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PREVALENCE OF MATERNAL MORBIDITY AND UNINTENDED PREGNANCY AS THE CONSEQUENCES OF INSURGENCY AMONG WOMEN OF CHILD-BEARING AGE IN YOBE

[1]Helma Yerima, [2]Sani Buba, [2]Saidu Isah PhD & [2]Haruna Saleh

[1]Yobe State Primary Health Care Management Board
[2]Department of Physical and Health Education Aminu Saleh College of Education, Azare
Corresponding author: helmayerima@gmail.com; 08035322414

Abstract

This study examined the prevalence of maternal morbidity and unintended pregnancy among women of child-bearing age in Yobe State, Nigeria. A descriptive research design of survey type was used for the study. The target population of the study were all the women of child-bearing age attending the selected health facilities in Yobe State with a population of 7501. A multi-stage sampling procedure was used to sample 365 respondents from the selected area of the study. A researcher-developed questionnaire validated by three experts was used for data collection. The reliability of the instrument was determined using the test re-test method; a coefficient of 0.68 was obtained. Descriptive statistics of frequency counts and the percentage were used to answer the research questions while inferential statistics of Chi-square was used to analyse the postulated hypotheses at 0.05 alpha level. The findings of the study revealed that maternal morbidity and unintended pregnancy were prevalent among women of child-bearing age in Yobe State with the calculated values of ($x^2_c = 1476 > x^2_t = 21.026$ and $x^2_c = 1151 > x^2_t = 21.026$) respectively. The study concluded that maternal morbidity and unintended pregnancy are prevalent health challenges among women of child-bearing age in Yobe State. The study recommended that women of child-bearing age living in crisis-prone areas should be given adequate maternal health care services through home service; this will go a long way in providing adequate maternal health care services thereby preventing maternal morbidity and unintended pregnancies.

Keywords: Consequences, Maternal morbidity, Unintended Pregnancy, Prevalence.

Introduction

Maternal health care services are vital services provided by health care personnel for the promotion of health through education, family planning service, and counselling, and prevention of diseases and conditions such as malaria, high blood pressure among women of child-bearing age. Maternal health is the complete physical well-being of a woman during pregnancy, childbirth, and the postpartum period (World Health Organisation (WHO), 2011), it has been a major concern of several international summits and symposiums since the late 1980s, which climaxed to the Millennium Summit in 2000 (WHO, 2013). Maternal health care has a crucial role to play in the enhancement of reproductive health and women deserve to be well informed and empowered to have unrestricted access to safe, effective, affordable, acceptable and appropriate health care services. Yet more than half a million women die annually due to pregnancy-related complications with ninety-five per cent of these coming from the developing world (United Nations Children's Fund (UNICEF), 2012).

The governmental efforts in healthcare service delivery in crises areas of the northeast have been greatly affected, as well as that of profit-making establishments. Those displaced are now taking shelter in relatively safe refugee camps in the states capitals and few other strategic locations in the affected state (Abdullahi, 2017). As of 2016, there were over 2,000,000 Internally Displaced Persons

(IDPs) in Borno State (Internal Displacement Monitoring Center (IDMC), 2016). The activities of the insurgents have destroyed over $5.9Billion in the affected areas, over 20,000 were killed. Such destructions affect infrastructure in the areas of education, environment, sanitation, healthcare, energy, businesses, housing, municipal buildings in Yobe and Borno States.

Maternal and child health care services were greatly affected due to the activities of the insurgents as reported by Uche and Ehator-Mobayode (2019) who revealed that the Boko Haram insurgents reduced the probability of any antenatal care visits, delivery at a health centre, and delivery by a skilled health professional. Over 788 health facilities have been lost to insurgent activities in the northeast. Yobe state alone lost over 40% of its facilities and only a third of those left in the state remain functional. The state is reported to have lost 35% of its doctors to other states (Obi & Eboreime, 2017).

