprise because occupation of any given group of individual is expected to positively influence their level of utilization of health services. This finding disagrees with that of Rockville (2006) who reported that the higher the level of income of a mother the higher the rate of utilization of health services. The reason may be that most of the child health drugs/treatment are free and available at low cost services in primary health care centers.

There were significant differences in the level of utilization of nutritional services according to occupation. This finding was expected and therefore not a surprise. Experience has shown that high income earners tend to utilize health services more than low income earner. This finding was in line with that of Simoe (2005) who reported that the type and status of employment has effect on mothers’ utilization of health services. Women’s involvement in gainful employment is one of the factors that positively affect the use of quality medical care to treat complication in their children.

Result in Table 7 revealed that there was significant difference in the level of utilization of CHs according to mothers’ residential location. This finding is not surprising because Olise (2001) showed that location had major influence on the utilization of health services. Concentration of health facilities in urban centers hampered rural dwellers accessibility and utilization of health facilities. This finding is in line with that of Haddah (2005) who reported that geographical location hinder utilization of child health services and Utilization of child health services are lower among rural dwellers who have no access to health facilities than urban dwellers.

***Conclusion***

Base on the findings and discussion of the study, the following conclusions were attained. Child health services were effectively utilized by mothers in PHC centres. Mothers of different occupations utilized CHs effectively. There was no significant difference in the level of utilization of child health services according to level of education. There was no significant difference in the level of utilization of child health services according to mother’s occupation. There was significant difference in the level of utilization of CHs according to location.

***Recommendations***

Based on the findings of this study the following recommendation was drawn.

1 Government should provide free and compulsory education for the girl child to enable them acquires education up to secondary level so as to widen their scope in all sphere of life including health issues such as child health services.

2 Health educators, institutions and other health professional should design better educational strategies to increase the level of awareness and utilization of child health services.

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**TRIGGERS OF DOMESTIC VIOLENCE AGAINST PREGNANT WOMEN IN RIVERS STATE, NIGERIA**

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***Abstract***

*The study was a cross-sectional survey aimed at determining the triggers of Domestic Violence against Pregnant Women in Rivers State. The Feminist, Social learning and Ecological theories provided the theoretical anchor for the study. The population for the study was 327, 639 pregnant women in the State. Data were collected from a sample of 2,388 pregnant women attending antenatal clinics in365 primary health centers, 37secondary health institutions and the two tertiary hospitals in Rivers State selected through a multistage sampling procedure. The instrument for data collection was a self-structured and validated*44 *item-questionnaire titledTriggers of Domestic Violence against Pregnant Women Questionnaire (TDVAPWQ). The instrument has a reliability index of 0.83 obtained using the test-re-test method and Pearson Product Moment Correlation co-efficient. The findings from the study revealed multiple triggers of domestic violence against pregnant women in Rivers State including past experience of DV (27.22%),negative influence of in-laws (16.80%), drug and substance abuse (15.62%), pregnancy induced factors (12.70%)*, *intimate partner infidelity (9.90%), STD/HIV/AIDS positive status (4.26%), and male child preference (4.20%). However, past experience of domestic violence and pregnancy induced factors (3.88% respectively) were the most frequent triggers. Based on the findings, the study recommended among others that Government should collaborate with non-governmental organizations to gather data and implement the Violence Against Persons (Prohibition) Acts, towards eradicating DV during pregnancy in the State.*

**Keywords:** domestic violence, triggers, pregnant women, pregnancy

***Introduction***

In most African societies, pregnancy and pregnant women are usually regarded as source of joy as it signifies that a child is soon to be welcomed into the family. However, when pregnant woman for some reason receives abuse and hostility from those who are supposed to show her love and care, it leaves a sour taste in the mouth of the woman and becomes a cause for worry especially as it concerns the health and life of the mother and the foetus. Domestic violence against women has become an issue of global concern especially that which occurs during pregnancy. World Health Organisation (2005) reported that domestic violence against pregnant women is on the increase and estimated that one in five women will be abused during pregnancy. In Nigeria, five percent of women who have ever been pregnant reported that they experienced domestic violence during one or more of their pregnancies (National Demographic and Health Survey–NDHS, 2013).

Physiological changes place the woman at high risk to disease and injury. Hence, the pregnant woman becomes vulnerable due to additional demands and needs, such as physical, social, economic and emotional needs (Diorgu & Jonathan, 2014). The period of pregnancy for the woman and her family is, therefore, expected to be filled with peace, support and love. Stressing the importance of this period, Weiss (2013) opined that pregnancy is supposed to be a time of peace and safety, where the family turns its thoughts towards growing a healthy baby and raising the next generation. In addition, Ogbalu (2009) submitted that the interpersonal relationship between the woman and her husband during and after delivery should be cordial, where the man is supportive by making adequate provision of basic needs and encourage the woman to attend antenatal clinics.

In most cultures like Womack (2010) asserted, pregnant women have special status in the society and most times are particularly given gentle care. However, this is no longer the case for many pregnant women since pregnant women are now at a similar risk for abuse as non-pregnant women (Fisher et al., 2003; Fawole, Abass and Fawole, 2010). In fact, report from PAHO has it that pregnant women are 60 percent more likely to suffer from domestic violence than women who are not pregnant (Regan, 2013). No wonder Weiss (2013) calls it unfortunate, since for many women, pregnancy can be the beginning of a violent time in their lives sometimes leading to injuries and even death.

Domestic violence during pregnancy is categorized as an abusive behaviour towards a pregnant woman, it is a focused attack that puts the pregnant woman and her foetus at risk (Envuladu et al. 2012). DV during pregnancy is any abuse deliberately directed at a pregnant woman that puts her and her unborn child in danger. It is worthy of note that it does not have to happen every day or every week for it to be termed domestic violence (WHO, 2005; Drouin, 2013).

The peculiarity of DV against pregnant women is that it can be a long-standing problem in a relationship that continues after a woman becomes pregnant or it may commence during pregnancy. Throwing more light, Fawole et al. (2005) and Gyuse and Ushie (2009) posited that violence may begin or escalate during pregnancy, and is repetitive, giving rise to the concept of the ‘Violence Cycle’. This could simply be explained as comprising of tension building phases, violent phases and the honeymoon phases (when the husband/partner becomes apologetic and remorseful, he tries to woo back his partner or make up for the abuse by being loving and gentle). When DV occurs during pregnancy, it is associated with negative pregnancy outcome such as pregnancy loss, preterm labour, pregnancy complications, hypertension, delivering low birth weight and physical injuries (Interagency Gender Working Group-IGWG, 2002; Moronkola, 2013); mental health outcomes such as depression and stress (IGWG, 2002; Dunn & Oths 2004). It has also been reported as a contributing cause of maternal deaths (Jeremiah, Kalio & Oriji, 2011).

Prevalence of DV in pregnancy in United Kingdom (UK), was 3.4% (Bacchus et al. 2004); United State of America (USA), 3.4 – 33.7% (Huth-Bocks, Levendosky & Bogat, 2002); Ireland 12.5% (O'Donnell, Fitzpatrick & McKenna, 2000); and Jordan 40.9 % (Okour & Badarneh, 2011).The prevalence of DV during pregnancy in the developing countries ranges from 2 -29% (Nasir & Hyder, 2003). Urmia in Iran had a prevalence of 55.9% (Farrokh-Esiamiou et al., 2014) and Zimbabwe, 63.1% (Shamu et al.,2013).

The National Demographic and Health Survey – NDHS (2008) reported that the prevalence of DV against pregnant women varied from region to region with the highest in the South-South (9.0%) and the lowest in the North Central region (7%). Similarly, NDHS (2013) documented the prevalence of DV during pregnancy in Nigeria, with the highest also in the South-South (9.0%) and lowest in the North-West (1.8%). In Northern Nigeria prevalence was 7.4% ([Zubairu](http://jiv.sagepub.com/search?author1=Zubairu+Iliyasu&sortspec=date&submit=Submit) et al., 2012 ); North West 34.3% (Ashimi & Amole, 2015); Zaria, Kaduna State prevalence is 28% (Ameh & Abdul, 2003); Zaria, Kaduna, 28.4% (Ameh, Shittu & Abdul, 2009) and Abuja prevalence is 37.4% ([Efetie](http://www.ncbi.nlm.nih.gov/pubmed/?term=Efetie%20ER%5BAuthor%5D&cauthor=true&cauthor_uid=17654190) &[Salami](http://www.ncbi.nlm.nih.gov/pubmed/?term=Salami%20HA%5BAuthor%5D&cauthor=true&cauthor_uid=17654190), 2007). In Jos, Plateau State, prevalence was 12.6% in current pregnancy and 63.2% in previous pregnancies (Gyuse, Ushie & Etukidem, 2009), while later findings show that Jos, North LGA, Plateau State in particular had a prevalence of 28.9% (Envuladu et al., 2012).

In Southern Nigeria, DV prevalence was 43.5% during the 12 months before the pregnancy, 28.3% during the pregnancy and 4% in the puerperium (Olagbuji, Ezeanochie & Ande, 2010). In the South West, prevalence in Lagos was 28.7% (Ezechi et al., 2004); Abeokuta 2.3% while prevalence of violence within 12 months prior to pregnancy was 14.2% (Fawole, Hunyinbo & Fawole, 2008). Prevalence in Ibadan was 17.1% (Adesina, Oyugbo & Oladokun, 2011) and in Ile-Ife, 36.72 % (Mapayi et al.,2013).

Records from the South-East showed prevalence of 13.6% (Umeora, Dimejesi, Ejikeme, Egwuatu, 2008) and in Abakaliki 44.6% (Onoh et al., 2013). Oleh in Delta State South South, had a prevalence of 36% (Awusi Okeleke & Ayanwu, 2013), while In Port Harcourt, Rivers State it was 7.8% (Jeremiah, Kalio & Oriji, 2011). However, NDHS (2013) report from South-South showed that Rivers State had a prevalence of 11.1%, Cross Rivers State (12.2%), Bayelsa State (9.4%), Edo State (8.0%), Akwa Ibom State (8.0%) and Delta State having the lowest (3.8%) prevalence.

Different researchers have described different forms of DV as experienced by victims such as Physical, sexual and psychological (Okour & Badarneh, 2011; Farrokh- Esiamiou et al. 2014); verbal, physical, emotional and sexual violence (Oweis, Gharaibeh and Alhourani, 2010); verbal, physical and sexual violence (Awusi Okeleke & Ayanwu, 2013). Domestic violence can include coercion, threats, intimidation, isolation, jealousy, blame, physical, sexual, emotional, and economic abuse (NDHS, 2013).

When a pregnant woman is abused the unborn child is placed at risk of death, preterm birth, low birth weight and early childhood growth impairment (Asling-Monemi, Naved & Persson, 2009). The child is at risk in the womb, at birth and when growing up, having physical and mental challenges. The pregnant woman is at higher risk of physical health consequences which include physical injury, chronic pain and functional impairment (WHO, 2000), reproductive health consequences like sexually transmitted infections and high risk of pregnancy complications requiring medical attention such as miscarriage or abortion, prolong obstructed labour (dystocia) and injury to the uterus (WHO, 2000). Mental health consequences include; post-traumatic stress disorder, depression, anxiety, sexual dysfunction, low self-esteem and substance abuse (WHO, 2000; &Moronkola, 2013). The pregnant woman is not only in danger of health, social and economic challenges but also in danger of death.

In over 95% of DV during pregnancy, the man (husband, intimate partner, spouse or boyfriend) is the perpetrator (Ameh & Abdul, 2003; Awusi, Okeleke & Anyanwu, 2013; [Efetie](http://www.ncbi.nlm.nih.gov/pubmed/?term=Efetie%20ER%5BAuthor%5D&cauthor=true&cauthor_uid=17654190) &[Salami](http://www.ncbi.nlm.nih.gov/pubmed/?term=Salami%20HA%5BAuthor%5D&cauthor=true&cauthor_uid=17654190), 2007; Iorvaa, 2013). However apart from the man being the major perpetrator, some researchers have indicted the pregnant woman’s parents, siblings, and others, while not leaving out the pregnant woman’s intimate partners’ parents, siblings and other relations as well (Ezechi, et.al., 2004; & Regina, 2013).

Although DV cut across women of all races, culture, social-economic status, religion and educational level, some factors are prone to trigger DV causing certain women to be more likely to be abused than others. The present study focused on such factors specifically past experience of domestic violence, pregnancy induces factors, intimate partner infidelity, STD/HIV/AIDS positive status, drug and alcohol abuse and negative influence of in-laws.

Rivers State is located in the South-South geopolitical zone of Nigeria. The State is one of the wealthiest [states in Nigeria](https://en.wikipedia.org/wiki/States_of_Nigeria) in terms of gross domestic product and foreign exchange revenue from the oil industry. This probably earned her the name Treasure Base of the nation (Rivers State Diary, 2006).There is uneven population distribution among the 23 local government areas (LGA) in the state, spanning from the upland to riverine areas with diverse cultural heritage, these LGAs are grouped into three main senatorial districts: Rivers West, Rivers East and Rivers South, with the population density concentrated in the more urban towns and the state capital (Rivers State Diary, 2006). Most of the residents in rural areas engage in fishing, farming and petty trading, while people in urban area (Port Harcourt Metropolis) work in various sectors of commerce and industry.

The objective of the study was therefore to determine the triggers of domestic violence against pregnant women in Rivers State, Nigeria.The corresponding research question was formulated to guide study: What could be the triggers of domestic violence against pregnant women in Rivers State?

***Method***

The study adopted a cross sectional survey design. The population for the study was 327, 639 pregnant women in the State. Data were collected from a sample of 2,388 pregnant women attending antenatal clinics in365 primary health centers, 37secondary health institutions and the two tertiary hospitals in Rivers State selected through a multistage sampling procedure. The instrument for data collection was a self-structured and validated38 item-questionnaire titledtriggers of Domestic Violence against Pregnant Women Questionnaire with Always, Occasionally, Rarely and Never response options. The test-re-test method and Pearson Product Moment Correlation co-efficient was used to determine the reliability coefficient of the instrument which stood at 0.83. Data collected with the instrument were analysed using frequency counts and percentage.

***Results***

**Research Question:** What could be the triggers of domestic violence against the pregnant women? Data answering the research question are presented in Table 1.

Data in Table 1 show that past experience of DV and pregnancy induced factors were the most frequent triggers of domestic violence against pregnant women in Rivers State (3.88% respectively). This is followed by drug and substance abuse (3.73%), negative influence of in-laws (3.55%), and intimate partner infidelity (2.95%). Male child preference and STD/HIV/AIDS status were the least frequent triggers of domestic violence against the pregnant women (1.23% & 1.03% respectively). In all, past experience of DV was the highest trigger of domestic violence among pregnant women in Rivers State accounting for 27.22% of positive responses (always = 3.88%, occasionally = 14.46% & rarely = 8.88%) with 983 (41.2%) of the respondents reporting that they witnessed abuse in their homes (always =4.8%, occasionally = 23.7%, & rarely =12.7%), and 880 (36.8%) experienced abuse while growing up (always = 4.2%, occasionally = 20.0, & rarely = 12.6%). Furthermore, 485 (20.4%) of the respondents indicated that their intimate partners witnessed abuse while growing up (always = 3.9%, occasionally = 10.6% & rarely = 5.9%) and 510 (21.3%) experienced abuse (always = 3.6%, occasionally = 10.1%, & rarely = 7.6%).

Negative influence of in-laws ranked second with a cumulative positive response of 16.8% (always = 4.0%, occasionally = 9.25% & rarely = 3.55%) with seventy-four (3.1%) of the pregnant women reporting that their in-laws always instigated their partners to abuse them. Following closely was drug and substance use with a cumulative positive response of 15.62% (always = 3.73% occasionally = 9.04 % & rarely = 2.85). Nine hundred and sixty-five (40.3%) of the respondents admitted that their intimate partners drink alcohol (always =6.7%, occasionally = 25.0% & rarely = 8.6%) and 175 (7.3%) reported that they get abused when their intimate partner gets drunk (always = 1.8%, occasionally = 4.1% & rarely = 1.4%). Again, pregnancy induced factors had a cumulative positive response of 12.7% (always = 3.88%, occasionally = 6.14% & rarely = 2.68%). The responses from the pregnant women showed that 372 (15.6%) of them started experiencing DV when they became pregnant (always = 4.4%, occasionally = 7.6% & rarely =3.6%) while DV persisted during pregnancy for 417 (17.5%) of them (always = 6.1%, occasionally = 6.9% & rarely = 4.5%).

Male child preference had the lowest cumulative positive responses (4.2%) as a trigger of DV against the pregnant women (always = 1.23%, occasionally = 2.57% & rarely = 0.4%). One hundred and eight (4.4%) of the respondents reported that their intimate partner was angry at them because they have had no female child (always = 1.3%, occasionally = 2.6% & rarely = 0.5%), also 108 (4.5%) admitted that their intimate partners forced them to become pregnant because they wanted a male child (always = 1.5%, occasionally = 2.8% & rarely 0.2%).

**Table 1:** Triggers of domestic violence against pregnant women ( n=2388)

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **S/N** | **Items** | **Always** | | **Occasionally** | | **Rarely** | | **Never** | |
|  |  | (f) | % | (f) | % | (f) | % | (f) | % |
|  | **Past experience of DV**  As a child, did you witness abuse in your home? |  | | 565 | 23.7 | 303 | 12.7 | 1405 | 58.8 |
| 115 | 4.8 |
|  | As a child, were you abused by anyone? | 101 | 4.2 | 478 | 20.0 | 301 | 12.6 | 1508 | 63.1 |
|  | Did you experience abuse in your previous pregnancy? | 70 | 2.9 | 189 | 7.9 | 79 | 3.3 | 2050 | 85.8 |
|  | Did your intimate partner witness abuse in his home? | 93 | 3.9 | 252 | 10.6 | 140 | 5.9 | 1903 | 79.7 |
|  | When your intimate partner was a child was he abused by anyone? | 87 | 3.6 | 242 | 10.1 | 181 | 7.6 | 1878 | 78.6 |
|  |  |  | **3.88** |  | **14.46** |  | **8.82** |  | **73.20** |
|  | **Pregnancy induced factors** |  |  |  |  |  |  |  |  |
|  | Does your partner abuse you because he did not plan for the pregnancy? | 57 | 2.4 | 88 | 3.7 | 43 | 1.8 | 2200 | 92.1 |
|  | Did you start experiencing Domestic Violence now that you are pregnant? | 87 | 3.6 | 182 | 7.6 | 81 | 3.4 | 2038 | 85.3 |
|  | Does he abuse you whenever you are pregnant? | 69 | 2.9 | 118 | 4.9 | 75 | 3.1 | 2126 | 89.0 |
|  | Did domestic violence increase when you became pregnant? | 104 | 4.4 | 181 | 7.6 | 87 | 3.6 | 2016 | 84.4 |
|  | Does domestic violence persist when you became pregnant? | 146 | 6.1 | 164 | 6.9 | 107 | 4.5 | 1971 | 82.5 |
|  |  |  | **3.88** |  | **6.14** |  | **2.68** |  | **86.66** |
|  | **Drug and substance abuse** |  |  |  |  |  |  |  |  |
|  | Does your intimate partner drink alcohol? | 161 | 6.7 | 598 | 25.0 | 206 | 8.6 | 1423 | 59.6 |
|  | Does he abuse you when he is drunk? | 42 | 1.8 | 99 | 4.1 | 34 | 1.4 | 2213 | 92.7 |
|  | Does your intimate partner smoke? | 70 | 2.9 | 101 | 4.2 | 25 | 1.0 | 2192 | 91.8 |
|  | Does he abuse you when he has smoked? | 15 | 0.6 | 62 | 2.6 | 24 | 1.0 | 2287 | 95.8 |
|  | Was he drinking alcohol before you got pregnant? | 161 | 6.7 | 342 | 14.3 | 99 | 4.1 | 1786 | 74.8 |
|  | Was he smoking before you got pregnant? | 89 | 3.7 | 102 | 4.3 | 25 | 1.0 | 2172 | 91.0 |
|  |  |  | **3.73** |  | **9.04** |  | **2.85** |  | **84.28** |
|  | **Negative Influence of In-laws** |  |  |  |  |  |  |  |  |
|  | Do you have problems with your husband because of your in-laws? | 96 | 4.0 | 259 | 10.8 | 118 | 4.9 | 1915 | 80.2 |
|  | Do your in-laws instigate your intimate partner to abuse you? | 74 | 3.1 | 185 | 7.7 | 75 | 3.1 | 2054 | 86.0 |
|  |  |  | **3.55** |  | **9.25** |  | **4.0** |  | **83.10** |
|  | **Intimate partner infidelity** |  |  |  |  |  |  |  |  |
|  | Does your intimate partner abuse you because you have sexual relationship with someone else? | 26 | 1.1 | 73 | 3.1 | 21 | 0.9 | 2268 | 95.0 |
|  | Does your intimate partner abuse you because he has sexual relationship with someone else? | 98 | 4.8 | 167 | 7.0 | 69 | 2.9 | 2054 | 86.0 |
|  |  |  | **2.95** |  | **5.05** |  | **1.90** |  | **90.50** |
|  | **STD/HIV/AIDs positive status** |  |  |  |  |  |  |  |  |
|  | Does your husband abuse you because he thinks you infected him with sexual transmitted disease? | 20 | 0.8 | 73 | 3.1 | 14 | 0.6 | 2281 | 95.5 |
|  | Does your intimate partner abuse you when you accuse him of contracting sexual transmitted disease? | 38 | 1.6 | 68 | 2.8 | 26 | 1.1 | 2256 | 94.5 |
|  | Does your intimate partner abuse you because you have HIV/AID? | 18 | 0 .8 | 56 | 2.3 | 10 | 0.4 | 2304 | 96.5 |
|  | Does your intimate partner abuse you because he has HIV/AIDS? | 21 | 0 .9 | 52 | 2.2 | 10 | 0.4 | 2305 | 96.5 |
|  |  |  | **1.03** |  | **2.60** |  | **0.63** |  | **95.75** |
|  | **Male child preference** |  |  |  |  |  |  |  |  |
|  | Does your intimate partner get angry at you because you have not had a male child? | 32 | 1.3 | 63 | 2.6 | 13 | 0.5 | 2280 | 95.5 |
|  | Does your intimate partner mock at you because you have not given him a male child? | 21 | 0.9 | 54 | 2.3 | 11 | 0.5 | 2302 | 96.4 |
|  | Does your intimate partner insist you get pregnant against your wish because he wants a male child? | 35 | 1.5 | 68 | 2.8 | 5 | 0.2 | 2280 | 95.5 |
|  | **Cluster %** |  | **1.23** |  | **2.57** |  | **0.40** |  | **95.80** |

***Discussion***

The findings of the study have revealed that there were multiple triggers of DV such as past experience of DV (3.88%), pregnancy induced factors (3.88%), negative influence of in-laws (3.55%), intimate partner infidelity (2.95%), drug and substance abuse (2.10%) male child preference (1.23%) and STI/HIV/AIDS positive status (1.03%). This finding which is an indication that no one single factor can be pinned down as the trigger of DV during pregnancy agrees with the Ecological theory proposed by Heise (1998) which says that DV is a multi-faceted phenomenon grounded in an interaction among several factors across personal (or individual) relationship, family, community and more broadly societal spheres of influence.

Past experience of DV was the highest trigger of DV among the pregnant women. This is quite surprising but agrees with the findings of other researchers such as Shamu et.al. (2011), and Finnbogadóttir, Dykes and Wann-Hansson (2014) who also found that the strongest risk factor for DV during pregnancy was family history of DV. Similarly, Castro and Rua­z (2004) established significant association between parental background of fighting and women being beaten. This finding supports the social learning theory by Bandura (1977 & 1989) who proposed that exposure to DV in childhood may determine if the individual would become violent or become victim of violence in adulthood by means of observations and imitations Ofili and Ofili (2012), Diorgu and Abere (2014), all had posited that no one is born violent but violence is learnt from family members (parents, relatives and siblings), peers and role models.

As many as 983 (41.2%) of the women indicated that they witnessed abuse in their childhood at various frequencies and 880 (36.8%) were abused in their childhood. This can be explained by the postulation of the social learning theory that girls who witnessed or experienced DV in childhood would likely become victims of DV by their intimate partners in adulthood. The finding agrees with Makayoto et al (2013) who reported, that women who experienced DV during pregnancy were more likely to have witnessed maternal abuse in childhood. Simply put, girls whose mothers were abused may eventually end up being abused.

Also worthy of note is that 485 (20.4%) of pregnant women indicated that their intimate partners witnessed abuse in their childhood and 510 (21.3%) said their partners were abused in their childhood. This implies that boys whose fathers were abusers would become abusers themselves. Similar finding was made by Zora (2003) who found that boys who witnessed abuse in their homes were seven times more likely to batter. Castro, Peek-Asa and Ruiz (2003), Clark et al (2009) and Goldsmith (2006) opined that with exposure to parental violence, children who witnessed or were the victims of violence may learn to believe that violence is a reasonable way to resolve conflict between people and so will resort to being violent themselves

Some of the pregnant women experienced DV for the first time in their current pregnancy Centers for Disease Control (2011) had submitted that one in six abused women reported that her partner first abused her during pregnancy and also at least 4 to 8 percent of pregnant women report suffering abuse during pregnancy and 25% of women were abused for the first time during pregnancy. A number of reasons can be adduced for this, first, some pregnant women experience mood changes and become irritable at some point in their pregnancy, hence, a partner who is not experienced or is not aware that such change is pregnancy induced may not be patient with the pregnant partner. Again when a partner did not expect a pregnancy and is not prepared for it, he is more likely to take out his frustrations on the woman blaming her for the pregnancy as was shown by 188 (7.9%) of the respondents in the study who indicated that intimate partners abused them because they did not plan for the pregnancy.This is unfortunate because pregnancy, especially in an African home is usually welcomed with joy and expectation, and so one would have thought that the intimate partner would treat the pregnant woman with so much affection and care in order not to hurt the unborn child. However, with the current economic crisis in the country, pregnancy, especially one that comes after more than one child or outside wedlock may no longer be a thing of joy to the family especially the bread winner. Hence, unplanned pregnancy is likely to trigger DV against the pregnant woman where the intimate partner is not ready to be a father or is unable to provide financial support for the baby, especially in teenage pregnancy. In this case, perpetrators may include family members and relations.

With regards to drug and substance abuse, 965 (40.3%) of the respondents admitted that their intimate partners drink alcohol (always =6.7%, occasionally = 25.0% & rarely = 8.6%). Alcohol has the potential to affect emotion, behaviour, body and social relationships due to the altering of good judgment affecting ones mental state (Achalu, 2005, Ofili & Ofili , 2012), this could be the reason why it is associated with DV against women. It is therefore not surprising that 175 (7.3%) of the respondents reported that their intimate partners abused them when they were drunk (always = 1.8%, occasionally = 4.1% & rarely = 1.4%). Other researchers have also found that alcohol consumption by an intimate partner was significantly associated with DV during pregnancy (Olagbuji, Ezeanochie & Ande, 2010; Fawole, Abass & Fawole, 2010; Jeremiah, Kalio & Oriji, 2011; Shamu et al., 2013).

In the African context, it has been argued that the widespread abuse of partners emanates from the uneven distribution of power within traditional African marriage relationships and the exercise of power by the extended family over the married couple (Dutton & Nicholls, 2005; Chikwe & Ekechukwu, 2009). No wonder negative influence of in-laws ranked second in this study as the highest trigger of DV (always = 4.0%, occasionally = 9.25% & rarely = 3.55%). In many cases, the in-laws instigate the intimate partners to abuse the women as was found in this study (3.1%). This is not surprising because in Nigeria, Rivers State inclusive, in-laws have great influence in decision making which sometimes impact negatively on the couple. In some cases, the woman’s in-laws are the cause of problems in marriages. The finding of this study is also similar to Tokus, Ekuklu and Avcioglu (2010) who found that Turkish women who lived with more than four people in their homes, was a risk factor for physical violence. Cengiz, Kanawati and Tombul (2014) also reported that women who lived with large extended families were at significantly higher risk of DV during pregnancy in comparison with the pregnant women who lived within a core family.

The finding that male child preference was a trigger of DV, though the lowest among the pregnant women with a cumulative positive response of 4.2% (always = 1.23%, occasionally = 2.57% & rarely = 0.4%) is disheartening but not unexpected. The pregnant women reported that their intimate partners insisted they got pregnant against their wish (always 1.5%, occasionally 2.8%), got angry at them (always 1.3%, occasionally 2.6%) and mocked them (always 0.9%, occasionally 2.3%) because they did not have male children for them. This finding is disheartening because it corroborates Iwuji’s (2014) position that male child preference still exist in Nigeria especially in the Southern part. The society still places more value on having male children than female children, placing the girl child at a disadvantaged position in the society (Federal Ministry of Women Affairs and Social Development, 2006). In this age and time, the least that is expected of Nigerians is to live beyond the primitive mentality of not having equal regards for female and male children. This mentality, unfortunately, is found also among the highly educated and well placed individuals who have been exposed to Western civilization. This finding is similar to that of Margaret (2008) in a study found that male child preference was a trigger of DV. This is unfortunate and unacceptable because it goes to show that women are still held responsible for not giving birth to male children. This avoidable situation may cause tension and strain in relationships and the likelihood of having other wives or infidelity which will further trigger DV. Also the intimate partner insistence that the women get pregnant against her wish speaks of control over the woman’s reproductive life which has been adjudged a form of DV.

***Conclusions***

Based on the findings of this study, it is concluded that there are multiple triggers of domestic violence against pregnant women in Rivers State. Domestic violence is learned especially from the home and societal and cultural issues such as the extended family system, and male child inheritance aids domestic violence.

***Recommendations***

Based on the conclusions of the study the following recommendations are made.

1. Government should collaborate with non-governmental organizations like The Nigeria Stability and Reconciliation Programme (NSRP), Rivers State Observatory on Violence Against Women and Girls, to gather data and implement VAPP Act towards eradicating DV in the State.
2. 2.Government should create more awareness by collaborating with private television and radio stations to anchor free forum where health and social consequences of domestic violence can be aired frequently not just on international women’s’ day.

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**INFLUENCE OF SEX ON THE EFFECT OF HEALTH EDUCATION INTERVENTION ON KNOWLEDGE OF CONTRACEPTION AMONG ADOLESCENTS IN RIVERS STATE**

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***Abstract***

*The study was a pre-test post-test quasi experiment aimed at investigating the influence of sex on the effect of health education intervention on knowledge of contraception among adolescents in Rivers State. A self-structured and validated questionnaire with reliability of .82 was used to elicit data from 424 participants. Simple random sampling technique was used to select intact SS1, SS2 and SS3 classes from two University Demonstration Secondary Schools in Rivers State who formed the experimental and control group. Mean, standard deviation and ANCOVA were used to analyze the data collected. From the result of the analysis, it was found that sex did not influence the effect of health education intervention on the knowledge of contraception among the adolescents* (F1, 421=2.62 >Fcal=.457, P >0.05). *Based on this finding it was concluded that male and female adolescents were not different in their comprehension of facts concerning contraception. It was, therefore, recommended among others that course content on contraception remain the same for adolescents in all secondary schools irrespective of sex.*

**Keywords:** Contraception, Adolescents, Knowledge, sex

***Introduction***

Contraception is a term that envelops diverse forms of pregnancy prevention methods. It is an aspect of reproductive health enhancer. Knowledge of this type of contraception can be beneficial to individual and his community as a whole. Adolescents in their prime are sexually active and need much guidance to ensure proper and healthy reproductive future. This guidance comes from gaining the right knowledge. Contraception is not only a form of prevention of unwanted pregnancies but can also prevent some sexually transmitted infections. The major concept of contraception is seen as a method of preventing untimely or unwanted pregnancies by altering reproductive processes (Farlex, 2012). Various forms of contraception are appreciated among adults’ population of the world as over fifty percent of couples worldwide consume it (Okpere, 2005). Various types of contraception exist. Amongst these include, natural methods of contraception (Abstinence, rhythm method, withdrawal Billings, prolonged breastfeeding), traditional methods of contraception (herbs, wood carvings) and the modern methods of contraception (including the hormonal methods and barrier methods)

Adolescents might not have full access to these products because of their gender, financial stand, underage limit and limited knowledge on the right and best one for their use. Adolescents of different gender are characterized with different distinct changes that differentiate them from each other. The changes range from psychological to emotional, to physiological and cognitive development (Olukoya & Ferguson, 2002). Though the changes vary according to gender, they all result in making them matured individuals with complete components to exist and adapt to changes in their environment.

Nigeria as a developing country still holds some perceptions about contraception. Some hold the view that they are expensive, can lead to severe health problems, can damage the womb and as well cause discomfort. These factors have posed limitation to the utilization of contraception. Adolescents lack the proper and adequate knowledge on certain reproductive issues. They still need much learning and guidance to adapt and live healthy reproductive lives. Most especially, the knowledge of contraception might be determined by the gender of adolescents and could be due to the different bodily changes experienced at this age. This is why this study investigated the influence of gender on effect of health education intervention on knowledge of contraception among secondary school adolescents in Rivers State. This study also hypothesized that there was no significant effect of health education intervention on knowledge of contraception among secondary school adolescents in Rivers state was postulated and verified based on sex.

***Method***

This study adopted the pretest posttest quasi experimental design. It aimed at determining the knowledge level possessed by participants before intervention and after intervention among adolescents of secondary schools in Rivers state. Rivers State is a South-southern state in Nigeria with 23 Local Government Areas with Bayelsa State bounded on the West, Akwa Ibom andAbia States bounded by the East and Atlantic Ocean bounded by the South. Purposive sampling technique was used to select two staff secondary schools of Federal and State owned universities in Rivers state. The population for the study consisted of approximately 2500 students of University staff secondary schools located in Rivers State. A sample of 424 adolescents participated in the study as control and experimental groups. Simple random sampling was used to select intact classes across SS1, SS2 and SS3. A self-structured questionnaire was used to gather information for the study. The questionnaire was administered at pre-test and at post-test after the intervention.

An adapted instrument from Pathfinder International (1997) was used as the intervention instrument to provide information about contraception. Validity of the instrument was established by three experts from Health Education, and Measurement and Evaluation. The reliability of the instrument was determined using Pearson Product Moment with Spearman-Brown Order Statistics to obtained coefficient r of 0.82. Copies of the instrument were administered and retrieved on the spot. Mean scores and standard deviations were used to answer research question while ANCOVA was used to test the hypothesis.

***Results***

Research Question: What is the effect of health education intervention on knowledge of contraception among secondary school adolescents of in Rivers state based on sex?Data answering this research question is in Table 1 below:

Table 1:

***Gain Scores on the Effect of Health Education Intervention on Knowledge of contraception among Adolescent of University Staff Schools based on Sex Group***

|  |
| --- |
| Sex N Pre-Test Mean SD Post-Test Mean SD Gain Mean SD |

Intervention

Group Male 98 1.73 0.84 2.49 0.32 0.76 0.97

Female 123 1.76 0.39 2.4 0.19 0.70 0.34

Control

Group Male 94 1.65 0.27 1.76 0.16 0.11 0.14

Female 109 1.59 0.22 1.75 0.43 0.16 0.29

Data from Table 1above showed gain mean scores for knowledge on theeffect of health education intervention towards contraception among adolescent of schools based on sex. Both intervention and control groups showed increased gain mean scores but the gain scores in the intervention group (Male-0.76, Female-0.70) were higher than the control group (Male-0.11; Female-0.16). Also, the female showed higher gain in mean knowledge scores in both groups compare to their male counterparts.

**Hypothesis:** Health education intervention has no significant effect on knowledge of contraception among secondary school adolescents in Rivers state based on sex.

Data answering this research question is inn Table 2 below:

Table 2

***Summary of ANCOVA on Difference in Knowledge of Contraception among Secondary School Adolescents of University Staff Schools based on Sex Group***

|  |
| --- |
| **Source Type III Sum of Squares Df Mean Square F Sig.** |

Corrected Model 378.466 2 189.233 .469 .718

Intercept 130567.419 1 130567.419 323.721 .000

PREKNOW 205.518 1 205.518 .509 .549

SEX 184.495 3 184.495 .457 .570

Error 169803.201 421 403.333

Total 3112462.000 424

|  |
| --- |
| Corrected Total 170181.667 423 |
| F3,421=2.62, Fcal=.457, p>.05 |

The table above reveals that that there was no significant difference in knowledge of contraception among secondary school adolescents of Rivers State based on sex group since Fcal = .457 is less than Fcritical = 2.62. We therefore accept the null hypothesis at 5% level that health education intervention has no significant effect on knowledge of contraception among secondary school adolescents of Rivers state based on sex. (F1, 421=2.62 >Fcal=.457, P >0.05).

***Discussion***

From the results in Table 1, the knowledge of contraception gained by female participants increased after intervention as well as the knowledge of contraception gained by the male participants. This finding is supported by Shahamfar, Kishore and Shokhyash, (2007) finding which showed that after intervention, the knowledge of contraception possessed by men increased. Concurrently, Al-Dubhani et al., (2014) findings showed that women’s score on knowledge of contraceptives also increased after intervention. This is in consonant with the result of a study which showed that respondents’ knowledge about contraception increased significantly in intervention groups compared to the control group from recorded studies (Center for Research on Environment, Health, and Population Activities, CREHPA, 2004).

Consequently, the female participants showed more increase in their gain in mean knowledge compared to their male counterparts. This might be because the female experience more bodily changes at puberty than boys and these experienced changes continue till the peak of adulthood. This would raise more concern on their reproductive lives and more yearnings for increased knowledge. Applegate (1998) posited that young women are likely to exhibit changes in knowledge, attitude and behavioural changes towards reproductive health issues.

From the result obtained in Table 2 of this study, sex of respondents did not influence the effect of health education intervention on knowledge of contraception among adolescent in secondary schools in Rivers state. Though the female participants’ knowledge on contraception was higher after intervention than their male counterparts, it was statistically insignificant. This could be as result of both gender quests for increased knowledge on contraceptives issues. As they keep growing, they yearn more for knowledge on contraceptive issues and reproductive health issues that could be beneficial to them and even in their relationships so as to lead a healthy reproductive life that would help lead healthy lives.

***Conclusions and Recommendations***

Following from the results, it is concluded that male and female adolescents were not different in their comprehension of facts concerning contraception. The presence of the opposite sex posed no distraction for the adolescents in the teaching and learning process. Therefore, there may be no need to develop gender-sensitive education intervention about contraception for adolescents.

Based on the conclusions reached, the following recommendations were made.

* 1. Adolescents in all secondary schools should be taught the same content of contraception irrespective of sex.
  2. The teaching of contraception should be carried out in the same environment and at the same time for both male and female adolescents. They should not be separated. This is because the lessons learned by the male can be useful to their female friends and the lessons learned by the female folks can also be conveyed and as well be beneficial in relationships to both parties.
  3. Trained health educators and personnel should handle the subject matter to ensure proper and adequate knowledge dissemination and as well know how to handle the adolescents in the presence of excesses. Some of the adolescents would be able to confide in and go for counseling when they discover the subject area is handled by a professional.

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**POPULATION AND FAMILY LIFE EDUCATION NEEDS OF COMMUNITY MEMBERS (ADULT AND ADOLESCENT) IN PLATEAU STATE, NIGERIA**

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***Abstract***

*The study is to find out the Population and Family Life Education Needs of Community Members in Plateau State, Nigeria. To achieve this purpose one research question and one null hypothesis were postulated to guide the study. A cross-sectional research design was utilized for the study. The population for the study consisted of all community members (adolescents and adults) which is estimated at two million one hundred and seventy-six thousand one hundred and thirty- eight (2,176,138) that is males 1,079,902 and females 1,096,236. A sample size of 802 community members was drawn from the population using a multi-stage sampling procedure for the study. The instrument used for data collection for the study was Questionnaire. Descriptive statistic of frequencies and percentages was used to analyze the data collected and presented in Table. Chi-square statistic was used to test hypothesis at .05 level of significance. The findings of the study revealed that majority of community members indicated that all the items identified were their population and Family Life education needs. There was no significant difference in the mean responses of the respondents regarding the population and Family Life education needs according to age. Based on the findings, discussion of findings and conclusion, it was recommended that Teachers of Health Education, Public Health Educators in conjunction with Community Development Officers, Adult Education Officers and Agricultural Extension Workers should organize and mount seminars and workshops for community members to acquire knowledge, build positive attitudes, skills, values and abilities in providing their population and Family Life needs.*

***Keywords****: Population, Population Education, Family Life Education, Community*

***Introduction***

In order to both survive and thrive, plants require certain soil nutrients and atmospheric conditions and certain amount of water and sunlight, without which each of these in proper amounts, plants will eventually wither and die. Similarly, in order to both survive and thrive well physically, mentally and socially human beings must have certain Population and Family Life needs such as safety and security of themselves and their properties, access to sufficient sources of water supply, clean air to breath, food to eat and employment to work and earn a living

Population refers to all people who live in a particular area. Beresford, Parvaneh and Patricia (2005) defined population education as a study of population situation and its implications for the family, community, nation and the world, with a view to developing in the people responsible attitudes, values and skills through the process of rational and informed decision making for better quality of life of the present and the future generations. International Planned Parenthood Federation (IPPF,2005) explained Family Life Education as an educational process designed to assist young people in their developmental stages (physical, emotional and moral) as they prepare for adulthood, marriage, parenthood and ageing as well as their social relationship in the socio-cultural context of the family and society. Population and Family Life education developed as an educational specialty around the turn of the twentieth century in response to the social changing conditions of the time in America. Lewis-Rowley, Brasher, Moss, Duncan and Stiles (1993) stated that changes such as urbanization, industrialization and globalization resulted in increased population and Family Life education needs of the community members. Population and Family Life education is important to assist people to understand and acquire knowledge, build up positive attitudes and skills to cope with changes in their lives and in the society in which they live. It is as well important in assisting the youth to develop and acquire knowledge, build up positive attitudes, skills, abilities and values which are necessary in meeting their needs in adulthood, marriage, parenthood, ageing as well as participating in community life activities (Population & Development Cell Central Board of Secondary Education-P&DCCBSE, 2002).