Malnutrition, injury and other infectious diseases are prevalent among those in the camps including pregnant and nursing mothers as revealed by Omale, Welye, and Abimbola (2015) who reported that cases of malaria are more difficult to ascertain because the diagnosis is often recorded as fever, especially if a qualified health worker is not available to examine the patient which worsens the situation. Estimations of the incidence of injuries are uncertain, mainly because only individuals with major injuries are present for treatment. Moreover, about one in five people in the camps are severely malnourished, including children, nursing mothers and pregnant women. Omale, Welye and Abimbola (2015) further reported that no facilities are available for pregnant women; they give birth under risky conditions and all the maternal deaths on record in the camps have been caused by excessive bleeding. Some individuals with HIV and other chronic diseases, such as hypertension and diabetes, have been off medication due to the activities of the insurgents.

A reduction in the ability to access modern contraception may occur in conflict due to several individual, sociocultural, political and health system factors. Health systems in conflict and post-conflict become fragmented when facing challenges such as damaged infrastructure, limited human resources, weak management, and a rise in poorly coordinated non-governmental organizations (Chi, Bulage & Urdal, 2015). Health services are undercut by conflict as many governmental resources are relocated and directed towards military expenses (Elveborg, 2016). Similarly, physical infrastructure such as roads and water systems are negatively affected. Health care facilities are further destroyed and health care staff are lost due to fatalities and migration as reported by Ager et al. (2015) revealed that population migration and transport restrictions have substantially impacted access to maternal health provision. The human resource for health capability of the crises area has been severely diminished through the outward migration of (especially non-indigenous) health workers and the suspension of programmes providing external technical assistance such as family planning. In the same vein, women are less likely to have the economic opportunities that may enable them to make reproductive choices. Factors such as socio-economic deterioration, death and injuries, and limited access to health care including family planning may affect women's access to modern contraceptive utilization negatively (Elveborg, 2016).

Women who have experienced sexual violence are prone to higher levels of unintended pregnancy and lower levels of modern contraceptive use. This relationship can be explained by rape being a disempowering experience especially to young women which is common in crises areas as reported by Basir, Gedam, and Muazu (2019) who reported that violence experienced by women in the affected areas is both physical and psychological. However, the physical violation has been more pronounced, as women are used for suicide bombings and are as well sexually abused. This results in difficulties negotiating contraceptive use and elevated risks of unintended pregnancy, illegal and unsafe abortion, and sexually transmitted infections (STIs) (Gomez, 2011).

Violence incapacitated women in various perspectives as reported by Gomez (2011) who reported that, although contraceptive use is generally high and unmet need is falling among females in war ragged countries, the scourge of violence against women may inhibit further reductions and

contribute to thousands of unintended pregnancies each year. Wiliams and Istifanus (2017) revealed that the factors responsible for reduced access to education by girl-child are damage to school facilities, emotional disorders, fear and insecurity, stigma, poverty, unintended pregnancy, forced marriage and lack of teachers, therefore, this study investigated the prevalence of maternal morbidity and unintended pregnancy in Yobe State.

Activities of the insurgents have resulted in the destruction of 1098 public buildings and private properties including healthcare facilities in the Yobe State. Imposing curfews, ban on motorcycles and GSM services cut-off for 6 months among others hindered access to healthcare delivery in the state. A total of 90 health workers were attacked, 22 were killed, and over 300 were displaced while 60 facilities were destroyed by the insurgents (Shehu, 2019). These negatively affect access and utilization of health care services among women of child bearing-age in Yobe State. Boko Haram insurgency has ensured that accessibility and affordability of Primary Health Care services have imposed serious effects on the health care system. The majority of deaths are directly caused by a limited number of complications such as haemorrhage, hypertensive disorders, sepsis, obstructed labour (which requires access to emergency obstetric and intensive care), delay in the decision to seek medical care, in reaching the health facility and receiving quality health care on arrival which is common in war zones.

Researchers observed that majority of mothers most especially in zone A Senatorial district of Yobe state, find it difficult to attend maternal and child health care services, in some local governments that are exposed to insurgency like Gujba, Gulani, Yunusari and Gaidem local government, this as results of fear of insurgents. An eye experienced an incidence whereby a woman died in the process of transporting her to the hospital due to distance to the health facility, this is due to the fact that the nearby health facilities were destroyed by the insurgents. It is on this note the researchers investigated the prevalence of maternal morbidity and unwanted pregnancy on the consequences of insurgency among women of child-bearing age in Yobe State.

Research Questions

The following questions were raised to guide the study:

i. Prevalence of maternal morbidity will not be a consequence of insurgency among women of child-bearing age in Yobe State, Nigeria?
ii. Prevalence of unwanted pregnancy will not be a consequence of insurgency among women of child-bearing age in Yobe State, Nigeria?

Research Hypotheses

The following hypotheses were formulated and tested in the study:

i. Maternal morbidity will not significantly be a consequence of insurgency among women of child-bearing age in Yobe State, Nigeria.
ii. Unintended pregnancy will not significantly be a consequence of insurgency among women of childbearing age in Yobe State, Nigeria.

Material and Methods

A descriptive research design of the survey type was adopted for this study. The population of the study comprised all women of child-bearing age registered and attending maternal and child health care services in seven LGAs with a population of 33,850 as revealed by District Health Information System [DHIS] (2018). The target population for the study include all women of child-bearing age registered and attending maternal and child health service at all health facilities in the four Local Government Areas selected in zone A, senatorial District, Yobe state with a population of 7501.

Multistage sampling procedure of simple random sampling, proportionate sampling and systematic sampling techniques were used to select 365 respondents for the study.

The instrument used for data collection was a researcher-developed questionnaire titled "Prevalence of Maternal Morbidity and Unintended Pregnancy as Consequence of Insurgency among Women of Child-bearing Age in Yobe State (PMMUPCIAWCBAYS)" with the response mode of 4-point Likert scale format of Strongly Agree (SD), Agree (A), Disagree (D), and Strongly Disagree (SD). To ensure the validity of the research instrument, it was validated by three experts in the Department of Health Promotion and Environmental Health Education, Faculty of Education, the University of Ilorin for both face and content validity. Their comments and suggestions were used to improve the quality of the research instrument. The reliability of the instrument was carried out using the test-retest method of the pilot study, the result obtained was subjected to Pearson Product Moment Correlation (PPMC), a correlation coefficient of 0.68 was obtained. The completed copies of the questionnaires were retrieved, collated, coded, entered and analysed. Descriptive statistics of frequency counts and percentage were used to answer the research questions while inferential statistics of chi-square was used to test the postulated hypotheses at 0.05 alpha level.

Results and Discussion

The results of the study were presented and discussed as follows:

Answers to Research Questions

Research Question 1: Will there be a prevalence of maternal morbidity as a consequence of insurgency among women of child-bearing age in Yobe State, Nigeria**?**

Table 1: Descriptive Statistics of Frequency Counts and Percentage on the Prevalence of Maternal Morbidity and the Consequence of Insurgency among women of Child-bearing Age in Yobe State

S/N	Question Items	SA	A	PR	D	SD	NR
1.	women experienced preeclampsia due to a lack of medical care as a result of insurgency.	262 (71.7%)	94 (25.7%)	356 (97.5%)	8 (2.1%)	1 (.3%)	9 (2.5%)
2.	Women experience vaginal infections (vaginoses) due to insurgency lead to their death	350 (96.0%)	6 (1.6%)	356 (97.5%)	9 (2.4%)	00 (00%)	9 (2.5%)
3.	Malaria which could have been managed kills Mothers due to insurgency.	260 (71.2%)	97 (26.5%)	357 (97.8%)	8 (2.1%)	00 (00%)	8 (2.2%)
4.	Mothers suffers high blood pressure due to lack of proper care as a result of insurgency attack	294 (80.5%)	58 (15.8%)	352 (96.4%)	13 (3.5%)	00 (00%)	13 (3.6%6)
	Total			**355 (97%)**			**10 (3%)**

Table 1 revealed the frequency counts and percentages for maternal morbidity as a consequence of insurgency among women of child-bearing age in Yobe State. The table further revealed the average score for negative and positive responses on maternal morbidity, the average score for the positive

response was 355(97%) while the negative response was 10(3%). The study revealed that maternal morbidity among women of child-bearing was a consequence of insurgency in Yobe State.

Research Question 2: Will there be a prevalence of unintended pregnancy as a consequence of insurgency among women of child-bearing age in Yobe State, Nigeria?