Need is a strong feeling that someone has for something or somebody or a strong desire to achieve targeted goals or objectives. National Guideline Task Force (1996) spelt out community needs such as: access to age-appropriate comprehensive sexuality education, access to protective measures to prevent teenage pregnancy and spread of sexually transmitted infection including HIV and AIDS, protection from violence against adolescents and sexual abuse, accurate and comprehensive information on their sexuality, access to a range of youth-friendly services to promote their sexual and reproductive health, pure air to breathe free of airborne infective agents of diseases, adequate potable water supply free of water borne infective agents of disease, adequate balance diet that contains all the nutrients to replace the worn out tissues and build up the body to protect it against infection, security for themselves, their children and properties. Population and family life education needs of community members according to Population and Development Education Cell Central Board of Secondary Education-PDECOBSE (2002) are clean environment, adequate and descent house accommodation, adequate land to build houses upon and space for children to play, proper waste collection and disposal system, good road network to facilitate free movement of community members, knowledge and skills acquisition through training. Population and family life education needs according to Huismam and Zoomers (2009) safe sex life, sexual relationship without fear of pregnancy and infections, sexual fulfillment, selection of marriage partners, need to have children, freedom to decide the number and space of their children, need to access safe, effective, affordable and acceptable methods of family planning of their choices, need to access appropriate health care services that will enable women to go safely through pregnancy and child birth and to have a healthy infant, authentic information about the process of growing up, sex and sexuality. The population education needs of the community members according to UNESCO (2013) are protection from violence against adolescents and sexual abuse, accurate and comprehensive information on their sexuality, access to a range of youth-friendly services to promote their sexual and reproductive health, access to education, pure air free of airborne infective agents of diseases, adequate potable water supply free of water borne infective agents of disease, adequate balance diet that contains all the nutrients to replace the worn out tissues and build up the body to protect it against infection and security for themselves, their properties and their children. United Nation Population Fund (UNFPA, 2013) stated that countries with high rates of child marriage and adolescent-girl pregnancy, and low levels of satisfied demand for family planning should consider a multi-pronged approach across sectors that encourage delayed marriage and motherhood for girls. Such approaches should include the enforcement of laws against child marriage, including the enactment and enforcement of statutes that raise the minimum age at marriage to 18 for both girls and boys. Ansar (2001) defined community as a group of people who live in particular geographical location and work for the common goals rather than for specific interest and generally have communalities like language, expression, habit, religious rituals, social customs, behaviours and norms to meet their population needs; and in this case, in Plateau State.

Population and Family Life Education is an important aspect of training that is capable of assisting the community members to acquire knowledge, build up positive attitudes, skills, abilities and values to meet their needs such as access to decent accommodations, food and nutrition and potable water supply. Others are adequate security, protective measures against teenage pregnancy, early marriage and spread of sexually transmitted infections including HIV and AIDS.

However, these Population and Family Life Education Needs are not met in Plateau State as observed and revealed by the study findings that there are prevailing circumstances such as lack of adequate population and family life education or awareness that should prepare them for shouldering adequate responsibilities in adulthood, marriage, parenthood, ageing for the provision of decent accommodations, food and nutrition, and potable water supply for their families.

Inability to meet the above mentioned responsibilities led to early marriage, teenage pregnancy, frequent births, overpopulation, overcrowding, child abuse and neglect, rape, poverty and adolescents’ dropout from schools. These prevailing population and family life situations are worrisome and unacceptable which create disparity that justifies the need for this study in Plateau State, Nigeria.

The purpose of the study was to find out the population and family life education needs of the community members. One research question was formulated for this study and one hypothesis was postulated to guide the study and tested at .05 level of significance.

**Research Question**

What are the population and family life education needs of the community members?

**Hypothesis**

There is no significant difference in the mean percentage responses of the respondents’ regarding the population and family life education needs of the community members based on age.

**Significance of the Study.**

This study is significant to the parents, family members, teachers of population education, public health educators, and population and family life policy makers in the field of population and family life education and the general public to acquire knowledge, build up positive attitudes, skills, abilities and values on population and family life issues and apply them to provide population and family life education needs for themselves and their families.

**Scope of the Study.**

The study covered community members (adolescents and adults) in the three Senatorial zones of Plateau State. It identified the population and family life education needs of community members such as accurate and comprehensive information on their sexuality, support and skills to postpone early sexual intercourse, protective measures against teenage pregnancy and sexually transmitted infections including HIV and AIDS, protection against sexual abuse and exploitation. Factor capable of influencing the study such as age was examined.

***Method***

Cross-Sectional survey research design was employed for this study. Cross-sectional research design is the one that produces a ‘snapshot’ of a population at a particular point in time. Mukul and Deepa (2013) explained Cross-sectional research design as a representative sample of the population consisting of individuals of different ages, different occupations, different educational level and income level, and residing in different parts of the country or state where information are collected for the study under investigation. The study was carried out in Plateau State. Plateau State is one of the thirty-six States of the Federation, located at the North Central Region of the Country. It has seventeen (17) Local Government Areas, eighty-five (85 ) Districts, three hundred and twenty-five (325) Wards and two thousand two hundred and sixty-one Villages (2,261) with a population of 3,206,531 million (male: 1,598,998 and female: 1,607,533**)** according to National Population Commission-NPC,2006. The people of Plateau State are predominantly farmers; few are business people and civil servants. Agricultural products are produced on large scales which include: acha, potatoes, ground nuts, vegetables of various types which attract influx of business men and women from far and near to Plateau State. Majority of the families are polygamous and few are monogamous.

The Population for the study consisted of all community members (adults and adolescents) in Plateau State, which is estimated at about two million one hundred and twenty-three thousand seven hundred and seventeen (2,123,717), that is adolescents (10-24years) was 1,024,181 and adults 1,099,536 according to National Population Commission-NPC, 2006.

The sample size for the study consisted of eight hundred and two (802) community members, in the three Senatorial zone of Plateau State, Nigeria. Multi-stage sampling procedure was employed to draw up this sample size for the study. The instrument used for data collection for this study was questionnaire.

Advocacy visit was paid to the community leaders of the sampled Districts/Wards/Villages to sensitize them, which created an enabling environment for smooth and accurate collection of data for the study.Six (6) research assistants were used, who were trained on the modalities for the administration, supervision, and interpretation of the instrument to illiterate respondents and retrieving the completed copies of the questionnaire at the end of the specified time period.

The copies of the completed questionnaires were crosschecked for completeness of information. The data collected for the study was analyzed using descriptive statistic of frequencies and percentages ranges from 0-39% are not community needs and 40% and above are community needs, and were presented in Table. The chi-square statistic was used to test hypothesis at .05 level of significance.

***Results***

Data in Table I show that majority of the community members indicated that their population needs included knowing/determining the objectives and importance of population education (92.3%), rationale for population education (88.2%), reading materials on population education (85.7%) and concept of population (82.7%)

Data in the Table further show that the community members indicated that their population growth needs were knowledge on the determinants of population growth (91.2%), education on planned population growth (Planned Parenthood) (91.3), information on concept and consequences of overpopulation (89.4%), education on benefits of small family size and welfare (89.0%) and information on benefits of delayed marriage (76.3%)

The Table further shows that majority of the community members indicated that their population changes needs were having information on the effects of population growth on economic, social and political life of the community members (93.4%), education on consequences of population changes upon the quality of life of the individual, family, nation and the world (90.9%), information on relationship between unemployment and crime (88.7), information on structure and composition of population (85.7%), information on the causes of urbanization and its related problems (e.g. overcrowding, pollution and traffic congestion) (85.2%).

Data also show that majority of the community members indicated that their food and nutrition needs were education on concept of balance diet and its importance on healthy development (95.1%), information on benefits of food and nutrition services (93.3), education on difference classes of nutrients (92.3%), education on nutrition counseling services (91.0%) and education on effects of family size on food quantity and quality (90.2%).

Data show that majority of community members indicated that their good housing and water supply needs were education on the importance of provision of potable water supply and its effects on human health (95.9%), information on good housing/environmental practices and its effects on health (94.5%), education on criteria for healthful housing and housing standards (91.2), information on overcrowding in housing and its effects on human health (90.9) and information on the importance of provision of sanitary conveniences in housing and its effects on human health (85.6%) and education on good housing to live in (91.2%).

Table 1

**Responses on Population and Family Life Education Needs of Community Members (n = 802)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **Yes** | | | | | | | **No** | | | | | | | | | | **Decision** | | | | |
| **S/N** | **Item** | **f** | | | **%** | | | | **f** | | | | | **%** | | | | |  | | | | |
| 1 | Concept of population | 664 | | | 82.7 | | | | 139 | | | | 17.3 | | | | | | Need | | | | |
| 2 | Objectives and importance of population education | 741 | | | 92.3 | | | | 62 | | | | 7.7 | | | | | | Need | | | | |
| 3 | Rationale/needs for population education | 708 | | | 88.2 | | | | 95 | | | | 11.8 | | | | | | Need | | | | |
| 4 | Reading materials on population education | 688 | | | 85.7 | | | | 115 | | | | 14.3 | | | | | | Need | | | | |
| 5 | Knowledge on determinants of population growth (e.g. fertility, mortality, migration) | 732 | | | 91.2 | | | | 71 | | | | 8.8 | | | | | | Need | | | | |
| 6 | Information on concept and consequences of overpopulation | 718 | | | 89.4 | | | | 85 | | | | 10.6 | | | | | | Need | | | | |
| 7 | Education on planned population growth | 733 | | | 91.3 | | | | 70 | | | | 8.7 | | | | | | Need | | | | |
| 8 | Information on benefits of delayed marriage | 614 | | | 76.3 | | | | 189 | | | | 23.5 | | | | | | Need | | | | |
| 9 | Education on benefits of small family size and welfare | 715 | | | 89.0 | | | | 88 | | | | 11.0 | | | | | | Need | | | | |
| 10 | Education on consequences of population changes upon the quality of life of the individual, family, nation and the world. | 730 | | | 90.9 | | | 73 | | | | 9.1 | | | | | | Need | | | | |
| 11 | Information on the effects of population growth on economic, social and political life of the community members | 750 | | | 93.4 | | | 53 | | | | 6.6 | | | | | Need | | | | |
| 12 | Information on causes of urbanization and its related problems (e.g. overcrowding, pollution, and traffic congestion). | 684 | | | 85.2 | | | 119 | | | | 14.8 | | | | | Need | | | | |
| 13 | Information on structure and composition of population | 688 | | | 85.7 | | | 115 | | | | 14.3 | | | | | Need | | | | |
| 14 | Information on relationship between unemployment and crime | 712 | | | 88.7 | | | 91 | | | | 11.3 | | | | | Need | | | | |
| 15 | Education on difference classes of nutrients | 741 | | 92.3 | | | 62 | | | | 7.7 | | | | | Need | | | |
| 16 | Education on concept of balance diet and its importance for healthy development | 764 | | 95.1 | | | 39 | | | | 4.9 | | | | | Need | | | |
| 17 | Education on nutrition counseling services | 731 | | 91.0 | | | 72 | | | | 9.0 | | | | | Need | | | |
| 18 | Information on benefits of food and nutrition services | 749 | | 93.3 | | | 54 | | | | 6.7 | | | | | Need | | | |
| 19 | Education on effects of family size on food quantity and quality | 724 | | 90.2 | | | 79 | | | | 9.8 | | | | | Need | | | |
| 20 | Information on good housing/environmental practices and its effects on health | 759 | 94.5 | | | 44 | | | | 5.5 | | | | | Need | | | | | |
| 21 | Education on criteria for healthful housing and housing standards | 732 | 91.2 | | | 71 | | | | 8.8 | | | | | Need | | | | | |
| 22 | Information on overcrowding in housing and its effects on human health | 730 | 90.9 | | | 73 | | | | 9.1 | | | | | Need | | | | | |
| 23 | Education on the importance of provision of potable water supply and its effects on human health | 770 | 95.9 | | | 33 | | | | 4.1 | | | | | Need | | | | | |
| 24 | Information on the importance of provision of sanitary conveniences in housing and its effects on human health | 687 | 85.6 | | | 116 | | | | 14.4 | | | | | Need | | | | | |
| 25 | Education on good housing to live in | 732 | 91.2 | | | 71 | | | | 8.8 | | | | | Need | | | | | |

**Hypothesis**

There is no significant difference in the mean responses of the respondents regarding the population and family life education needs of the community members based on age.

Table 2:

**Results of Chi-Square (χ2) Analysis of No Significant Difference in the Mean Responses of the Respondents Regarding the Population Family Life Education Needs of Community Members Based on Age (n=802).**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **Age** | | | | | | | | | |
| **S/N** | **Population Education Needs** | **Below 20** | | **20-40** | | **41 and above** | | **χ2-cal** | **df** | **P-value** | **Decision** |
|  |  | **Yes** | **No** | **Yes** | **No** | **Yes** | **No** |  |  |  |  |
| 1 | Population education needs | 125 | 19 | 418 | 20 | 198 | 22 | 7.23 | 2 | .109 | Fail to reject |
| 2 | population growth needs | 129 | 15 | 397 | 40 | 205 | 16 | 3.76 | 2 | .347 | Fail to reject |
| 3 | Population changes needs | 128 | 16 | 407 | 31 | 194 | 26 | 1.94 | 2 | .480 | Fail to reject |
| 4 | Food and nutrition needs | 132 | 12 | 407 | 30 | 209 | 12 | 1.45 | 2 | .178 | Fail to reject |
| 5 | Good housing and water supply needs | 134 | 10 | 412 | 25 | 212 | 9 | 2.67 | 2 | .460 | Fail to reject |
| 6 | Family life needs | 133 | 11 | 390 | 47 | 194 | 27 | 4.70 | 2 | .250 | Fail to reject |
| 7 | Family Relationship needs | 130 | 14 | 415 | 23 | 208 | 12 | 3.04 | 2 | .300 | Fail to reject |
| 8 | Family responsibility needs | 126 | 18 | 415 | 22 | 205 | 16 | 4.39 | 2 | .220 | Fail to reject |
| 9 | Reproductive health and sexuality needs | 119 | 25 | 406 | 31 | 195 | 26 | 14.25 | 2 | .008 | Reject |
| 10 | Family planning information and services Needs | 121 | 23 | 387 | 50 | 190 | 31 | 3.59 | 2 | .206 | Fail to reject |
| 11 | Prevention and management of STIs, HIV and AIDS Needs | 108 | 35 | 415 | 23 | 204 | 17 | 2.19 | 2 | .369 | Fail to reject |
| 12 | Marriage Needs | 135 | 9 | 419 | 18 | 211 | 10 | 7.08 | 2 | .230 | Fail to reject |
|  | **Cluster x2 value** |  |  |  |  |  |  | **4.69** | **2** | .**26** | **Fail to reject** |

Table 2 shows the grand calculated chi-square value of 4.69 with the corresponding value of.26. This implies that there was no significant deference in the mean responses regarding population and family life education needs of the community members according to age.The Table 2 further shows the calculated chi-square (χ2) values for the following components of population and family life education needs with their corresponding P-Values: Population education needs (χ2 = 7.23, P = .109), population growth needs (χ2 = 3.76, P = .347, Population changes needs (χ2= 1.94, P = .480), food and nutrition needs (χ2 = 1.45, P = .178), good housing and water supply needs (χ2 = 2.67, P = .460), family life needs (χ2 = 4.70, P = .250), family relationship needs (χ2 = 3.04, P = .300 and family responsibilities needs (x2 = 4.39, P = 220). The Table further shows the Chi-Square (χ2) calculated values and the corresponding P - values for family planning information and services needs (χ2 = 3.59, P = .206), prevention and management of STIs, HIV and AIDS needs (χ2 = 2.19, P = .369) and marriage needs (χ2 = 7.08, P = .230). Since the P–values are greater than .05 level of significance at two degrees of freedom the null hypothesis for these dimensions of needs was accepted. This implies that these needs were the same for all the age groups of the community members.

The Table further shows the calculated Chi-Square (χ2) value for reproductive health and sexuality education needs with a corresponding P–value of .008, which is less than .05 level of significance at two degrees of freedom. The null hypothesis is, therefore, rejected for this dimension. This implies that the reproductive health and sexuality needs differed according to age categories of the community members.

***Discussion***

Findings in the Table 1 show that population education, population growth, population changes, food and nutrition, good housing and potable water supply were the needs of the community members. These findings were expected and because they agree with the findings of National Guideline Task Force (1996), Development Education Cell Central Board of Secondary Education-PDECOBSE,1999 and UNESCO (2013) which revealed that decent houses, balance diets, clean environment and potable water supply were the population needs of the community members. The findings are also in line with that of Huisman and Zoomers (2009) and United Nation Population Fund-UNFPA, 2013 which revealed that safe sex life, sexual relationship without fear of pregnancy, freedom to decide the number and space of their children, longer birth intervals to reduce overall level of fertility and protection against child marriage and adolescent-girl pregnancy were the population and family life education needs of the community members.

Evidence obtained from Table 2 shows that there was no significant difference in the mean responses of the respondents’ regarding the population and family life education needs of the community members based on age. This finding was surprising and therefore not expected. This is because in population education matters, age plays a vital role. For instance, the decision making concerning when to marry, whom to marry, when to have children and the number of children to have are depended on the age of an individual. Age also plays vital role in the choice and use of family planning practices to be used. However, this finding disagreed with UNESCO (2002) which revealed that adolescents (10-24), adults (25-44) and aged (45-74) expressed their population and family life education needs differently. The implication of this finding is that more research should be carried out into this dimension to ascertain why the needs did not differ according to age categories.

***Conclusions***

Twenty-five population and family life education needs were identified. There was no significant difference in the mean responses of the respondents regarding population and family life education needs of community members based on age except for reproductive health and sexuality needs which differed according to age categories of the community members.

***Recommendation***

Teachers of Health Education, Public Health Educators in conjunction with Community Development Officers, Adult Education Officers and Agricultural Extension Workers should organize and mount seminars and workshops for community members to acquire knowledge, build up positive attitudes, skills, values and abilities and apply them to meet their population and family life education needs.

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**CURBING STUDENTS RESTIVENESS IN TERTIARY INSTITUTIONS IN NIGERIA THROUGH RECREATIONAL SPORTS**

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***Abstract***

*Educational institutions are established to provide holistic education to the learners and to help them acquire skills and competencies in various ways of human endeavour. This could only be achieved if there is peace in these institutions. Regrettably, this has not been the case especially at the tertiary institutions level in Nigeria. This paper examined the role of recreational sports in curbing students’ restiveness in tertiary institutions in Nigeria. It also discussed the status of recreational sports, causes of students’ restiveness as well as justification for students’ participation in recreational sports programme. The paper recommends among others: providing wide range of recreational programmes to cater for the varying needs of the students. It equally recommended the provision of adequate facilities and equipment and also maintaining them so as to motivate the students and sustain their interest in recreational sports programme.*

**Key Words:** Students, restiveness, tertiary institutions, recreational sports

***Introduction***

Education the world over has been accepted as a strong weapon for nation building. For any nation to survive and compete favourably with other nations, she must be able to transmit her knowledge and skills from generation to generation through a system known as education. In Nigeria like in any other nation, there are different levels of education starting from the primary and terminating at the tertiary institution level.

Tertiary institutions are institutions above secondary school level which provide education for people aged 16 and older in Universities, Polytechnics, Monotechnics, Colleges of Education, School of Health Technology and Sports Institutions as well as institutions offering correspondent courses. Walker (2004) defined tertiary institution as the third stage or level of education following the completion of secondary education. According to the National Policy on Education (NPE, 2004), the objectives for the establishment of these institutions include: to contribute to national development through high level relevant manpower training, developing and inculcating proper value for the survival of the individual and society, developing the intellectual skills which will enable the individuals to understand and appreciate their local and external environments. Others are, acquiring both physical and intellectual skills which will enable the individuals to be self-reliant and useful members of the society, to promote and encourage scholarship and community service, forge and cement national unity and promote national and international understanding and interaction and finally research.

Unfortunately, for several years, tertiary institutions in Nigeria have witnessed a lot of turbulent times. The situation has degenerated into different forms of vices ranging from cultism, drug abuse, sexual harassment, alcoholism, prostitution, arm brandishing, rape and vandalism. The unfortunate thing is that some of these vices are gradually finding their way to the secondary and even primary schools in Nigeria. (Atiatah, 2013).

This is a reminiscence of the larger society, since tertiary institutions form a small mirror of a larger society (Iroegbu, 2009). The Nigerian society as Neswen (1998) stated is unstable politically, economically, socially and ecologically and is often characterized by different forms of violent behaviours. It is either religious crises which often is between Moslems and Christians, communal clashes, kidnapping, arm robbery and rioting. At other times, it is clashes between Fulani herdsmen and farmers, between political parties or the masses protesting one government policy or the other. Example was the mass protest of oil subsidy removal by the Federal Government in 2012 which paralyzed all facets of the country’s economy for about one week. As if these problems were not enough, a Moslem religious sect Boko-Haram took up arms in 2009 against the Nigerian nation especially in the North-Eastern part of the country which has resulted in the loss of over 20,000 lives and property (Folasode, 2016). The author also stated that, recently a group which called itself Niger Delta Avengers and other sister groups have also taken up arms against the nation blowing up oil pipelines and also kidnapping, killing and maiming soldiers and oil workers. Besides, on the economic scene, the picture is no more booming because of economic recession. All these problems both in the tertiary institutions and the larger society call for immediate intervention in order to stem this tide and prevent it from degenerating into uncontrollable situation, and thereby derailing the existence of tertiary institutions in the society.

It should be noted that students in Nigerian tertiary institutions are youth who are full of youthful exuberance and have a lot of energy to dissipate. There is need therefore, to assist them channel this surplus energy towards worthwhile ventures that will be beneficial to them, their institutions and the nation at large. One way of doing this is the promotion of recreational sports practices in these institutions.

Recreation is defined in various ways by different experts in the field. To Ajisaje (1991) recreation is a worthwhile accepted leisure experience that provides immediate satisfaction to the individual who voluntarily gets involve in an activity which will enhance the quality of life. According to Richard, Kathryn, Craig and Lynn (1997) recreation is a diversion from work, a retooling of energy for work or positive and socially accepted leisure activity. Elendu (2005) defined recreation as physical or mental activities which an individual voluntarily participates during leisure time because of the enjoyment and satisfaction he or she finds in those activities. Angner (2008) defined recreation as any action that refreshes the mental attitudes of an individual. It is also a wholesome activity that is engaged in for pleasure. The author further explained that recreation may take different forms but the results are the same. This paper perceives recreation as worthwhile leisure activities one engages in based on his or her own volition due to satisfaction and personal fulfillment inherent in the activity. When recreation relates to sports, it is referred to as recreational sports.

Sports is a boundless series of physical activity, blended into a more general sphere of leisure creation and recreation; while some people look at sports as fun (Dagili, 2007). Jones (1989) perceived sports as an activity that involves formal rules and procedures, requires tactics and strategies, specialized neuromuscular skills and a high degree of difficulty and effort. The author further stated that sport is one form of recreation. Recreational sports therefore refer to those voluntary activities which through casual and organized participation, aims at expressing or improving physical fitness, mental and emotional well-being and forming relationship among the participants. At the tertiary institution levels, it includes such activities like soccer, basketball, volley ball, handball, table tennis and badminton. Others are swimming, chess, hockey, scrabble, draft, ludo to mention but a few. Umeakuka (1997) on his part identified a total of sixteen recreational activities that readily constitute the recreational pursuits of students. They include arts, craft, writing and speaking, social recreation, outdoor recreation and special events. Others are physical events, self-testing activities, drama, indoor games, music, voluntary service, formal activities, relay, yoga and meditation activities. The implication of the availability of these broad spectrums of recreational pursuits according to Chigbata (2007) is to afford an individual including students in tertiary institutions the opportunity to select any activity in which they are interested and which will provide the refreshment and fulfillment they need. Where this is not possible, coupled with the challenges associated with academic programmes in our tertiary institutions, the students become bored, impatient and dissatisfied which most often lead to restiveness.

Youth restiveness is a sustained protestation embarked upon to enforce desired outcome from a constituted authority by an organized body of youths (Elegbeleye, 2005). It is usually marked by violence and disruption of lawful and other academic activities in the campuses. At times lives are lost and property worth millions of naira are usually lost too. Recreational sports activities should be both active and passive for everyone. However, since these students are mostly adolescents who have high energies, which if not well deployed in a positive direction, might engage in youth restiveness; it is therefore better to plan recreational sports programmes that will be beneficial and optimize the energy and free time that they have. This therefore necessitates the recreational engagement of these students which is the crux of this paper. In pursuance of this, the paper discusses:

1. Status of recreation in tertiary institutions
2. Causes of students’ restiveness; and
3. The justification for students’ participation in recreational sports programme.

**Status of Recreation and Leisure Practices in Tertiary Institutions**

Everybody needs recreation, children, youth, adults the aged and both sexes, Udoh (1988). In fact, students of tertiary institutions are expected to participate in recreational sports activities most, because they are in their youthful years and are full of energy to dissipate. Besides, this set of students represent a separate group in the population and normally experience pressure on routine academics. Therefore, the out-come of boredom and tiredness is as a result of daily academic bout which makes it imperative for them to engage in restorative and recuperative activities, both active and passive in nature.

Regrettably, this is not the situation in most tertiary institutions today. That is why the institutions are brandished by the society as centres for developing and nurturing social vices (Adiniji & Abdullahi, 2009). The academic programmes in institutions of higher learning do not take into consonance the importance of recreation. Where these activities are introduced, they are not even monitored. In some institutions variety of recreational sports activities are not provided for varying needs of the students. Emphasis is usually on football and a few other major games; forgetting that variety is the spice of life. In a situation of this nature, the students’ work mostly involves reading, writing and listening to lecture at sitting position. They are mostly stressed by academic work and by the end, they will like to find outlet endowed on them by stress and strain of life.

Besides, scarcity of recreation and leisure activity facilities in tertiary institutions is a big cog in the recreation programmes (Atare & Sanubi, 2009). According to Awosika (1998) facilities present a sensitive area in all ramifications of recreational sports administration. They occupy such available position since their provision carries with them certain standards as determined by age, weight and experience of the users as well as the types of activities. Surely when adequate and well maintained facilities are in campuses there is possibility of having a good recreational programme that will occupy the free time of the students.

In some institutions, academic programmes are choked-up leaving no time for students for recreational sports activities. This is not fair; adequate time should be allotted for students to participate in leisure activities. Poor funding of recreational sports programmes is yet another problem faced by tertiary institutions in Nigeria. This lack of funds affects the provision of equipment and this invariably affect the recreational services rendered to students.

**Causes of Students Restiveness on Campuses**

Many studies have identified the causes of youth restiveness. Elegbeleye (2005) identified three major causes which include peer motivated excitement of being a student, the jingoistic pursuit of patriotic ideas and perceived victimization arising from economic exploitation. Besides Ofem and Ajayi (2008) and Anasi (2010) identified lack of humanitarian and social welfare, lack of good administration, corrupt practices of government officials, inadequate training programme, unemployment, inadequate facilities, lack of quality education as the reason for incessant youth restiveness. Some of these reasons will be discussed as they pertain to tertiary institutions in Nigeria.

Good administration is required for the growth and development of any institution. In Nigeria, most administrators are not appointed on merits. They are placed there by their god fathers who at times request kickbacks from those they placed on these so called “juicy offices”. These administrators exhibit the following characteristics while in office: failure to properly distinguish between what is public and what is private, leading to private appropriation of otherwise public resources (World Bank, 1997). Others are excessive rules and regulations which impede the functioning of the institutions, arbitrary increase of school fees and other charges and high handedness on both staff and students matters. Thus, in cases of this nature, the students are restive and agitate and are sometimes are violent in the least provocation.

Another cause of restiveness in tertiary institutions is poverty. According to Anasi (2010) poverty connotes inequality and social injustice and traumatizes the poor. More than 70 percent of people in Nigeria are in abject poverty, living below the poverty line, and one-third survive on less than US $1 dollar a day (Zacharia, 2006). Most students in tertiary institutions are from this kind of homes. They are in these institutions because the parents see tertiary education as the only means that can emancipate their wards from the challenges faced by them. These set of students are faced with many financial problems such as money to feed, buy textbooks and other materials, clothing, pay for accommodation and attend to other life requirements. Disillusioned, frustrated and dejected, such students seek for any opportunity to express their anger against the institution. Amorawo (2000) and Zakaria (2006) agreed that there is a relationship between poverty, loss of livelihood, inequality and youth restiveness.

Quality education has a direct bearing on national prestige, greatness and cohesion (Anasi, 2010). The author further stated that, the skills that young people acquire help determine their degree of patriotism and contributions to national integration and progress. Between 2000 and 2004, about 30 per cent of Nigerian youth between 10 and 24 were not enrolled in secondary schools (Population Reference Bureau, 2006). This might have been caused by prohibitive cost of acquiring education (Anasi, 2010). The author stated that the after effect of this situation is that thousands of young people roam the streets in cities in Nigeria. Those who manage to complete secondary school have no opportunities for tertiary education. Having been deprived the chance to reach their potential, they are disoriented and readily available for antisocial actions (Onyeikpe, 2007). Worse still, some who struggled to enroll in various educational institutions drop out due to lack of basic learning facilities as well as other personal problems. This situation is attributable to the dwindling resources of government at both federal, state and local levels as a result of corruption. Under this kind of situation, the students having remembered how much they suffered before gaining admission in school, are prone to violence as a means of expressing their dissatisfaction.

Behind social unrest and youth restiveness in the country is the agitation for equitable distribution of resources (Anasi, 2010). Most tertiary institutions in Nigeria have no regular supply of portable water, electricity and health facilities. These facilities are necessary to the students. Often times, some managements of our campuses toy with these essential things while in their offices and residential quarters, they make provision for expensive generators with public funds which supply them electricity while the students suffer. This attitude triggers violence with the accompanying slogan “We No Go Gree” meaning they will not allow that kind of situation to continue. Their action often lead to loss of lives, property as well as extension of academic calendar as long as the riot lasted.

Another cause of restiveness in our tertiary institutions is communication gap between the administrators, staff and students. According to (Anasi, 2010) communication creates room for sharing of information. It helps people express their thoughts and feelings, clarify problems and consider alternative ways of coping or adapting to their situation. Some administrators of our institutions only preach running open door administration, whereas the reverse is the case. Students and even their students’ union representatives often find it difficult to meet them in times of need. This creates tension, impatient and frustration in the students. It should be noted that effective communication promotes social cohesion. Students must have access to communication facilities, as well as being free to communicate with people making the decisions that affect them.

**Justification for Students Recreational Sports Practices in Tertiary Institutions**

There are many benefits derivable from engaging in recreational sports activities by students. For instance, scholars like Preb (2009) have documented such benefits to include: promotion of good health, reduction of stress and depression, character development, and promotion of democracy.

**Promotion of Good Health**

The primary contribution of recreation to the field of health lies in its values of preventing illness as well as promoting healthful and happy living. A few of the documented health benefits of staying, active include reduced obesity, reduction in risk of disease, an enhanced immune system and increased life expectancy and promotion of democracy (Ekong and Andrews, 2013). Obesity is a major health concern and is closely linked to physical inactivity. Overweight and or obesity is associated with increased risk for disease, mortality and chronic medical conditions such as coronary heart disease, diabetes, hypertension, arthritis, cardiovascular heart disease. A sure panacea to increased incidences of obesity and other associated disease conditions is participation in recreational sports activities.

Recreation sports also can enhance one’s immune system. Mooney, Stanten and Yeager (2002) reported that people who exercise for at least once a week were significantly less likely to fall sick than those who are sedentary. Recreation also increases life expectancy of the participants. According to Ekong and Andrews (2013) regular participation in physical activities reduce the risk of developing or dying from some of the leading causes of illness or death.

**Reduction of Stress and Depression**

Stress is a pattern of behavioural and physiological responses to cope with events that match or exceed an organism’s abilities (Gazzaniga and Heartherton, 1993). To Samuel (2012) stress is an unpleasant reaction one has when he or she perceives an event to be threatening. Depression on the other hand is a mental condition in which a person feels very sad and without enthusiasm (Hornby, 2010). The symptoms include feeling of loneliness, despair, calmness, worthlessness and sometimes thought of suicide. Depression is a disease that affect people of all ages including students. As regards stress, the tertiary institutions are stressful for they represent a period of change that requires teenagers to adapt. They are believed by many to be among the most stressful years in life (Ekong & Andrews, 2013). Some of the signs of stress are palpitation of the heart, rapid shallow breathing and dryness of the mouth and throat, while the psychological signs include among others irritability, tension or depression, impulsive behaviour and emotional instability.

Stress reduction and depression through recreational sports come from group activities that strengthen social tie and the calming effects of desirable outdoor setting. Generally, being more relaxed promote academic performance better interaction and a general well-being among the students and reduce stress and depression.

**Diversion from Violence**

Participation in recreational sports activities enable the students to maximally use their leisure hours wisely. They have little or no time for restiveness other than to play and read. Such calibre of students would not have time to involve in unproductive ventures like vandalism, cultism or planning to disrupt the academic work of the institution. It should be noted that one of the greatest social benefits of recreation is that engaging in recreation diverts attention from criminal activities. Violent crime in tertiary institutions is on the increase and it has become something of great concern. Participation in recreation helps one to relax, refreshes one’s self, reduces stress and tension and helps one to face life challenges with maturity instead of resorting to violence.

**Character Development**

Recreational sports contribute immensely to the character development of students. In recreation, especially in games and sports, participants play according to the rules and are expected to obey and respect officials. Appropriate sanctions are given to those who contravene the rules of the game. Participants are taught to be patriotic, selfless and co-operative. It should be noted that personal/social development chains have been an integral part of recreation or sports which is related to the attributes of affective domain such as self-esteem, courage, co-operation and fair play which moral and in turn enhances the whole role of ethical character development and also the person as a whole.

**Promotion of Democracy**

Democracy and recreational sports are alike in spirit. Democracy is committed to giving each individual the opportunity to grow fully, express himself, feel and achieve an abundant life. Recreation, which represents activity freely chosen offer the individual the opportunity for satisfaction, creative expression and the development of his God’s given potentials. Recreational activities foster the development of citizenship, community integration, obedience to constituted authority and intergroup relationship.

**Conclusion and Recommendations**

This paper focused on the role of recreation sports in curbing students’ restiveness in our tertiary institutions. The paper has revealed that students’ restiveness poses great danger to the development and peace in tertiary institutions in particular and the country at large and if this is allowed to continue, it may destroy the very future which the students are supposed to lead. This paper is of the view that if recreational sports activities are encouraged on campuses, it has the potential of instilling discipline in students, strength, knowledge, and skills needed to cope with the stress and strain of academic pursuits and take them away from crimes. The paper recommends that:

1. Wide range of recreational programmes to cater for the varying needs of the students be provided.
2. Adequate facilities and equipment should be provided and also maintained in order to provide, a clear and efficient programme for the students. This, apart from motivating the students to participate in recreational sports activities will also help in sustaining their interest.
3. Designated recreational centres around the hostels, should be created so that the students could engage themselves in recreational sports activities of their choice during leisure hours particularly, students who might not be interested in highly competitive games. The recreation centres should have badminton, volleyball courts, table tennis boards, monopoly, scrabble, chess and viewing centres.
4. There should be free flow of information between the students and the administrators of the institutions. This will promotes better understanding, trust and confidence among the students and the administrators.
5. Administrators of the tertiary institutions should ensure regular supply of water and electricity to the student to meet bolt their domestic and academic needs.

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**EXTENT AND PATTERNS OF UTILIZATION INSECTICIDE TREATED BED NETS AMONG ANTE-NATAL AND NURSING MOTHERS IN UDENU LOCAL GOVERNMENT OF ENUGU STATE OF NIGERIA**

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***Abstract***

*The study was designed to ascertain the extent and patterns of utilization of insecticide treated bed nets (ITNs) among ante-natal and nursing in Udenu Local Government Area of Enugu State. The descriptive cross section research design was employed. The instrument for data collection was the researcher structured questionnaire. The population for the study comprised all ante-natal and nursing mothers in Udenu LGA of Enugu State attending ante-natal and post-natal clinics in the private and government health centers. A sample size of 528 subjects were selected for the study. Means were used to answer the research questions while one way ANOVA statistic was used in testing all the hypotheses at .05 level of significance. The major findings from the study revealed that: Except antenatal mothers with none formal education who utilized ITNs to a low extent, others antenatal and nursing mothers with other levels of education utilized ITNs to a moderate extent. There was no significant difference in the utilization of ITNs among ante-natal and nursing mothers based on the level of education during pregnancy; while there was significant difference in protection of their young children with ITN’s based on level of education. There was no significant difference in the utilization of ITNs among ante-natal and nursing mother based on the period of the year during pregnancy, after childbirth and protection of their young children. The researcher recommended that the antenatal and nursing mothers should be adequately educated on the consequences of malaria in pregnancy and children below five years of age so that they will understand the need for early adoption and correct use of ITNs and as well as providing more ITNs to pregnant and nursing mothers.*

**Keywords:** Extent, Patterns, Utilization, Insecticides, Bednet, Antenatal and Nursing Mothers

***Introduction***

Brain, Abel, Habila, George, Emmanuel, William, Els, and Frank (2006) opined that malaria remains a major public health problem in sub-Sahara Africa. Though all segments of society are afflicted, children under 5 years of age (U-5) and pregnant woman (P-W) suffer most of the morbidity and mortality. They emphasized that the World Health Organization and Roll Back malaria initiative aims to decrease the burden of malaria disease through three proven interventions. The first is concerned with the prompt management of presumed malaria cases, that is immediate investigation, diagnosis, treatment or management of persons with malaria disease. The second is the intermittent preventive treatment of pregnant women. This, according to Thomson (1996) refers to the Nigeria policy on prevention of malaria which recommends giving women of all parities two doses of chloroquine as intermittent preventive treatment (IPT) in the second and third trimester of pregnancy. It has been observed that due to plasmodium resistance to choloroquine, sulfadoxine- pyrimethamine (SP) has been used to replace chloroquine. Two doses of SP is administered during the second and third trimester (May, Serra-Casas, Sanz, Aponti, Macete, Mandomando, Puvol, Berzosa, Debano, Aide, Sacarlal, Berrito, Alonso, & Mendendez 2008). The third intervention is the wide-spread use of insecticide treated bed nets (ITNs), in which individuals especially pregnant and nursing mothers and children are encouraged to sleep under it to protect them against mosquito bites.

Guyatt and Ochala (2003) defined insecticide treated bed net as a bed net that has been treated with insecticide to protect against mosquitoes and malaria. They maintained that the provision of insecticide-treated bed nets (ITNs) is universally accepted as an efficacious and essential public health service in most parts of sub-Saharan African malaria endemic areas. On the other hand, Olusola, Moshe and Olayemi (2008) described a mosquito net as an insecticide treated net (ITN), if it was pre-factory-treated or has been dipped in insecticide within the last 6-12 months.

Kilama (2000) noted that, over the years, various attempts to reduce, control or eliminate malaria globally and at country level have not been successful because most measures instituted would not be sustained long enough to accomplish the task. Besides, the lack of fund and inability of national malaria control programmes to apply appropriate epidemiological and socio-cultural aspects to control programmes hamper efforts to control the disease. In response to the need for low-cost preventive measures, Adongo, Kirkwood and Kendall (2005) stated that renewed attention has been directed to assessing the potential benefits of insecticide treated bed nets (ITNs), which reduce man-vector contact and child mortality and morbidity. They indicated that the impressive results achieved from efficacy trials of ITNs in sub-Saharan Africa have given hope for programmes to prevent and control malaria related morbidity and mortality. Unfortunately, most people see bed nets as a nuisance reduction tool, which means that they will be used by adults instead of children to reduce nuisance caused by mosquitoes (Adongo, Kirkwood & Kendal, 2005). However, WHO, CDS and RBM (2002) stated that Roll Back Malaria global partnership promotes the use of ITNs for everyone at risk of malaria especially children and pregnant women, irrespective of extent of use.

Firefox (2010) defined extent as the point or degree to which something extents. However, the point or degree could be the coverage, range, limit, surface area or scope to which something might extend, indicating the utilization of ITNs among ante-natal and nursing mothers in Udenu Local Government Area where the present study was conducted. In this context, extent of utilization of ITNs may indicate the degree by which ITNs are being utilized at a particular period of time among nursing mothers.

Whitehurst and Jaco (1985) purported that utilization is the use or patronage of health services by the target population or by the people to whom the services are designed for. In this present study, utilization of ITNs refers to the use of ITNs by ante-natal and nursing mothers for the protection against infectious mosquitoes. Ante-natal mothers are pregnant women that are expecting to give birth to a baby and are required to obtain complete ante-natal services including ITNs and ensure good gestational period while nursing mother is a woman who feeds a baby on the breast, hold a baby or a child on the knees, clasps caressingly, and gives special care to him or her. In this study, a nursing mother is a woman who feeds a baby on the breasts, provides modern lactational services to the child such as exclusive breast feeding within the first six months of age, obtain immunization services and adequate use of ITNs especially for the under five years of age. Person (2007) stated that ante-natal care (ANC) is medical services given to women who are going to have a baby. These services include prevention and treatment of anemia; prevention, detection and treatment of malaria; service against tuberculosis, sexually transmitted infections (STIs) and HIV and tetanus toxoid immunizations. The author further emphasized that ANC is an opportunity for providers to promote the benefit of skilled attendance at birth and post-partum or post-natal care, and to discuss new borne care and optimal birth spacing. It is also an essential link where the benefits and the pattern of use of ITNs are being discussed.

Pattern is regular way in which something happens, develop or is done. Predemore, Andrew and Spivak (2003) classified patterns into three main types. These include demographic, temporal and spatial patterns (or variations). Maris (ss198s1) and Stillion (1985) described demographic variations as patterns that is concerned with variables of age, gender, level of education, marital status, occupation, socio-economic and health status. In this study, variables of demographic variations were concerned with variables such as age, sex, marital status, occupation and education. The temporal variations are related to variables such as seasons, months, days of the week, presidential elections, public holidays, national holidays and so on (Predemore et al 2003). In this study, temporal variations were concerned with variables such as seasons, months, days of the week and period of the day. The use of time in utilization of ITNs is important because it may be morning, evening, night or during the day or rainy season, which are good periods for mosquito breeding and attack. Predemore et al (2003) described spatial variation or pattern based on geographic regions in a particular country which could be divided into economic and administrative regions or as a result of the mixture of structural and cultural factors, which may be west or eastern part of a country. In this study, spatial variations of utilization of ITNs were not utilized because Udenu Local Government is not an urban area.

Udenu Local Government Area is in guinea savanna zone. In view of this, there is tendency of presence of mosquitoes due to some fringing forest present. It is also clear that forested areas relatively harbour mosquitoes due to eat cooling effect of this area, occasioned by some elements of evapo transpiration. Also the area lines within double maxima regime of rainfall; and this very fact, makes the area a humid region that always favour weather for mosquito breeding. It was in line with this that the investigator focused on ascertaining the extent and patterns of utilization of ITNs among ante-natal and nursing mothers in Udenu Local Government Area of Enugu State based on the following questions:

1. What is the utilization of ITNs among ante-natal and nursing mothers in Udenu Local Government Area of Enugu State based on demographic patterns?
2. What is the utilization of ITNs among ante-natal and nursing mothers in Udenu Local Government of Enugu State according to temporal pattern?

The following hypotheses were postulated and tested at .05 level of significance

1. There is no significant different in the extent of utilization of ITNs among ante-natal and nursing mothers based on level of education.
2. There is no significant difference in the extent of utilization of ITNs among ante-natal and nursing mothers based on the period of the year.

***Method***

In order to achieve the purpose of this study, the cross-sectional design was employed, utilizing the cross-sectional method. The sample for the study consisted of 529 ante-natal and nursing mothers drawn by using a multi-staged sampling techniques without replacement to draw the sample. The questionnaire comprised most of the statements designed to obtain information from the bio-data of the respondents, inquiring into the patterns of utilization of ITNs among ante-natal and nursing mothers.

The respondents were required to indicate the extent of utilization of ITNs as follows; high extent, moderate extent, low extent and never extent with assigned values of 4, 3, 2 and 1 respectively. Face validity of the instrument was established by five experts from University of Nigeria, Nsukka. Spearman-Brown proficiency (correction) formula statistic was used to determine the reality of (MUPTIN). Based on this, reliability coefficient of 0.60 for MUPTIN was obtained and it was considered reliable enough for the achievement of the set objectives for this study. The researchers and research assistant administered 529 copies of MUPTIN to the respondents. The 529 copies of the questionnaires were collected back from the respondents on the spot to ensure high return rate. All properly completed copies of the instrument were utilized for data analysis.

The information from the questionnaire were coded using the statistical package for social sciences (SPSS) batch system to analyze the data. In determining the extent of utilization, mean score for each item or grand mean of each dimension was used to determine whether extent was high or low. It was used to answer all the research questions. In answering the research questions, the following scales were used. A score of 3.50-4.00 was regarded as high extent, 3.00-3.49 was regarded as moderate extent, 2.00-2.99 was regarded as low extent, and 1.00-1.99 was regarded as no extent. One way ANOVA statistic was used to test all the hypotheses at .05 level of significance.

***Results***

Table 1

***Utilization of ITNs among Ante-natal and Nursing Mothers Based on Level of Education***

Ante-natal mothers (n=218) Nursing mothers (n=310)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Items of utilization | None formal education (n=14)  1 | | Primary education (n=49)  2 | | Secondary education (n=99)  3 | | Tertiary education (n=56)  4 | | Non formal education (n=11)  1 | | Primary education (n=51)  2 | | Secondary education (n=163)  3 | | Tertiary education (n=85)  4 | |
| Accepted the Use of ITNs during pregnancy | 3.14 | TME | 3.47 | TME | 3.53 | THE | 3.45 | TME | 3.18 | TME | 3.51 | THE | 3.61 | THE | 3.58 | THE |
| Slept under ITNs during pregnancy | 2.86 | TLE | 3.33 | TME | 3.11 | TME | 3.30 | TME | 3.00 | TME | 3.31 | TME | 3.28 | ME | 3.34 | TME |
| Re-treated ITNs during pregnancy | 2.93 | TLE | 2.53 | TLE | 2.88 | TLE | 2.57 | TLE | 3.09 | TME | 2.92 | TLE | 2.88 | TLE | 2.82 | THE |
| Use ITNs during rainy seasons during pregnancy | 3.00 | TME | 3.41 | TME | 3.58 | THE | 3.79 | THE | 3.09 | TME | 3.65 | THE | 3.60 | THE | 3.78 | THE |
| Use ITNs during dry seasons during pregnancy | 2.71 | TLE | 2.69 | TLE | 2.87 | TLE | 2.79 | TLE | 3.00 | TME | 2.86 | TLE | 2.72 | TLE | 2.72 | THE |
| Use ITNs during day time during pregnancy | 2.36 | TLE | 2.55 | TLE | 2.43 | TME | 2.27 | TLE | 3.00 | TME | 2.35 | TLE | 2.47 | TLE | 2.16 | TLE |
| Use ITNs at night during pregnancy | 2.93 | TLE | 3.39 | TME | 3.58 | THE | 3.70 | THE | 3.09 | TME | 3.45 | TME | 3.60 | THE | 3.61 | THE |
| Feel hot under ITNs during pregnancy | 2.43 | TME | 2.78 | TLE | 2.93 | TLE | 3.04 | TME | 2.82 | TLE | 3.00 | TME | 3.09 | TME | 2.91 | TLE |
| Accepted the use of ITNs after child birth | 3.36 | TME | 3.45 | TME | 3.52 | THE | 3.75 | THE | 3.18 | TME | 3.49 | TME | 3.69 | THE | 3.59 | THE |
| Slept under ITNs after child birth | 3.21 | TME | 3.41 | TME | 3.44 | TME | 3.55 | THE | 3.27 | TME | 3.45 | TME | 3.48 | TME | 3.41 | TME |
| Retreated ITNs after child birth | 3.07 | TME | 2.45 | TLE | 2.87 | TLE | 2.71 | TLE | 3.27 | TME | 2.82 | TLE | 2.91 | TLE | 2.81 | TLE |
| Use ITNs during rainy season after child birth | 3.00 | TLE | 3.55 | THE | 3.67 | THE | 3.73 | THE | 3.18 | TME | 3.71 | THE | 3.58 | THE | 3.65 | THE |
| Use ITNs during dry season after child birth | 2.79 | TLE | 2.71 | TLE | 2.76 | TLE | 2.93 | TLE | 3.18 | TME | 3.00 | TME | 2.91 | TLE | 2.72 | TLE |
| Use ITNs in the day time after child birth | 3.71 | TME | 2.65 | TLE | 2.73 | TLE | 2.64 | TLE | 2.55 | TLE | 2.75 | TLE | 2.80 | TLE | 2.36 | TLE |
| Use ITNs at nigh after child birth | 3.29 | TLE | 3.39 | TME | 3.55 | THE | 3.80 | THE | 3.36 | TME | 3.59 | THE | 3.57 | THE | 3.60 | THE |
| Feel hot under ITNs after child birth | 2.71 | TME | 2.86 | TLM | 2.64 | THE | 3.00 | TME | 2.64 | THE | 2.90 | TLE | 2.99 | TLE | 2.99 | TLE |
| Protects young children against mosquito bites | 3.50 | TME | 3.63 | THE | 3.67 | THE | 3.70 | THE | 3.64 | THE | 3.65 | THE | 3.67 | THE | 3.71 | THE |
| Enlightens the older siblings on the need of ITNs use | 3.07 | TME | 3.53 | THE | 3.35 | TME | 3.52 | THE | 3.55 | THE | 3.35 | TME | 3.58 | THE | 3.45 | TME |
| Protects young children with ITNs during rainy season | 3.43 | TME | 3.63 | THE | 3.75 | THE | 3.71 | THE | 3.09 | TME | 3.61 | THE | 3.65 | THE | 3.64 | THE |
| Protects young children with ITNs during dry season | 3.00 | TME | 2.80 | TLE | 2.97 | TLE | 2.89 | TLE | 3.36 | TME | 2.90 | TLE | 3.02 | TME | 2.93 | TLE |
| Protects young children with ITNs during the night | 3.00 | TME | 3.33 | TME | 3.64 | THE | 3.61 | THE | 3.02 | TME | 3.75 | THE | 3.53 | THE | 3.64 | THE |
| **The grand mean** | **2.98** | **TLE** | **3.13** | **TME** | **3.21** | **TIME** | **3.26** | **TME** | **3.12** | **TME** | **3.24** | **TME** | **3.10** | **TME** | **3.21** | **TME** |

Data in Table 1 further show he pattern of ITNs utilization according to educational background. The data in table shows the grand mean value for mothers of tertiary education (=3.26) which was slightly higher than that of mother secondary with education ( = 3.21), primary education ( = 3.13). These imply that ante-natal mothers of these educational levels utilized ITNs to a moderate extent. Ante-natal mothers with no formal education had grand mean value of  = 2.98 value of mothers with implying that they utilized ITNs to a low extent. The table further indicates the grand mean score of primary education ( = 3.24) which was slightly higher than those of tertiary education ( = 3.21), non-formal educated ( = 3.12) and those in secondary education ( = 3.10). This implies that nursing mothers utilized ITNs to a moderate extent. The table further reveals that the mean value for mothers secondary with education ( = 2.73) which was slightly higher than that of non formal education ( = 2.71), primary education (= 2.65), tertiary education ( = 2.64). These imply that ante-natal mothers of these levels of education utilized ITNs in the day time to a low extent. The table also indicates the mean value of mothers with secondary education ( = 2.80) which was slightly higher than that mothers with primary education ( = 2.75) none formal education ( =2.55) and mothers with tertiary education) ( = 2.36). This indicates that nursing mothers also utilized ITNs to a low extent. The table also reveals that both ante-natal and nursing mothers of educated groups utilized ITNs to a low extent. The table also reveals that both antenatal and nursing mothers of all education levels utilized ITNs in the protection of their young children against mosquito bites (mothers with formal education  = 3.50, primary education  = 3.63, secondary education  = 3.67, tertiary education  = 3.70, nursing mothers with non-formal education = 3.64, primary education x = 3.65, secondary education  = 3.67 and tertiary education  = 3.71) utilized ITNs to low extent. Besides these two items all other items in the table had mean value which indicated low, moderate to a high extent of utilization.

Table 2

***Utilization of ITNs among Ante-natal and Nursing Mothers Based on Period of the Year***

Ante-natal mothers (n=218) Nursing mothers (n=310)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Items of utilization | None formal education (n=41)  1 | | | Primary education (n=84)  2 | | | Secondary education (n=8)  3 | | | | | | Tertiary education (n=85)  4 | | | | | Non formal education (n=74)  1 | | | | | Primary education (n=98)  2 | | | | | | Secondary education (n=7)  3 | | | | | Tertiary education (n=131)  4 | | | |
| Accepted the Use of ITNs during pregnancy | | 3.56 | THE | | 3.45 | TME | | | 3.00 | | TME | | 3.47 | | TME | | 3.55 | | | THE | | 3.55 | | | THE | | 3.00 | | | TME | | 3.62 | | | THE | |
| Slept under ITNs during pregnancy | | 3.29 | TME | | 3.04 | TME | | | 2.88 | | TLE | | 3.33 | | TME | | 3.54 | | | THE | | 3.08 | | | TME | | 2.89 | | | TLE | | 3.34 | | | TME | |
| Re-treated ITNs during pregnancy | | 2.71 | TLE | | 2.39 | TLE | | | 3.12 | | TME | | 3.02 | | TLE | | 3.22 | | | TME | | 2.51 | | | TLE | | 2.71 | | | TLE | | 2.98 | | | TLE | |
| Use ITNs during rainy seasons during pregnancy | | 3.51 | THE | | 3.62 | THE | | | 3.12 | | TME | | 3.55 | | THE | | 3.72 | | | TME | | 3.66 | | | THE | | 2.71 | | | TLE | | 3.63 | | | THE | |
| Use ITNs during dry seasons during pregnancy | | 2.83 | TLE | | 2.68 | TLE | | | 2.75 | | TLE | | 2.91 | | TLE | | 2.93 | | | TLE | | 2.47 | | | TLE | | 2.57 | | | TLE | | 2.87 | | | TLE | |
| Use ITNs during day time during pregnancy | | 2.68 | TLE | | 2.02 | TLE | | | 3.00 | | TLE | | 2.61 | | TLE | | 2.68 | | | TLE | | 1.84 | | | TME | | 1.71 | | | TME | | 2.66 | | | TLE | |
| Use ITNs at night during pregnancy | | 3.44 | TME | | 3.65 | THE | | | 2.38 | | TLE | | 3.54 | | THE | | 3.69 | | | THE | | 3.64 | | | THE | | 3.00 | | | TME | | 3.45 | | | TME | |
| Feel hot under ITNs during pregnancy | | 2.93 | TLE | | 2.95 | TLE | | | 2.75 | | TLE | | 2.82 | | TLE | | 3.19 | | | TME | | 3.01 | | | TME | | 3.00 | | | TME | | 2.92 | | | TLE | |
| Accepted the use of ITNs after child birth | | 3.54 | THE | | 3.61 | THE | | | 3.62 | | THE | | 3.49 | | TME | | 3.74 | | | THE | | 3.51 | | | THE | | 3.00 | | | TME | | 3.65 | | | THE | |
| Slept under ITNs after child birth | | 3.39 | TME | | 3.52 | THE | | | 3.13 | | TME | | 3.44 | | TME | | 3.62 | | | THE | | 3.36 | | | TME | | 3.00 | | | TLE | | 3.44 | | | TME | |
| Retreated ITNs after child birth | | 2.61 | TLE | | 2.64 | | | TLE | | 3.12 | | TME | | 2.88 | | TLE | | | 3.28 | | TME | | | 2.48 | | TLE | | 2.86 | | | TLE | | 2.95 | | | TLE | | |
| Use ITNs during rainy season after child birth | | 3.41 | TME | | 3.73 | THE | | | 3.25 | | TME | | 3.64 | | THE | | 3.73 | | | THE | | 3.61 | | | THE | | 2.57 | | | TLE | | 3.59 | | | THE | |
| Use ITNs during dry season after child birth | | 2.71 | TLE | | 2.79 | TLE | | | 3.00 | | TME | | 2.82 | | TLE | | 3.05 | | | TME | | 2.84 | | | TLE | | 2.57 | | | TME | | 2.83 | | | TLE | |
| Use ITNs in the day time after child birth | | 2.78 | TLE | | 2.46 | TLE | | | 2.50 | | TLE | | 2.88 | | TLE | | 2.84 | | | TLE | | 2.38 | | | TLE | | 3.00 | | | TME | | 2.76 | | | TLE | |
| Use ITNs at nigh after child birth | | 3.44 | TME | | 3.76 | THE | | | 2.75 | | TLE | | 3.49 | | TME | | 3.68 | | | THE | | 3.59 | | | THE | | 3.29 | | | TME | | 3.52 | | | THE | |
| Feel hot under ITNs after child birth | | 2.88 | TLE | | 2.74 | TLE | | | 2.25 | | TLE | | 2.84 | | TLE | | 3.05 | | | TME | | 2.89 | | | TLE | | 3.00 | | | TME | | 2.92 | | | THE | |
| Protects young children against mosquito bites | | 3.66 | THE | | 3.81 | THE | | | 2.50 | | TLE | | 3.61 | | THE | | 3.74 | | | THE | | 3.64 | | | THE | | 3.29 | | | TME | | 3.69 | | | THE | |
| Enlightens the older siblings on the need of ITNs use | | 3.46 | TME | | 3.50 | THE | | | 3.12 | | TME | | 3.34 | | TME | | 3.62 | | | THE | | 3.51 | | | THE | | 3.14 | | | TME | | 3.45 | | | TME | |
| Protects young children with ITNs during rainy season | | 3.59 | THE | | 3.74 | THE | | | 3.62 | | THE | | 3.71 | | THE | | 3.68 | | | THE | | 3.66 | | | THE | | 3.43 | | | TME | | 3.56 | | | THE | |
| Protects young children with ITNs during dry season | | 2.93 | TLE | | 2.96 | THE | | | 2.50 | | TLE | | 2.89 | | TLE | | 3.09 | | | TME | | 2.95 | | | TLE | | 2.71 | | | TLE | | 2.97 | | | TLE | |
| Protects young children with ITNs during the night | | 3.34 | TME | | 3.69 | THE | | | 2.75 | | TLE | | 3.51 | | THE | | 3.64 | | | THE | | 3.63 | | | THE | | 3.14 | | | TME | | 3.53 | | | THE | |
| **The grand mean** | | **2.98** | **TLE** | | **3.18** | **TME** | | | **2.91** | | **TIME** | | **3.23** | | **TME** | | **3.39** | | | **TME** | | **3.13** | | | **TME** | | **2.88** | | | **TME** | | **3.25** | | | **TME** | |

Data in Table 2 show that the grand mean value for day and night (=3.23) which was slightly higher than that of throughout the year ( = 3.18), and during the night only ( = 3.18). These means indicate that ante-natal mothers utilize ITNs to a moderate extent during the period of the year. The grand mean value for during the day only ( = 2.91). This implies that the antenatal mother utilized ITNs to a low extent. The table further reveals the grand mean value of throughout the year ( = 3.39) which is slightly higher than that of day and night only ( = 3.25), during the night only ( = 3.13), implying that nursing mothers utilized ITNs during those periods of the year to a moderate extent. The grand mean value for during the day only (= 2.88) implies that nursing mothers utilized ITNs to a low extent.

The table further indicates the mean score for day and night ( = 2.91) which was slightly higher than that of throughout the year ( = 2.83), during the day only ( = 2.75), and during the night only ( = 2.68). These imply that ante-natal mothers utilized ITNs to a low extent in the dry seasons during pregnancy within the period of the year. The table further reveals the mean values for throughout the year ( = 2.93) which was slightly higher than that of day and night ( = 2.87), during the day only ( = 2.57) and during the night only ( = 2.47). These imply that nursing mothers also utilized ITNs to a low extent. The value in the table further reveal the means value for day only ( = 3.00), which indicates that the antenatal mothers utilized ITNs to a moderate extent in the day time during pregnancy. The table also indicates mean values for throughout the year ( = 2.68) which was slightly higher than that of day and night (=2.61) and during the night only (=2.02). These imply that antenatal mothers utilized ITNs within those periods of the year to a low extent. The table further shows that the mean value for throughout the year ( = 2.68) which was slightly higher than that of day and night ( = 2.66). These imply that the mothers utilized ITNs in the day time during pregnancy to a low extent. The table further reveals mean value for night only ( = 1.84) which was slightly higher than that of day only ( = 1.71). This indicates that the nursing mothers utilized ITNs in the day time during pregnancy to no extent. Besides, these two items of utilization of ITNs during dry seasons and day time, all other items in the table indicate low, moderate to a high extent respectively.

Table 3

***Summary of One Way ANOVA Testing the Difference in the Utilization of ITNs among Antenatal and Nursing Mothers based on Level of Education***

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Sources of variation | Period of the year | Sum of squares (SS) | Df | Mean square (MS) | F-cal | P-value | Decision |
| During pregnancy | Between groups  Within groups | 28.211  8299.031 | 3  524 | 9.404  15.838 | .594 | .619 | Not Significant |
| After child birth | Between groups  Within groups | 129.257  7741.362 | 3  525 | 43.086  14.774 | 2.916 | .034 | Not Significant |
| Protection of their young children | Between groups  Within groups | 84.123  3805.787 | 3  524 | 28.041  7.263 | 3.861 | .009 | Significant |
| **Overall F-Value = 2.457, df = 3 and 524, P-value = 0221** | | | | |  |  |  |

The Table shows an overall F-value of 2.457 with a corresponding P-value of 0.221 at 3 and 524 degrees of freedom. Since P-value is greater than .05 level of significance, the cluster null hypothesis is therefore accepted. This implies that the extent of utilization of ITNs by antenatal and nursing mothers during pregnancy, after child birth and in protecting their young children against mosquito bite is the same.

The Table 3 further indicates the calculated F-value for utilization of ITNs among antenatal and nursing mothers during pregnancy (F= 594; P = .619) with its corresponding P-value, which is greater than .05 level of significance at 3 and 524 degrees of freedom. The null hypothesis of no significance difference in the utilization of ITNs among antenatal and nursing mothers based on level of education is therefore accepted. This implies that antenatal and nursing mothers utilization of ITNs during pregnancy is the same irrespective of their educational status. The table further shows the calculated F-values for after child birth (F = 2.96, P = .034) and protection of the young children (F =3.861, P = .009) with their corresponding P-values which are less than .05 level of significance at 3 and 524 degrees of freedom. The null hypothesis of no significant difference is therefore rejected. This implies that utilization pattern of ITNs by antennal and nursing mothers differed according to level of education.

Table 4

***Summary of One Way ANOVA Testing the Difference in the Utilization of ITNs among Antenatal and Nursing Mothers based on Temporal Pattern According to Period of the Year***

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Sources of variation | Period of the year | Sum of squares (SS) | Df | Mean square (MS) | F-cal | P-value | Decision |
| During pregnancy | Between groups  Within groups | 7.792  8319.4560 | 3  524 | 2.597  15.877 | .164 | .924 | Not Significant |
| After child birth | Between groups  Within groups | 19.655  7850.964 | 3  524 | 6.552  14.984 | .437 | .726 | Not Significant |
| Protection of their young children | Between groups  Within groups | 25.879  3864.030 | 3  524 | 8.626  7.374 | 1.170 | .321 | Not significant |
| **Overall F-Value = 0.590, df = 3 and 524, P-value = 0.657** | | |  |  |  |  |  |

The Table shows an overall F-value of 0.590 with a corresponding P-value of 0.657 at 3 and 524 degrees of freedom. Since P-value is greater than .05 level of significance, the cluster null hypothesis is therefore accepted. This implies that the extent of utilization of ITNs by antenatal and nursing mothers during pregnancy, after child birth and in protection of their young children against mosquito bite is the same.

Table 4 shows the calculated F-values for utilization of ITNs among antenatal and nursing mothers during pregnancy (F =.164; P = .942), after child birth (F = .437; P = .726), protection of their young children (F = 1.170; P = .321) with their corresponding P-values which are greater than .05 level of significance at 3 and 524 degrees of freedom. The null hypothesis of no significance difference in the utilization of ITNs among antenatal and nursing mothers based on period of the year of ITNs use was therefore accepted. This implies that the utilization of ITNs among antenatal and nursing mothers to period of the year was the same.

***Discussion***

Except antenatal mothers with non-formal education who utilized ITNs to a low extent, pregnant and nursing mothers with other level of education utilized ITNs to a moderate extent (Table 1). This finding is consistent with Rachel, Hasifa, Sara, Robert and Simon (2010) opinion that the least poor and most educated were still significantly more likely to own and use bed nets than their poorer and less well educated counterparts. They further reported that usage of ITNs by school age children was also strongly associated with educational level of the household heads. Similarly, Jombo, Alao and Gyoh (2011) opined that educational and economic factors were found to significantly influence ITNs utilization in the community. The finding is also consistent with the findings of Eisele, eating, Littrell, Larsen and Macintyre (2009) who found maternal education to be an inconsistent determinant of bed net use in their study on ITNs use and maternal education across 15 African countries.

Except nursing mothers who utilized ITNs during the day to a low extent, pregnant and antenatal mothers utilized ITNS during other periods to a moderate extent (Table 2). The finding in the table indicated that both antenatal and nursing mothers utilized the ITNs throughout the year; which embraced the RBM initiatives of ITNs utilization. The finding is consistent with Laura’s (2007) study on social learning behaviour. Laura revealed that once people start using a mosquito bed net, they should continue. The finding is also consistent with Binka and Adongo (1997) opinion that people could be motivated to use ITNs if they gained appreciation of the fact that although not as high as during the raining season, the risk of contracting malaria persists throughout the year. The finding contradicts with that of Rodriguez, Penilla et al (2003) finding that ITNs that ITNs compliance was found to be very high in the rainy season but drops substantially in the hot dry season. Hypotheses of no significant difference in the utilization of ITNs according level of education was accepted. The reason may be that most of the mothers attended antenatal clinics where the benefits of ITNs use are discussed.

***Conclusion***

On the basis of the findings and discussion, the following conclusions were reached:

1. Utilization of ITNs did not vary according to level of education
2. There was not difference in the utilization of ITNs according to temporal variation.

***Recommendation***

Antenatal and nursing mothers should be adequately educated on the consequences of malaria in pregnancy and children below five years of age so that they will understand the need for early adoption and correct use of ITNs. Addition efforts should be intensified in the distribution of ITNs to pregnant and nursing mothers.

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**SERVICE DELIVERY, CONSTRAINS AND PROSPECTS OF PORTABLE WATER SUPPLY AND SANITATION IN BENUE STATE: A CASE STUDY OF WATERAID NIGERIA**

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***Abstract***

*The purpose of this study was to assess the service delivery, constraints and prospects of prospects of portable water supply and sanitation in Benue State: A case study of WaterAid Nigeria. Thirteen objectives with corresponding research questions and three null hypotheses were postulated to guide the study. The study utilized case study research design. The population for the study comprised 348 respondents. The instrument sued for data collection was questionnaire. The data collected were analyzed using frequency, percentages, mean t-Test and Chi-square. The results shows that portable water supply and sanitation was inadequate ( 1.38) (refuse disposal (1.38) sewage disposal (1.93), open dumping/burning (66.1%) and burying (27.9%) were the methods of refuse disposal; inadequate funding, lack of legislation and inadequate manpower were the major constraints to water supply and sanitation. The results further showed that the prospects of water supply and sanitation included extension of pipe borne water (94.0%), sewage systems (90.5%), monitoring and evaluation (87.1%), private sector participation (86.2) and logistic support (86.5%). There was no significant difference between urban and rural areas regarding constraints to portable water supply and sanitation, maintenance of resources, treatment of water, sewage and effective monitoring and evaluation of water and sanitation program in Benue State, Nigeria.*

**Key words:** Service delivery, constraint, prospect, water supply and sanitation

***Introduction***

The supply of potable water and sanitation is an essential determinant of good health among people regardless of race, ethnicity, religion or creed globally. It is in recognition of the importance of water supply and sanitation that World Health Organization – WHO (1978) declared potable water supply and sanitation as a basic human right to achieve for people all over World by the year 2000. WHO set basic human physiological water requirement for adults who weight 60 kg at 2 liters per day depending on weather, exercise and health. Water is a colourless liquid which is aesthetically appealing and socially acceptable for human consumption. Park (2015) defined water as substance that is free from pathogenic organisms and harmful chemicals, pleasant to the taste, without colour and odour, acceptable and useable for domestic purposes. In this context, potable water supply refers to water that is free from harmful organisms and other elements which can cause diseases. Water supply and sanitation are inseparable concepts. This is because they complement each other. Water is useful for body processes and sanitary practices such as washing, moping of floor and flushing of toilets. The WHO (1977) stated that more than one billion people in developing nations including those in Nigeria and Benue State in particular lack access to safe water supply and that about two billion do not have access to adequate facilities for sanitary disposal. Sanitation is the act of preventing diseases and safeguarding health. National Sanitation Foundation-USA (1971) refers to sanitation as a way of life, quality of living in a clean home, farm, business/industry, community and neighbourhood. Park (2015) defined sanitation as the science of creating and maintaining conditions that prevent diseases and promote health. Sanitation in this study refers to the act of preventing diseases and consciously promoting individual, family, group of individuals and community health cleanliness.

Nigeria government sign United Nations Treaty on International Drinking Water and Sanitation Decade whose major objective was to ensure the provision of potable water supply and sanitation to the people of the World between 1981-1990. national water supply and sanitation project-WSSP, (2000) revealed that Nigeria government and United Nations Development Project gather hydrological data for the management of water and sanitation to Nigerians. Despite concerted efforts by the government to provide potable water for the people; potable water supply and sanitation coverage in the country Nigeria had continued to be low. The trend was attributed to factors such as inadequate planning and faulty implementation of water supply and sanitation projects particularly in BenueState.

Lack of potable water supply and sanitation is a serious public health problem. According to Ocholi (2006) lack of water supply and sanitation led to outbreak of cholera epidemic in Benue. In Order to combat the epidemic, Water Aid Organization and UK Department for International Development (DFID) began to facilitate implementation of water and sanitation projects in urban and rural areas of the State. Urban area refers to a geographical area that has essential social services such as good network of roads, power supply, safe water supply and sanitation among others. Rural areas refer to areas with poverty linked characteristics which distinguish them from cities. Water Aid is an International Organization based in United Kingdom (Ebisemiju, 2006). The mandate of Water Aid was to ensure the International Drinking Water Supply Decade in 1981-1990. According to Ebisemiju, the branch of WaterAid in Nigeria is referred to as Water Aid Nigeria. Contributing, Ocholi (2006) stated that the mandate of Water Aid Nigeria was to support poor people to own or access potable water supply and sanitation facilities throughout the whole World including BenueState. In order to achieve the set goal, Water Aid Nigeria began a pilot water and sanitation scheme in collaboration with the BenueState government in support of water supply and sanitation projects in the State. The outcome was the water and sanitation scheme, water supply and sanitation policy draft in 2005; training of people for the management of water and sanitation projects in BenueState. Management in the context of the study refers to taking charge of water and sanitation in BenueState.

Water Aid Nigeria has been helping people all over the World to access potable water supply and sanitation. The people were expected to adopt household latrines and ensure refuse and sewage disposal. For instance, the water supply and sanitation projects were meant to be sustainable for the welfare of the people. The study focused on determining constraints and prospects of water supply and sanitation by Water Aid Nigeria. Alaba and Alaba (2001) in a related study stated that poverty, income, level of education, age, location, lack of fund and manpower construed provision of water and sanitation in Ibadan Nigeria; Benue State inclusive. Lack of water and sanitation affects human health resulting to water and sanitation associated morbidity and mortality that is persistent particularly in BenueState. In order to avert this ugly trend in the State, Water Aid Nigeria a nongovernmental organization began to assist people in Benue State to access potable water supply and sanitation since 1996 to date. It became necessary therefore for want of empirical data to carry-out a case study to determine the adequacy, constrains and prospects of potable water supply and sanitation facilitated by Water Aid Nigeria in Benue State with a view to make recommendations to the State.

**Purpose of the Study**

The purpose of the study was to assess the service delivery, constraints and prospects of potable water supply and sanitation by Water Aid Nigeria in BenueState.

**Research Questions**

The study answered the following questions:

1. What is the adequacy of potable water supply by Water Aid Nigeria among people in BenueState?
2. What is the adequacy of refuse disposal services by Water Aid Nigeria among people in BenueState?
3. What is the adequacy of sewage disposal services by Water Aid Nigeria among people in BenueState?
4. What is the state of collection/storage bins facilitated by Water Aid Nigeria among people in BenueState?
5. What are the methods used for disposal of refuse among people in the State?
6. What are the constraints to potable water supply and sanitation facilitated by Water Aid Nigeria among people in BenueState?

What are the ways of improving the service delivery, potable water supply and sanitation by Water Aid Nigeria to the people of BenueState?

**Hypotheses**

The following hypotheses were formulated to guide the study. Each hypothesis was tested at 0.5 level of significance.

1. There was no significant difference between semi-urban and rural areas in the provision of public potable water supply and sanitation service delivery by Water Aid Nigeria in BenueState.
2. There was no significant difference in the constraints to the provision of public potable water supply and sanitation service delivery by Water Aid Nigeria between semi-urban and rural areas in BenueState.

***Method***

The study was carried out in BenueState including Ado, Logo, Oju, Okpokwu, Ogbadibo, Obi and Vandeikya local government areas where Water Aid assisted projects were located. The people especially women and children in the state are faced with the problem of acute shortage of water supply and sanitation. The study covered areas where portable water supply and sanitation were facilitated by Water Aid Nigeria in BenueState, its constraints and prospects. The study covered service delivery, potable water supply and sanitation projects (refuse and sewage disposal) in the area. Factors such as adequacy, constraints and prospects of the project implementation were examined.

The study adopted case study research design. The population for this study comprised 11,715 consisting of Water Aid core staff in Water Aid Nigeria Office Makurdi, volunteers and adult residents in six Local Government Area where Water Aid Nigeria assisted projects were located in Benueu State. (Official Records in Water Aid NigeriaBenue Office, 2009). The sample for the study comprised 351 staff of Water Aid Nigeria Benue Office, service providers and adults in WASH project communities in the State. The instrument for data collection was questionnaire and observation. The research questions were answered using means, frequencies and percentages; t-Test and chi-square statistics were used for testing the hypotheses at .05 level of significance.

***Results***

Table 1

***Adequacy of Public Potable Water Supply by Water Aid Nigeria Among the Benefiting Communities in Benue State (n= 348)***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S/N** | **Items** |  | **SD** | **Decision** |
| 1 | Water from rain water harvester | 1.24 | .427 | Not adequate |
| 2 | Water from Hand dug wells | 1.26 | .437 | Not adequate |
| 3 | Water from boreholes | 1.64 | .488 | Not adequate |
|  | Overall mean | 1.38 | .451 | Not adequate |

Data in Table 1 shows the mean scores of 1.24, 1.26 and 1.64 for Water from rain water harvester, water from hand dug wells and water from boreholes respectively, which were less than the criterion mean of 2.50. The Table also shows overall mean of 1.38 which was less than the criterion mean of 2.50. This implies that the various water supply options provided by Water Aid Nigeria were inadequate.

Table 2

***Adequacy of Refuse Disposal service facilitated by WaterAid Nigeria Among the Benefiting Communities in Benue State (n=348)***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S/N** | **Items** |  | **SD** | **Decision** |
| 1 | Refuse storage | 1.98 | .207 | Inadequate |
| 2 | Salvaging/recycling | 1.66 | .549 | Inadequate |
| 3 | Refuse collection | 2.01 | .207 | Inadequate |
| 4 | Disposal of refuse | 2.05 | .263 | Inadequate |
|  | Overall Mean | 1.93 | .358 | Inadequate |

Data in Table 2 shows mean scores of 1.98, 1.66, 2.10 and 2.05 for refuse storage, salvaging/recycling, refuse collection and disposal of refuse respectively, which were less than the criterion mean of 2.50. The Table also shows overall mean of 1.93 which was less than the criterion mean of 2.50. This implies that the refuse disposal services by Water Aid Nigeria were inadequate.

**Table 3**

***Adequacy of refuse disposal services by Water Aid Nigeria***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S/N** | **Items** |  | **SD** | **Decision** |
| 1 | Construction of sewers | 1.89 | .328 | Inadequate |
| 2 | Treatments of sewage | 1.61 | .543 | Inadequate |
| 3 | Sewage disposal | 1.98 | .185 | Inadequate |
| 4 | Construction of household latrines | 1.52 | .351 | Inadequate |
|  | Overall Mean | 1.52 | .351 | Inadequate |

Table 3 shows the mean values of 1.89, 1.61, 1.98 and 2.12 for construction of sewers, treatments of sewage, sewage disposal and construction of household latrines respectively, which were less than the criterion mean of 2.50. The Table also shows overall mean of 1.52 which is less than the criterion mean of 2.50, indicating that the sewage disposal facilitated by WaterAid Nigeria was inadequate.

**Table 4**

***State of the Collection/Storage Bins Facilitated by WaterAid Nigeria in Benue State n = 348***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S/N** | **Items** | **f** | **%** |  |
| 1 | Fin is fittedly closed | 198 | 65.9 |  |
| 2 | Bin is overflowing | 84 | 24.1 |  |
| 3 | Bin is water tight | 62 | 17.8 |  |
| 4 | Bin is open to liters and attract flies | 4 | 1.1 |  |

Table 4 shows that 198 (65.9%) respondents indicated that available bin is fitted closely; 84(24.1%) indicated that bin is overflowing, 62 (17.8%) indicated that bin is water tight, while 4 (1.1%) indicated that the bin is open to liters and attract flies.

Table 5

***Methods adopted by the benefiting communities at the Final Refuse Disposal Sites (n-348)***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S/N** | **Items** | **f** | **%** |  |
| 1 | Open dumping burning | 230 | 66.1 |  |
| 2 | Incineration | 3 | .9 |  |
| 3 | Burying | 97 | 27.9 |  |
| 4 | Controlled tipping/sanitary landfill | 13 | 3.7 |  |
| 5 | Composting | 5 | 1.4 |  |

Table 5 shows that 230 (66.1%) of the respondents reported that the most common method used for refuse disposal at final disposal site(s) in the areas included open dumping and burning, followed by 97 of the respondents (27.9%) who indicated burying, 5(1.4%) of the respondents acknowledged composting while 3 (.9%) indicated incinerators.

Table 6

***Constraints Identified by the Respondents which Hinder the Provision of Potable Water Supply and Sanitation Facilitated by WaterAid Nigeria in Benue State (n = 348)***

|  |  |  |  |
| --- | --- | --- | --- |
| **S/N** | **Items** |  | **Decision** |
| 1 | Inadequate funding | 3.10 | VLE |
| 2 | Inadequate manpower | 2.65 | LE |
| 3 | Poor maintenance | 1.85 | NAC |
| 4 | Inadequate community participation | 2.09 | NAC |
| 5 | Lack of government legislation | 3.09 | LE |
| 6 | Inadequate monitoring and evaluation | 1.91 | NAC |
|  | Overall Mean | 2.45 | NAC |

Table 6 shows that the respondents with mean value of 3.1 indicated inadequate funding, lack of government legislation ( 3.09), inadequate manpower (2.65) which were greater than the criterion mean of 2.50 and above for judging an item as constrain. The Table further shows that the respondents with mean value of 1.85, 2.09, 1.91 for poor maintenance and inadequate community participation, inadequate monitoring and evaluation respectively were less than the criterion mean of 2.50. The Table also showed overall mean value of 2.45 which was less than the criterion mean of 2.50. This implies that the items are not constraints to the provision of public potable water supply and sanitation by WaterAid Nigeria among the benefiting communities in BenueState.