Table 2: Descriptive Statistics of Frequency Counts and Percentage on the Prevalence Unwanted Pregnancy and the Consequence of Insurgency among women of Child-bearing Age in Yobe State

S/N	Question Items	SA	A	PR	D	SD	NR
5.	There is no access to family planning service due to insurgents activities.	271 (74.2%)	79 (21.6%)	350 (96.9%)	15 (4.1%)	00 (00%)	15 (4.1%)
6.	There is lack of access to family planning services due to insurgency, families could not use the appropriate methods of child spacing.	261 (71.5%)	80 (21.9%)	341 (93.4%)	24 (6.5%)	00 (00%)	24 (6.6%)
7.	Unwanted pregnancy is common because of the lack of utilisation of modern methods of preventing pregnancy as a result of insurgency.	206 (56.4%)	96 (26.3%)	302 (82.7%)	60 (16.4%)	3 (.8%)	63 (17.3%)
8.	Mothers get pregnant without plan and when they are not ready to have pregnancy.	207 (56.7%)	99 (27.1%)	306 (83.8%)	48 (13.1%)	11 (3%)	59 (16.2%)
	Total	**325(89.1%)**					**40(10.9%)**

Table 2 shows the frequency counts and percentages for unintended pregnancy as a consequence of insurgency among residents of Yobe State. The table further revealed the average score for negative and positive responses on the unintended pregnancy, the average score for the positive responses was 325(89.1%) while the negative response was 40(10.9%). The study revealed that unintended pregnancy among women of child-bearing was a consequence of insurgency in Yobe State.

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Hypotheses Testing

Hypothesis 1: There will be no significant prevalence of maternal morbidity as a consequence of insurgency among women of child-bearing Yobe State

Table 3: Inferential Statistics of Chi-square on Consequences of Insurgency and the Prevalence of Maternal Morbidity among Women of Child-bearing Age in Yobe State

S/N	Question Items	SA	A	D	SD	df	x^2	Chi-tab	Dec
1.	women experienced preeclampsia due to lack of medical care as a result of insurgency.	262 (71.7%)	94 (25.7%)	262 (71.7%)	94 (25.7%)				
2.	Women experience vaginal infections (vaginoses) due to insurgency lead to their death	350 (96.0%)	6 (1.6%)	350 (96.0%)	6 (1.6%)	12	1476.240	21.026	HO Rejected
3.	Malaria which could have been managed kills Mothers due to insurgency.	260 (71.2%)	97 (26.5%)	260 (71.2%)	97 (26.5%)				
4.	Mothers suffer high blood pressure due to lack of proper care as a result of insurgency attack	294 (80.5%)	58 (15.8%)	294 (80.5%)	58 (15.8%)				

Table 3 revealed the summary of Chi-square on the consequence of insurgency on maternal morbidity among women of child-bearing age Yobe State. The table revealed that the calculated Chi-square of 1476 is greater than the Chi-square table value of 21.026 at df of 12, therefore, the null hypothesis which says that there will be no significant prevalence of maternal morbidity on the consequence of insurgency among women of child-bearing Yobe State was rejected. This implies that insurgency causes maternal morbidity among women of child-bearing age in Yobe State.

Hypothesis 2: There will be no significant prevalence of maternal morbidity as a consequence of insurgency among women of child-bearing Yobe State

Table 4: Inferential Statistics of Chi-square on Consequences of Insurgency and the Prevalence of Maternal Morbidity among Women of Child-bearing Age in Yobe State

S/N	Question Items	SA	A	D	SD	Df	$x2$	Chi-tab	Dec.
5	There is no access to family planning services due to insurgent activities.	271 (74.2%)	79 (21.6%)	15 (4.1%)	00 (00%)				
6	There is lack of access to family planning services due to insurgency, families could not use the appropriate method of child spacing.	261 (71.5%)	80 (21.9%)	24 (6.5%)	00 (00%)	12	1151	21.026	HO Rejected
7	Unwanted pregnancy is common because of the lack of utilisation of modern methods of preventing pregnancy as a result of insurgency.	206 (56.4%)	96 (26.3%)	60 (16.4%)	3 (.8%)				
8	Mothers get pregnant without a plan and when they are not ready to have pregnancy.	207 (56.7%)	99 (27.1%)	48 (13.1%)	11 (3%)				

Table 4 revealed the summary of Chi-square on the consequence of insurgency and unintended pregnancy among residents of Yobe State. The table reveals that the calculated Chi-square of 1151 is greater than the Chi-square table value of 21.026 at df of 12, therefore, the null hypothesis which says that there will be no significant prevalence of maternal morbidity as a consequence of insurgency among women of child-bearing Yobe State was rejected. This implies that the prevalence of unintended pregnancy was due to insurgency in Yobe State.