Table 7

***Ways for Improving on Potable Water Supply and Sanitation by WaterAid Nigeria in Benue State (n=348)***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | Yes |  | No |  |
| **S/N** | **Items** | f | % | f | % |
| 1 | Extension of pipe borne water supply or other water supply options to settlement areas | 327 | 94.0 | 21 | 6.0 |
| 2 | Effective monitoring and evaluation of water supply and sanitation | 303 | 87.1 | 45 | 12.9 |
| 3 | Provision of specially covered vehicle for effective refuse disposal services | 310 | 89.1 | 38 | 109 |
| 4 | Extension of sewage system to settlement areas for effective sewage disposal services | 315 | 90.5 | 33 | 9.5 |
| 5 | Research and implementation of research findings on water supply and sanitation | 310 | 89.1 | 38 | 10.9 |
| 6 | Private sector participation in water supply and sanitation | 300 | 86.2 | 48 | 13.8 |
| 7 | Continuous supply of fuel for plants/vehicles, treatments of water, sewage and maintenance of resources | 301 | 86.5 | 47 | 13 |

Table 7 shows that majority of the respondents indicated that the ways for improving on the provision of potable water supply and sanitation are: Extension of pipe borne water supply or other water supply options to settlement areas (94.0%) provision of specially covered vehicles for effective refuse disposal services (89.1%) and research and application of the research findings (89.1%) on water supply and sanitation. The table further reveals that other ways of improving potable water supply. Monitoring and evaluation (87.1%), supply of fuel for plants and vehicles, chemicals for treatments of water, sewage and maintenance of resources (86.5%) and private sector participation (86.2%) in water supply and sanitation.

Table 8

***t-Test Analysis of null Hypothesis of no Significant Difference Between Urban and Rural Areas on the Provision of Potable Water Supply and Sanitation Facilitate by WaterAid Nigeria***

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Urban Rural Urban Rural** | |  | |  | |  | |  | |  | |  | |  | |  |
|  | **Variables** | 1 | | 2 | | SD1 | | SD2 | | t-cal | | df- | | t-table | | Decision | | |
| 1 | Water from rain harvester | 1.37 | | 1.11 | | 0.484 | | 0.313 | | 5.923 | | 346 | | 1.96 | | Rejected | | |
| 2 | Water from hand dug wells | 1.25 | | 1.26 | | 0.436 | | 0.439 | | 1.23 | | 346 | | 1.96 | | Accepted | | |
| 3 | Water from bore holes | 1.54 | | 1.73 | | 0.500 | | 0.458 | | 3.690 | | 346 | | 1.96 | | Rejected | | |
| 4 | Refuse storage | 2.011 | | 1.75 | | 0.170 | | 0.562 | | 2.347 | | 346 | | 1.96 | | Accepted | | |
| 5 | Salvaging/recycling | 1.68 | | 1.63 | | 0.536 | | 0.170 | | .976 | | 346 | | 1.96 | | Accepted | | |
| 6 | Refuse collection | 2.03 | | 1.99 | | 0.238 | | 0.352 | | 1.815 | | 346 | | 1.96 | | Accepted | | |
| 7 | Disposal of refuse | 2.10 | | 2.01 | | 0.301 | | 0.352 | | 1.637 | | 346 | | 1.96 | | Accepted | | |
| 8 | Construction of sewers | 1.91 | | 1.86 | | 0.301 | | 0.352 | | 1.637 | | 346 | | 1.96 | | Accepted | | |
| 9 | Treatments of sewage | 1.71 | | 1.52 | | 0.552 | | 0.512 | | 3.199 | | 346 | | 1.96 | | Rejected | | |
| 10 | Sewage disposal | 1.99 | | 1.97 | | 0.170 | | 0.199 | | 1.159 | | 346 | | 1.96 | | Accepted | | |
| 11 | Constructive of household latrines | 2.16 | | 2.08 | | 0.394 | | 0.293 | | 2.008 | | 346 | | 1.96 | | Accepted | | |
| 12 | Metal bins with lid and handles | .69 | | 1.57 | | .809 | | 814 | | 3.587 | | 346 | | 1.96 | | Rejected | | |
| 13 | Bins fitly closed | 1.69 | | 1.57 | | .809 | | 814 | | 1.321 | | 346 | | 1.96 | | Accepted | | |
| 14 | Refuse bins | 2.03 | | 1.99 | | .321 | | 313 | | 1.183 | | 346 | | 1.96 | | Accepted | | |
| 15 | Final disposal sites | 1.04 | | 1.03 | | .197 | | 183 | | 1.667 | | 346 | | 1.96 | | Accepted | | |
| 16 | Daily reuse disposal | 2.76 | | 2.64 | | .663 | | 783 | | 1.656 | | 346 | | 1.96 | | Accepted | | |
| 17 | Open dumping/burring | 1.77 | | 1.70 | | 1.130 | | 1.016 | | .599 | | 346 | | 1.96 | | Accepted | | |
| 18 | Outside the compound | 1.98 | | 2.07 | | .364 | | 548 | | -1.842 | | 346 | | 1.96 | | Accepted | | |
| 19 | Non-protective devices | 23 | | 18 | | .934 | | 840 | | 423 | | 346 | | 1.96 | | Accepted | | |

The data in Table 8 show that the calculated t-test values of 5.923; -3.690; 3.199 and 3.587 for water from rain water harvesters; water from boreholes; treatment of sewage; and metal bins with handle were greater than the t-Table value of 1.96 at 346 degrees of freedom and at .05 level of significance. The null hypothesis of no significant different between semi-urban and rural areas regarding those items was rejected. This implies that there were differences in the provision of public potable water supply and sanitation facilitated by WaterAid Nigeria according to location. The Table further revealed calculated t-Test values of 1.23, 2.347, .976, 1.815, 1.637, 1.637, 1.159, 2.008, 1.321, 1.183, 1.667, 1.655, 1.037, 1.99, 1.819, .599, -1.842 and .423 for water from hand dug wells, refuse storage,, salvaging/recycling, refuse collection, disposal of refuse, sewers, sewage disposal, household latrine, bins fitly closed, refuse bins, final refuse disposal, daily, inadequate, inefficient, open dumping/burning and non-protective devices were less than the t-Test value of 1.96 at 346 degrees of freedom and at .05 level of significance. The null hypothesis of no significant difference between urban and rural areas regarding the items was accepted. This means that the services did not differ according to location.

Table 9

***t-Test Analysis of Null Hypothesis of No Significant Difference in the Constraints to the Provision of Public Potable Water Supply and Sanitation by WaterAid Nigeria Between Urban and Rural Areas of Benue State***

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Urban Rural Urban Rural** | | |  |  |  |  |  |  |
|  | **Variables** | 1 | 2 | SD1 | SD2 | t-cal | df- | Cal. | Decision |
| 1 | Inadequate funding | 3.12 | 3.10 | 0.420 | 0.374 | 346 | 1.96 | 0.686 | Accepted |
| 2 | Inadequate manpower | 2.07 | 2.02 | 0.296 | 0.284 | 346 | 1.96 | 0.140 | Accepted |
| 3 | Poor maintenance | 1.75 | 1.96 | 0.692 | 0.520 | 346 | 1.96 | 0.001 | Rejected |
| 4 | Inadequate community participation | 2.06 | 2.11 | 0.390 | 0.449 | 346 | 1.96 | 0.309 | Accepted |
| 5 | Lack of government legislation | 3.06 | 3.11 | 0.40 | 0.521 | 346 | 1.96 | 0.309 | Accepted |
| 6 | Inadequate monitoring and evaluation | 1.94 | 1.88 | 0.465 | 0.518 | 346 | 1.96 | 0.231 | Accepted |

Table 9 presents calculated t-test value of 3.241 for poor maintenance at 346 degree of freedom which is greater than the t-Table value of 1.96. The null hypothesis of no significant difference in the constraints between urban and rural areas regarding this item is rejected. This implies that there was difference regarding constraints to the service delivery according to location. The Table further shows calculated t-test values of 0.686, 1.140, 0.309, 0.201 and 0.309 for inadequate funding, inadequate manpower, lack of government legislation, inadequate monitoring and evaluation and inadequate community participation respectively; which were less than the t-table values of 1.96 at 346 degrees of freedom and .05 level of significance. This means that the null hypothesis of no significant difference between urban and rural areas regarding there items is accepted. It implies that the constraints against the service delivery facilitated by WaterAid Nigeria did not differ according to location.

***Discussion***

The finding in Table 1 shows that the potable water supply options provided by WaterAid Nigeria were inadequate. This result was quite surprising because of the devotion by WaterAid the provision of safe water supply and sanitation projects. However, there may be inadequacy as a result of financial constraints in which case water supply and sanitation projects could not go around. Inadequate potable water supply in this instances may be better than complete lack of access to safe water supply. The implication of inadequate water was that it subjects the people to thirst and prolong thirst lead to dehydration. The finding was in partial agreement with Opara (1991) in Owerri urban which showed that the residents had access to adequate pipe borne water supply and sanitation. The two findings agreed that both subjects accessed potable water supply and sanitation but the rate of access, volume of water supply, sanitation and geographical location differ. Further finding showed that refuse disposal was inadequate (Table 2, 3). This finding was unexpected for obvious reasons. The issue of refuse disposal should be a routine assignment for everybody as cleanliness promotes individual and community health. The finding partially agreed with that by Akpovi (1984) in Benin; who found inadequate refuse bins for disposal of refuse. The finding in Table 4 shows that sewage disposal services were inadequate. This is surprising because one expected to find stagnant water and waterborne related diseases. But on the contrary the study area was tidy at the time of the study. Perhaps, this may be as a result of awareness created by the WaterAid intervention whereby the beneficiaries learnt how to manage water as scarce commodity.

The finding in Table 4 shows that more than half of the respondents (56.9%) used tight fitted collection/storage bins compared to 24.1% who used overflowing bins. The finding was encouraging. This is because the beneficiaries were using durable types of refuse receptacles. The implication of this was that the bins needed proper care to ensure optimal functioning. Experience has shown that collection and storage bins utilized were of quality which did not permit littering and transmission of diseases by vectors like flies and rodents. This may be based on family size, the larger the family, the bigger the receptacles needed by such family. In order words, such differences could be due to economic status of the beneficiaries in acquiring the facilities. Proper education by the service providers may have inspired the people to adopt quality waste receptacles. Data in Table 9 revealed that majority (81.6%) of the respondents indicated that collection and storage bins were emptied daily. This finding is encouraging. Experience showed daily evacuation of refuse resulting to low accumulation of wastes and reduction in incidence of infections. This finding disagrees with that by Coker et al. (1999) Ibadan which showed that collection, storage and empting of bins was done weekly. The finding also differs with the assertion by Park (2015) which stated that standards solid wastes receptacles were used in Britain.

The result in Table 6 shows inadequate funding, lack of legislation and inadequate of political will to enforce potable water and sanitation. Similarly, inadequate manpower might have led to the use of auxiliary staff which lack technical know-how needed for effective services. The findings collaborated with the result by Agbaje, (2006); in Nsukka which indicated poor funding, lack of manpower, legislation and poor maintenance culture. The two studies agreed that their subjects had similar characteristics although the geographical location differed. The finding in Table 7 show that the respondents indicated that the prospects of the services include: extension of pipe borne water supply refuse and sewage disposal (80-94%), introduction of research (89.1%), effective monitoring and evaluation (87.1%), provision of refuse vehicles (89.1%), private sector participation (86.2%), treatment of water, sewage and maintenance of resources (86.5%). This finding was expected and not a surprise. This is because experience has shown that when potable water supply and sanitation is adequate in an area more people can access safe and abundant water supply and sanitation. Thus, scientific research and technology bring solution such as purification of contaminated water, manufacturing of dustless vehicles and reengineering of water supply facilities and services powered by private sector participation.

The result agreed with the study finding by Opara (1991) in Owerri urban which show that the people of the area had access to portable water supply and sanitation. It also agreed with the view of Lucas and Gilles (2009), that for any project to succeed, it requires monitoring and evaluation of the resources. In this instance, innovation is necessary to enhance potable water supply and adequate sanitation. The finding is in consonance with the assertion by Lucas and Gilles (2009) who stated that modern refuse vehicles were used for waste disposal in Britain. This finding is not too surprising. This is because constraint does not respect geographical location. Experience has shown that constraints to project delivery can be overcome through carefully planned strategies. There was difference between urban and rural regarding extension of sewage system and continuous supply of fuel, treatment of water, sewage and maintenance of resources. This implies that the ways for improving on potable water supply and sanitation was not dependent on location. Experience has shown that the services by WaterAid Nigeria had on several occasions succeeded in other areas the organization had earlier worked.

**Implications of the Study for Public Health Education**

The implication of the finding of inadequate potable water supply and sanitation is that it exposes he community to inadequate water supply and sanitation resulting to water and sanitation related morbidity and mortality. Although available records confirmed occurrence of such diseases but it has been reduced following the WaterAid intervention; more efforts is needed by the organization for adequate supply of safe water supply and sanitation.

The result of inadequate collection and storage bins/receptacles was deplorable; except that the result showed that available refuse bins were emptied daily. Inadequacy implied that more attention is needed by the NGO to facilitate the provision of sanitation receptacles example refuse depots, incinerators and refuse vehicles to forestall spread of diseases.

The study found that the most common method of waste disposal adopted by the beneficiaries included: open dumping, burning and burying. The implication of this finding is that the method exposed people to irritation and respiratory tract infections as a result of in-hailing fume or noxious substances. It implies that urgent attention is needed by public health educators to educate stakeholders to sanitize their environment to prevent respiratory tract infections and to promote sound environment that is safe to inhibit.

***Conclusion***

The study concluded that potable water supply and sanitation facilitated by WaterAid Nigeria was inadequate. Hence, there is need to allow private sector participation in water supply and waste management. Stakeholders should collaborate with NGOs for adequate funding, legislation, water, sewage, and effective monitoring and evaluation of water supply and sanitation.

***Recommendations***

1. Individual should wear protective covering to mange his or her householder waste well.
2. The BenueState government should provide funding support for potable water supply and sanitation.
3. The State government should enact legislation in support of water supply and sanitation.
4. They should be community and private sector participation in the provision of potable water supply and sanitation in the State.

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**ECONOMIC PRACTICES THAT INFLUENCE ADULT SUICIDE IN EDEM, NSUKKA LGA OF ENUGU STATE, *NIGERIA***

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***Abstract***

*The study determined the economic practices of the people of Edem in adult suicide aetiology. One research question and two hypotheses were postulated to guide the study. A case study design was employed in the study with a sample of 601 adults. Data gathered utilizing questionnaire were supplemented by focus group discussion (FGD). The data generated using the questionnaire were analyzed using frequency and percentage which were utilized for answering the research question while Chi-square (*χ2)*was used for testing the hypotheses at p<.05. Data obtained using FGD were qualitative and used to complement the quantitative data. Findings from the study showed that economic practices (55.08%) influenced adult suicide positively since the grand percentage average was higher than the cut off percentage. Chi-square test indicated that occupation (cal.*χ2*=72.02>tab.*χ2=*7.82, df=3, p<.05) and age* (cal.χ2=41.77>tab.χ2=7.82, df=3, p<.05) *made statistically significant difference on economic practices****.*** *Based on the above results, the researcher recommended among other things the education of the people to change the economic practices that precipitate suicide among adults in Edem. Additionally, the researcher recommended the revitalization of the traditional mores that acted as a restraint against suicide in the area in the past*.

**Keywords:** suicide, economic practices and adults

***Introduction***

Suicide is becoming an intractable problem internationally. World Health Organization-WHO (2002) indicated that suicide death occurred every 40 second across the world. In most countries of the world, suicide was one of the three leading causes of death among the most economically productive group (WHO, 2012). In Nigeria suicide rate was already high. Atiatah (2013) stated that 1211 suicide cases were documented in Nigeria from 1990-2004. According to Ugwuoke (2016), in Enugu state where Edem is located, 23 suicide deaths were recorded by the police from 1994-2014. Following the strong association between economic practices and suicide, Asogwa (2015) predicted an increase in suicide in Nigeria as a result of the impoverishment of the masses. The prediction is ominous since suicide rate and poor economy are mutually supportive. An increase in suicide in Nigeria will worsen the global suicide burden which OConnor (2008) put at one million per annum. Official data on suicide are likely to be inaccurate due to the stigma associated with it. Therefore, community based study on suicide like the present one is necessary.

Suicide means killing oneself. Berman (2009) defined suicide as intentional self-inflicted death. According to Ugwuoke and Ene (2014), suicide is simply death by choice. Suicide is an individual’s reaction to hopelessness in life which could be as a result of economic misfortune or negative economic practices.

Economic practices are concerned with all the activities people engage in so as to earn a living and create additional wealth. Economic practices differ from one community to another and from country to country. Some economic practices could be protective against suicide; nevertheless, some others could be important risk factors for suicide. Economic practices occur in farming, business, civil service, unemployment among other areas of life. Farming was the mainstay of the economy of the traditional Igbo society where Edem is located.

Farming in the area was done at the subsistence level. As a result of the poor agricultural practices, crop failure was the order of the day. However, at the time of this study, different types of farm inputs like fertilizers, herbicides and pesticides were accessible to the farmers in the open market and were utilized to protect and increase plants and animal yields. Such poisonous substances could be ingested by any farmer or his family member who was suicide ready. Gunnell and Eddleston (2003) showed that uncontrolled use of chemicals for agricultural purposes accounted for high rates of self-poisoning in China and Sri Lanka. Men and women were involved in farming activities along gender line. According to Akubue (2001), each gender was the master of his or her own area of specialization. While men cultivated the land, hunted and reared animals, women, according to Shehu and Sheshi (2005), gave birth, reared, counseled and nurtured children. Nonetheless, National Bureau of statistics-NBS (2009) indicated that the agricultural sector had lost its first position as the greatest employer of labour in Nigeria generally.

Edem people currently engage in other business activities such as buying and selling. Some of them were also into small-scale manufacturing. However, business activities in Edem have been affected negatively by the economic recession in the country. Due to the fluctuations in the cost of goods and services some of the businesses have folded up leaving the owners miserable which could induce suicide.

Some Edem men and women were civil servants. According to NBS (2009), more than 28 million working age group were in professional activities in Nigeria. Though, large proportion of Nigerians were engaged in paid jobs, Owie (2000) indicated that wages to the workers were generally low. It might be on account of the abandonment of the farms coupled with poor remuneration to employees that more than three decades ago, Echeruo (1979) predicted that suicide in Nigeria would be more likely as a result of failed contracts than from failed crops. Failed crops and businesses coupled with irregular salaries for civil servants have led to a high proportion of Nigerians (60.9%) being poor at the time of the present study (Kale, 2012). Records from National Bureau of Statistics-NBS (2006) indicated that 76.8 per cent households in South East Nigeria self-classified themselves as poor. Poverty, according to NBS (2008), was higher in the rural (63.3%) where Edem belongs, than in the urban (36.7%), and there was also a significant difference between them with regard to access to basic facilities (World Bank, 2013).

The poverty level in Nigeria was capable of precipitating suicide. According to Kale (2012), this implies a condition in which citizens afford minimal feeding, clothing, health care and shelter. Nwachukwu (2001) noted that such deprivation evoked feelings of anomie and frustration. Poverty which is caused by unemployment might even be more suicide inviting.

Historically, there was absence of unemployment among the traditional Igbos (Nwala, 1980). This was partly due to their innate acquisitive tendency but more importantly it was because of the society’s belief in the dignity of labour. During the olden time, according to Afigbo (1980), hard work was so highly valued among the Igbos that the hard worker was held up for admiration. However, NBS (2009) revealed that unemployment has become common in Nigeria with rural women being worst hit. Nnamani and Ejike (2013) disclosed that unemployment has become worse due to loss of job by those suffering from Human Immunodeficiency Virus and Acquired Immune Deficiency Syndrome (HIV/AIDS). Loss of job associated with HIV/AIDS stigma is likely to induce suicide since the victim is given the impression that he or she is worthless. Moreover, in a country where there is no social security system, to lose a job could be suicidogenic to the maladapted individual, who might consider suicide as a rational option.

The present economic practices in Nigeria generally, have given rise to bitter competition for survival. Different negative economic practices have evolved. Nwachukwu (2001) reported that many have adopted different economic survival strategies by engaging in bribery and corruption, armed robbery, stealing by trick, prostitution, drug and human trafficking, and kidnapping; all in effort to get quick money in order to meet up with society’s way of rating people. These economic practices characterized by harsh struggle for wealth is most acute during middle age.

Age was introduced into the study since suicide has been associated with it. Local study by Ugwuoke and Ene (2014) showed that suicide was most prevalent among the middle age. However, Berman (2009) and Soreff (2013) indicated that suicide rate in the United States of America increased with age-being highest among the elderly. Soreff also reported that men of the armed forces and medical professionals were at higher risk of suicide than other professionals. This was linked to the availability of firearms and poisons they utilized to achieve the goal of self-killing. On the other hand Gunnell and Eddleston (2003) reported that suicide in China and Sri Lanka was highest among farmers owing to easy access to agricultural chemicals. Due to the variability of these findings, occupation was included in the present study of economic practices that influenced suicide among adults in Edem.

Adults as used in this study were persons aged 20 years and above. This is because teenage period ends at age 19 (Solomon & Nnamani, 2015). At adulthood, an individual was expected to have a job, marry and live autonomously. Adults were chosen for the present study since suicide was shown to be an adult behaviour in Nigeria at a whole (Nwosu & Odesanmi, 2001; Atiatah, 2003; Offia & Obiorah, 2014).

The associations between suicide and economic practices have been documented in literature. Soreff (2013) showed that suicide was significantly associated with economic practices. Makanjuola (2002) indicated that 100% of the cases studied were in paid jobs-civil service or other establishments. Center for Mental Health Services-CMHS-USA (2003) also linked suicide with poor economic conditions. Atiatah (2007) associated improvement in economy to reduction of suicide in Akwa-Ibom state. The author indicated that suicide was highest among the low socioeconomic group (77.65%) than the high-income earners (22.35) because they cannot meet their economic desires. Similarly, Offia and Obiorah (2014) revealed that economic pressure and failure to achieve were the major risk factors in suicide.

There is scant information on the role of the economic practices of the people on the victims’ suicide obtained from community-based study in the location of the present study. Thus, the present study determined the economic practices that influence suicide among adults in Edem, Nsukka Local Government Area of Enugu state.

**Research questions**

What is the influence of economic practices on adult suicide in Edem?

**Hypotheses**

The following hypotheses that were postulated to guide the study were tested at p< .05.

Occupation makes no significant difference in economic practices that influence adult suicide in Edem. Age makes no significant difference in economic practices that influence adult suicide in Edem.

***Method***

Case study research design was utilized to determine the influence of economic practices on adult suicide in Edem. According to Okwor (2001), case study research design plans for an in-depth study of one element, which in this case is Edem, in a problem situation. The sample for the study consisted of 601 adults that were selected through purposive sampling technique from the estimated 12,028 adult population in the twenty-five quarters in the area. They included political leaders, titled persons, religious leaders, retired public servants, survivors of suicide, teachers, leaders of social clubs, market men and women, traditional healers, health workers, ‘umuadas’, youths and other adults. They were selected based on their personal experiences on suicide and trado-social positions in the area. The researcher’s self-developed questionnaire was used to collect quantitative data while focus group discussion (FGD) was used to elicit qualitative data to complement the quantitative data. FGD guide was utilized to facilitate the discussion of the two focus groups involved in the study. One FG was for eight (8) men while the other was for eight women. The instruments were validated by five experts: two suicidologists, a sociologist and two health and physical education experts. The questionnaire was subjected to reliability test and it yielded a reliability coefficient of .81 using the Spearman Rank Order statistic. During data collection, illiterate respondents had the questionnaire read for them by any of the research team members. Nonetheless, in accordance with Reamer (2005), all the subjects involved in the study voluntarily chose to participate.

Out of the 601 copies of the questionnaire distributed, 480 (80%) that were properly completed and retuned were used for data analysis. The percentage and frequency were calculated and the mode of each sets of scores were identified. In order to answer the research questions generated to guide the study, the grand percentage of the set of scores were computed and compared with the criterion score of 50 per cent. Set of scores with grand percentage of 50 and above were given positive interpretation as influencing suicide while those with values less than the criterion score were considered to exert minor influence. The chi-square was used to test the postulated hypotheses since it is suitable for determining significant difference between data at nominal level. The hypotheses were tested at the probability level of .05 significance. The Statistical Package for the Social Sciences (SPSS) batch system was used for the analysis. The data generated from the focus group discussion (FGD) were analyzed qualitatively and used to substantiate the quantitative data.

***Results***

The results of the study were presented below.

**Table 1: Economic Practices that Influence Adult Suicide in Edem (n=480)**

Economic Practices Responses

f %

Economic Factors

Failure of one’s crop to yield adequately 369 76.88

Business failure 390 81.25

Financial or property loss to fraudsters/thieves 196 40.83

Loss of job 322 67.08

Unemployment 98 20.42

Failure to perform in one’s job 190 39.58

Engagement in job that separates couples 218 45.00

*Economic factor’s percentage 53.01*

Economic practices

Denying an individual access to capital resources including land 299 62.29

Bitter competition for wealth 311 64.79

Individualism (i.e., uncontrolled pursuit of individual’s economic interest) 379 78.96

Communalism (i.e., economic practice in which interest of all is the goal) 94 19.58

Engaging in job where lethal agents are freely used 401 85.21

Women engaging in job considered to be for men 154 32.08

*Economic practices percentage 57.15*

**Grand percentage 55.08**

Table 1 shows that economic practices had grand percentage (55.08%), which was higher than the cut off percentage of 50 and thus influenced adult suicide. Economic factors’ grand percentage was also higher than the criterion percentage indicating that they positively influenced adults’ suicide. Business failure (81.25%) was the mostly indicated economic factor followed by failure of one’s crops to yield adequately (76.88%) and loss of job (67.08%). The Table also shows that economic practices grand percentage (57.15%) was higher than the criterion percentage and, therefore, influenced adult suicide. Forms of practices indicated to influence suicide were engaging in job where lethal agents were freely used (85.21%), individualism (78.96%), bitter competition for wealth (64.79%) and denying an individual access to capital resources including land (62.29%).

**Hypothesis one**

Occupation makes no statistically significant difference on economic practices that influence adult suicide in Edem. Data for testing the above hypothesis are contained in Table 2.

**Table 2: Summary of χ2 values verifying the Hypotheses of No Significant Difference In Economic practices that Influence Adult Suicide by Occupation**

Occupation Economic practices

% χ2cal df χ2critical p

Farming 91.01 72.02 3 7.82 .05

Business 21.58

Civil service 38.47

Unemployed 65.00

Table 2 shows that occupation made a statistically significant difference in economic practices that influenced adult suicide (cal.χ2=72.02>tab.χ2=7.82, df=3, p.05).

**Hypothesis two**

Ag**e** makes no statistically significant difference in economic practices that influence adult suicide in Edem. Data for testing the above hypothesis are contained in Table 3.

**Table 3: Summary of χ2 values verifying the Hypotheses of No significant Difference in Economic practices that Influence Adult Suicide by Age**

Age Economic practices

% cal.χ2 df χ2 critical p

20-39 (young adult) 47.31 41.77 3 7.82 .05

40-59 (middle age) 83.54

60 and above 13.74

Table 3 shows that age made a statistically significant difference in economic practices that influenced adult suicide in Edem (cal.χ2=41.77>tab.χ2=7.82, df=3, p<.05).

***Discussion***

Finding in Table 1 showed that economic practices (55.08%) influenced adult suicide positively in Edem**.** The finding from the FGD disagreed with this result. According to the participants in the FGD, life must go on irrespective of all economic difficulties. The finding was ambivalent in a way. This is because the Igbos have a saying that ‘Ndu ka aku’ (i.e., life is more precious than wealth). On this premise, it would be surprising to find any form of economically motivated suicide in the location of the study.

In reality, however, the Igbos placed high premium on wealth. The poor economic condition of Nigeria might have worsened the situation. The finding conformed to earlier report that poor individuals engaged in suicide to avoid the humiliating effect of poverty (Atiatah, 2007; Offia & Obiorah, 2014). Obviously, life can nowadays be sacrificed for material things since the moral values that moderated the quest for wealth in the past have been jettisoned. After all the Igbos also have a saying that ‘there is life which is worse than death’. Therefore, the participants in the FGD might be just ‘faking good’.

Chi-square test showed that occupation made a significant influence on adult suicide in Edem (cal.χ2=72.02>tab.χ2=7.82, df=3, p<.05) [Table 2]. The result is surprising since in the area of the present study mobility of labour was high. In other words, before the distress inherent in one job begins to manifest, the individual was expected to move to another. Additionally, in the traditional Igbo society it was difficult to distinguish between work and leisure. However, the finding could be attributed to either the lack of the material rewards of the occupations. It was shown that paid employment and farming in Nigeria at a whole were characterized by poor economic returns (Owie, 2000). Thus under such condition, people who were engaged in such occupations would probably consider suicide. This position is in consonance with findings by Atiatah (2007) which showed that the economically disadvantaged committed suicide more frequently because of their inability to satisfy their daily needs. Additionally, since wealth is celebrated among the Igbos those who were not well to do suffered humiliation to the extent that suicide could be considered.

Expectedly, chi-square test revealed that age made a significant influence on the economic practices that influence adult suicide in Edem (cal.χ2=41.77> tab.χ27.82, df=3, p.05) [Table 3]. The finding agreed with earlier study that suicide was most frequent among those aged 30-60 (Makanjuola, 2002). At that age, competition for self-actualization was most acute in the location of the study. Daily media reports on suicide in Nigeria shows that the median age of suicide in the country is fast lowering too. This could be attributed to the adult roles Nigerians take early in life at the present.

**Implications for Health Education**

The finding that economic practices influenced suicide positively in Edem implies that urgent measures should be taken to control the suicidogenic variables identified. In pursuant of this, public health educators at the Local Government level could begin discussion with the community leaders to find a way of reducing the suicide inviting practices. Health educators could also look out for individuals who experienced serious economic misfortune in order to counsel them. Since finding showed that suicide was influenced by occupation, health educators in collaboration with relevant agencies could ensure strict control of materials that the different professionals work with that can be used for self-destruction.

***Conclusions and Recommendations***

On the basis of the findings from the study the following conclusions were reached. There were:

1. economic practices influenced adult suicide positively in Edem;
2. occupation made a significant influence on adult suicide in Edem; and
3. age made a significant influence on the economic practices that influence adult suicide in Edem.

Based on the above conclusions the following recommendations have been proposed.

As the respondents reported that economic practices influenced adult suicide, there is need for the sensitization of the populace to re-conceptualize the value they currently place on material wealth. Sanctions could be placed on inordinate quest for materialism. The egalitarian way of life of the traditional Edem people that accommodated the poor and the rich has to be revived. Additionally, religious leaders should be sensitized to preach more about the sanctity of human life above material things.

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**PROMOTING ENTREPRENEURSHIP IN NIGERIA THROUGH TEACHING FOR CREATIVITY**

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***Abstract***

*This paper reviews entrepreneurship promotion through teaching for creativity. It discussed need to teach for creativity, teaching creatively and teaching for creativity, and techniques of teaching for creativity. Some strategies by which creativity can be developed in students were stated, and the factors that hinder the teaching of creativity in schools. Also, ways of promoting entrepreneurship through teaching to think creatively were discussed, and finally concluded that entrepreneurship empowered by creativity is the solution to our national economic problems, in that natural resources will be tapped-generating the wealth enclosed in our society to the optimum. Also, promoting entrepreneurship through teaching for creativity makes room for self-employment, thereby reducing abject poverty in the society.*

Key Words: Creativity, Entrepreneurship, Teaching Creatively, Teaching for Creativity

***Introduction***

The ability of human beings to find creative solutions to problems is essential for the wellbeing of human race. Creativity can help people break out of routines they dislike or that is monitoring and get incorporated into desired activity. Creativity as an important attribute of a successful entrepreneur is often subtle and may not yield apparently to the untrained eye. Some people may naturally seem to be more creative than others, which do not mean that those who feel the need cannot develop (Abe, 2006). Unlike many phenomena in science, there is no single authoritative perspective or definition of creativity (Omeke, 2011). Although properly associated with art and literature, creativity is an essential part of innovation and invention, and is important in professions such as architecture, industrial design, advertising, sculpture, music, engineering and humanities.

Holt (2006) defined creativity as the ability to bring something new into existence. This emphasizes the ability, not the activity of bringing something new into existence, but a phenomenon whereby a person creates something new (a product, a solution, a work of art among others) that has some kind of value. Creativity means having the skill and ability to produce something new, especially a work of art (Hornby, 2010). Creativity is a mental process involved in the generation of new ideas or an association between existing ideas, and devising alternative ways of solving human problems (Omeke, 2011). It is inherent in all humans, and therefore has a universal distribution. It is likened to a driving force that impacts human behaviours to shape their lives, and calls for talent, an innate ability which can be developed. Creativity utilizes time and space to fashion out something that will fill in the gap or solve problems. Creativity in this context refers to the generation of ideas that results in the improved efficiency and effectiveness of a system or organization. Therefore, one is said to be creative or have creative thinking, if he has the skill and ability to produce something new for self-reliance.

Creativity is characterized by the ability to think divergently or differently, and is the bedrock of every development. Kaur (1998) contended that one should not confuse creativity with talent. While talent is a specific aptitude in specific area, creativity happens when various forces- be it environmental, motivational or psychological interact to create something unique. It is obvious that new and good methods of creativity would ensure changes, break in new grounds; alterations would be made, things within the society would be modernized and remodeled. Creativity has been used in the past to solve human problems like the provision of light, transport, calculator, provision of toilet and bathroom facilities among others. With creativity, profit is made by individuals. It also encourages the development of entrepreneurship and allows for new and important discoveries.

Creativity and entrepreneurship are related because entrepreneurship involves creativity. Every new idea requires the individual and the work force to undergo significant changes. The relationship between creativity and entrepreneurship developed as far as back 17th century with an entrepreneur viewed as an individual who undertakes to organize, manage and assume the risks of a business. Entrepreneurship is a necessary ingredient for stimulating economic growth and employment in all societies Okpupkara (2011) defined entrepreneurship as a purposeful activity that includes an initiation, promotion and distribution of wealth and service. It is any attempt at new business or new venture creation, such as self-employment, a new business organization, or the expansion of an existing business by an individual, a team or an established business. Osadi and Goddey (2009) posited that entrepreneurship contributes immensely to national development by creating jobs through the formation of new business enterprises, especially small and medium scale business enterprises (SMEs). This involves the individuals creating opportunity to meet the needs of the immediate environment by bringing together available resources in an innovative way.

In creativity, ideas do not just happen, it usually follows a process. Entrepreneurs need ideas to pursue, and ideas materialize accidentally. Ideas usually evolve through a creative process whereby imaginative people germinate ideas, nurture them, and develop them successfully (Agu, 2010). Creative ideas are often generated when one discards preconceived assumptions and attempts a new approach or method that might seem to others unthinkable. Entrepreneurs implement creative ideas to introduce innovative products or services, or to deliver products or services in a new, more efficient, and hence innovative way. Since entrepreneurship always deals with finding new inventions and strategies, and applying innovation to production of goods and services for business, it becomes obvious that both creativity and entrepreneurship focus on innovation. Thus, innovation is the main characteristics of entrepreneurship and creativity is a core entrepreneurial activity. Pretorious, Millard and Kruger (2005) noted that creativity is clearly part and parcel of the entrepreneurial skills required to successfully start a venture.

A creative process may begin with a flash of a new idea or with a hunch. It may just start as battling with a problem, getting some fresh ideas along the way. It is a process, not a single event, and genuine creative processes involve critical thinking as well as imaginative insights and fresh ideas. But, creativity is not just about coming up with new ideas; some ideas might be completely crazy and impractical. So, an essential bit of every creative process is evaluation (Azzam, 2009). Really, creativity is a disciplined process that requires skill, knowledge, and control. Obviously, it also requires imagination and inspiration. But it is not simply a question of venting: It is a disciplined path of daily education.

**Need to Teach for Creativity**

The Nigerian institutions mostly teach for formal wage and salary employment. The learners should be properly trained to believe that if there is no entrepreneurship skill or they are not creative, there will be no employment opportunity and self-reliant enhancement. Ejionueme (2007) posited that education in Nigeria needs improvement at all levels, but essentially in all its aspects of teaching and learning. The Federal Government of Nigeria-FGN (2004) in its educational policy among other things , acknowledged the acquisition of appropriate skills and the development of mental, physical and social abilities and competencies, as equipment for the individual to live and contribute to the development of his society. Unfortunately, the Nigerian educational goals are only good on paper and theory, but not in practice. Abiogu (2009) lamented that the creative aspect of the Nigerian educational system has gone to the dogs, and the survival of its educands and the larger society is on the brink of disaster.

Since technology is advancing our society at an unprecedented rate, creative problem solving will be needed to cope with these challenges as they arise. Creativity help students identify problems where others have failed to do so. In teaching students, there is need for fostering of intrinsic motivation and problem solving skills. Students are more creative when they see a task as intrinsically motivating, and valued for its own sake (Omeke, 2011). Educators need to identify what motivates their students and structure teaching around it. Providing students with a choice of activities to complete, allow them to become more intrinsically motivated, and therefore creative in completing their tasks. Teaching students to solve problems that do not have well defined answers is another way to foster their creativity. This is accomplished by allowing students to explore problems and redefine them, possibly drawing on knowledge that at first may seem unrelated to the problem in order to solve it.

**Teaching Creatively and Teaching for Creativity**

Creativity can inspire students to learn new content through a creative outlet. Classroom teachers have a constant struggle between teaching content and incorporating creativity into daily instruction. It is the teacher’s responsibility to generate lessons and centers that encourage students to be creative. It is vital that the incorporation of creativity in the classroom is encouraged so that students of varying learning styles are exposed to different ways to learn (Papaleo, 2013). He added that there are two possible ways to incorporate creativity into the classroom. The first option would be to designate a space in the classroom to pique the student’s creative outlet. This area is dedicated to creative activities such as a thinking table, drama station, readers’ theater or group discussion. An advantage to this solution would be that students are able to move around the classroom throughout the day and are not confined to staying at their desk. It also encourages students to use their imagination through planned or spontaneous dramatic actions. The second possible solution would be collaboration of content material with specialized teachers (art, gym, computer, among others). By having the specialized teacher involved in the creation and implementation of lessons the student will gain a varied understanding of the material.

In order to teach creativity, one must teach creatively; that is, it will take a great deal of creative effort to bring out the most creative thinking in learners. Teachers should know their fields and know how to create an appropriate learning environment, and when it will be most important to offer direct instruction. Jeffrey and Craft (2004) noted that teachers teach creatively when they use imaginative approaches to make learning more interesting and effective, and teaching for creativity is a form of teaching that is intended to develop young people’s own creative thinking or behaviour which has learner empowerment. Teaching for creativity involves teaching creatively where students’ creative abilities are most likely to be developed in an atmosphere in which the teacher’s creative abilities are properly engaged.

Although, it is commendable that education is attempting to promote the benefits of being a creative person, creativity cannot be taught, although asking good questions of students and promoting deep thought and discussion can lead people to alternatives and different ways of approaching an issue (Bartel, 2013). The best thing to do is to provide time and space for creativity to be fostered. This is, of course, not an easily apprehended formula and it will not necessarily conform to a time-frame which makes it difficult for schools where the day is built around bells and the clock.  
However, teachers can incorporate creativity across the content areas simply by asking students deeper, open-ended questions. Teachers should also be open-minded and allow students to explore questions and topics. Rather than just providing students with facts, they should provide them with information that they can explore and utilize to develop their own understandings and conclusions.

Teaching creativity to everyone is vitally important. A creative teacher finds some useful teaching strategies by looking at how artists generate ideas. Students need to make the choice about what is being changed. It is the student that needs practice in being creative. Teachers should not be creative for the student. Teachers can raise questions to produce awareness. However, the student needs to be given autonomy to make choices about what seems important. Otherwise, the motivation to be creative is lost. Students who are too directed feel put upon to do as they are told for some external reward, but they are bored and hate the process. In creative teaching, assignment limitations can provide a way to change the student's habits of work (Bartel, 2013).

Teachers should encourage the imitation of creative thinking habits.True creativity happens when intuitive imagination brings forth the previously unknown and unimagined.Once students tackle an assignment creatively, they will naturally be curious to see what experts have done in the past related to the problem they have struggled to solve.  Bartel (2013) expressed that creative teachers teaches that creative ideas can be generated by making lists and sketches of an idea, consider oppositessuch as finding successes when they look at things upside down, inside out, and from back to front, considering practice of the ideas, direct involvement with materials and processes, thinking process rather than product, considering assessment and grading paradigms on students, considering the tone and nature of responses to student ideas such as in encouragement and reassurance, using common everyday experiences, and issues that students are very familiar as content assignments for art.