Discussions

The finding of the tested hypothesis one revealed that there is a significant prevalence of maternal morbidity and the consequence of insurgency women of child-bearing age in Yobe State. The finding is similar to that of Uche and Ehator-Mobayode (2019) who revealed that the Boko Haram insurgents reduced the probability of any antenatal care visits, delivery at a health centre, and delivery by a skilled health professional thereby result in maternal morbidity. The finding was further supported by that of Obi & Eboreime (2017) who reported that over 788 health facilities have been lost to insurgent activities in the northeast. Yobe state alone lost over 40% of its facilities and only a third of those left in the state remain functional. The state is reported to have lost 35% of its doctors to other states with the concomitant effect of low service delivery and uptake. In the same vein, the finding is in line with that of Omale, Welye, and Abimbola (2015) who reported that cases of malaria are more difficult to ascertain because the diagnosis is often recorded as fever, especially if a qualified health worker is not available to examine the patient which worsens the situation. Moreover, about one in five people in the camps are severely malnourished, including children, nursing mothers and pregnant women. The result of Omale, Welye, and Abimbola (2015) further supported the finding of this study where it was reported

that no facilities are available for pregnant women; they give birth under risky conditions and all the maternal deaths on record in the camps have been caused by excessive bleeding. Similarly, some individuals with HIV and other chronic diseases, such as hypertension and diabetes, have been off medication due to the activities of the insurgents.

Tested hypothesis two revealed that there is a significant prevalence of unwanted pregnancy and the consequence of insurgency among women of child-bearing age in Yobe State, the finding is in line with that of Chi, Bulage, and Urdal (2015) who reported that a reduction in the ability to access modern contraception may occur in conflict due to several individual, sociocultural, political and health system factors leading to unwanted pregnancy. The finding was further supported by the finding of the study of Ager et al. (2015) who revealed that population migration and transport restrictions have substantially impacted access to maternal health provision. The human resource for health capability of the crises area has been severely diminished through the outward migration of especially non-indigenous health workers and the suspension of programmes providing external technical assistance such as family planning, this can result in the occurrence of unintended pregnancy. In the same vein, women are less likely to have the economic opportunities that may enable them to make reproductive choices. Factors such as socio-economic deterioration, death and injuries, and limited access to health care including family planning may affect women's access to modern contraceptive utilization negatively (Elveborg, 2016).

Women who have experienced sexual violence are prone to higher levels of unintended pregnancy and lower levels of modern contraceptive use. This relationship can be explained by rape being a disempowering experience especially to young women which is common in crises areas as reported by Basir, Gedam, and Muazu (2019) who revealed that violence experienced by women in the affected areas is both physical and psychological. However, the physical violation has been more pronounced, as women are used for suicide bombings and are as well sexually abused. This results in difficulties negotiating contraceptive use and elevated risks of unintended pregnancy, illegal and unsafe abortion, and sexually transmitted infections (STIs) (Gomez, 2011).

Conclusion

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

i. Prevalence of maternal morbidity is the consequence of insurgency among women of child-bearing age in Yobe State as a consequence of insurgency.
ii. There was prevalence of unintended pregnancy as a consequence of insurgency among women of child-bearing age in Yobe State.

Recommendations

Based on the findings from the study the following recommendations were made:

i. Women of child-bearing age exposed to insurgency should be given adequate maternal health care services at their doorsteps to avoid conditions that may lead to maternal deaths.
ii. Abstinence based sex education to teenagers together with adequate supply and sensitisation on the importance of utilising modern contraceptives should be emphasised to those living in war-prone zones, as to prevent unwanted/unintended pregnancy among adult and the adolescent.

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