 Teachers should teach for creativity by giving time for the creative process, and assign homework of the mind. Good teachers prepare their students so that when their students leave the classroom, their minds are prepared for homework that is no work. They expect to get ideas at unexpected times. This is homework that is no work in the traditional sense. Good teachers understand the surreal powers of subconscious minds, of imagination, and of creative thinking habits.

A creative teacher has the responsibility to review the results of a lesson or a unit, assesses the results, and imagines other ways the lesson could have been taught.  A creative teacher needs a good system to record ideas for next class. However, creative teachers go beyond imitating their role models.  They go beyond their mentors. They do this by virtue of critical review of their own teaching – by carefully reviewing what happens and then searching for alternative things to try.  Creative teachers make mistakes, but they also search for ways to overcome mistakes (Bartel, 2013).  Each time they try something, they review the outcomes and try to imagine ways to make improvements, and have a habit of looking for new alternative methods. Creative teachers do not worry about pointing out mistakes.  When the students begin to notice their own mistakes, the teacher knows how to use questions that help students learn to see and eventually answer their own questions.

**Techniques of Teaching for Creativity (Celt, 2011)**

Celt (2011) suggested the following techniques of teaching for creativity, which are outlined and describe:

[**Assumption busting**](http://www.mycoted.com/Assumption_Busting).

An assumption is an unquestioned, assumed truth. Assumption busting is particularly effective when one is stuck in current thinking paradigms or has run out of ideas. Deliberately seeking out and addressing previously unquestioned assumptions stimulates creative thinking. The teacher can list assumptions associated with a task or problem, for example, that a solution is impossible due to time and cost constraints; something works because certain rules or conditions; and people believe, need or think of certain things. Then ask under what conditions these assumptions are not true, continue the process of examination as old assumptions are challenged and new ones are created. An alternative way of proceeding is to find ways to force assumptions to be true.

**Brainstorming.**

Brainstorming is a useful tool to develop creative solutions to a problem, is a lateral thinking process by which students are asked to develop ideas or thoughts that may seem crazy or shocking at first. Brainstorming can help define an issue, diagnose a problem, or possible solutions and resistance to proposed solutions. Criticism dampens creativity in the initial stages of a brainstorming session. Ideas should be listed, rather than developed deeply on the spot; the idea is to generate possibilities. Accordingly, students should be encouraged to pick up on ideas offered to create new ones. One person should be appointed as note-taker, and ideas should be studied and evaluated after the session.

[**Concept Mapping**](http://cmap.ihmc.us/Publications/ResearchPapers/TheoryCmaps/TheoryUnderlyingConceptMaps.htmry)**.**

Concept maps represent knowledge graphic form. Networks consist of nods, which represent concepts, and links, which represent relationships between concepts.Concept maps can aid in generating ideas, designing complex structures, or communicating complex ideas. Because they make explicit the integration of old and new knowledge concept maps can help instructors assess students' understanding. Create a focus question specifying the problem or issue the map should help resolve. List the key concepts (roughly 20-25) that apply to the area of knowledge. Put the most general, inclusive concepts at the top of the list, and most specific at the bottom.

[**Role-playing**](http://iteslj.org/Techniques/Kodotchigova-RolePlay.html)**.**

Role plays should give the students an opportunity to practice what they have learned and should interest the students. Provide concrete information and clear role descriptions so that students can play their roles with confidence. Once the role play is finished, spend some time on debriefing.

**Storyboarding.**

Story-boarding can be compared to spreading students' thoughts out on a wall as they work on a project or solve a problem. Story boards can help with planning, ideas, communications and organization. This method allows students to see the interconnections, how one idea relates to another, and how pieces come together. Once the ideas flow, students become immersed in the problem and hitch-hike other ideas.

[**DO IT**](http://members.optusnet.com.au/~charles57/Creative/Techniques/do_it.htm) **.**

DO IT stands for Define problems, be Open to many possible solutions, Identify the best solution and then Transform it into effective action.It accelerates and strengthens one's natural creative problem-solving ability and to stimulate a large number of good, diverse ideas.  
When time allows, students can take advantage of incubation (unconscious thinking) and research processes (find out what ideas have already been tried).

[**Random Input**](http://www.mindtools.com/pages/article/newCT_07.htm)**.**

Random input, a lateral thinking tool, is useful for generating fresh ideas or new perspectives during problem solving. It offers new perspectives on a problem, fosters creative leaps, and permits escape from restrictive thinking patterns. It is helpful to get new insight by selecting a word from outside the field being studied. List the word's attributions or associations, then apply each to the problem at hand. With persistence, at least one of these may catalyze a creative leap.Students thinking about reducing car pollution have so far considered all the conventional solutions, e.g. catalytic conversion and clean fuels. Selecting a random noun from the titles of books in a bookcase, a student may see "Plants." Brainstorming from this, the class could generate a number of new ideas, such as planting trees on the side of roads or passing exhaust gases through a soup of algae, to reduce carbon dioxide.

[**Questioning Activity**](http://www.creativityatwork.com/articlesContent/teaching-creativity.htm)**.**

In this exercise in questioning, students create a list of 100 questions. There are no directions regarding what questions to ask and no judgments or criticism of questions.Students will ask a wide range of questions, increasing student productivity and motivation. As students focus on what they want to discover and generate their own questions, they pursue answers without prodding. Questions can be general or based on a particular topic or reading; instructors can give several examples from their own lists.

[**Slip Writing**](http://www.mycoted.com/Crawford_Slip_Writing)**.**

This method can gather ideas from large groups, numbering from the dozens to the hundreds. Students are given slips of paper and asked to write down ideas which are discussed or evaluated. This method collects a large number of ideas swiftly and creates a sense of participation or ownership at the same time.

[**Laddering**](http://www.mycoted.com/Laddering)**.**

Laddering or the "why method" involves toggling between two abstractions to create ideas. Laddering techniques involve the creation, reviewing and modification of hierarchical knowledge. In a ladder containing abstract ideas or concepts, the items lower down are members or sub-sets of the ones higher up, so one move between the abstract and concrete. Laddering can help students understand how an expert categorizes concepts into classes, and can help clarify concepts and their relationships. Beginning with an existing idea, "ladder up" by asking, of what wider category is this example? "Ladder down" by finding more examples.

[**Exaggeration**](http://www.mycoted.com/Exaggeration)**.**

This method helps in building ideas for solutions. It is useful to illustrate a problem, by testing unspoken assumptions about its scale. It helps one think about what would be appropriate if the problem were of a different order of magnitude. After defining a problem to be addressed or idea to develop, list all the component parts of the idea or if a problem, its objectives and constraints. Choosing one component, develop ways of exaggerating it and note them on a separate sheet.

[**Brain-sketching**](http://www.mycoted.com/BrainSketching)**.**

To solve a specific problem, students make sketches and then pass evolving sketches to their neighbours. Students sit in a group of 6-8 around a table or in a circle. Questions or problems should be well explained and understood by each student.

[**Reversal**](http://www.virtualsalt.com/crebook2.htm)**.**

The reversal method takes a given situation and turns it around, inside out, backwards, or upside down. Any situation can be "reversed" in several ways.Looking at a familiar problem or situation in a fresh way can suggest new solutions or approaches. It does not matter whether the reversal makes sense or not.

[**Fishbone**](http://www.teachersatrisk.com/2007/01/01/graphic-organizer-fish-bone/)**.**

The fishbone technique uses a visual organizer to identify the possible causes of a problem. This technique discourages partial or premature solutions and demonstrates the relative importance of, and interactions between, different parts of a problem.

[**The Mystery Spot**](http://www.accessexcellence.org/AE/mspot/)**.**

Teachers set up a mystery story (videos, animations) that evolves a key concept such as DNA. Students try to solve the mystery by applying their knowledge. Meanwhile, the story evolves as students investigate on the problem, allowing the instructor to incorporate different knowledge/concepts, and different knowledge depths. The mystery integrates science learning within an exciting narrative. The narratives have wide appeal and involve students in learning. It is also a very flexible tool with which instructors can invent stories based on their lesson purposes/ targeted key points.

**The Blackout Syndrome.**

In this exercise, students are medical investigators. And as a blackout paralyzes the city, they are called in to investigate outbreak of a new disease. They need to take steps to identify how it is transmitted, characterize it, and figure out how to treat it. The mystery tests literacy, problem solving skills and deductive reasoning. Students investigate why people have fallen ill, do lab tests in order to decide what kind of pathogen is involved, and work on solutions and how to best counter the disease. A conclusion offers further research readings.

**Strategies for Developing Creativity in Students**

Creativity fosters deeper learning, builds confidence and creates a student ready for college and career. Researchers have proved that creativity can be taught and learned. It is no more the time creativity was regarded as being only genetically endowed in individuals (Ozioko, 2006). He added that creativity is achieved through processes; ways of teaching and learning that involve not only the strategies, techniques and activities, but also the attitude and feeling of teachers. One sure way of fostering creativity in children is by providing a favourable social environment for them.

Okoh (1983) posited that teachers should respect their students’ ideas and questions in order to foster creative thinking in them. He further suggested that students should be made to appreciate and imbibe the general aspect of information; teachers should encourage self-knowledge, self-trust and risk taking in students; teachers should stress discovery and explorations for the students; there should be no insistence on sex for certain subjects or activities (like nursing, cooking for females, engineering, medicine for males); school curriculum should not be based on academic achievement only; and higher thinking skills have to be infused into the teaching strategies used by teachers in schools. Jeffrey and Craft (2004) stated that creative thinking can be developed in the learners through encouraging young people to believe in their creative identity; identifying students’ creative abilities; fostering creativity by developing some of the common capacities and sensitivities of creativity such as curiousity, recognizing and becoming more knowledgeable about the creative processes that help foster creativity development and providing opportunities to be creative.

Abe (2006) disclosed that learners can develop creative thinking through teaching them to believe in change to think the unthinkable; teaching them to become receptive to ideas, that is, being an experimental entrepreneur and be progressive and not regressive; learning to let go pre-conception and understand the different ways of reprogramming the minds using knowledge and experiences more productively; working with others-sharing ideas with others; evaluation of ideas against goals to identify the strength and weakness of the idea and then present the proposal with confidence; involving creative people to help find solution to problems; and ensuring that new ideas are relevant to the needs of a particular situation, and understand the process by which creative ideas are turned into realistic plans. Synthesizing ideas in original and surprising ways, asking new questions to build upon an idea, brainstorming multiple ideas and solutions to problems, and communicating ideas in new and innovative ways are some of the strategies for teaching for creativity (Lucas, 2013).

**Factors that Hinder Creativity in Students**

Abe (2006) revealed that some of the factors that hinder teaching creatively and creativity in students are inconsistency in educational policy, where policy changes with new political administration; cultural factors in terms of people’s resistance to change; political and social factors inhibition, where ideas are not often shared and recognized into new assemblage with others; creative people not putting their creative ideas forward for development; problem of originality in terms of looking for the right answer to every situation; problem of logicality in terms of always trying to be logical when faced with a familiar problem; strict observation of rules and regulations which constrains creativity; fear of ridicules and avoidance of failure; avoiding ambiguity among others. Ozioko (2006) pointed out factors which hinder teaching for creativity to include teacher strategies that do not contextualize learning, and provide students with opportunities to work and reflect over an extended period of time emphasizing self-reliance and flexibility; strong emphasis on memorization and imitation by learners; instructional strategies that do not engage learners in experiential learning, but lead them to observe, interpret, analyze, make and consider consequences; and teachers not serving as facilitators allowing students to construct their own knowledge through learning, application, action, review and reflection.

**Ways of Promoting Entrepreneurship through Teaching to Think Creatively**

Learners need to be taught to have unbending confidence in the ability to come up with solutions to problems or businesses. Torrance (1995) posited that the ways of teaching to think creatively include training on programmes that emphasizes creative problem solving procedures or modifications; training in general semantics, creative research and the like; complex programmes involving package of materials; using media and reading programmes designed to teach and give practice in creative thinking; curricular and administrative designed to create favourable conditions for learning and practicing creative thinking; using motivation, reward, competition, and the like; using teacher-classroom variables, indirect and direct control, classroom climate, and the like; testing conditions designed to facilitate a higher level of creative

functioning or more valid and reliable test performance; increasing attention to specific creative problem solving skills; providing practice with feedback; using guided fantancy and guided imagery; thematic fantacy play and the use of games; testing or other activities should not interrupt or replace highly interesting and activities of the learners; and training in creative writing to improve creative thinking.

Ozioko (2006) suggested that learners should be taught to imbibe the attribute of risk taking in business which enables one venture into virgin areas and make inputs into business transactions; taught to learn divergent thinking strategies to enable them generate ideas for businesses; taught for flexibility in thoughts, so as to be receptive to new concepts, ideas, materials and approaches to improve the business; and taught to be motivated by problems they encounter.

***Conclusion***

This write up has shown that unlike many phenomena in science, there is no single authoritative perspective or definition of creativity. Although, some people tried to explain its concept in their own views, so also entrepreneurship. Creativity was revealed to be clearly part and parcel of the entrepreneurial skills required to successfully start a venture. Nigeria educational system has to be reviewed tilting towards promoting entrepreneurship through teaching for creativity. There is the need to identify students’ creative abilities, motivate them, reward, and place them on competition. Conducive educational environment that nurtures creativity in the learners is needed, where the learners will have freedom of thought and expression to stimulate initiativeness, fluency, originality, flexibility and elaboration which are attributes of creativity. Creativity empowers entrepreneurs to tap into their resources, get motivated, and commitments to reform the pattern of production for self-reliance. Creative thinking skills have to be infused into the educational system. And through such infusion, entrepreneurship education would be realistic. Entrepreneurship empowered by creativity is the solution to our national economic problems, in that natural resources will be tapped-generating the wealth enclosed in our society to the optimum. Promoting entrepreneurship through teaching for creativity makes room for self-employment, thereby reducing abject poverty in the society.

***Recommendations***

1. Experts in educational planning and administration are to adjust the curriculum to include the emerging realities in the new world order of creativity and national development.
2. All education stakeholders in Nigeria should be actively involved in the task of translating Nigerian educational objectives into reality. This could be achieved by emphasizing education for creativity rather than education for certificate and employment.

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**SUICIDAL IDEATION AMONG IN-SCHOOL ADOLESCENT**

**IN ENUGU STATE, NIGERIA**

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***Abstract***

*The study determined suicidal ideation among in-school adolescent in Enugu state, Nigeria. Descriptive survey design was used to execute the study. One research question was posed while two hypotheses that were postulated to guide the study were tested at .05 level of significance. The population for the study was 148,028 in-school adolescents in public secondary schools owned by Enugu State Government. The sample for the study was 2112 in-school adolescents selected through multistage sampling procedure. An 18-item structured In-School Adolescents’ Suicidal Ideation Questionnaire (I-SASIQ) was utilized to generate data for the study. The I-SASIQ was validated by experts and its reliability index of .80 was determined using Pearson Product Moment Correlation Coefficient and its internal consistency of .70 was established using Cronbach’s Alpha. Mean and standard deviation were utilized to answer the research question whereas z-Test was used to test the hypotheses. Findings showed that suicidal ideation was low (=1.17; SD=.54) among in-school adolescents in Enugu state. z-Test indicated that location (z-Test cal.=11.78; df=1798; p-value=.04) and gender (z-Test cal.=14.17;df=1798;p-val= .04 ) made statistically significant difference on suicidal ideation among the respondents. Based on the results, it was recommended among other things that suicide education should be introduced in the schools to reduce further the extent of suicidal ideation among the in-school adolescents in Enugu state.*

**Key words:** suicidal ideation, adolescents, in-school adolescents

***Introduction***

Suicidal ideation is the foundation of a wider suicidal behaviours continuum. It is also described as suicide thought. World Health Organization-WHO (2002) reported that suicidal ideation included behaviours that move in the direction of possible threat to the person’s life. Robert (2008) called thoughts and plans about killing oneself suicidal ideation. Suicidal ideation also includes verbalization of thoughts or threats of suicidal behaviour without an actual act (Sema, 2011). Therefore, suicidal ideation as used in the present study means an individual’s obsession with the thoughts of how to kill him or herself.

Suicidal ideation is a product of hopelessness or frustration in life. Most people have suicide thought at some point in their lives (Gross, 2005). One tragic thing about suicide thought in the location of the present study is that nobody takes its threats seriously. Okafor and Okafor (1998) pointed out that the rejection of the suicidal persons’ communication usually acted as the last straw.

Suicidal ideation is currently a serious public health challenge in Nigeria and many other parts of the world as shown in literature. For example, Lafromboise and Howard-Pitney (1998) reported that 64-83 per cent of the in-school adolescents who studied in United States of America (USA) reported moderate to severe suicide thought. Center for Mental Health Services CMHS-USA (2001) confirmed that half of high school students in USA had entertained the thought of suicide. Ene (2000) in a study in Enugu urban, Nigeria showed that the same percentage of males (21.7%) and female (21.7%) students in secondary schools who studied in the state seriously considered suicide in the previous 12 months. The report showed that gender did not significantly influence the students’ consideration of suicide. The author attributed the no significant influence to increase in day students in Nigeria. The students attended school from their homes; therefore, there were reduced levels of depression and loneliness which were well known for inducing suicidal ideation

Makanjuola (2002) observed that all the suicide victims (100%) in a study in Ilorin expressed suicidal ideation prior to their death. Lee Fung, Tsang, Liu, Huang, He, Zhang, Shen, Nock, and Kessler (2007) also showed that 3.1 per cent of the study sample in Metropolitan China had thought of suicide. From the findings, more females had significantly higher odds than males for suicidal ideation. The authors attributed the higher prevalence of suicide thought among the females to their higher rate of depression, social disadvantage and tendency to communicate distress through non-fatal suicidal behaviour. The authors ascribed the low prevalence rate to the shame, stigma and secrecy associated with reporting of suicidal behaviours in China. Procope-Beckles (2007) revealed that 21.7 per cent females and 14.2 per cent males aged 13-15 in Trinidad seriously considered suicide. Nock, Holmberg, Photos and Michel (2007) indicated that respondents’ likelihood of engaging in suicide thought in the future was 1.3 per cent.

Since suicidal ideation can progress from thought to suicide attempt and even to completion if the idea is not nipped in the bud such idea should not be dismissed as trivial. This is of utmost importance in Nigeria where suicidal ideation is expected to increase. This is because of increasing stressful conditions in the environment (Achalu, 2015). The scarcity of basic infrastructure, hunger, insecurity and pressure to succeed at all cost are likely to task the in-school adolescent’s coping abilities beyond measure. Additionally, many of the in-school adolescents in Nigeria worry because of high school fees, feeding, accommodation, examinations and admission into higher institutions.

In-school adolescents are those undergoing one form of educational programme or another in schools. Those in secondary schools were the focus of the present study. Secondary education, according to Ani (2007), is all about preparing the students for life challenges in the society. The challenges include academic pressures or difficulties, increased decision-making, strange classroom or dormitory rules. Asogwa (2015) reported that the regimented life of school environment especially for those who are very far away from their parental home makes it suicide evoking. Moreover, the transition to high school for boys and girls who are at the same time transiting from puberty to adulthood can create peculiar adjustment problems (Santrock, 2005). This is because puberty is occurring when the adolescent is confronted with the unfamiliar school environment where competition characterizes almost every activity. Under that situation, the students’ performance might drop sharply leading to poor self-esteem and poor motivation (Berk, 2004). Those of them living in boarding school or in rented apartment in cities could as well be under the threat of insecurity.

There is heightening insecurity in schools worldwide. Ene (2004) indicated that students in Nigeria were increasingly becoming afraid of going to school due to rising violence in schools. The case of the abduction of Chibok girls is a typical manifestation of that fear. The in-school teenage girls even have the unique problem of teenage pregnancy (Samuel, 2006). Extreme poverty among these girls as indicated by National Population Commission-NPC (2000) coupled with teenage pregnancy could not only terminate the girl’s education permanently but can trigger off suicidal ideation. Therefore, studying suicidal ideation of in-school adolescents is critical as it can point to its extent in the present area and ways of curbing it can be strategized.

**Research Question**

The following research question was posed to guide the study.

What is the extent of suicidal ideation among in-school adolescents in Enugu state?

**Hypotheses**

Two null hypotheses were postulated to guide the study and each of them was tested at .05 level of significance.

H01 There is no significant difference between the mean response ratings of rural and urban in-school adolescents in Enugu state on extent of suicidal ideation.

H02 There is no significant difference between the mean response ratings of male and female in-school adolescents in Enugu state on extent of suicidal ideation.

***Method***

The descriptive survey design was used for the study since McMurtry (2005) showed that it could be used to determine the presence and extent of a particular problem. The study was conducted in Enugu state of South-East Geopolitical Zone. It has 17 Local Government Areas (LGAs) and six Education Zones.Apart from Enugu capital territory, Nsukka and Oji-River LGAs that were designated urban, the state is predominantly rural in nature. The people were experiencing sociocultural disruptions that could be suicidogenic(Njoku, 2000). This is typified by the disintegration of the extended family system that checked suicidal tendencies in the past. Possibly, that made some adolescents in parts of Enugu state resort to the use of alcohol and drugs (Igbokwe, 2011). As it has been shown, substance use is suicide inviting.

The state is also characterized by teeming populations of adolescents in both public and private secondary schools (Ministry of Education, Enugu, 2012). The state had tertiary institutions that attracted adolescent students from different parts of the world. There were many out-of-school adolescents in the state who lived rough in the streets, especially in urban areas. This is not amazing since Schafear (2007) showed that urban centers are the destination of immigrants from around the world.

The population for the study was 149,028 in 291 secondary schools owned by Enugu State Government. (Post Primary Schools’ Management Board-PPSMB Enugu, 2014). A multi stage sampling procedure using appropriate sampling technique was employed to draw the sample of 2112 from all the 17 LGAs in Enugu state. The sample size was sufficiently representative of the population (Schutt, 2005)

A structured instrument called ‘In-School Adolescents’ Suicidal Ideation Questionnaire’ (I-SASIQ) which consisted of sections A and B was used for data collection. Section A, which was descriptive in nature generated data on demographic variables while Section B which had fifteen items elicited data for answering the research question. The structured questions had 4 response options. The face validity of the instrument was obtained through the judgment of five experts in human kinetics and health education, psychology, sociology/anthropology, and science education.

In order to establish the reliability of the I-SASIQ, it was administered on 30 in-school adolescents in a co-educational institution which was different from the sampled schools. The resultant data from the split-half method were correlated using the Pearson Product Moment Correlation Coefficient and it yielded a correlation coefficient of .80. In accordance with Odoziobodo and Amam (2007), the instrument was deemed suitable to be used for data collection. The internal consistency of the questionnaire was determined using Cronbach’s Alpha since Okwo (2001) showed that it is used for the establishment of internal consistency of questionnaire with items scaled in line with Likert’s. The mean reliability coefficient for the I-SASIQ was .70. Hence, the instrument was utilized to obtain data as recommended by Munro (2001).

In order to gain access to the schools, the researcher got approval from the Commissioner for Education, Enugu state. The approval helped the researcher a lot in gaining access to the classes’ registers and helped to reduce inhibitions associated with suicide studies (Tousignant, Seshadri & Raj, 1998). The researcher engaged three research assistants, who were health and physical education teachers in secondary schools in the state. This was in line with Mindel’s (2005) recommendation. The research assistants, who had appropriate communication skills, were briefed to desensitize them regarding suicide. They distributed copies of the questionnaire in the sampled schools and collected them on the spot. The respondents who could not complete the I-SASIQ had theirs read out for them and the options of their choice were filled in by any of the members of the research team. Collecting the copies of the questionnaire on the spot was to guard against the resistance associated with suicide studies and to prevent the respondents from giving the copies of the questionnaire to other persons to fill in.

Out of the 2,112 copies of the questionnaire distributed 1,971 copies were returned, giving a return rate of 93 per cent. The in-school adolescents’ participation in the study was purely voluntary. Since the return rate was above 70 per cent which Schutt (2005) showed to be the least acceptable response rate upon which randomly selected sample will be generalizable to the population, the resultant data were used for data analysis.

The data were analyzed using the International Business Machine Statistical Package for Social Sciences version 21. The 1,971 returned copies of the questionnaire were checked for completeness and 1,800 copies that were properly completed were used for data analysis. The data were analyzed to indicate the mean () responses and standard deviations (SDs). The response options were weighted thus: Three times or more = 3 points, Twice = 2 points, Once = 1 point and Never = 0 point. Based on this, the limits of real numbers were used to interpret the mean ratings as follows: 0.00-0.49 = very low extent (VLE), 0.50-1.49 = low extent (LE), 1.50-2.49 = high extent (HE) and 2.50-3.00 = very high extent (VHE) of suicidal ideation. The mean ratings and standard deviations were presented in table and used for description as well as to answer the research question. The z-Test (Critical Ratio) statistic was used to test null hypotheses postulated to guide the study at .05 level of significance. Uzoagulu (2011) showed that z-Test is appropriate for data where two independent groups’ mean ratings are compared.

***Results***

**Table I:**

**Mean Ratings of Suicidal Ideation among In-school Adolescents in Enugu State (n=1800)**

Suicidal Ideation Responses

SD Decision

3. Cutting of oneself 1.37 .85 LE

4. Overdosing on drugs 1.18 .61 LE

5. Lying down before a moving vehicle 1.24 .66 LE

6. Swallowing poisonous substance 1.14 .47 LE

7. Drowning 1.31 .68 LE

8. Stabbing/puncturing 1.19 .56 LE

9. Jumping from a high place 1.13 .45 LE

10. Strangling/hanging 1.14 .49 LE

11. Shooting with a gun 1.05 .30 LE

12. Crashing vehicle 1.12 .44 LE

13. Covering face so as to stop breathing 1.18 .54 LE

14. Provoking a person in possession of arms 1.10 .47 LE

15. Telling someone about the intent to kill oneself 1.16 .51 LE

16. Making a plan about how to kill oneself 1.18 .55 LE

17. Burning of oneself 1.11 .47 LE

Grand mean and standard deviation 1.17 .54 LE

Table 1 shows that in-school adolescents had a grand mean rating of 1.17 with standard deviation of .54 which fell within the limit of .50-1.49 indicating low extent of suicidal ideation. The Table also indicates low extent of suicidal ideation on all the listed methods with thinking about killing oneself by cutting having the highest mean rating (=1.37; SD=.85). Considering killing oneself by shooting, on the other hand, had the least mean rating (=1.05; SD=.30). The in-school adolescents were evenly affected by suicidal ideation since the grand standard deviation of .54 was negligible.

**Table 2:**

**Summary of z-Test testing the null Hypothesis of no Significant Difference in the Extent of n Suicidal Ideation Among in-school Adolescents according to Location**

LocationSD P-value df cal.z Decision

Rural 1.10 .03 .04 1798 11.78 Rejected

Urban 1.13 .06

Table 2 shows that the calculated z-Test value of 11.78 with p-value of .04. Since the p-value of .04 was less than .05 level of significance at 1798 degree of freedom, null hypothesis of no significant difference between the mean ratings of rural and urban in-school adolescents in Enugu state on extent of suicidal ideation was rejected. This implies that extent of suicidal ideation of urban and rural in-school adolescent is not the same.

**Table 3:**

**Summary of z-Test Testing the null Hypothesis of no Significant Difference in the Extent of Suicidal Ideation Among in-school Adolescents according to Gender**

Gender SD P-value df cal.z Decision

Male 1.20 .08 .04 1798 14.17 Rejected

Female 1.14 .09

Table 3 shows that the calculated z-Test was 14.17 with a p-value of .04. Since the p-value was less than .05 alpha level at 1798 degree of freedom, the null hypothesis of no significant difference the extent of suicidal ideation of male and female in-school adolescents in Enugu state was rejected.

**Discussion**

The finding showed that there was low extent of suicidal ideation among in-school adolescents in Enugu state. This finding is surprising since factors that precipitate suicidal behaviours abound in the location of the study. The low extent of suicide thinking reported by the respondents could be mere expression of socially acceptable opinion. This finding was at variance with that of Lafromboise and Howard-Pitney (1998) and CMHS-USA (2001), who found that up to half of high school students in USA had entertained the thought of suicide. The discrepancy between this finding and the finding in USA is possibly as a result of socio-cultural differences between America and Enugu State. While Americans are acclaimed for their free expression of thought and feelings even on very sensitive issues like suicidal ideation, Nigerians, especially children, are reserved in such topics. Therefore, the finding in the present study could be a matter of disclosure rather than the actuality of the in-school adolescents’ thoughts alone.

This finding, however, agreed with that of Ene (2000), who found low level of suicide thought among senior secondary school students in one urban part of Enugu. According to the author, the low level of suicidal ideation was partly due to reduced level of loneliness among the students. Therefore, it can undoubtedly be argued that in-school adolescents in Enugu state were still protected by family and community social networks.

The z-Test showed that null hypothesis one, which stated that there was no significant difference between rural and urban in-school adolescents on suicidal ideation was rejected. Therefore, the finding was statistically significant. This could be due to the wide gap between the rural and urban areas of Enugu state in terms of availability of social amenities. Moreover, the frustrating nature of these social services in the urban settings of Enugu state might have contributed to the result. The finding disagreed with Atitah (2007), who showed that location had no significant influence on suicide in Akwa Ibom state. The disagreement with Atiatah’s could be due to the even development in Akwa Ibom state which Enugu state lacked. The even development in Akwa Ibom might have neutralized the influence of location on the suicides.

The z-Test showed that gender made statistically significant difference on suicidal ideation of in-school adolescents in Enugu state. This was anticipated because in Enugu state, males are socialized to be tough, unemotional and aggressive. Suicide thought is a contemplation of aggressive action against oneself. The preponderance of male in-school adolescents in substance abuse and suicidal behaviours in Enugu State which was identified by Igbokwe (2011) may thus be problem of wrong male orientation. Therefore, one can with some degree of confidence conclude that the difference between male and female in-school adolescents on suicidal ideation in Enugu state was as a result of the demonstration of masculinity which was accentuated by their abuse of drugs.

The result from the present study was inconsistent with Ene’s (2000) finding of no significant difference between male and female students on suicidal ideation. He ascribed that finding to absence of depression and loneliness among both genders. Since depression is characterized by thoughts of unworthiness, self-blame and hopelessness; more females than males were often affected. However, female in-school adolescents in Enugu state who were denied the opportunity of secondary education in the past were likely to be currently, imbued with feeling of greater self-worth and hope for life challenges ahead. In contrast, the boys could have been disillusioned by the prevailing type of secondary education in the area which did not meet their societal needs. The intimidating presence of boys was no longer there since more females than males were enrolled in secondary schools in the state (PPSMB, 2014). Therefore, attributing the significant difference in suicidal ideation in the present study to female students’ growing feeling of self-worth against the male students’ disillusionment with the status quo is reasonable. Furthermore, female in-school adolescents who might have nursed the idea of killing themselves probably, dropped out of school before expressing that wish. This is because NPC (2000) indicated that many female in-school adolescents in Nigeria did not complete secondary education due to poverty.

***Conclusions***

The following conclusions were reached based on the findings of the study:

1. There was low extent of suicidal ideation among in-school adolescents Enugu State;
2. There was significant difference between rural and urban in-school adolescents in Enugu state on extent of suicidal ideation.
3. There was significant difference between male and female in-school adolescents in Enugu state on extent of suicidal ideation.

***Recommendations***

Based on the conclusions, the researcher recommended that health educators should start in earnest to teach suicide education to in-school adolescents in Enugu State. This could be done using teachable moments so as to reduce the extent of suicidal ideation to lower level. Since there is significant difference between rural and urban in-school adolescents on suicidal ideation, school health educators in urban schools could form suicide education clubs that will look out for persons who nurture such idea. Similarly, health educators in schools could fashion out specific programmes for male students to divert their thought from suicide. Sports and dramas are examples of such programmes.

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**INFLUENCE OF GENDER AND SMOKING EXPERIENCE ON TOBACCO SMOKING QUITTING AMONG UNDERGRADUATES IN SELECTED UNIVERSITIES IN NIGERIA**

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***Abstract***

*Several studies examined the determinants of addiction to tobacco smoking among undergraduates in Nigeria. This study investigated the influence of gender and smoking experience on tobacco smoking quitting among undergraduates in the selected universities in Nigeria. The study adopted descriptive survey research design. One hundred and twenty-one participants were sampled for the study, using purposive and network sampling techniques. Participants were randomly assigned to gender and smoking experience groups. Tobacco Smoking Cessation Questionnaire was used (r =0.86). Data were analysed using ANCOVA. There was no significant main effect of gender on tobacco smoking. Significant main effect of smoking experience on tobacco smoking cessation exists. The study concludes that TS is prevalent in Nigeria. It is therefore, recommended that; agencies involved in Anti-tobacco smoking should intensify their efforts towards tobacco smoking cessation in Nigeria.*

***Keywords***: Gender, Smoking experience, tobacco smoking quitting, Undergraduates

***Introduction***

Smoking is one of the contributory factors to peoples’ ill health and sudden death. Tobacco can be taken in several forms; it can be chewed, drank as tea, snuffed and smoked in form of cigarette. Cigarette smoking is a significant risk factor for cardiovascular disease, cancer, respiratory function impairment and also one of the major causes of premature mortality in industrialised and developing nations (Doll, Edwards and Forbes, 2004).

Tobacco is prepared with nicotine-rich leaves of an American plant, which involves the process of drying and fermenting so as to promote smoking or chewing. Cessation of tobacco smoking increases the user’s life span and reducesmorbidity (United States Department of Health and Human Services, 1990). Many attempts to stop smoking are made unaided,with a success rate of around (2% to 4%) (Hughes2007; West, 2005). Aided quit attempts, particularly through a combination of behavioural counselling andnicotine replacement therapy (NRT), bupropion or varenicline, can improve success rates, butthese remain low (Cahill, 2010; Hughes, 2007; Staten & Ridner, 2006).

Studies of gender differences in smoking behaviours and cessation patterns have also been conducted by numerous researchers. For example, Ellis et al. (2008) examined the differences by gender in smoking cessation after providing nicotine replacement therapy. The authors assessed data collected from an annual phone interview called the Community Health Survey (CHS) conducted in New York City. The study used data from the interviews from 2002 to 2005. The criteria for the survey included adults 18 years and older, resident in New York City, consented to having their information shared, agreed to follow up interviews, admitted to wanting to quit smoking in the next seven days, and smoked at least ten cigarettes a day. About 40,000 causes of nicotine replacement therapy were given to the participants in the study.

Ritterband et al (2003) affirmed that counseling calls were made to each participant three weeks after receiving the nicotine replacement therapy and that the calls included questions about the effectiveness of the patch and the side effects associated with the patch. The limitations of the study were as follows: the phone interviews were cross-sectional so the results did not interpret the causality; the answers were self-reported and may have been subjected to bias; it is possible that the change seen in the smoking rates may have been due to a cohort effect and not individual change in behaviour, there were a low number of completed counseling calls. Finally, the conclusions drawn about the replacement therapy were limited to the post-enrollment three-week evaluation. The smoking rate dropped from 23.8% to 18.8% and nearly all the smokers who quit were women. The authors found that the participants in the young adult age group used the nicotine replacement therapy more than the other age groups.

The relationship between experiences and smoking has been extensively examined in both the United States and other countries (Katomeri, 2009;Avecado, & Ekkekakis, 2006). The 1989 US surgeon general's report, upon a thorough review of the literature, concluded that experience an individual has could serve as a predictor of cigarette smoking patterns (United States Department of Health & Human Services, 1990). The general consensus has been that the kind of experience one has, the more likely this person is to remain with smoking as a habit. Upon review of the literature, it was found out that researchers who reached this conclusion typically categorised the smoking experience variable as follows: beginners, middle class smokers and highly smokers and heavy smokers (Taylor & Katomeri, 2007). When smoking experiences are defined in this manner, smoking prevalence sometimes differs little between those who are low level smokers and those higher levels and sometimes the prevalence of smoking cessation is higher (Patrick, 2009). These seemingly counter intuitive results motivated the study to scrutinise the relationship between smoking and their experiences (Zhu, Anderson, Tedeschi, Rosbrook, Johanson & Byrd, 2002).

**Objectives of the Study**

The following are its objectives:

1. To establish the effect of gender on tobacco smoking quitting among undergraduates.
2. To investigate the effect of smoking experience on tobacco smoking quitting among undergraduates.

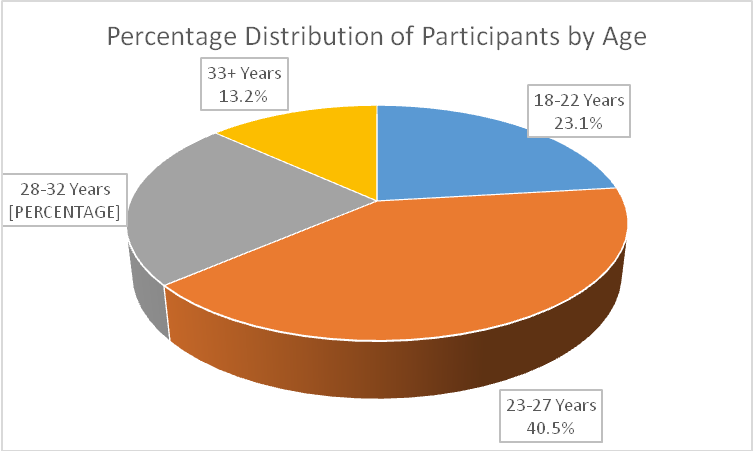
***Method***

The research design that was used in this study is descriptive survey research design. The study adopted the design because the participants for the study were randomly assigned to treatment groups using fish bowl method without replacement. The population for the study consisted of undergraduates (male and female full time matriculated Undergraduates) in two universities in Nigeria that is; University of Lagos and Obafemi Awolowo University.

The sample size for this study consisted of one hundred and twenty-one university undergraduate smokers. To select participants for the study, network and purposive sampling techniques were used. In the first instance, purposive sampling technique was adopted for the two universities. The second sampling technique that was used to identify undergraduate smokers in halls of residence in each of the institutions is network sampling technique. The criteria included in this study were: smokers who were undergraduates, those screened and confirmed to be smokers by using detector question items, male and female undergraduate smokers who showed genuine interest by filling the informed consent form and questionnaire, those who were available and accessible throughout the intervention and complied with the conditions of the study. The research instrument used for data collection was a self-developmental instrumentation. The questionnaire however, has two sections. Section one consists of demographic profiling of the participants which are age, sex, and smoking experience while section two contains question items relating to Tobacco Smoking quitting.

***Results***

On the distribution of participants by age, 28(23.1%) of the participants are between the age of 18 and 22 years, 49(40.5%) are between 23 and 27 years, 28(23.1%) are between 28 and 31 years, 16(13.2%) are aged 33years and above. This showed that majority of the participants were between the age of 23 and 27years. This implies that tobacco smoking as a habit is on the increase among university students in Nigeria, particularly those with 23years to 37years age bracket. Distribution of participants by smoking experience, 77(63.6%) of the participants are beginners, 12(9.9%) are intermediate, 20(16.5%) are advanced while 12(9.9%) did not respond. This shows that majority of the participants are beginners.



**Hypotheses testing**

There is no significant main influence of gender on Tobacco smoking quitting among undergraduates in Nigeria.

Table 1

**ANCOVA showing main influence of gender on Tobacco smoking cessation among undergraduates**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Source | Sum of Squares | DF | Mean Square | F | Sig. | Eta2/ Effect Size |
| Corrected Model  Pretest tobacco  Gender  Error  Total | 785.312  664.592  65.772  33089.431  33874.744 | 2  1  1  118  120 | 392.656  664.592  65.772  280.419 | 1.400  2.370  .235 | .251  .126  .629 | .023  .020  .002 |

(R-squared = .023, Adjusted R-Squared = .007)

The above results showed that there is no significant main influence of gender on tobacco smoking quitting among undergraduates (F(2,118) = .235, P >.05, =.002). This indicated that there is no significant gender influence in tobacco smoking quitting among undergraduates. Hence, the hypothesis is retained. This could be deduced that being male or female undergraduate smoker has no significant basis on quitting tobacco smoking.

Table 2

**Estimated Marginal means of gender on Tobacco smoking quitting**

|  |  |  |
| --- | --- | --- |
| Gender | Mean | Std. Error |
| Male  Female | 57.078  59.163 | 1.651  3.967 |

However, the mean (x= 59.163) for female smokers is greater than (x=57.078) of male smokers. This means that female smokers responded to the treatment better than their male counterparts.

There is no significant main influence of smoking experience on Tobacco smoking quitting among undergraduates.

Table 3

**ANCOVA showing main influence of smoking experience on Tobacco smoking quitting among undergraduates**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Source | Sum of Squares | DF | Mean Square | F | Sig. | Eta2/ Effect Size |
| Corrected Model  Pretest tobacco  Smoking experience  Error  Total | 4152.527  237.187  3432.986  29722.217  33874.744 | 3  1  2  117  120 | 1384.176  237.187  1716.493  254.036 | 5.449  .934  6.757 | .002  .336  .002 | .123  .008  .104 |

(R-squared = .123, Adjusted R-Squared = .100)

The table above showed that there is a significant main influence of smoking experience on tobacco smoking quitting among undergraduates (F(2,117) = 6.757, P <.05, =.104). This denotes a significant difference in the groups on tobacco smoking cessation. Hence, the hypothesis is rejected. The table also showed a contributing effect size of 10.4%. This indicates that smoking experience has influence on tobacco smoking cessation among undergraduate smokers.

Table 4: **Estimated Marginal means of smoking experience on Tobacco smoking cessation**

|  |  |  |
| --- | --- | --- |
| Smoking experience | Mean | Std. Error |
| Beginner  Intermediate  Advanced | 61.125  59.472  47.815 | 2.218  2.522  2.999 |

From the above table, participants who were beginners in smoking had the highest mean score then followed by those who were intermediate and lastly by those who were Advanced. The mean score of (=61.125) for beginners is greater than (= 59.472) for intermediate smokers and (=47.815) for the advanced smokers respectively. It could therefore, be concluded that undergraduate smokers who are just beginning the habit had better chance of quitting than those who are in between the intermediate and advanced smokers while those at the intermediate have better chances of quitting that those at the advanced stage.

Table 5

**Scheffe Post Hoc Pairwise comparison on Smoking experience in the analysis**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Smoking experience | Smoking experience | Mean differences | Std. Error | Sig. |
| Beginner | Intermediate  Advanced | 1.7327  13.9629\* | 3.3511  3.6929 | .875  .001 |
| Intermediate | Beginner  Advanced | -1.7327  12.2302\* | 3.3511  3.8862 | .875  .009 |
| Advanced | Beginner  Intermediate | -13.9629\*  -12.2302\* | 3.6929  3.8862 | .001  .009 |

It was noted in the table that there was a significant difference among the three classification of smokers based on smoking experience; Beginner and Advanced, Intermediate and Advanced respectively.

***Discussion***

Gender differences in smoking quit rates are frequently reported and are the subject of much speculation but this study found no significant effect of gender on smoking cessation. This result is contrary to the view of Ellis *et al*. (2008)who concluded that women were more responsive to tobacco control programmes but men required a more intensive strategy. Potential mediating mechanisms include reductions in weight gain, withdrawal symptoms, and cigarette cravings; notably. The latter two factors are known contributors to cessation resistance and smoking relapse. This is contrary to the submission of Odey te. al (2012) who reported that majority of university student smokers fall below 18years. The distribution of participants by gender, 80(66.1%) of the participants are males and 41(33.9%) are females, showing that majority of the participants are male. The implication of this is that, tobacco smoking is decreasing among female undergraduates in Nigerian universities compared to male counterparts. Trust et. al (2011) agreed with the findings that tobacco smoking among females is declining in some developed and developing countries as compared to male smokers. It is important to note that more awareness on anti-tobacco smoking crusade is needed in all educational institutions in Nigeria.

Morell, Cohen & Dampsey (2008) corroborated the above submission in their findings that there were no gender differences among undergraduates in terms of their smoking behaviour. On the smoking experience, the general consensus has been that the kind of experience one has, the more likely this person is to remain with smoking as a habit. Upon review of the literature, it was found out that researchers who reached this conclusion typically categorised the smoking experience variable as follows: beginners, middle class smokers and highly smokers and heavy smokers (Taylor & Katomeri, 2007). When smoking experiences are defined in this manner, smoking prevalence sometimes differs little between those who are low level smokers and those higher levels and sometimes the prevalence of smoking cessation is higher (Patrick, 2009). Bjornson *et al*. (1995) also concluded that the interaction of gender with smoking experience as far as quitting smoking is concerned was not significant.

***Conclusion and Recommendations***

Based on the findings of this study, the following conclusions were drawn:

Smoking experience has significant effect on tobacco smoking quitting among undergraduates of the university in Nigeria compared to gender variable. Smoking experience as an intervention has strongly proven to be effective in quitting the habit of tobacco smoking. This intervention was empirically effective because of the feedback from the participants during and after the application of the treatment. The outcome of this study suggests that health care providers should promote the application of this intervention, most especially among the young adults who believe that life is characterized by freedom and a mere adventure. Also, the results of this study indicate that though, several attempts to stop cigarette smoking have yielded little success rate but with the conceptualization and application of these interventions, the confidence level of student smokers in the institutions of higher learning, particularly at the universities in Nigeria would be boosted. There is therefore, the necessity to include topics on tobacco smoking effects and reasons for its quitting in some courses such as General Studies in all tertiary institutions. Also, it should be included as a topic in some subjects like Civic Education, Biology, Health Education and Social Studies in both Primary and Secondary Schools in Nigeria. In addition, the findings of this study would serve as reference points to other researchers who may be interested in carrying out some studies focusing on similar psychotherapies to treat other deviant behaviours among people.

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**EFFECT OF HEALTH EDUCATION INTERVENTION ON TREATMENT ADHERENCE IN PATIENTS WITH PULMONARY TUBERCULOSIS IN LAGOS STATE, NIGERIA**

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***Abstract***

*Non adherence to anti-tuberculosis treatment increases the risk for the development of Multi-drug resistant tuberculosis, re-occurrence and mortality. Therefore, this research examined the effect of health education intervention on treatment adherence among pulmonary tuberculosis patients in Lagos state, Nigeria. The study adopted the Quasi-experimental research design and one hundred tuberculosis patients were randomly selected from two chest clinic hospitals. Fifty participants were each selected for the control and experimental groups. The experimental group undergo the normal routine tuberculosis care and health education session while the control group received only the routine care. The health education intervention lasted for eight weeks. Morisky 8-Item Questionnaire and Tuberculosis Knowledge and Attitudinal Questionnaire were used to measure the rate of adherence before and after the intervention. The descriptive statistics of frequency counts and percentages was used to analyse the demographic variable of the participants while inferential statistics of independent t-test was used to determine the mean difference of the stated hypotheses at 0.05 level of significance. The result revealed that there is great improvement on treatment adherence among the experimental group and also knowledge and attitude of the experimental group significantly improved compared to the control group. The study recommends that health education intervention should be adopted as part of the DOTS Strategies in combating and controlling tuberculosis in the society.*

***Keywords*:** Health Education, Intervention, Treatment Adherence, Tuberculosis Patients and Mortality

***Introduction***

Tuberculosis is an infectious disease caused by Mycobacterium tubercle, which is transmitted through air (pulmonary tuberculosis) or by ingesting infected milk or meat (Bovine tuberculosis) and it is both preventable and curable (World Health Organisation WHO, 2014). The causative organisms (M-tuberculosis, M-bovis and M-africanum) of tuberculosis are transmitted exclusively by inhalation of infective droplets from patients with tuberculosis through coughing, sneezing, talking or spitting (Erah & Ojieabu, 2009). The disease primarily affects lungs and causes pulmonary tuberculosis. It can also affect intestine, meninges, bones and joints, lymph glands skin and other tissues of the body (Extra-Pulmonary Tuberculosis) (Oladeji, Tijani, Bello, Hamid & Prefa, 2014). Tuberculosis is usually chronic with cardinal features like persistent cough or without expectoration, intermittent fever, loss of appetite, weight loss, chest pain and haemoptysis (Awofeso, 2008).

Health Education plays a crucial role in the development of healthy, inclusive and equitable social, psychological and physical environment. It reflects current best practice, using an empowering, multi-dimensional and multi professional approach which relates to all setting, organizations, including the community, schools, health services and the workplace. Health Education helps provide health knowledge, enhance wellness behaviours, promote health situations, facilitate healthful relationship and enables community members make responsible decisions. The Joint Committee on Health Education and Promotion Terminology (2001) defined Health Education as any combination of planned learning experiences based on sound theories that provide individuals, groups, and communities the opportunity to acquire information and the skills needed to make quality health decisions. Health education is the process of persuading people to accept measures which will improve their health and to reject those that will have an adverse effect. Oladele (2014) is of the opinion that health education strategy such as training and teaching, awareness campaign through posters, handbills, reminders, health promotion and improvement help in fighting misconceptions about diseases conditions, improve health, and also to make informed health decisions.

Failure of tuberculosis treatment and poor health outcomes often occurs due to patient not adhering to the drug regimen, extensive cavitary disease at the time of diagnosis, drug resistance, mal-absorption of drugs, laboratory error and biological variation (Center for Diseases Control, 2014). Patients are often not adhering to the drug regimen due to symptomatic improvement, co-morbidity (Ai, Men, Guo, Zhang, Sun et al., 2010), reaction to side effects (Adegbesan, 2014), and feeling better (Abraham & Moretz, 2012). Therefore, the key success of treatment requires maintenance of patient’s health, including healthy behaviours and taking medications. WHO (2003) defined adherence as the extent to which a patient follows medical instruction. Treatment adherence is the extent to which a person’s behaviour in terms of taking medications, following diets or executing lifestyle changes coincide with medical or health advice. Biswas (2010) included the following health behaviours in her study: complying with anti-tuberculosis medication, following healthy diet, performing physical exercise, maintaining environmental hygiene, preventing disease transmission, avoiding the risk factors of tuberculosis and keeping up with medical appointments. The opportunity for proper patient assessment is usually presented when patients go to their health providers for medical reviews. The important starting point of this process is when patients keep appointments for medical review. Patients that miss appointments with health care providers create delays or lack of monitoring of their conditions thereby predisposing them to exacerbations of disease and diseases-related complications. They are likely to end up admitted or making emergency consultations because of poor disease outcomes. This increases the burden on the health system as well as loss of productivity due to illness. Therefore, this study examined the effect of health education intervention on treatment adherence among tuberculosis patients.

***Method***

The study adopted the Quasi-experimental research design whereby two hospitals were selected as the study center. The population for the study comprised all tuberculosis patients in Lagos state, while 100 participants were randomly selected into the control and experimental groups. The experimental group were selected from Mainland Hospital, Yaba while the control group were selected from Lagos State Teaching Hospital, Ikeja. The Morisky 8-Item Adherence Questionnaire and Tuberculosis Knowledge and Attitudinal Questionnaire were used to solicit information from the respondents. The health education intervention includes health education sessions and tuberculosis care manual booklet which were given to the experimental groups coupled with the normal routine tuberculosis care which lasted for eight weeks while the control group undergo only the routine care. The pre and posttest measurement were computed and analysed using independent t-test.

***Results***

Table 1

**Frequency Distributions and Percentages of Demographic Information of Participants**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Variables | Control group | | | Intervention group | |
| Frequency | | Percentage | Frequency | Percentage |
| **Gender**  Male  Female  Total  **Age**  18-25 Years  26-35 Years  36-45Years  46 Years & above  Total  **Marital Status**  Single  Married  Divorced  **Total**  **Occupation**  Student/Apprentice  Unemployed  Government/Public  Private  Self Employed  **Total** | | 22  28  50  14  22  6  8  50  16  32  2  50  21  -  4  4  21  50 | 44  56  100  28  44  12  16  100  32  64  4  100  42  -  8  8  42  100 | 20  30  50  5  12  14  19  50  12  32  6  50  10  19  6  7  8  50 | 40  60  100  1  0  24  28  38  100  24  64  12  100  20.0  38.0  12.0  14.0  16.0  100 |
| **Qualification**  No Formal Education SCH/FSCL  SSCE  Tertiary Education  **Total** | | -  7  21  22  50 | -  14  42  44  100 | -  8  17  25  50 | -  16  34  50  100 |

Table1 above shows the demographic information of the participants (control and intervention groups) in the study. The results from the table shows that for control group, 22(44%) of the participants were male participants while the remaining 28(56%) of the respondents were female. Similarly, for the intervention group 20(40%) of the respondents were male while the remaining 30(60%) of the respondents were female. From the table, it can be inferred that female were more in the two groups than the male. As regards to the age grade of the participants, 14(28%) of the participants from the control group falls with 18-25 years old, 22(44%) were between 26-35 years while 36-45 years and those between 46 years and more constitutes 6(12%) and 8(16%) respectively. Similarly, for the intervention group, 5(10%) of the participants were between 18 and 25 years old, 12(24%) were between 26-35 years old, while the remaining 14(28%) and 19(38%) participants were within 36-45years and 46 years and more respectively.

Distribution of the participants based on marital status shows that for control group, 16(32%) of the participants were single at the point of this study, 32(64%) were married while only 2(4%) were divorced. Also in a similar vein, for the invention group 12(24%) were single at the time of the study, 32(64%) married while the remaining 6(12%) of the respondents were divorced.

Also, as regard to the occupation of the participants, the results from the table shows that for control group, 21(42%) of the participants were either students or apprentice at time of the study, 4(8%) were working in government establishments, while those in private and self-employed business constitute 4(8%) and 21(42%) respectively. For the intervention group, 10(20%) of the participants were either students or apprentice at time of the study, 19(38%) were unemployed, 6(12%) were working in public/government establishments, while those in private and self-employed jobs constitute 7(14%) and 8(16%) respectively. With regards to the qualification of the participants in the study, the results from the table indicates that for control group, 7(14%) had First School Leaving Certificates (FSLC), while participants with SSCE and Tertiary education constitutes 21(42%) and 22(44%) of the participants. Similarly, for the intervention group, 8(16%) had First School Leaving Certificates (FSLC), 17(34%) had SSCE as their education while participant with tertiary education constitutes 25(50%) of the intervention group.

**Hypotheses Testing**

**Research Question 1:** Would Health Education Strategy have any significant effect on knowledge of patients towards tuberculosis treatment in Lagos State?

**Research Hypothesis 1:** Health Education strategy will have no significant effect on knowledge of patients towards tuberculosis treatment in Lagos State

The mean scores and standard deviation of the knowledge of the subjects towards tuberculosis for pre-test and post-test scores of the intervention and control groups were computed and results presented in figure 1.

Figure 1: Bar chart presentation of pre and post-test mean scores of knowledge of patients towards tuberculosis between the intervention and control groups

The figures in the bar chart indicates that the post mean score intervention group (Mean= 3.598; Sd= .336) made a differential improvement against the control group (Mean=2.519; Sd=.331). To test the corresponding hypothesis t-test statistical tool was employed and the result is presented in table 2

Table 2

**t-test analysis on Pre and Post test scores of knowledge of patients towards tuberculosis between the treatment and control group**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Groups | **N** | Pre-test scores | |  | Post-test scores | |  | | t-value | p-value |
| Mean | Std Dev. |  | Mean | Std Dev. | | Mean diff |
| Intervention Group | **50** | 2.408 | .331 |  | 3.598 | .336 | | 1.190 | 12.658 | 0.000 |
| Control Group | **50** | 2.499 | .311 |  | 2.519 | .443 | | 0.020 |

*t- value is significant at p<0.05*

Table 2 presents the t- test analysis of difference in post test scores between the intervention and the control groups. The intervention groups appeared to have made differential improvements over the control group. The intervention group has a higher mean difference score of 1.190 as against control group with a mean difference of 0.020. The difference in the mean score was statistically significant as t-calculated=12.658 at ρ<0.05. Thus, the null hypothesis which stated that Health Education strategy will have no significant effect on knowledge of patients towards tuberculosis treatment in Lagos State was rejected while the alternative was retained. The result implies that exposing patients to Health Education Intervention could be used to enhance knowledge of patients towards tuberculosis treatment.

**Research Question 2:**

Would Health Education Strategy have any effect on attitude of patients towards tuberculosis treatment in Lagos State?

**Research Hypothesis 2:**

Health Education Strategy will have no significant effect on attitude of patients towards tuberculosis treatment in Lagos State

The means response scores and standard deviation of participants’ attitude towards tuberculosis treatment for pre-test and post-test scores of the intervention and control groups were computed and results presented in figure 2 above.

*Figure 2: Bar chart presentation of pre and post-test scores of attitudes of patients towards tuberculosis treatment of the intervention and control groups*

The figures in the chart indicates that the post mean score intervention group (Mean= 3.269; Sd= .327) made a differential improvement against the control group (Mean=2.349; Sd=.311).

Table 3

**Pre and Post test scores of attitudes of patients towards tuberculosis between the intervention and control group**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Groups | N | Pre-test scores | |  | Post-test scores | |  | t-value | p-value |
| Mean | Std Dev. |  | Mean | Std Dev. | Mean diff |
| Intervention group | 50 | 2.370 | .3962 |  | 3.269 | .327 | .899 | 9.609 | 0.000 |
| Control Group | 50 | 2.309 | .4214 |  | 2.349 | .311 | .040 |

*t- value is significant at p<0.05*

Table 3 presents the independent t- test analysis of difference in scores between the intervention and the control groups. The intervention groups appeared to have made differential improvements over the control groups. This is because the intervention group recorded a higher mean difference score of 0.899 as against the control group with a mean difference of 0.040. The difference in the post-test means scores of the intervention and control groups was statistically significant, t-test statistical tool was used and the result showed that the difference was statistically significant at t=9.609, ρ>0.05. Thus, the null hypothesis which stated that Health education intervention strategy will have no significant effect on attitude of patients towards tuberculosis treatment in Lagos was rejected. This result implies that exposing TB patients to health education programme could enhance their attitude towards tuberculosis treatment.

**Research Question 3:** Would Health Education Strategy have effect on adherence to anti-tuberculosis medications in patients with pulmonary tuberculosis in Lagos State

**Research Hypothesis 3:** Health Education Intervention Strategy will have no significant effect on adherence to anti-tuberculosis treatments in patients with pulmonary tuberculosis in Lagos state

The mean scores and standard deviation of participants for pre-test and post-test scores of the intervention and control groups were computed and results presented in figure 3 below.

*Figure 3: Bar chart presentation of pre and post-test scores of adherences to anti-tuberculosis medication of the intervention and control groups*

The figures in the chart indicates that the post mean score intervention group (Mean= 3.09; Sd= .323) made a differential improvement against the control group (Mean=2.454; Sd=.334).

To test the corresponding hypothesis, t-test statistical tool was employed and the result is presented in table 4.

Table 4

**Pre and post test scores of adherences to anti-tuberculosis treatments of patients with pulmonary tuberculosis in Lagos state between treatment and control groups**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Groups | N | Pre-test scores | |  | Post-test scores | | |  | t-value | p-value |
| Mean | Std Dev. | N | | Mean | Std Dev. | Mean diff |
| Intervention group | 50 | 2.390 | .391 |  | | 3.090 | .323 | .700 | 7.653 | 0.00 |
| Control Group | 50 | 2.371 | .399 |  | | 2.454 | .334 | .083 |

t- value is significant at p<0.05

Table 4 presents the t- test analysis of difference in scores between the intervention and the control groups. The intervention groups appeared to have made differential improvements over the control group. This is because the intervention group has a higher mean difference score of .700 as against control group with a mean difference of .84. To determine if the difference in the post-test means scores of the intervention and control groups was statistically significant, t-test statistical tool was used and the result showed a difference in the mean scores of the intervention and control group was statistically significant at t=7.653, ρ>.05. Thus, the null hypothesis which stated that Heath education intervention Strategy will not have any significant effect on TB patients’ adherence to anti-tuberculosis treatments Lagos state was rejected while the alternative was retained.

***Discussion***

The first finding that health education intervention has significant effect on knowledge of tuberculosis among patients support the findings of Adegbesan (2014) who reported that extensive health education and psychological interventions plays a vital role in enhancing the knowledge of patients in adhering to their regimens. He further stated that knowledge of signs and symptoms of tuberculosis, transmission mode, prevention and treatment process could help the patients to adopt behaviours that can help to improve good quality health outcomes. In the same vein, Awofeso (2008), reported in her study that misconceptions about the cause and mode of transmission are key factors inhibiting treatment adherence among tuberculosis patients. Therefore, health intervention which focus more on improving the knowledge of patients towards tuberculosis and treatment could help predict positive health outcomes. Bello and Itiola (2010) also stated that simple measures such as providing the patients with information about side effects before starting treatment and reinforcing this information during subsequent consultations could also help the patients to adhere to their medications.

The second finding that health education intervention has significant effect on attitude of patients towards treatment is in line with the findings of Fatiregun and Ejeckam (2010) who reported in her findings that attitude of patients can affect treatment adherence. The findings of posttest in the study revealed that patients in the control group have negative attitude towards treatment as soon as they see significant improvement in their health conditions and also when they experience side effects in their regimen. Therefore, adequate information and health education can help to correct such attitude thereby, improving treatment adherence. Adejumo, Daniel, Otesanya, Ashipa, Adejumo, and Abdur-Razzaq (2016), also corroborate the findings that health education helps individuals to make informed health decision which could bring about positive change in attitude and behaviour. The health education intervention put in place education sessions which involves counseling the patients on the right attitudes and importance of treatment adherence.

The last finding that health education intervention have significant effect on treatment adherence among tuberculosis patients support the findings of Biswas (2010) who state that health behaviours such as complying with anti-tuberculosis medication, following health diet, performing physical exercise, maintaining environmental and personal hygiene, preventing disease transmission, avoiding risk factors of tuberculosis and keeping up with medical appointments can be significantly improved among patients if proper and combined health education strategies are put in place. Oladele (2014) also backed the findings with the assertion that health education intervention such as training and teaching, awareness campaign through posters, handbills, reminders, health promotion and improvement help in fighting misconceptions about disease conditions, improve health behaviours and making informed health decision. Treatment plays important roles in tuberculosis patients, from curing the disease, restoring quality lif and productivity, preventing death and even possible relapses, reducing transmission of tuberculosis and also to prevent multi-drug resistance tuberculosis.

***Conclusion***

Health education intervention include tuberculosis care manual based on adherence-related information, knowledge and attitudinal modifications which target information gaps and focus on delivering accurate information regarding tuberculosis disease, its treatment and transmission, medication, side effects or drug interaction. This intervention proved that combined health education intervention is effective in promoting adherence among tuberculosis patients, increase the knowledge and improve the attitude of patients towards inculcating behaviours that can help patients recover from the disease. Therefore, health education intervention has significant effects on knowledge, attitude and treatment adherence in patients with pulmonary tuberculosis in Lagos state Nigeria

**Recommendations**

Based on the findings of the study, it therefore recommends that:

1. Health educator should form part of the health care workers in designing health intervention that can help to improve medication adherence among tuberculosis patients. The role of the health educator will serve as link to bridge the gap between knowledge of treatment adherence in patients
2. Combined health education strategies such as provision of tuberculosis care and management manual to the patients could also help to improve medication adherence among patients.

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**THE NATIONAL SCHOOL HEALTH POLICY: PROBLEMS OF IMPLEMENTATION AND WAY FORWARD**

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***Abstract***

*Promoting the health of the young population is the priority of any development oriented nation. The school health promotion has been identified by global health bodies as the most effective way of achieving this aim. Nigeria keyed into the health promoting school concept of the World Health Organisation with the launching of the National School Health Policy and its Implementation Guidelines in 2006. However, a yawning gap appears to exist between the policy implementation guidelines and actual implementation as indicated by the fact that the problems that necessitated the policy development still exist. The paper highlighted some of the problems associated with implementation of the National School Health Policy. Some factors identified as necessitating implementation gap in policies were discussed including less stable political systems; lack of political leadership; failure to calculate cost implications; lack of statistics and research data; lack of monitoring/supervision and evaluation; and lack of capacity among others. The paper identified and discussed some way forward for bridging the implementation gap in the National School Health Policy, such as conducting periodic researches, establishing means of helping local schools implement the school health programme, developing a sound professional development plan among others.*

**Key words:** National School Health Policy, School Health Programme, Implementation Problems, Health Promoting School.

***Introduction***

School health programme (SHP) is an important component of the overall care delivery system of any country. A well organized and properly executed school health programme can be used to create safe environment for school children. Next to the family, the school is the primary institution responsible for the development of young people worldwide (Ademokun, Osungbade, & Obembe, 2014). School health programmes in sub-Saharan Africa have continued to reveal obvious gaps in implementation of school policies.A good number of children spend a considerable part of their life in school, and are exposed to a variety of environmental influence. For this reason, the SHP was established to see to their welfare and ensure that adequate health care services are provided for them.

School health programme is a health programme directed to meet the needs of school children and school personnel.Itis the totality of projects and activities in a school environment, which are designed to protect and promote the health and development of the school community (Federal Ministry of Education [FME], 2006). The objectives of SHP are to obtain a rapid and sustained improvement in the health of school children; to ensure that children from preschool age to adolescence are in optimum health at all times so that they can attain their physical and intellectual potentials, as well as to receive maximal moral and emotional benefits from health providers, teachers, and the school environment (FME, 2006).

The current concept of the SHP brings together parents, the community, experts and professionals from the education platform ‘the school’ to provide a comprehensive primary health care (PHC) to children. The SHP targets primary schools and consists of five components: healthful school environment; school feeding services; skill-based health education; school health services; and school, home and community relationships (FME, 2006).

Healthful school environment denotes all the consciously, organized, planned and executed efforts to ensure safety and healthy living conditions for all members of the school community. The aim of healthful school environment is the provision of safe and inclusive learning, working and living conditions that optimize the organization of day to day experiences which influence the emotional, physical and social health of learners as well as other members of the school community so that maximum benefit from education can be achieved (FME, 2006). The Implementation Guidelines addressed the key elements of healthful school environment which include:location;size; quality of school building; provision of recreational facilities and equipment; sanitation facilities such as water supply, refuse disposal and toilet/bath; waste management/environmental sanitation and road and furniture safety.

School feeding services aim at providing learners with daily supplementary adequate meal that will improve their health and nutritional status for effective and sound learning achievement (FME, 2006). Elements of school feeding services include: nutritional services, feeding services, food procurement, and food inspection. The only component of the SHP, where considerable emphasis has been placed in Nigeria in recent time is nutrition. In recent times, because of the need to make the universal basic education (UBE) programme of the federal government of Nigeria succeed, both the federal and State governments have come out to lend support for the provision of school meals for pupils under UBE (Ofovwe & Ofili, 2007).

Skill-based health education is to promote the development of sound health knowledge, attitudes, skills and practices among the learners. It is aimed at providing a sequence of planned and incidental learning experiences capable of equipping learners with adequate skills to take appropriate decisions and actions that will promote their health (FME, 2006). It comprises of curriculum development and coverage of health education components in schools, supplies and development of teaching-learning materials, provision of infrastructure and adequate and qualified personnel.

School health services are preventive and curative services provided for the promotion of the health status of learners and staff, which also helps in providing information to parents and school personnel on the status of school children. It is operational within a school or college, and aims atmaking the school a healthy setting for living, studying and working (FME, 2006); and for promoting and maintaining the health of school children so as to give them a good start in life (Olugbenga, Amoran, & Kuponiyi, 2016). The school health services deal with health appraisals and provide for the setting up of a well equipped school health centre, provision of pre-entry medical and dental screening, keeping of school health record, routine health screening and examination, teacher’s health observation of the child, professional screening and control of communicable diseases, sick bay, first aid and emergency preparedness, referral services, special needs integration services and counseling for the school community and parents (FME, 2006; United Nations Children Fund [UNICEF], 2007).

School, home and community relationship aims to integrate the various efforts of the three parties to promote the health of the school community (FME, 2006). This involves provision of access and infrastructure to the school and development of school-based policies on community relationship. The first health educators of the child are the parents, who shape the child’s habits from infancy. Involvement of the community with school health has only been productive through PTA.

Schools have been recognized by various authorities as an important setting for health promotion of school children. Over the last two decades, school health has shifted from health education in the classroom to a more comprehensive approach focusing on both children’s health behaviour and a supportive school environment of health promotion (Deschesnes, Martin, & Hill, 2003). In 1995, the Global school health initiative was launched by the World Health organization (WHO) and established the concept of Health-promoting schools (HPs). A health promoting school is characterized by a continually evolving environment that fosters healthy living, learning and working (WHO, 2012).

The National School Health Policy (NSHP) was, therefore, developed in line with the principles of the health promoting schools. The promotion of the health of learners in schools is a critical step towards quality achievement in education. Therefore, implementation of the school healthy programme is core to the realization of the goals of the national policy on education, which requires periodic evaluation of its implementation blue print and activities (FME, 2006).

**The National School Health Policy**

Nigeria keyed into WHOs health promotion school concept with the development and launching of the National School Health Policy (NSHP) in 2006. The NSHP is crucial for school-based health promotion, and provides a common goal and strategy for all schools and other implementers across the country (United Nations Educational, Scientific and Cultural Organization [UNESCO], 2012). Besides, augmenting the care for the populace, research indicates that effective school health policy helps to increase school attendance and academic performance, decrease school dropout rates (Bonell et al., 2011).

In the past, before the publication of the NSHP in 2006 as observed by Ezekwesili-the then Minister of Education, schools had engaged in some forms of health activities such as teacher’s health observation, environmental sanitation among others. However, the health activities carried out in schools were not coordinated in such a way as to produce an effective health outcome. School health activities were also the initiatives of individual schools. Hence, the lack of standards to guide school health programmes in Nigeria necessitated the development of the National School Heath Policy and Implementation Guidelines which were published in December, 2006 by the Federal Ministry of Education. However, NSHP implementation across the country has not been fully shared (Saito et al., 2015).

One of the aims of the policy was to promote the health of learners so as to achieve the goals of living and education. The school health policy is aimed at promoting the health of learners to achieve the goals of Education For All (EFA), outline roles of relevant line ministries such as education, health, environment, water resources, information and other stakeholders (FME, 2006). The goals of the NSHP according to FME (2006) are to: enhance the quality of health in the school community; and create an enabling environment for inter-sectoral partnership in the promotion of child friendly school environment, for teaching and learning and health development. This will involve the development of appropriate preventive and curative services for school children and school personnel, the improvement of environmental sanitation, and the promotion of health education in all schools. The objectives of the NSHP according to FME (2006) are to: provide the necessary legal framework for mobilization of support for the implementation of the School Health Programme; set up machinery for the co-ordination of community efforts with those of government and non-governmental organizations, toward the promotion of child friendly school environments; guide the provision of appropriate professional services in schools by stakeholders for the implementation of the School Health Programme; promote the teaching of skill-based health education; facilitate effective monitoring and evaluation of the School Health Programme; and set up modalities for the sustainability of the School Health Programme.

The Implementation Guidelines of the NSHP outlined strategies for the implementation of the components of the SHP which include training and capacity building, partnership and collaboration, advocacy and resource mobilization, sensitization and mobilization, information, education and communication, control of communicable diseases, participation, and monitoring and evaluation. Institutional roles in the implementation of the various components of the school health programme were also outlined in the NSHP Implementation Guidelines. The institutions involved in the implementation of the school health progrmme include the Federal and State Ministries of: Education, Health, Agriculture, Environment, Water Resources, Youth and Sports and other line Ministries; UBE Commission; State UBE Boards; Nigeria Educational Research and Development Council; State Governments; Local Governments; School Authority and School-Based Management Committee (SBMC).

**Problems of Implementation of NSHP**

All efforts at addressing the school health programme in Nigeria have remained largely at policy level, with minimal implementation. As laudable as the NSHP and the Implementation Guidelines are, it is clear that the many problems that necessitated the development of the policy still exist. However, studies that provide information on problems of implementation of NSHP and way forward in Nigeria have been abjectly inadequate. This paper therefore, becomes highly imperative, because it provides information on the problems of implementation of NSHP in Nigeria alongside factors influencing its implementation.

This paper identified some of the problems of implementation of NSHP in Nigeria based on reviewed studies. These include lack of qualified, interested and enthusiastic teachers (Ofovwe & Ofili, 2007); poor teachers’ job satisfaction (Ofili, Usiholo, & Oronsaye, 2009); teacher’s inadequate knowledge of the SHP (Oyinlade, Ogunkunle, & Olanrewaju, 2014).Lack of funds and inadequate health facilities; lack of directives to educators on how to implement NSHP; dilapidated structures and poor funding; poor nutritional status; and lack of granting of grants for implementation of NSHP by government and ministry of education are some of the constraints to its implementation (Ademokun et al., 2014). Lack of awareness and understanding observed in educators (key stakeholders in SHP) is a major area of concern in policy implementation process because the roles of educators are not only fundamental to the effective implementation of the programme but also linked to adoption of healthy lifestyles (Alex-Hart & Akani, 2014). Weak information communication technology, communication lapses (between principals and ministry of education); and poor embrace of technology in schools; and fostering limited access to the NSHP document are some of the problems of NSHP implementation (Obembe, Osungbade, & Ademokun, 2016).

Implementation problems seem to exist more on the aspect of school health services. There is a dearth of school health clinics in Nigeria, and where they exist, the services are not comprehensive enough or not organized to meet the needs of the pupils (FME, 2006). Studies have shown that primary school children in Nigeria have not been provided with basic health examination services and pre-entrance medical examinations thus baseline information about them was absent. Ramma (2010) identified the following as problems and constraints to implementation of NSHP: lack of adequate environmental facilities (means of waste disposal, source of water supply, and toilet facilities); inadequate health education instructional materials (posters, textbook, and pamphlets), inadequate training and poor knowledge of teachers on SHP, health beliefs, values and attitude of teachers and students; inadequate fund for the implementation of the health programme; lack of health facilities such as presence of a sick bay or first aid box; and parents’ financial status and their level of education. There is no provision of medical counseling and psychological services (through which parent and the community can be brought into the SHP) in most Nigerian schools.

Prior to the formulation of the NSHP in 2006, there had been a gross neglect of SHP in Nigeria. A national study of the school health conducted by the WHO in collaboration with the Federal Ministry of Health (FMOH) and FME revealed that health care services in schools were sub-optimal. Studies (FME, 2006; Ademokun et al., 2014) also show that a high proportion of teachers did not know that pre-admission medical examination should be made compulsory in schools, a high proportion did not have school nurses and only smaller proportions of the schools have linkages with government-designed clinics. Most of the schools had inadequate environmental health facilities with fewer schools having ventilated pit latrine and pipe-borne water or bore hole, screening of food handlers was not seen as an activity to be carried out before they are employed in schools due to the fact that the screening was done only in few schools.

**Factors influencing policy implementation in Nigeria**

In order to improve the policy process, it is vital to identify the factors that foster or undermine policy implementation. Lledo and Poplawski-Ribeiro (2011) identified the following constraints to policy implementation in sub-Saharan Africa: poor data quality, weaknesses in forecasting capacity, large and frequent macroeconomic shocks, inadequate budget institutions, dependency from volatile and unpredictable aid flows, slow project execution, and less stable political systems. The Federal Ministry of Health had also noted that the failure to realise the potential of the NSHP exists because of the gaps prevalent not only in implementation but also in generating evidence, policy development, governance and political will.A review paper on HPs identified four factors that enhance the implementation of a comprehensive school health approach: systematic planning (including tracking the progress and making adjustments), school/family/community partnerships, political and financial commitment and process evaluation (Deschesnes et al., 2003).The following factors are discussed in this paper: less stable political systems/lack of political leadership; failure to calculate cost implications; lack of statistics and research data; ineffective communication; lack of monitoring/supervision and evaluation; lack of capacity and slow project execution.

The political system in Nigeria is always shaky and filled with uncertainties. Political appointees do not stay in office for a considerable length of time to allow for completion of projects that have been started. There is also lack of continuity of projects by incoming administrations. This situation does not favour effective implementation of policies. The lack of clear political will and leadership at the higher levels of government constitutes hindrances to the effective implementation of policies. Our leaders politicize important developmental issues and use them to score cheap political points by pretending to be interested in such projects, set up boards and committees, make pronouncements about their zeal to pursue such projects, and sometimes put some light structures to give the impression of commitment only to turn the other way as soon as public awareness have been created about such project. An example is the noise and fanfare that was made during the Obasanjo regime about the school meal which never saw the light of day after the launch of the pilot project.

The cost implications of policies on the fiscus are not usually properly calculated or sufficiently considered in the budgeting process. Principals and head teachers are always complaining of lack of fund to administer the school. Hence, it becomes difficult to provide and maintain basic health promotion facilities and equipment such as sick bay, perimeter fencing, adequate toilet and wash room facilities among others. One begins to wonder if the policy developers did not realize that funding is an issue in policy implementation. Inadequate budget institutions were identified by Lledo and Poplawski-Rebeiro (2011) as stalling policy implementation in Sub-Saharan Africa.

Research data have been found to be very useful in setting policy agenda, formulating policies and evaluating the impact of policies (Haines, Kuruvilla, & Borchert, 2004). The development of the NSHP and the Implementation Guidelines took place within a space of one year (September, 2005 – November, 2006) and no mention was made of the process involving the use of research data. Research data provides information on existing situations and ensures that the content of the policy meets with current needs and interests of the target population as well as provides information necessary for effective implementation such as availability of human and material resources.

When the content of a policy is not communicated to all relevant stakeholders and implementers, implementation becomes difficult. Often time, communication stops at the desk of top officials of relevant stakeholders and does not sufficiently get down to the actual implementers of the policy. Therefore, one may wonder whether ‘stakeholders’ include implementers. While the policy is communicated to top officials, those who should go to the field to do the actual implementation are neglected. Apparently, whatever fund that is allocated for the implementation also stops at the desk of the top officials. One common complaint among school health desk officers and teachers who have been privileged to attend workshops on the implementation of the NSHP (oftentimes organized in collaboration with UNICEF) is that they are not given the opportunity to put into practice what they were sensitized at the workshop.

The NSHP Implementation Guidelines clearly identified monitoring/supervision and evaluation as strategies for implementation. But, it is doubtful if any monitoring of school health programme is going on in schools. Monitoring is important to ensure that programmes are implemented and according to stated standards. Evaluation provides feedback which helps to show parts of the policy that needs adjustment especially in the implementation process, and the extent to which the aims of the policy are being met. Monitoring and evaluation also helps to keep policy implementers on their toes. The absence of monitoring and evaluation suggests that a programme has been abandoned.

One of the challenges of policy implementation in sub-Saharan Africa is weakness in forecasting capacity (Lledo & Poplawski-Ribeiro, 2011). Policies are oftentimes developed without consideration for the workforce required for implementation. Lack of knowledge and skills among policy implementers in implementing the content of the policy is a major stumbling block in the effective implementation of policies. Some years of interaction with primary and secondary teachers on in-service training (Sandwich programme) have shown that teachers, head teachers and principals are grossly ignorant of the existence of the NSHP as well as the content of the policy. Added to this is the unfortunate fact that student teachers in institutions of higher learning are not exposed to any course that will prepare them to implement the school health programmes. This shows that many teachers who should play fundamental roles in the policy implementation are not yet trained to take up the responsibility of implementing the school health programme. The few school health desk officers in the States and Local Government Education Boards are not sufficient to monitor and supervise the implementation of the school health programme in the numerous government and private primary and secondary schools in the country. The few school health nurses who visited some schools in the past have all gradually disappeared. Doctors under the government employment are not yet enough to serve the hospitals and other health facilities, and so nobody spares a thought about sending some to schools even on a visiting basis.

Project execution in Nigeria always goes on at a very slow pace to the extent that sometimes the usefulness of a project is lost even before it is completed. Many schools are yet dilapidated without perimeter fencing, appropriate roofing, doors and windows; classrooms are yet overcrowded and without adequate furniture, many schools are still being located along high ways, close to industries, markets and other sources of pollution. Many secondary schools do not have adequate health education teachers and well equipped health education laboratories for appropriate skill-based health education among other numerous problems.

**Way Forward for Bridging NSHP Implementation**

The way forward discussed in paragraphsare believe to be able to help bridge the existing gap between NSHP and its implementation. There is need to conduct assessment of critical health needs and the policies and programmes designed to address NSHP implementation. This can be done by adequately training teachers on SHP, calling the attention of parents and community, and enlightening them on the importance of SHP (Ofovwe & Ofili, 2007). School health programmes should be based on high quality data describing the health needs including the health risk behaviour of young people and the characteristics of the policies and programmes already in place to address those health needs. Assessments of school health policies and programmes should aim to determine their strengths and weaknesses and to identify the resources needed to successfully implement school health guidelines. To obtain continuous high quality data, the survey can be conducted at the State levels every two years. To evaluate effectiveness of school health policies and programmes, States can develop school health education profiles every two years by surveying representative sample of primary, junior and senior secondary schools. These surveys provide information of local education and health policies and programmes. The Federal Ministry of Education should create a framework for co-ordinating State-level data gathering and data analysis activities and establish on-going processes for selecting samples, collecting data, interpreting results, writing reports for State and local decision makers and sharing data with agencies and organizations interested in promoting the health of young people. Results from the surveys can be disseminated to key decision makers in both the health and education sectors, such as State and local health officers, education administrators school board members, legislators, and parents.

State agencies can collectively build the support systems to plan, implement, and evaluate fully functioning co-ordinated school health programmes by co-ordinating the allocation of new resources and using existing resources more efficiently. The State Ministry of Education should build the State's capacity to assist in the local implementation of school health guidelines and co-ordinated school health programmes, strengthen collaborations among relevant partners, and facilitate advocacy for school health programmes. To build a State-level infrastructure that supports co-ordinated school health programmes, health and education agencies must work with other relevant State agencies such as social services, mental health, and environmental health as well as with non-governmental organizations in the State. State Ministry of Education should clarify the relevant State agencies and the personnel responsible for implementing school health-related policies and programmes and should help to co-ordinate the delivery and use of resources for multi-agency programmes related to school health. The personnel involved should also obtain the funding needed to support school health programmes and ensure that the funding can be used in flexible ways; and establish interagency agreements to facilitate collaborative programme planning and to provide resources for local school health programmes. The State Ministry of Education could train school health programme managers and develop responsibilities and competencies for them. These managers should include school head teachers, principals and health education teachers. The training programme should include the following key areas of responsibilities as identified by Fisher, Hunt, Kann, Kolbe, Patterson, and Wechner (2012): management; policy; curriculum, instruction, and student assessment; professional development and technical assistance; and surveillance; and competencies: competency in needs assessment, planning, and collaboration; in marketing, information dissemination, and communications; in program implementation; and in monitoring and evaluation).

Efforts in establishing means of helping local schools effectively implement co-ordinated SHP and policies could involve assisting in the formation of a School Health Management Committee with a school health co-ordinator; quality professional development of school health staff, produce and disseminate the NHSP implementation guidelines to all schools and appropriation of fund for the running of school health programme. Some teachers were trained in the Focusing Resources on Effective School Health (FRESH) initiative during the initial NSHP development process. This did not have to stop. The training should be continued until all teachers are reached with the training. Establishment for the implementation of school health services can help in this situation (Ramma, 2010). States can enact legislation that establishes appropriations to support hiring school health coordinators, physical education teachers, health education teachers, school counselors, or school nurses in all schools; assessing local school health standards, policies, and programmes; providing professional development for school staff responsible for delivering school health programmes and implementing school health guidelines, ensuring that young people have access to facilities that promote physical activity. Strengthening advocacy to relevant stakeholders for provision of funds and health facilities can help assist local schools to implement NSHP effectively (Ademokun et al., 2014).

There is need for awareness creation through effective communication strategies on the role the school health programme plays in promoting the health and education of young Nigerians. This can be done by creating awareness through mass media (Ofovwe & Ofili, 2007). The ministry of education should, therefore, identify and provide appropriate media campaign materials that can help promote positive health messages and programmes in favour of school health. The ministry should also communicate school health-related research findings so that the government and public will be appropriately sensitized on issues concerning the health of school children and the role they can play in bettering the situation.

State boards of education can set professional development requirements for school health programme staff and other personnel who implement health programmes in schools. School teachers could be offered professional development in Life Skills Training, a programme to help teens develop healthy personal and social skills. There is need for ensuring that availability of environmental facilities, including sick bay and health personnel are adequate (Obembe et al., 2016).Professional-development events may be needed for school personnel, such as health and physical education teachers, nurses, school counselors, food service directors, and administrators. Depending upon the work plan and desired outcomes, professional development could include awareness sessions, skill-building training, topical events, or customized offerings for teachers and school health co-ordinators. Other avenues for professional development include professional-preparation programmes offered by institutions of higher education, and professional journals.

Programme evaluation is an essential ongoing organizational practice in public health and education. Two kinds of evaluations can be performed: process evaluations and outcome evaluations. Process evaluations require accurate and organized records of programme activities and are central to the ability of programme implementers to effectively monitor and report on their activities. By delineating the ‘who, what, when, and where’ of programme activities, process evaluations allow programme implementers to assess whether these activities met their goals and objectives. Because a basic understanding of the process of programme activities is critical to evaluating their outcomes, the Ministry should conduct process evaluations annually. There is need for regular and periodic on-the-spot checks and for compliance with regulations by experienced government delegates (from federal and State ministries of education) with the NSHP (Obembe et al. 2016). Evaluation results are only valuable when they are used to develop and improve programme activities. Evaluation results may be communicated to national, State, and local education and public health agencies; to school districts and individual schools; to community-based organizations; and to community members. State Ministries could develop evaluation resources, tools, and a technical assistance process to help local schools evaluate their programme activities. Involvement of non-governmental organizations (NGOs) and school-governing bodies saddled with monitoring and regulation of SHPs is essential in this case (Ofovwe & Ofili, 2007, Obembe et al., 2016).

***Conclusions***

Nigeria has a well-articulated policy on school health promotion and an implementation guideline. The poor status of SHPs in Nigeria may be attributed to failure of policy enunciation, poor primary health care base and lack of supervision of SHPs. The problem is however inability to implement what has been provided in the policy due to some identified factors such as less stable political systems/lack of political leadership; failure to calculate cost implications; lack of statistics and research data; ineffective communication; lack of monitoring/supervision and evaluation; lack of capacity and slow project execution. This paper concludes that problems of implementation of the NSHP can be handled through some identified priority action areas such as conducting researches, building capacity, establishing a system for evaluating and improving programmes at the local levels and using communication strategies to sensitize the government and the public on school health matters among others.

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**SELF- EFFICACY AND SPORTS PARTICIPATION PROFILE OF JUNIOR SECONDARY SCHOOL STUDENTS IN AWGU EDUCATION ZONE**

**IN ENUGU STATE**

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***Abstract***

*This study examined the status and relationship between self-efficacy and sports participation profile of junior secondary school students in Awgu education Zone of Enugu state. Eight objectives with eight corresponding research questions and seven hypotheses guided the study. Descriptive survey research design was used for the study. A sample of 385 students were drawn from a population of junior secondary school’s student in Awgu education Zone of Enugu State using a multi-stage sampling procedure. Self-efficacy sport participation Questionnaire (SESPQ) was the instrument for data collection. The mean, standard deviation and ANOVA, Pearson Product Moment were used for data analyses and testing of hypotheses at 0.05 level of significance. Findings revealed that junior secondary school’s student in Awgu education Zone reported self-efficacy with regards to sports participation across gender. There was positive relationship between self-efficacy and sports participation among junior secondary school students in Awgu Education Zone. Hence it was recommended that the ministry of education, sports council and sports providers collaboratively develop and enforce curriculum that emphasizes sports participation and self-expression.*

**Keywords:** Self-efficacy; Sports participation; students; sports; sports participation

***Introduction***

Sports are essential to physical, mental, social and psychological development of all persons, and the diverse nature of sports (professional, recreational and economic) has contributed to these developmental benefits. According to Kay (2004), sports have become inevitable part of modern society with its influence being felt in all facets of national life, and have also become a symbol of national unity which governments utilize to legitimize themselves. Sports also associate with numerous health and well-being improvements. Gill, Gross and Huddleston (1993) posited that sports are one of the unifying instruments that unite human beings irrespective of race, gender, class and other.

Sports are important means for increasing physical activity among adolescents. Sports and sports participation have therefore become a global phenomenon with people participating actively or passively. Without either forms of participation, sports cannot thrive and benefits accruing from there cannot be evidenced. Sports researchers have variously conceptualized the term sports participation and the influence of sports participation. Colman and Dave (2013), sports participation is defined as a situation where an individual or group of persons is voluntarily involved in sporting activities. In schools, Sports participation is seen as a veritable means for improving school image, attracting quality individual to the school, promoting the provision of sports amenities to school by the government and enhancing physical, mental, cognitive, and social development of adolescents.

School or institutional sports present youths and students with opportunities for fun, socialization, forming peer relationships, physical fitness, and athletic scholarships. McAuley, Courneya, Rudolf and Lox (1994) assert that sports are very important to the mental development of students in secondary school which comprises mostly adolescents with its provision of exposures and social interaction among students. Worldwide, especially in the developed countries of the world, institutional sports such as secondary and tertiary institution sports have always been the basis for selection of athletes for national and international competitions. Also, institutional sports have been used by students to keep fit, socialize and prolong life. Woodruff and Schallert (2008) summarized the benefits of adolescents participating in sports to include physical, psychological, educational and social developments. Despite the proven psychosocial benefits, records have shown that sport participation levels of students have decreased over the last two decades globally (Steve, Shonna & Magner, 2010, and Awgu Education Zone Sports Competition and Participation Data, 2014). Reasons for the decline in participation have been linked to a variety of factors including self-efficacy, gender and class levels of student in Nigerian secondary schools.

According to Bandura (1977) self-efficacy is a person’s beliefs in his ability to succeed in a particular situation, hence he identified four principal sources of information that influence self-efficacy; enactive mastering experiences, vicarious experiences, verbal persuasion and physiological and affective states. Park and Klm (2008) perceived self-efficacy as the most important predictive factor of physical activity participation in adolescents. They explained that individuals do not tackle challenging task, if they harbor self-doubts, even if they have made a good action plan for participation in such activities.

Gender differences have been identified as a factor that determines sports participation (Allison, Dwyer & Makin, 1991). According to Stone (1994) gender could be a factor that moderate the level of students’ sports participation since it was found that less than 50% of secondary school student’s sports participation in sports are mainly of the female population. Female participation in sports continues to rise alongside the opportunity for involvement and the value of sports for child development and physical fitness (Schmalz, Deane and Davison, 2007).

From the foregoing, it stands that if we must increase sport participation among secondary school student, we must find answers to key variables such as gives us clue to factors responsible for secondary school student participation in sports. Therefore, gaining insight into the secondary school students’ level of self-efficacy with regard to sports participation would be both rational and objective first step in establishing the important psychological antecedents associated with poor participation in sports among secondary school students in Awgu education Zone in Enugu state.

Three research questions guided the study included what were the general sports participation and self-efficacy profile of junior secondary school student, and according to gender and class levels? One null hypothesis of no relationship between self-efficacy and sports participation among junior secondary school students was postulated.

***Methods***

A descriptive survey research design was employed in the study. The population of the study was made up of all JS1-JSIII students in public secondary schools in Awgu Education Zone. They were 10,692 students in all, made up of 4,700 females and 5,992 males. The sample size of this study consisted of three hundred and eight-five (385) students consisting of 194 males and 191 female JS1-JS3 students. The sample size was arrived at using the Yaro Yamane’s formula (Cohen, 2007)**)**. The multi-stage sampling technique was used to draw sample from the population of secondary schools in L.G.A that make Awgu Education Zone. Stage 1- involved proportionate sampling technique to sample schools from three local governments (Awgu, Aninri and Orji). Stage 2- stratified sampling based on class- JSI-JSIII; Stage 3- Stratified sampling based on gender from each class, JS I, (boys, girls), JSII (boys, girls) JSIII, (boys, girls).

The instrument for data collection was an adaption of three questionnaires namely “General Perceived Self-Efficacy Scale (GSE), (Schwarzer & Jerusalem, 1995), Sports Participation questionnaire and Students Sport Participation questionnaire (SESPQ) (Hansbury, 2006). It was a three-section questionnaire. Section A obtained Personal data of respondent. Section B comprised ten statements on self-efficacy while, Section C was composed of five statements on sports participation profile of respondents and four Statements on factors that influence sports participation profile of respondents.

Data analysis was by mean and standard deviation for answering the research questions, and mean scores of 2.50 and above was regarded as higher efficacy/sports participation. On the contrary, any mean score below 2.50 was interpreted as Low efficacy/sports participation.

***Results***

Table 1:  **Sport Participation Self-Efficacy Profile of Junior Secondary School**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S/N** | **ITEM STATEMENT** | **M** | ***SD*** | **Decision** |
| 1 | I can always manage to solve difficult problem if I try hard enough | 3.40 | *.992* |  |
| 2 | When I am confronted with a problem I find several solutions | 3.33 | *.967* |  |
| 3 | It is easier for me to stick to my aim and accomplish my goals | 3.22 | *1.04* |  |
| 4 | If I am in trouble I can usually think of a solution | 3.32 | *.982* |  |
| 5 | I am confident that I could deal efficiently with unexpected events after sport participation | 2.99 | *1.14* |  |
| 6 | When I think I can perform a task, it helps me to persist. | 3.30 | *1.01* |  |
| 7 | If someone opposes me I can find the means and ways to get what I want | 3.31 | *1.06* |  |
| 8 | Thanks to my resourcefulness, I know how to handle unforeseen situations | 3.05 | *1.12* |  |
| 9 | I can solve most problems if I invest the necessary effort. | 3.32 | *1.03* |  |
| 10 | I can remain calm when facing difficulties because I can rely on my coping abilities. | 3.19 | *1.12* |  |
|  | **Grand Mean** | **3.24** |  | **High** |

Table 1 shows the level of sports participation self-efficacy profile. Results shows that the respondents reported high level of sports participation self-efficacy ( = 3.24) as the sum of means is above the criterion mean indicating that sports participation self-efficacy profile of junior secondary school is high. The table further shows that the item “I can always manage to solve difficult problem if I try hard enough” has the highest mean of 3.40 while item that “when I think I can perform a task, it help me to persist” has lowest mean 2.99.

**Table 2**

Profile of Sports participation self-efficacy of junior secondary school based on gender

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **S/N** | **ITEM STATEMENT** | **Gender** | |  |  | **Decision** |
|  |  | **Male** | | **Female** | |  |
|  |  | **M** | ***SD*** | **M** | **SD** |  |
| 1 | I can always manage to solve difficult problem if I try hard enough | 3.48 | *.963* | 3.48 | *1.01* |  |
| 2 | When I am confronted with a problem I find several solutions | 3.39 | *.952* | 3.27 | *.967* |  |
| 3 | It is easier for me to stick to my aim and accomplish my goals | 3.24 | *1.01* | 3.20 | *1.06* |  |
| 4 | If I am in trouble I can usually think of a solution | 3.31 | *1.02* | 3.33 | *.96* |  |
| 5 | I am confident that I could deal efficiently with unexpected events after sport participation | 2.96 | *1.17* | 3.03 | *1.12* |  |
| 6 | When I think I can perform a task, it helps me to persist. | 3.28 | *.993* | 3.32 | *1.03* |  |
| 7 | If someone opposes me I can find the means and ways to get what I want | 3.45 | *.973* | 3.17 | *1.12* |  |
| 8 | Thanks to my resourcefulness, I know how to handle unforeseen situations | 3.15 | *1.08* | 2.95 | *1.15* |  |
| 9 | I can solve most problems if I invest the necessary effort. | 3.38 | *1.00* | 3.28 | *1.06* |  |
| 10 | I can remain calm when facing difficulties because I can rely on my coping abilities. | 3.26 | *1.12* | 3.16 | *1.12* |  |
|  | **Grand Mean** | **3.48** |  |  | **3.25** | **High** |

Table 2 presents, based on gender, the level of sports participation self-efficacy profile of junior secondary schools’ students in Awgu Education Zone in Enugu State. The results show that the cluster means of 3.48 for males and 3.25 for females indicated high level of sports participation self-efficacy when compared with the criterion. The table further shows that male have the highest sports participation self-efficacy ( = 3.48).

**Table 3:**

Profile of Sports Participation Self-Efficacy of Junior Secondary School Based on Class Level

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **Class Level** | | | | | | |
|  |  | **JS1** | | **JS2** | | **JS3** | |  |
| **S/N** | **ITEM STATEMENT** | **M** | **SD** | **M** | **SD** | **M** | **SD** | **Decision** |
| 1 | I can always manage to solve difficult problem if I try hard enough | 3.25 | 1.11 | 3.59 | .798 | 3.35 | 1.02 |  |
| 2 | When I am confronted with a problem I find several solutions | 3.25 | 1.08 | 3.41 | .882 | 3.34 | .928 |  |
| 3 | It is easier for me to stick to my aim and accomplish my goals | 3.10 | 1.08 | 3.30 | .967 | 3.25 | 1.08 |  |
| 4 | If I am in trouble I can usually think of a solution | 3.29 | .984 | 3.35 | .977 | 3.32 | .99 |  |
| 5 | I am confident that I could deal efficiently with unexpected events after sport participation | 2.85 | 1.22 | 3.11 | 1.12 | 3.01 | 1.08 |  |
| 6 | When I think I can perform a task, it helps me to persist. | 3.22 | 1.05 | 3.38 | 1.00 | 3.31 | .972 |  |
| 7 | If someone opposes me I can find the means and ways to get what I want | 3.26 | 1.05 | 3.49 | .97 | 3.41 | .972 |  |
| 8 | Thanks to my resourcefulness, I know how to handle unforeseen situations | 3.07 | 1.20 | 3.49 | .91 | 3.36 | .997 |  |
| 9 | I can solve most problems if I invest the necessary effort. | 3.29 | .084 | 3.35 | .077 | 3.32 | .099 |  |
| 10 | I can remain calm when facing difficulties because I can rely on my coping abilities. | 3.22 | 1.07 | 3.38 | .096 | 3.31 | .972 |  |
|  | **Grand Mean** | **3.18** |  | **3.39** |  | **3.30** |  | **High** |

Table 3 shows sports participation self-efficacy levels of different class categories junior secondary schools’ students in Awgu Education Zone in Enugu State. Junior Secondary school students reported high sports participation efficacy across the three class categories of JSI, JSII and JS III with grand mean scores of 3.18, 3.39 and 3.30 respectively. However, JSI students scored lowest followed by JSII and JSIII students in that order.

**Table 4**

Sports participation profiles of junior secondary school students

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S/N** | **Item Statement** |  | ***SD*** | **Dec** |
| 1 | I volunteer at sport | 3.18 | *1.12* | High |
| 2 | I am currently involved in school sport leadership | 2.87 | *1.25* | High |
| 3 | I like to participate or represent my school at any sport | 3.17 | *1.12* | High |
| 4 | Do you participate in any intra-school sports? | 2.98 | *1.15* | High |
|  |  |  |  |  |

Table 4 shows the sports participation profile of junior secondary school students in Awgu Education Zone in Enugu State. From the table, Students reported high sports participation on all items of sports participation profile. In addition, that they ‘volunteer at sport’ ( = 3.18), they also ‘currently involved in school sport leadership’ (= 2.87). These indicate that the profile of junior secondary school students’ sports participation profile is high.

**Table 5:**  Sports Participation Profile of Junior Secondary School Based on Gender

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **S/N** | **ITEM STATEMENT** | **Gender** | | | |  |
|  |  | **Male** | | **Female** | |  |
|  |  | **M** | ***SD*** | **M** | ***SD*** | **Decision** |
| 1 | I volunteer at sport | 3.34 | *1.03* | 3.05 | *1.18* |  |
| 2 | I am currently involved in school sport leadership | 3.05 | *1.15* | 2.70 | *1.31* |  |
| 3 | I like to participate or represent my school at any sport | 3.36 | *1.01* | 3.01 | *1.19* |  |
| 4 | Do you participate in any intra-school sports? | 3.13 | *1.08* | 2.84 | *1.19* |  |
|  | **Grand Mean** | **3.04** |  | **2.82** |  | **High** |

Table 5 shows that sports participation profile of junior secondary schools’ students based on gender is high ( = 2.95) in Awgu Education Zone in Enugu State indicating that gender influenced sports participation profile of junior secondary school students. The table further shows that the male gender has the highest mean score ( = 3.34). This shows that male gender sports participation profiles are higher than the female gender.

**Table 6:** Sports participation profile of junior secondary school based on class level.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **S/N** | **ITEM STATEMENT** | **Class Level** | | | | | |  |
|  |  | **JS1** | | **JS2** | | **JS3** | |  |
|  |  | **M** | ***SD*** | **M** | **SD** | **M** | **SD** | **Decision** |
| 1 | I volunteer at sport | 2.99 | *1.23* | 2.77 | *1.28* | 2.84 | *1.24* |  |
| 2 | I am currently involved in school sport leadership | 3.05 | *1.19* | 3.28 | *1.027* | 3.18 | *1.12* |  |
| 3 | I like to participate or represent my school at any sport | 2.88 | *1.29* | 3.00 | *1.10* | 3.05 | *1.06* |  |
| 4 | Do you participate in any intra-school sports? | 2.50 | *.998* | 2.56 | *.962* | 2.50 | *.90* |  |
|  | **Cluster mean** | **2.86** |  | **2.90** |  | **2.89** |  | **H** |

Table 6 shows that sports participation profile of junior secondary schools’ students is high ( = 2.70) based on gender in Awgu Education Zone in Enugu State. This indicates that sports participation profiles of junior secondary school differ class by class. The table further shows that JS II students has the highest ( = 3.28) sports participation profile in Awgu Education Zone and the lowest mean score ( = 1.91) of sports participation profile.

**Table 7:** Relationship between self-efficacy and sports participation profiles of junior secondary school students in Awgu Education Zone.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **N** | **r** | **P-value** | **Los** | **Decision** |
| Self- Efficacy | 385 |  | .001 | .005 | Reject |
| Sports participation |  | 0.411 |  |  |  |

\*\*. Correlation is significant at the 0.01 level (2-tailed).

Table 7 above shows that there is positive relationship between self-efficacy and sports participation profile of junior secondary school students in Awgu Education Zone (r = 0.411, P = .000 < .05). It means that as self-efficacy increase, sports participation increasesand vis-versa.

***Discussion***

The findings of the study showed that junior secondary school students in Awgu Education Zone in Enugu State generally reported high level of sports participation self-efficacy ( = 3.24) Table 1. The same similar result was also evident across gender (Male: M= 3.48 and Female: M=3.25) and Lass categories (JS1: M= 3.18, JS2: M=3.39, JS3: M=3.30), Tables 2 and 3 respectively. With regards to gender, the finding of this study corroborates that of Spence, Blanchard, Plotnikoff, Storey and McCargar (2010 that self-efficacy was significantly higher in boys when compared with girls. Gist and Mitchell (1992) had observed that self-efficacy is constructed as an assessment of one’s capabilities in three complex and crucial areas: motivation, resources and action. And according to Duds (1992) self-efficacy is a primarily motivational factor underlying voluntary participation in any sport. The findings here is similar to the findings of Shahraki, Esmaeli and Ganjourei (2014) that sports participation and hardiness are positively associated with self-efficacy in the participants.

The findings with regard to students’ sports participation showed that the students reported high level of sports participation ( = 2.94), by gender (Male:M= 3.04, Female: M=2.82), and class level ( JS1: M= 2.86, JS2: M=2.90, JS3: M=2.89) Tables 4,5 and 6 respectively. This might be because sports give people enjoyment mostly likely to participate in sports. However, Woodruff and Schallert (2008) summarized the benefits of adolescents’ participation in sports to include physical psychological, educational and social development. The findings disagree with those of Moola, Faulkner, Kirsh and Kilburn (2008) that sports were not considered a valued pursuit despite the belief that it is essential for the attainment of good health and that low self-efficacy and fatigued were influenced by cover fears and exclusion and further decreased the value ascribed to sports and physical activity.

The findings of the study on table 7 showed a positive relationship between sports participation and self-efficacy. This means that as sports participation increases, self-efficacy also increases, and that increase in self-efficacy produce the increase in sports participation. Bandura (1986) here asserts that success in sports performance raises efficacy and failure lower sit, but once a strong sense of efficacy is developed a failure may not have much meaning. This finding was not surprising at all. It agrees with the findings of Joseph, Royse, Benitez and Pekmezi (2013) which showed that the relationship between physical activity and quality of life is indirect and likely mediate by variables such as physical self-esteem, exercise self-efficacy.

***Conclusion***

Based on the findings above, the following conclusions were drawn There was a high level of sports participation self-efficacy profile. There was high level of sports participation profiles of junior secondary school student based on gender. There was a positive relationship between self-efficacy and sports participation profiles of junior secondary school students in Awgu education zone.

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**FACTORS CONTRIBUTING TO STRESS AMONG PREGNANT WOMEN ATTENDING ANTENATAL CLINIC AT REDEEMER HOSPITAL AND MATERNITY, ABAKPA NIKE, ENUGU**

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***Abstract***

*Pregnancy is a normal life event, yet it is a period in a woman’s life when her vulnerability exposes her to significant amount of stress and anxiety. The focus of this study was to determine factors that contribute to stress among pregnant women attending Enugu. The study adopted a descriptive survey design. Eighty pregnant women were studied. Questionnaire was the instrument used for data collection. It has two sections A and B. The reliability of the instrument was determined. Analysis of data was done using frequency and percentages. The findings of the study revealed that the respondents agreed to the articulate physical and physiological factors that contribute to stress in pregnant women with aggregate percentage of 54.6%. Their responses to the domestic factors that contribute to stress among pregnant women was positive with aggregate percentage of 56.5%; and economic and emotional factors were 76% and 61.5% respectively. Based on the findings, it was recommended that adequate measures should be taken by government and other stakeholders to help the pregnant women reduce stress during pregnancy in order to curb the ill effect of stress on both the mother and her baby; women should be empowered financially to reduce stress during pregnancy.*

***Keywords:*** *Factors, contributing, stress, pregnant women*

***Introduction***

Pregnancy is a normal life event, yet it is a period in a woman’s life when her vulnerability exposes her to significant amount of stress and anxiety. The emotional and physiological adaptations occurring throughout pregnancy affects virtually every body system. (Fraiser and Cooper, 2009). The woman’s emotions and that of the family are changing. Though the woman may welcome these changes, they can add new stresses to her life. Stress is a response to an inappropriate level of pressure. It can be described as the distress that is caused as a result of demands placed on physical or mental energy. Stress is generally seen as a threat to the fulfillment of basic needs; to the functioning of nervous system including homeostasis and to growth development. This type of stress is called distress. Stress can be positive and this is referred to as eustress.

Types of Stress**:** According to Health line (2016), the types of stress include

1. Acute stress: Acute stress is your body’s immediate reaction to a new challenge event or demand, the fight or flight response.
2. Chronic stress: If acute stress is not resolved and begins to increase or last for a long period of time, it becomes chronic stress. Chronic stress can be detrimental to your health as it can contribute to several serious diseases or health risks.

Stress during pregnancy is both essential and normal for the psychological adaptation of the pregnant woman.

Elevated level of stress hormone will stretch coping reserves and could prove crippling (Teixeira, 2009). When a woman in stressed during pregnancy her body goes into fight or flight mode, sending out burst of cortisol and other stress hormones. These are the same hormones that surge when one is in danger. They prepare one to run by sending a blast of fuel to your muscles and making one’s heart to beat faster. (Andrew, 2012). Over the years, obstetrician have tried to see if an increased stressful event can either cause miscarriage, preterm labour or delivery or in some other way harm the fetus. This search in a consequence of hypertension and diabetic mellitus in pregnancy, miscarriages, preterm delivery, low birth weight babies e.t.c.

Recent information indicates that stress can perhaps cause miscarriage and very likely bring about preterm labour and delivery. Shanna (2016) stated that stress can cause the body, to release hormone in response to the threat that the body perceives- the higher the stress level, the more hormone the body produces. Chronic stress may also contribute to subtle differences in brain development that might lead to behavioural issues as the baby grows (Boader, 2012).

According to Dunkel and Tanner (2012) some stressors that commonly affect woman in pregnancy around the globe are low material resources, unfavourable employment conductions, heavy family and household responsibility, strain in intimate relationship and pregnancy complication. Boarder (2012) stated that financial and relationship troubles may lead to stress and its outcome.

A recent study of diverse urban sample conducted by Woods, Melvill and Guo (2010) found that 78% of the population used experienced low-to-moderate antenatal psychological stress and 6% experience high levels. The emotional consequence of stress can range from a mild sense of being overwhelmed to severe depression. They can eventually lead to a pregnant woman being withdrawn (Fraiser & Cooper, 2009). Certain measures could be taken to cope with stress and they include – talking a few deep breaths, taking a quick walk, identifying stressor and preventing them. (Boarder, 2012).

Other coping strategies include sleeping, jotting down things that keep one up at night and seeking help when necessary. According to March of Dime Foundation (2012) measures of copying with stress include eating healthy food, exercise, sleep, good support network from partner, family and friends, asking help from people you trust and relaxation activities. The researcher, based on literature, organised factors contributing to stress among pregnant women into physiological, domestic, economic and emotional factors.

**Statement of the Problem**

Stress is a universal condition that is known around the world, affecting different people in many different ways. It has become one of the top health issues in the world today. Stress may result from factors such as mental, physical or from pressure of which can adversely affect the functioning of the body.

Unfortunately, pregnant women tend to be more prone to suffering anxiety and other emotional traumas which is often accompanied by panic attack which could lead to preterm labour/delivery and low birth weight or even puerperal psychosis.

Stress can produce negative effects like hypertension, miscarriage and substance abuse. According to Debbie (2006), since no intervention has been shown to reduce the rate of preterm birth significantly, researchers have now called for research emphasis to be towards the social and biological factors such as stress, social deprivation and poverty.

Personnel experience with pregnant mothers in the antenatal clinic has shown that most women come to the clinic with some level of anxiety. The cause ranging from fear of unknown outcome of pregnancy to lack of financial provision to cater for her needs during pregnancy. Also, some of the women tend to be stressed due to job factors, domestic chores, and disorders associated with pregnancy.

If these factors are not checked, or controlled they can have negative effect on the pregnant woman leading to loss of pregnancy and its associated effect. The researcher therefore intends to investigate into factors contributing to stress in pregnancy in Redeemer Hospital and Maternity, Abakpa Nike, Enugu.

**Purpose of the Study**

The general purpose of the study in to find out factors that contribute to stress among pregnant women attending ante natal clinics at Abakpa Nike Enugu.

Specifically, the study seeks to:

1. Identify the physiological factors that contribute to stress among pregnant woman
2. Identify domestic factors that contribute to stress among pregnant women
3. Identify economic or financial factors that contribute to stress among pregnant women
4. Find out emotional factor that contribute to stress among pregnant woman

**Research Questions:**

1. What are the physiological factors that contribute to stress in pregnant woman.
2. What are the domestic factors that contribute to stress among pregnant women
3. What are the economic factors that contribute to stress among pregnant women
4. What are the emotional factors that contribute to stress among pregnant women.

**Method:**

The descriptive survey design was adopted for the study. According to Nwogu (2006) this method was used because descriptive research design permits the description of the situation in the natural setting. The study population consisted of all 426 pregnant mothers attending antenatal clinic at Abakpa Nike Enugu. Sample for the study consisted of 85 women which 20 per cent of the population. According to Nwogu (2006) this sample size is good for the study. Proportionate random sampling technique was used to sample 85 women used for the study.

A structured questionnaire was the instrument used for data collection. The questionnaire was made up of two parts A & B. Part A sought for the bio data of the respondents. Section B contained questionnaire items that elicited answers for the research questions that guided the study. Validation of instrument was done. The instrument was also subjected to reliability test.

Questionnaire was administered with the aid of an assistant and they were collected after filling them. The return rate was 100%. Analysis of data was done using frequency and percentages. On the bases of interpretation of data and analysis, it was decided that score of 50 percent and above on the yes option is regarded as accept (A) while scores less than 50 per cent is not accepted (N)

***Results***

Table 1:

**Frequency and percentage scores on physical and physiological factors that contribute to stress among pregnant women**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **S/N** | **Items** | **Yes** | **%** | **No** | **%** | **Decision** |
| 1 | Minor disorders like vomiting | 47 | 58.75 | 33 | 41.25 | A |
| 2 | Weight of growing uterus | 40 | 50 | 40 | 50 | A |
| 3 | Waist pain | 55 | 68.75 | 25 | 31.25 | A |
| 4 | Heart burn | 35 | 43.75 | 45 | 56.25 | N |
| 5 | Release of stress hormones | 40 | 50 | 40 | 50 | A |
| 6 | Increased Salivation | 28 | 35 | 52 | 65 | N |
| 7 | Frequent Urination | 61 | 76.25 | 19 | 23.75 | A |
|  | **Aggregate percentage** | **306** | **54.64** | **254** | **45.35** | **A** |

Table 1 shows that the aggregate percentage for responses that had, yes was 54.64% while no had 45.4%. Hence the respondents accepted the articulate physical and physiological factors that contribute to stress in pregnant women.

**Tables 2:**

**Frequency and percentage scores on domestic factors that contribute to stress among pregnant women**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **S/N** | **Items** | **Yes** | **%** | **N** | **%** | **Decision** |
| 1 | Fetching of water | 57 | 71.25 | 23 | 28.75 | A |
| 2 | Cleaning the house | 47 | 58.75 | 33 | 41.25 | A |
| 3 | Caring for other children /family members | 39 | 48.75 | 41 | 51.25 | N |
| 4 | Cooking | 34 | 42.5 | 46 | 57.5 | N |
| 5 | Laundering | 54 | 67.5 | 26 | 32.5 | A |
| 6 | Going for shopping | 40 | 50 | 40 | 50 | A |
|  | **Aggregate percentage** | **271** | **56.5** | **209** | **43.5** | **A** |

From table 2 the aggregate percentage for the responses show that yes had 56.5% while no had 43.5%. Hence the respondents accepted the articulate domestic factors that contribute to stress among pregnant women.

**Table 3:**

**Frequency and percentage score on economic factors that contribute to stress among pregnant women**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **S/N** | **Item** | **Yes** | **%** | **No** | **%** | **Decision** |
| 1 | Joblessness | 50 | 62.5 | 30 | 37.5 | A |
| 2 | Poor salary | 56 | 70 | 24 | 30 | A |
| 3 | High cost of living | 65 | 81.25 | 15 | 18.75 | A |
| 4 | Inability to meet financial obligations | 71 | 88.75 | 9 | 11.25 | A |
| 5 | Lack of financial support from partner/ husband | 62 | 77.5 | 18 | 22.5 | A |
|  | **Aggregate percentage** | **304** | **76** | **96** | **24** | **A** |

From Table 3, the aggregate percentage for the responses show that yes had 76% while no had 24%. Hence the respondents strongly accepted the articulate economic factors that contribute to stress among pregnant women.

**Table 4:**

**Frequency and percentage score on emotional factors that contribute to stress among pregnant women**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **S/N** | **Items** | **Yes** | **%** | **No** | **%** | **Decision** |
| 1 | Mode swing in pregnancy | 43 | 53.75 | 37 | 46.25 | A |
| 2 | Anxiety due to unknown outcome of pregnancy | 51 | 63.75 | 29 | 36.25 | A |
| 3 | Fear of losing partner | 42 | 52.5 | 38 | 47.5 | A |
| 4 | Lack of affection from family members | 54 | 67.5 | 26 | 32.5 | A |
| 5 | Lack of essential needs | 56 | 70 | 24 | 30 | A |
|  | **Aggregate percentage** | **246** | **61.5** | **154** | **38.5** | **A** |

From table 4, the aggregate percentage for the responses show that yes had 61.5% while no had 38.5%. Hence the respondents accepted the articulate emotional factors that contribute to stress among pregnant women.

***Discussion***

The result presented showed that the subject accepted the articulate physical and physiological factors that contribute to stress among pregnant women. This finding agrees with that of Fraiser and Cooper (2009) who stated that emotional and physiological adaptation occurring, throughout pregnancy affect virtually every system.

The result of the analysis also showed that domestic factors that contribute to stress among pregnant mothers include fetching water, cleaning the house, going for shopping among others. This finding agrees with Dunkel and Tanner (2012) who stated that some stressors that commonly affect women in pregnancy around the globe are low material resource, unfavourable employment conditions, heavy family and household responsibilities. This shows that the women still need education and enlightenment on how to reduce stressors during pregnancy.

In addition, the respondents strongly accepted all the articulate economic factors as contributing to stress among pregnant women. However, inability to meet financial obligations was shown to be the highest factor. This finding agrees with Boarder (2012) who opined that financial and relationship troubles may lead to stress and its outcome the findings is also in line with Dunkel and Tanner (2012) who stated that some stressors that commonly affect women in pregnancy around the globe are low material resources, unfavourable employment conditions, heavy family and household responsibilities, strain in intimate relationship and pregnancy complications. There is need for women to be empowered financially to reduce tress during pregnancy.

Furthermore, the findings showed that the respondents accepted all articulated emotional factors as contributing to stress among pregnant women like mode swing, anxiety, lack of attention from family members and lack of essential needs. This finding is in line with Woods, Melville and Guo (2010) who found out in their recent study of diverse urban sample that 78% of the population used in their study experienced low-to-moderate antenatal psychological stress and 6% experience high levels.

The findings equally agree with Fraiser and Cooper (2009) who stated that the emotional consequence of stress can range from a mild sense of being overwhelmed to a severe depression. They can eventually lead to a pregnant woman being withdrawn which is a type of emotional illness. These findings reveal that adequate measures need to be taken to reduce stress during pregnancy in order to safeguard both maternal and child health.

**Conclusions**:

Based on the findings the following conclusions were made:

1. Pregnant women need more information on how to prevent stress during pregnancy
2. Inability to meet financial obligation is the highest economic factor that contributes to stress among pregnant women attending Redeemer Hospital and Maternity.
3. Lack of essential needs is the highest emotional factor that contribute to stress during pregnancy.

4**.** Fetching of water appears to be the highest domestic factor that contribute to

Stress among these women.

**Recommendations**:

Based on the finding of the study, the following recommendations have been made.

1. Pregnant women should be equipped with more information on how to prevent stress in pregnancy.
2. Adequate measures should be taken by government and other stakeholders to reduce stress among pregnant women in order to curb the ill effect of stress on both mother and baby.
3. There is need to empower women financially to reduce stress during pregnancy. Government should provide employment opportunities.
4. Support network from partner, family and friends is necessary during pregnancy to help the woman cope with stress. Family members should assist in performing necessary house chores.

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**PROVISION OF EMERGENCY OBSTETRIC CARE IN RIVERS STATE, SOUTH-SOUTH NIGERIA: IMPLICATION FOR MATERNAL AND**

**NEWBORN SURVIVAL**

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***Abstract***

*The study examined the provision of Emergency of Obstetric Care (EmOC) in Rivers State health service in Nigeria. A cross-sectional research design was adopted and 31 Heads of public health facilities drawn from six Local Government Areas in Rivers State using a multistage sampling procedure participated in the study. The instrument for the study was a questionnaire. Data were analyzed using Statistical Package for Social Sciences, Analyzed data were presented using descriptive statistic of frequencies and percentages. The study revealed that provision of EmOC was moderate (54.6%) in sufficiency in theory. In compliance with United Nations recommendation, actual provision of EmOC was low (29.4%) in sufficiency for all nine signal functions. The most provided signal function was signal function-1(54.8%), signal function-2 (51.6%) and signal function-7 (51.6%) which provision were moderately sufficient. Provision of signal function-4 (41.9%) was slightly sufficient, while the provision of signal function-8 (19.4%), signal function-3 (16.3%), signal function-5 (16.3%), signal function-6 (9.7%) and signal function-9 (3.2%) were low in sufficiency. The study concluded that provision of EmOC was too low in sufficiency to reduce maternal and newborn mortality rate in Rivers State. The study recommends that political commitment is a key to ensuring maternal and newborn survival.*

***Key words:*** *Provision, EmOC, signal functions, Rivers State*

***Introduction***

Maternal mortality is a public health challenge especially in developing countries which account for about 99 per cent of the world maternal deaths (WHO Media Centre, 2017). Maternal death is death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes (International Classification of Disease, 2004). The situation is more worrisome in Nigeria who has maintained an unpopular and demeaning second position in global maternal mortality with an estimated 814/100,000 live births in 2015 (Trading Economics, 2017). These aggregate figures by implication are tributaries from component states including Rivers State. The maternal mortality ratio (MMR) in Rivers State put at 889/100,000 live births is described as one of the highest in the world (Rivers State Ministry of Health, 2010). Literature, however, has it that great disparity exists in MMR between developed and developing countries. The

MMR is 239/100,000 live births in developing countries versus 12/100,000 live births in developed countries (WHO Media Centre, 2017). This disparity attests to the fact that major causes of maternal mortality can be prevented if pregnancy and childbirth-related complications are addressed. WHO, UNICEF, UNFPA and World Bank (2012) stated that approximately 15 per cent of expected births worldwide will result in life- threatening complications during pregnancy, delivery or post-partum period. According to WHO Media Centre (2017) the complications that account for about 75% of all maternal deaths are: severe bleeding (mostly bleeding after childbirth), infections, high blood pressure due to pregnancy (pre-eclampsia and eclampsia), and complications from delivery, unsafe abortion. In specific terms, globally MMR is accounted by hemorrhage (27.1%), hypertensive disorders (14.0%), and sepsis (10.7%). The rest are abortion (7.9%), embolism (3.2%) and other direct causes (9.6%) (Say, 2014). In Nigeria, the five leading causes of maternal death include obstetric haemorrhage, eclampsia, sepsis, obstructed labour and complications of unsafe abortion (Igwegbe, Eleje, Ugboaja & Ofiaeli, 2012).

Maternal mortality due to these complications can be averted with sufficient care given at critical time points in the lives of women such as during pregnancy, childbirth and postpartum period. According to Wagstaff and Claeson (2004), an estimated 74 per cent of maternal mortality can be averted if all women received appropriate EmOC. Safe Birth (2016) also noted that EmOC is critical to reducing maternal mortality. Paxton, Bailey and Lobis (2006) defined EmOC as care provided in health facilities to treat direct obstetric emergencies that cause the vast majority of maternal deaths during pregnancy, at delivery and during post partum period. According to Say and Chou (2011), causes of maternal deaths are classified into four. These include direct, indirect, unanticipated complications of management and lastly, unknown causes. Direct causes are those related to obstetric complications of the pregnancy state (including pregnancy, childbirth and the puerperium to 42 days) such as deaths as a result of obstetric haemorrhage. Indirect causes are those related to previous existing diseases or disease that developed during the pregnancy which was not a result of direct obstetric causes but which was aggravated by the physiologic effects of pregnancy, such as cardiac conditions aggravated by pregnancy. Unanticipated complications of management are deaths related to interventions, omissions, incorrect treatment or from a chain of events resulting from any of the above during pregnancy, childbirth or the puerperium. Unknown causes are those whose causes cannot be determined and thus not attributable to either direct or indirect causes.

It is the direct causes of maternal mortality that EmOC addresses. WHO, UNFPA, UNICEF and AMDD (2009) published a handbook which focuses on the critical role of EmOC in saving the lives of women with complications during pregnancy and childbirth and saving the lives of newborns intrapartum. This handbook also referred to as United Nations Handbook for monitoring emergency obstetric care (EmOC) was earlier published in 1997 as guideline for monitoring the availability and use of obstetric services. The 1997 version contained only seven signal functions and was revised in 2009. The 2009 version replaced “guideline” with “handbook” and “essential” with “emergency”. It contains a list of nine life-saving services or signal functions that define a health facility with regard to its capacity to treat obstetric or newborn emergencies. Signal functions are defined as key medical interventions that are used to treat the direct obstetric complications that cause the vast majority of maternal deaths around the globe (WHO, UNFPA, UNICEF & AMDD, 2009). The nine signal functions include: signal function 1- administration of parenteral antibiotic, signal function 2-administration of uterotonic drugs; signal function 3-administration of parenteral anti-convuisants and signal function 4-performing manual removal of placenta. Others are signal function 5- performing manual removal of retained products, signal function 6- performing assisted vaginal delivery, signal function 7-performing newborn resuscitation, signal function 8- performing blood transfusion, and signal function 9- performing surgery such as caesarean section. As contained in the Handbook, signal functions 1-7 are referred to as Basic EmOC (BEmOC) and are expected to be performed at Basic EmOC facilities while all nine signal functions referred to as comprehensive EmOC (CEmOC) are expected to be performed at CEmOC facilities. Thus BEmOC are provided at primary health care facilities (PHCFs) while CEmOC are provided at secondary health care facilities (SHCFs) which include general hospitals and zonal hospitals in Rivers State.

The UN Handbook has also identified eight broad indicators for EmOC and defined acceptable levels for each indicator. However, Calvello, Skog, Tenner and Wallis (2015) has posited that while the indicator can be used to evaluate an entire system performance, the care being provided for each type of major emergency at the facility level also needs to be assessed. The present study is thus not focused on assessing each indicator for the purpose of categorizing facilities as basic or comprehensive EmOC facilities but in assessing individual signal functions and their level of provision in the state with particular reference to possible constraints in their provision.

The importance of EmOC in reducing maternal and newborn deaths cannot be overemphasized. WHO, UNFPA, UNICEF and AMDD (2009) has stated that in order to reduce maternal mortality, EmOC must be available. EmOC is thus an important tool for ensuring the survival of mothers and their newborns. Nour (2008), however, pointed out that pregnant women in many developing nations have minimal access to skilled labour and emergency obstetric interventions such as antibiotics, oxytoxics, anticonvulsants, manual removal of placenta and instrumental vaginal delivery which are vital to improve the chances of survival. Women in Rivers State may also share in this experience of low access to EmOC services. WHO, IJNFPA, UNICEF and AMDD (2009) stated that for women to receive prompt and adequate treatment for complications of pregnancy and childbirth facilities for providing EmOC must: exist and function; be geographically and equitably distributed; be used by pregnant women; be used by women with complications; provide sufficient life saving services; and provide good quality care. All the six items are important and are used in measuring different aspects of EmOC such as the availability, quality and utilization of EmOC. This present study is interested in measuring the sufficiency of EmOC services provided for women who have accessed the health facilities in Rivers State for health service. Provision of EmOC services is an aspect of indicator-one which focuses on availability of EmOC in facilities.

Provision of services is an aspect of quality assessment. Observation of services provided assesses the extent to which service providers adhere to service delivery standards (Measure Evaluation, 2006). In assessing level of provision of EmOC services, Donabedian model of quality was employed to ascertain provision of EmOC services (in theory). This implies ability of health facilities to perform signal functions without a specified period of time. There are three dimensions of the Donabedian model. First is the structural dimension which is concerned with availability of resources for provision of care. Second is the process dimension which is concerned with the interaction between the providers and users, that is, provision of the required care using the resources. The process dimension comprises two aspects which include, the interpersonal aspect and the technical aspect. The interpersonal aspect is concerned with the psychological aspect of care, that is, the manner in which care was provided. The technical aspect is concerned with the provision of services according to recommended standards. The third dimension of quality is the outcome dimension which centres on the result of care on the population receiving care. The present study measured the technical aspect of the process dimension of EmOC to ascertain theoretical provision of signal functions in the health facilities in Rivers State health service.

To ensure that measurement of the provision of EmOC is not only theoretical, the study also employed the recommendations of the UN to measure the actual provision of the signal functions in a consecutive three months period prior to the survey. For this purpose, the UN Handbook was employed. The UN Handbook recommends that a copy of “Form 2” be used at each facility to record the type and amount of services provided. The information compiled on this Form, the Handbook added, will enable research staff to determine whether a given facility is actually providing EmOC services (WHO, UNFPA, UNICEF & AMDD, 2009). The Handbook also recommends that if a signal function was not performed in the past three months prior to the survey, the reason as to why it was not performed should be stated. In this regard, a range of five reasons were outlined in the Handbook. These reasons and their definitions as provided in the Handbook include:

1. Training Issues: This means a situation where authorized cadre is available but not trained or there is lack of confidence in providers’ skills.

2. Supplies, equipment issues: This is concerned with a situation where supplies or equipment are not available, not functional or broken or needed drugs are unavoidable.

3. Management issues: This involves a situation where providers desire compensation to perform this function, providers are encouraged to perform alternative procedures or providers are uncomfortable or unwilling to perform procedure for reasons unrelated to training.

4. Policy issues: This is concerned with a situation where required level of staff is not posted to the facility in adequate number (or at all), or national or hospital policies.

5. No indication: This implies a situation where no client needing this procedure came to the facility during this period.

Furthermore, the Handbook recommended other areas to be assessed using “Form 2”. These include, number of women giving birth, number of caesarean sections, number of women with direct obstetric complications, number of maternal deaths due to direct obstetric causes and number of indirect maternal deaths.

In addition to the above, Calvello, Skog, Tenner and Wallis (2015) stated that the successful completion of a signal function indicates the existence of a functional system of emergency care which implies a culmination of knowledge, intervention and supplies. The authors added that if any aspect of the signal function is absent, then the function can not be accomplished. By implication, successful completion of any signal function in Rivers State health service indicates the existence of a functional EmOC in the system and vice versa. Given the understanding that some degree of EmOC are provided in health facilities by skilled birth attendants and with requisite supplies, there is need to study the sufficiency of provision of EmOC services. Thus, individual signal functions, resources available for provision of the particular signal function and reasons for not performing the particular signal function in a consecutive three months period preceding visit to the health facility for the survey were considered in this study as provided in the UN Handbook. Furthermore, the guideline in its “Form 2” added that the most common causes of maternal mortality as well as obstetric cases that occurred in the facility should be identified. Thus the study also sought to identify the common causes of maternal mortality and the obstetric cases that occurred during a one calendar year period in health facilities under the Rivers State health service.

Rivers State Government is committed to reducing her maternal and child deaths. This is evidenced in the implementation of global and national programmes such as Safe Motherhood Initiative (SMI), Integrated Maternal, Newborn and Child Health (IMNCH), Midwifery Service Scheme and many others which are aimed at reducing maternal and child mortalities. EmOC are provided in PHCFs and SHCFs according to respective capacities of the health facilities. Inspite of the availability of these facilities and provision of services maternal and newborn mortalities are still high suggesting need for investigation. Health service including, EmOC provision in Rivers State is by public and private sectors. Private individuals or groups own and finance the private sector while the public sector is owned and financed by government. The public (governmental) sector in Rivers State provide health services through three predominant health agencies which include, University of Port Harcourt Teaching Hospital, owned by federal government; PHCFs run by Rivers State Primary Health Care Management Board (RSPHCMB) and SHCFs including zonal and general hospitals run by Rivers State Hospitals Management Board (RSHMB) (Rivers State Ministry of Health, 2010). RSPHCMB and RSHMB as well as their health facilities which they oversee, constitute Rivers State health service.

Much, however, has been published about EmOC in different parts of the world. Previous studies carried out at international, national and sub- national levels have reported inadequacy or lack of EmOC services. At the international level, a study conducted on status of EmOC in six developing countries including, Kenya, Malawi, Sierra Leone, Nigeria, Bangladesh and India by Ameh et al. (2012) reported lack of availability of EmOC across the six countries. The study also found that quality of services offered was inadequate with many of the health facilities unable to provide all nine signal functions. In Nigeria, a study conducted by Saidu et al. (2013) in South West Nigeria found that most of the UN indicators were not met by the health facilities in Kwara State. In addition, a study in Rivers State, South-South Nigeria carried out by Meze-Okoye, Adeniji, Tobin-West and Babatunde (2012) also reported that no facility met the UN recommendations for Basic EmOC facility. Another study in Rivers State on EmOC by Ebuchi, Chinda, Sotunde and Oyeto Yan (2013) compared health worker knowledge, attitude and practice regarding EmOC in rural and urban areas. The study found that knowledge and practice of EmOC is higher among urban health workers, whereas rural health workers had more positive attitude than their urban counterparts. Most of the above studies have centred on assessing broad indicators as provided in the Handbook and classifying facilities as BEmOC and CEmOC (Mezie-Okoye et a1., 2012; Saidu et al., 2013). Another study has assessed health workers’ knowledge, attitude and practice in Rivers State (Ebuchi et al., 2012).

From the foregoing, EmOC in Rivers State is yet to be fully explored. Yet, United Nations (2014) has emphasized that in the post-2015 era, emphasis is being placed on the need to capture disaggregated data that would allow for identifying areas at most need, type of need in those areas and how best to implement interventions that address those needs. Banke-Thomas et al. (2016) stated that there is need to capture signal function performance based on three indices critical for its conduct including, drugs, equipment and personnel. To the best knowledge of the researcher, no study has been reported in Rivers State that have tried to disaggregate provision of signal functions with particular reference to resources for provision of signal functions and reasons for not performing each signal function in a consecutive three months preceding survey. This study was carried out to fill this gap in literature. The findings of this study will help policy-makers and Rivers State Government to plan strategies that can help achieve maternal and newborn survival in the state.

**Statement of the Problem**

Primary and secondary health care facilities in Rivers State health service provide EmOC as basic and comprehensive EmOC respectively. This is to avert complications which may arise during pregnancy, childbirth or postpartum period. This is on the premise that while some pregnancies and childbirth sail through normally without harm to mother and/or her newborn, about 15 per cent end up with life threatening complications that may lead to disability or death of the mother, newborn or both. Sufficient provision of EmOC services implies that maternal and newborn lives will be saved thereby reducing maternal and newborn deaths to as low as possible.

The reverse is however the case in Rivers State as her MMR put at 889/100,000 live births is described as one of the highest in the world. However, it is a well documented fact that availability of EmOC is one strategy that can prevent maternal and newborn deaths. The status of maternal and newborn mortality ratio in Rivers State therefore, leaves doubt as to the sufficiency of EmOC provided in Rivers State health service. This paper is set to examine the sufficiency of provision of EmOC services in Rivers State health service.

**Research Questions**

1. What obstetric cases occurred in Rivers State health service from July 2013 to June 2014?

2. What were the most common causes of maternal deaths in Rivers State heath service from July 2013 to June 2014?

3. What is the level of EmOC services provided in Rivers State health service?

***Method***

**Area of the study**

The study was carried out in Rivers State, one of the thirty six states of Nigeria located in South-South Nigeria. Its capital is Port Harcourt. The state covers an area of 11,077 square meter with an estimated population of 5,689,089 (National Population Commission, Nigeria, 2009). The state comprises 23 Local Government Areas (LGA5) distributed in three senatorial districts of Rivers East, Rivers West and Rivers South East. Of the 23 LGAs, two are urban (Port Harcourt LGA and Obio/Akpor LGA) while the rest are rural. The major source of livelihood for the Rivers people, especially the rural dwellers are fishing and farming. Health status of the citizens of Rivers State is unacceptable. MMR of 889 per 100,000 life birth is one the highest in the world. In addition, UFMR (90/100) and general mortality rate (60/1000) are higher than average (Rivers State Ministry of Health, 2010). EmOC services like other maternal and child health services are provided in public and private health facilities. The present study is focused on examining provision of EmOC services in Rivers State health service (PHCFs & SHCFs) and does not include private sector and the Teaching hospital.

**Data collection**

To examine the sufficiency of EmOC provision in Rivers State health service, a cross-sectional facility-based study was conducted among 31 Heads of public health facilities in Rivers State health services. The participants included, 26 Heads of PHCFs and 5 Heads of SHCFs selected using a multistage sampling procedure. Percentage area and facility coverage were based on WHO, UNFPA, UNICEF and AMDD (2009) recommendation. The agencies recommended that two stages be followed in selecting facilities for a study. These, according to the agencies include first selecting at least 30 per cent of an area-country, state or district. Thus, six LGAs representing 30 per cent of the 23 LGAs in Rivers State were studied. The second stage was to select 25 per cent of the health facilities in the selected LGAs as against 30 per cent recommended in the Handbook. This 5 per cent short fall was due to one year long industrial action by PHC workers which rendered most PHCFs inaccessible, hence 31 facilities were used for the study.

Data were collected with the aid of six trained research assistants. Heads of the facilities were given a three-sectioned questionnaire comprising sections A, B and C. Sections A and B were researcher-designed. While Section A contained 5 items on respondents’ characteristics, Section B contained 9 items on signal functions to measure theoretical provision of EmOC using Donabedian model. This was with particular references to the technical aspect of process dimension of EmOC. Section C contained 38-items adapted from “Form 2” of United Nations Handbook and modified to suit the study purpose. Ten of the 38 items addressed number of obstetric cases in the facilities on monthly basis for one year period, 19 items addressed maternal deaths in the facility on monthly basis for one year period, while 9 items focused on actual performance of signal functions in the facility in a consecutive three months period proceeding visit to the health facility as recommended by the UN Handbook. Provision of each signal function in a consecutive three months period preceding the survey was determined using “Form 2” of the United Nations Handbook. Reasons for the non- performance of each signal function within the three months period were also noted. The study also checked availability of resources such as trained staff, requisite supply and equipment; functional requisite supply and authorized facility staff for each signal function.

**Data analysis**

Data were analyzed using Statistical Package for Social Sciences and level of provision for each signal function was based on a five-point scale adapted from Olaosebikan (2007) where a score of 70% and above = very highly sufficient; 60-69% = highly sufficient, 50-59% = moderately sufficient; 40-49 = slightly sufficient and below 40% = low in sufficiency. Analyzed data were presented using descriptive statistics of frequency and percentage.

**Ethical approval**

Ethical approval to conduct the study was obtained from Rivers State Health Research Ethics

Committee. Approvals were also granted by Rivers State Ministry of Health and Rivers State

Primary Health Care Management Board.

**Results**

**Obstetric Cases That Occurred in Rivers State Health Service From July 2013 to June 2014 (n = 31)**

|  |  |  |  |
| --- | --- | --- | --- |
| **S/N** | **Obstetric cases** | **f** | **%** |
| 1 | No. of women giving birth (normal vaginal, assisted vaginal, breech and caesarean). | 4251 | 71.457 |
| 2 | No. of caesarean sections. | 1467 | 24.659 |
| 3 | Haemorrhage (ante-and postpartum) | 63 | 1.050 |
| 4 | Obstructed or prolonged labour | 50 | 0.840 |
| 5 | Ruptured uterus | 11 | 0.184 |
| 6 | Postpartum sepsis | 5 | 0.084 |
| 7 | Severe pre-eclampsia or eclampsia | 69 | 1.159 |
| 8 | Complications of abortion (with hemorrhage or sepsis. | 5 | 0.084 |
| 9 | Ectopic pregnancy | 3 | 0.050 |
| 10 | Other direct obstetric complications that were treated but are not listed above or not specified; | 25 | 0.42 |
|  | **Total** | **5949** | **100** |

Table 1 depicts a list of obstetric cases that occurred in Rivers State health service from July 2013 to June 2014. The Table shows the obstetric cases that occurred to include: proportion of births (71.5%), caesarean section (24.7%), severe pre-eclampsia or eclampsia (1.2%), haemorrhage - ante or postpartum (1.1%), obstructed or prolonged labour (0.8%), ruptured uterus (0.2%), complications of abortion with haemorrhage or sepsis (0.1%). ectopic pregnancy (0.1%) and other direct obstetric complications that were treated but are not listed above or not specified (0.4%).

**Most Common Causes of Maternal Deaths in Rivers State Health Service From July 2013 to June 2014 (n=31).**

|  |  |  |  |
| --- | --- | --- | --- |
| **S/N** |  | f | % |
| 1 | \*Haemorrhage (ante and post-partum) | 13 | 21.3 |
| 2 | \*Obstructed or prolonged labour | 14 | 22.0 |
| 3 | \*Ruptured uterus | 4 | 6.6 |
| 4 | \*Postpartum sepsis | 2 | 3.3 |
| 5 | \*Severe pre-eclampsia or eclapmpsia | 8 | 13.1 |
| 6 | \*Complications of abortion (with haemorrhage or sepsis) | 1 | 1.6 |
| 7 | \*Ectopic pregnancy | 0 | 0 |
| 8 | \*Other maternal deaths due to direct causes other than those listed above or not specified above | 1 | 1.6 |
| 9 | \*\*Malaria | 0 | 0 |
| 10 | \*\*Anaemia | 0 | 0 |
| 11 | \*\*HIV/AIDs | 0 | 0 |
| 12 | \*\*Tuberculosis | 0 | 0 |
| 13 | \*\*Heart disease | 0 | 0 |
| 14 | \*\*Infection | 0 | 0 |
| 15 | \*\*Unsafe abortion | 0 | 0 |
| 16 | \*\*All other indirect maternal deaths, | 18 | 29.5 |
|  | **Overall percentage** | **61** | **100** |

\* Direct causes \*\* Indirect causes

Table 2 shows that of the seven direct causes of maternal deaths, obstructed or prolonged labour was the highest (22.0%), Others include, haemorrhage (21.3%), severe pre-eclarnpsia or eclampsia (13.1%), ruptured uterus (6.6%), post partum sepsis (3.3%), complications of abortion (1.6%) and other causes of maternal deaths (1.6%). Indirect causes of maternal deaths constituted (29.5%) of all maternal deaths.

**Table 3: Level of EmOC (theoretical) Services Provided in Rivers State Health Service.**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Emergency Obstetric Care** | **Provided** | **Not Provided** |
|  |  | **F %** | **F %** |
|  | Administering Parenteral antibiotic | 26 83.9 | 5 16.1 |
|  | Administering Parenteral oxytocin | 26 83.9 | 5 16.1 |
|  | Administering Parenteral anticonvultants | 16 51.6 | 15 48.4 |
|  | Performing manual removal of placenta | 24 77.4 | 7 22.6 |
|  | Performing manual removal of retained products of conception | 18 58.1 | 13 41.9 |
|  | Performing instrumental delivery | 4 22.6 | 27 77.4 |
|  | Performing blood transfusion | 5 16.1 | 26 83.9 |
|  | Performing caesarean section | 10 32.3 | 21 67.7 |
|  | Performing newborn resuscitation with bag and mask | 22 71.0 | 9 29.0 |
|  | **Overall percentage** | **55.2** | **44.8** |

Table 3 displays data on signal functions performed in health facilities in Rivers State health service. The Table shows that overall, provision of EmOC was moderately (55.2%) sufficient. The Table further shows that among the provided EmOC services were: administering parenteral antibiotics (83.9%), administering parenteral oxytocin (83.9%), performing manual removal of placenta (77.4%) and performing newborn resuscitation with bag and mask (71.0%) were very highly sufficient. The Table also shows that performing manual removal of retained products of conception (58.1%) and administering parenteral anticonvulsants (51.6%) were moderately sufficient. Furthermore, the Table shows that performing caesarean section (32.3%), performing instrumental delivery (22.6%) and performing blood transfusion (16.1%) were low in sufficiency

**Table 4**

**Emergency Obstetric Care Performed in a Consecutive Three Months Period (n = 31)**

**Signal Functions**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | 2 | 3 | Administration of Parenteral  Antibiotics  F % | Administration of uteronic drugs (ie parenteral oxytocin)  F % | Administration of parenteral anti convulsant for pre-eclampsia ie mag. Sulphate  F % | Performing manual removal of placeneta  F % | Performing manual removal of retained product  F % | Performing assisted vaginal delivery  F % | Performing Newborn resuscitation  F % | Performing blood transfusion  F % | Performing surgery e.g. C/S.  F % | Total  F |
| 1. Performed in last 3 months |  | Yes | 17 54.8 | 16 51.6 | 5 16.3 | 13 41.9 | 5 16.3 | 3.3 9.7 | 16 51.6 | 6 19.4 | 1 3.2 | 29.4 |
|  |  | No | 14 45.2 | 15 48.4 | 26 83.1 | 18 58.1 | 26 83.9 | 28 90.3 | 15 48.4 | 25 80.6 | 30 96.8 |  |
|  |  | Total | 31 100 | 31 100 | 31 100 | 31 100 | 31 100 | 31 100 | 31 100 | 31 100 | 31 100 |  |
| 2. Why not performed in last 3 months | 1. Training issues |  | 1 3.2 | 1 3.2 | 1 3.2 | 0 0 | 4 12.9 | 5 16.1 | 2 6.5 | 1 3.2 | 5 16.1 |  |
|  | 2. Supplies Equipment drug issues |  | 1 3.2 | 2 5.6 | 2 6.5 | 2 6.5 | 2 6.5 | 0 0 | 0 0 | 2 6.5 | 0 0 |  |
|  | 3. Management issue |  | 1 3.2 | 0 0 | 0 0 | 1 3.2 | 0 0 | 0 0 | 0 0 | 1 3.2 | 1 3.2 |  |
|  | 4. Policy Issue |  | 4 12.9 | 4 12.9 | 3 9.7 | 1 3.2 | 2 5 | 1 .2 | 1 3.2 | 8 25.8 | 10 32.3 |  |
|  | 5. No indication |  | 7 22.6 | 7 22.6 | 14 45.2 | 15 48.4 | 12 38.7 | 10 32.3 | 10 32.3 | 8 25.8 | 2 6.5 |  |
|  | No of those who say | Yes | 17 54.8 | 17 54.8 | 11 35.5 | 12 38.7 | 11 35.5 | 13 41.9 | 18 58.1 | 11 35.5 | 13 41.9 |  |
|  |  | Total | 31 100 | 31 100 | 31 100 | 31 100 | 31 100 | 31 100 | 31 100 | 31 100 | 31 100 |  |
| 3. Availability of resources for performing functions | 1. Availability of trained staff | Yes | 26 83.9 | 27 87.1 | 21 67.7 | 26 83.9 | 15 48.4 | 7 22.6 | 27 87.1 | 13 41.9 | 5 16.1 |  |
|  |  | No | 5 16.1 | 4 12.9 | 10 32.3 | 5 16.1 | 16 51.6 | 24 77.4 | 4 12.9 | 18 58.1 | 26 83.9 |  |
|  |  | Total | 31 100 | 31 100 | 31 100 | 31 100 | 31 100 | 31 100 | 31 100 | 31 100 | 31 100 |  |
|  | Availability of requisite supply and equipment | Yes | 26 83.9 | 25 80.6 | 15 48.4 | 22 71.0 | 14 45.2 | 6 19.4 | 25 80.6 | 10 32.3 | 4 12.9 |  |
|  |  | No | 5 16.1 | 6 19.4 | 16 51.6 | 9 29.0 | 1.7 54.8 | 25 80.6 | 6 19.4 | 21 67.7 | 27 87.1 |  |
|  |  | Total | 31 100 | 31 100 | 31 100 | 31 100 | 31 100 | 31 100 | 31 100 | 31 100 | 31 100 |  |
|  | Functional requisite supply | Yes | 23 74.2 | 23 74.2 | 14 45.2 | 22 71.0 | 12 38.7 | 6 19.4 | 25 80.6 | 6 19.4 | 5 16.1 |  |
|  |  | No | 8 25.8 | 8 25.8 | 17 54.8 | 9 29.0 | 19 61.3 | 25 80.6 | 6 19.4 | 6 19.4 | 26 83.9 |  |
|  |  | Total | 31 100 | 31 100 | 31 100 | 31 100 | 31 100 | 31 100 | 31 100 | 31 100 | 31 100 |  |
|  | Indication for signal function | Yes | 18 58.1 | 18 58..1 | 7 22.6 | 11 35.5 | 7 22.3 | 3 9.7 | 15 48.4 | 11 35.5 | 9 29.0 |  |
|  |  | No | 13 41.9 | 13 41.9 | 24 77.4 | 20 64.5 | 24 77.4 | 28 90.3 | 16 51.6 | 20 64.5 | 22 71.0 |  |
|  |  | Total | 31 100 | 31 100 | 31 100 | 31 100 | 31 100 | 31 100 | 31 100 | 31 100 | 31 100 |  |
|  | Authorized facility staff | Yes | 25 80.6 | 23 74.2 | 16 51.6 | 21 67.7 | 14 45.2 | 7 22.6 | 26 83.9 | 13 41.9 | 6 19.4 |  |
|  |  | No | 6 19.4 | 8 25.8 | 15 48.8 | 10 32.3 | 17 54.8 | 24 77.4 | 5 16.1 | 18 58.1 | 25 80.6 |  |
|  |  | Total | 31 100 | 31 100 | 31 100 | 31 100 | 31 100 | 31 100 | 31 100 | 31 100 | 31 100 |  |

Source: Questionnaire Data (2015)

Table 4 displays data as indicated by Heads of health facilities on performance of signal functions in a consecutive 3 months period prior to study. The Table shows that, overall, provision of signal function (29.4%) was low in sufficiency. The Table also shows that provision of signal function one -administration of parenteral antibiotics (54.8%) was moderately sufficient. Some reasons given for not performing this signal function include: no indication (22.6%), policy issue (12.9%), management issue (3.2%), supplies, equipment and drug issue (3.2%) and training issues (3.2%). The Table also shows that availability of resources for performing signal function include: availability of trained staff (83.9%), requisite supply and equipment (83.9%), functional requisite supply (74.2%), indication for signal function (58.1%), and authorized facility staff (80.6%).

Furthermore, the Table shows that signal function two - administration of uterotonic drugs was moderately (51.6%) sufficient. Reasons for not performing signal function include: no indication (22.6%), policy issue (12.9%), supplies, equipment and drug issue (5.6%), and training issue (3.2%). Availability of resources for performing signal functions include: trained staff (87.1%), availability of requisite supply (80.6%) and functional requisite supply (74.2%), authorized facility staff (74.2%) and indication for signal function (58.1%).

Furthermore, the Table shows that provision of signal function seven - performing new born resuscitation was moderately (51.6%) sufficient. Reasons for not performing signal function are: no indication (32%), training issue (6.5%), policy issue (3.2%). Availability of resources for performing signal functions as indicated include: trained staff (87.l%), requisite supply and equipment (50.6%) authorized clinic staff (83.9%), functional requisite supply (80.6%) and indication for signal function (48.4%).

The Table further shows that provision of signal function four - performing manual removal of placenta was slightly (41.9%) sufficient. Reasons for not performing signal function include: no indication (48.4%), supplies, equipment and drug issue (6.5%), management issue (3.2%), policy issue (3.2%). For availability of resources for performing signal function, the following were indicated: availability of trained staff (83.9%), requisite supplies and equipment (71.0%) functional requisite supplies and equipment (71.0%), authorized clinic staff (67.7%) and indication for signal function (35.5%).

In addition, the Table shows that provision of signal function eight - performing blood transfusion was low (19.4%) in sufficiency. Reasons for not performing signal function include: policy issue (25.8%), no indication (25.8%), supplies, equipment and drug issue (6.5%), training issues (3.2%), and management issue (3.2%). Availability of resources for performing signal functions as indicated include: trained staff (41.9%), indication for signal function (35.5%), requisite supply and equipment (3 2.3%) and functional requisite supply (19.4%).

In addition, the Table shows that provision of signal function three - administration of parenteral anticonvulsant for pre-eclampsia or eclampsia was low (16.3%) in sufficiency. Reasons for not performing signal function for the last three months include: no indication (22.6%), policy issue (12.9%), supplies equipment and drug issue (5.6%), training issue (3.2%). For availability of resources for performing signal function the following were indicated: trained staff (67.7%), authorized facility staff (67.7%). requisite supplies (48.4%), functional requisite supply (45.2%) indication for performing signal function (22.6%).

Furthermore, the Table shows that provision of signal function five-performing manual removal of retained product was low (16.3%) in sufficiency. Reasons for not performing signal function include: no indication (38.7%), training issue (12.9%), policy issue (6.5%), supplies, equipment and drug issue (6.5%). Availability of resources for performing signal functions include: trained staff (48.4%), supply and equipment (45.2%), functional requisite supply (38.7°/b), authorized clinic staff (45.2%) and indication for signal function (22.3%).

The Table further shows that provision of signal function six-performing assisted vaginal delivery was low (9.7%) in sufficiency. Reasons for not performing signal function include: no indication (32.3%), authorized facility staff (22.6%), training issue (16.1%) and policy issue (3.2%). Availability of resources for performing signal function as indicated include: trained staff (22.6%), supply and equipment (19.4%), functional requisite supply (19.4%) and indication for signal function (9.7%).

Finally, the Table indicates that provision of signal function nine-performing surgery for example, caesarean section was low (3.2%) in sufficiency. Reasons for not performing signal function for the last three months include: policy issue (32.3%), training issue (16.1%), indication (6.5%), and management issue (3.2%). The Table also indicates that availability of resources for performing signal function include: indication for signal function (29.0%), authorized facility staff (19.4%), functional requisite supply (16.1%), and availability of requisite supply (12.9%).

***Discussion***

Data presented in Table one showed that the major obstetric emergencies that occurred in Rivers State health service were severe pre-eclampsia or eclampsia, haemorrhage (ante or post partum), obstructed or prolonged labour and others. These findings are in agreement with WHO Media Centre (2017) that the complications that account for most maternal deaths severe bleeding (mostly bleeding after childbirth), infections, high blood pressure due to pregnancy (pre-eclampsia and eclampsia, complications from delivery and unsafe abortion.

Data in Table two showed that the most common cause of maternal death were obstructed or prolonged labour, haemorrhage (ante and post partum) and severe pre-eclampsia or eclampsia. Others were ruptured uterus, post partum sepsis and complications of abortion. This is in agreement with the findings of where it was reported that the five leading causes of death in Nigeria were obstetric haemorrhage, eclampsia, sepsis, obstructed labour and complications of unsafe abortion.

Data as presented in Tables 3 on level of EmOC provision showed that overall theoretical provision of EmOC (55.2%) was moderately sufficient while overall provision of actual EmOC was low (29.4%) in sufficiency. Signal functions such as administration of parental antibiotics (54.8%), administration of parenteral uterotonic drugs (51.6%) and performing newborn resuscitation (51.6%) were moderately sufficient in provision. This is in agreement with Ameh et al (2012) who found that in all six countries studied, parenteral oxytocis and antibiotics were the most frequently available EmOC signal functions with an average of 6-7 out of 10. Similar findings were also reported by Mezie-Okoye et al. (2012).

The study also revealed the least provided signal functions to include: administration of parenteral anticonvulsants (16.3%) which was low in sufficiency. This is at variance with Ameh et al. (2012) report that while 70% of facilities in Sierra Leone and Kenya were able to provide parenteral anticonvulsants, only 44% and 56% of facilities in the surveyed districts in Nigeria and Malawi respectively provided. Parenteral anticonvulsants are given using magnesium sulphate for prevention and treatment of pre-eclampsia and eclmapsia. The use of magnesium sulphate is low in many low resource countries like Nigeria due to challenges of its availability at all times and cost barriers (Tukur, 2009). The low sufficiency in the provision of this signal function as found in this study is not expected given the understanding that magnesium sulphate is very useful in reducing death due to eclampsia and pre-eclampsia. A study in Nigeria by Ezeugu et al (2012) found that there was over 80% reduction in case fatality rate for eclampsia after the introduction of an intervention using magnesium sulphate for the treatment of eclampsia and pre-eclampsia. The finding of the present study also concurs with that of Mezie-Okoye et al. (2012) which stated that only one facility out of 19 performed parenteral anticonvulsants.

Other signal functions which were low in sufficiency as shown in Table 4 were performing caesarean section (3.2%), performing assisted vaginal delivery (9.7%) performing manual removal of retained product (16.3%0, administering parenteral anticonvulsant (16.3%), and performing blood transfusion (19.4%). This finding is not surprising as Ameh, et al (2012) reported that removal of retained products of conception and assisted vaginal delivery were the least performed signal functions. Performing assistant vaginal delivery which was found to be low in sufficiency is also expected as this has also been found to be one of the least performed EmOC functions in most countries of the world (WHO, UNFPA, UNICEF and AMDD, 2009). This findings also aggress with Mezie-Okoye et al. (2012) which stated that only one manual removal of retained products was carried out in the study area. Performing blood transfusion is another signal function which provision was found to be low in sufficiency. This is contrary to the findings of Ameh, et al (2012) who found that blood transfusion was readily available in the countries surveyed. For caesarean section, this findings of the present was in agreement with that of Ameh et al (2012) where they reported that most facilities in the surveyed countries could not provide caesarean section.

In addition, Table 4 showed that different reasons accounted for the inability of the facilities to provide some EmOC. The major reason for not performing all the signal functions was no indication for the signal functions. However, the major reason for not performing signal function nine on caesarean section were policy issues, training issues and no indication. This implies that cases requiring caesarean section were indicated yet policy and training issues hindered the provision of the service. This concurs with Paxton, Bailey, Lobis and Fry (2006) who stated that in many developing countries, health facilities are not performing the expected functions according to their level. The finding of the present study also echoes the findings of Ugal, Ushie and Ugal (2012) in Nigeria where it was indicated that maternal health care facilities are available but majority of them do not satisfy the international standards for both basic and comprehensive EmOC. Ali, Ayuz, Rizwah, Hashimr and Kuroiwa (2006) had earlier found that almost all indicators were below minimum recommended UN levels. The number of facilities providing basic EmOC services was much too low to be called providing comprehensive coverage. A low percentage of births took place in hospitals and few women with complications reached EmOC facilities. Caesarean section was either under utilized or unavailable. Paxton, Bailey, Lobis and Fry (2006) noted that the basic EmOC and comprehensive EmOC facilities are more concentrated in the province containing the capital city. This is not the case in Rivers State because PHCFs and SHFs alike are evenly distributed in the rural and urban areas. Except in two LGAs where SHFs are nonexistent. These include Oyigbo and Tai Local Government Areas (Okankwu, 2016). Paxton, et al identified some factors to be responsible for the lack of availability of basic EmOC facilities. These factors according to them, include, prioritization of governments on resources for hospitals over lower level facilities, difficulty of maintaining equipment and supplies in relatively more rural locations and difficulty in retaining qualified staff in smaller facilities. Paxton et al. maintained that, with the upgrading of services, more obstetric complications can be treated closer to the communities where women live without constructing new buildings. Upgrading, according to the authors, involve identification and provision of or repair of essential equipments; minor renovations in physical plant, provision of required supplies and planning for continuous supply. Others include, in- service training of facility staff preferably with competency-based training, supportive supervision, both internal and external to facility and improved management systems in the facility.

Findings from the present study suggest provision of more SHCFs to accommodate the teeming EmOC needs of the population since the SHCFs are better equipped and staffed to provide EmOC services especially comprehensive services. It also suggests the need for retraining available service providers on EmOC skills to enhance their skills on obstetric care. There is also need to provide necessary equipment to enable service providers carry out the task before them as required.

**Implication for Maternal and Newbern Survival**

Low sufficiency of provision of EmOC services in the face of identified preventable causes of maternal mortality has serious implication for maternal and newborn survival. It is an established fact that most of the interventions that prevent maternal death also help to prevent newborn death. EmOC has been described as life saving interventions that can avert majority of pregnancy and childbirth complications. The insufficient provision of EmOC revealed in the study in Rivers State health service implies that pregnancy and childbirth-related complications are not yet prioritized in practice. This is contrary to expectation as Rivers State has implemented most global and national programmes geared towards reduction of maternal and newborn mortality. The present study found that the obstetric cases that occurred in Rivers State in one year period were vaginal deliveries, caesarean section and obstetric complications such as severe pre-eclampsia, haemorrhage, obstructed labour, ruptured uterus, post-partum sepsis and complications of abortion. These obstetric complications that occurred in the state health service did not deviate from the causes of maternal mortality in Rivers State health service in the same time period. The most common causes of maternal mortality as found in the study in order of magnitude from highest to the least include: obstructed or prolonged labour, haemorhage, severe eclampsia or pre-eclampsia, ruptured uterus, post partum sepsis, complications of abortion (with haemorrhage or sepsis).

From the forgoing, it is seen that women in Rivers State are still dying from preventable causes. This also affects their newborns negatively. The implication for maternal and newborn survival is that the situation calls for a review of existing policies where the health system will come up with evidence-based policies and interventions suited to local context for each of the causes of maternal death geared towards reduction of maternal and newborn death. This method was helpful in the reduction of maternal mortality in Enugu State University Teaching Hospital. There was 43.5% reduction in MMR following the adoption of the interventions where Pritchard regimen was used for treatment of pre-eclampisa and eclampsia and active management of third stage of labour with intramuscular oxytrocin was used for prevention and treatment of post partum haemorrahge. There was over 80% reduction in case fatality rate for eclampsia. The case fatality rate for PPH also dropped by 82%. There was about 30% decline in prevalence of PPH. This was achieved by first understanding that the most common causes of maternal mortality in their study context, were pre-eclampsia/eclampsia and post-partum haemorrhage and then applying these interventions which resulted in the reduction of MMR The study believes that the findings of this study in relation to the most common causes of maternal mortality have provided a baseline data upon which various evidence-based and cost-effective interventions will be tried out in small scales to understand what intervention suits best.

The insufficiency found in the provision of EmOC services in this study also has implication on stakeholders at the facility and health system level. Effort should be made to investigate the reasons for insufficient provision and what method works most. For instance, the least provided signal function was the performing caesarean section (3.2%) which was well below the minimum UN acceptable limit of (5-15%). Even though WHO has declared no level of caesarean section is most suitable. There is need to ensure that those who need caesarean section should receive care. This can be by way of community sensitization by health educators on use of available health facilities and retraining service providers on early recognition of pregnancy and childbirth complications and what immediate actions should be taken for each of the obstetric complications. There is also need for good referral system from PHCFs to SHCFs so as to ensure that EmOC is available to women who have accessed Rivers State Health Service.

***Conclusion***

The study identifies the most common causes of obstetric deaths to include obstructed or prolonged labour, haemorrhage, severe pre-eclampsia or eclampsia. Others are ruptured uterus, post partum sepsis and complications of abortion. These did not deviate from the obstetric cases that occurred besides deliveries and caesarean section. The study concludes that the low sufficiency in the provision of EmOC indicates that Rivers State is yet to prioritize reduction of maternal mortality. There is need for greater political commitment on the part of government by way of providing human and material resources necessary for the provision of EmOC. There is also need to put worthwhile policies into meaningful actions. These can help to achieve maternal and newborn survival.

***Recommendation***

1. Supplies and requisite necessary equipment should be made available in each health facility.
2. Upgrading of BEmOC facilities to CEmOC facilities to improve coverage.
3. Improving referral system to ensure that women who have accessed any level of the health system get required care necessary to prevent death of mother, newborn or both.
4. Service providers at the PHCFs should always refer women promptly who come from PHCFs to SHCFs.
5. Government should ensure retraining of service providers on early recognition of obstetric emergencies and necessary actions.
6. Facility heads should ensure that guidelines on actions for obstetric emergencies are published at strategic places in the antenatal, labour and postnatal units.

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