

Utilization of Safe Motherhood Initiative Services among Child Bearing Mothers in Anambra State of Nigeria

Onwurah, Chrysantus Chinyere¹, Ogu, Okey Charles²
Makata, Ngozi Eucharua³

Nnamdi Azikiwe University Awka, Nigeria

Corresponding Author: Onwurah, Chrysantus Chinyere

Abstract: This study determined extent of utilization of Safe Motherhood Initiative (SMI) services among child bearing mothers in Anambra State. Survey research design was used for the study. The sample consisted of 1250 child bearing mothers drawn using multi-stage sampling procedure from 932,911 child bearing mothers in Anambra State. The instrument for data collection was a 56-item Safe Motherhood Initiative utilization questionnaire (SMIUQ). The internal consistency of the instrument (SMIUQ) was computed using Cronbach alpha co-efficient with an overall reliability coefficient of .86. Research questions were answered using mean and standard deviation while the hypotheses were tested using One-way analysis of variance (ANOVA) at 0.05 level of significance. The results showed that antenatal care services, obstetric care services, postnatal care services, post abortion care services and STI/HIV/AIDS control services all indicated a high level utilization while family planning services indicated low level utilization of SMI services. Also age and level of education have no significant difference in the extent of utilisation of SMI services. Federal Ministry of health should organize workshops and seminars on how to educate child bearing mothers on the effective use of safe motherhood initiative services, the Federal government in collaboration with the State government to organize campaigns on the improvement of maternal health and family planning services.

Date of Submission: 26-02-2019

Date of acceptance: 12-03-2019

I. Introduction

Safe motherhood has been conceptualized as a means of ensuring women's accessibility to needed care through antenatal programme in order to facilitate their safety and optimal health throughout pregnancy and childbirth (Price, 2002). It is a means of saving the lives of women and improving the health of millions of others (Jatau, 2000). Safe motherhood is aimed at preventing maternal and prenatal mortality and morbidity. It also enhances the quality and safety of women's life through the adaptation of combination of health and non-health strategies.

Safe motherhood aimed at preventing maternal mortality. Maternal deaths have devastating impacts on families and communities. Unfortunately, it is not an uncommon event in several parts of the developing world. An estimated 600,000 women die yearly from complications of pregnancy, child bearing and unsafe abortions worldwide. About 99 percent of these deaths occur in the developing world (Kurjak & Bekavac 2001). Indeed, the greatest discrepancy in all human development indicators is seen in the maternal mortality ratio between the developed and the developing world. The high prevalence of maternal death has been a source of great concern to governments, health and development planners of most countries of the world. Maternal Mortality Ratio (MMR) was estimated to 450 deaths per 100,000 live births in all developing regions and about 920 per 100,000 live births in sub-Saharan Africa (UNFPA, 2005). One MDGs targets is to reduce by three quarters, between 1990 and 2015, the maternal mortality ratio in all countries. Maternal mortality is the most important indicator of maternal health and well-being in any country and as a result, it has been central to government health sector.

WHO(2004) defined maternal mortality as "the death of a woman while pregnant or within 42 days of a termination of a 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 and incidental causes." Worldwide, an estimated half a million women die each year from complications of pregnancy and childbirth. Globally, the maternal mortality ratio was about 400 per 100,000 live births in 2000 (WHO, 2004a). Altogether, 98 percent of maternal deaths occur in developing countries with sub-Saharan Africa accounting for 41 percent and Asia 48 percent of all maternal deaths. (Freedman, Waldman, Pinho, Helene, Wirth & Meg 2005). However, discrepancies continue to exist in access to maternal health care between the more developed and the developing world, the richer and poor, Urban and rural and the educated and uneducated societies (UNICEF, 1996 & WHO, 1997).

There are studies in Nigeria that have related maternal death to care utilisation and other risk factors. For example, Ibeh (2008) studied maternal mortality index in Nigeria in relation to care utilisation using Anambra state as case study and attributes high maternal mortality to poor socioeconomic development, weak health care system, low socioeconomic status of women, and socio-cultural barriers to care utilisation.

In the drive to reduce maternal mortality and due to the increasing attention to maternal mortality raised by experts such as Rosenfield and Maine (1987), the World Bank, UNFPA and the World Health Organisation (WHO) organized Safe Motherhood conference in Nairobi, Kenya, where a document on future strategies for the improvement of the health of women was adopted (Starrs, 2006). Safe motherhood is a means of ensuring that all women receive the care they need to be safe and healthy throughout pregnancy and childbirth (Safe Motherhood, 2006). Following the conference, the Safe Motherhood Initiative (SMI) was launched. It was led by the Safe Motherhood Inter-Agency Group (IAG) which was formed by the United Nations Children Fund (UNICEF), the World Bank, the WHO, United Nation Fund for Population Affairs (UNFPA), the International Planned Parenthood Federation (IPPF) and the Population Council (UNICEF, 1998).

Since the launching of the SMI, improving maternal health and reducing maternal mortality has continued to be the focus of many international health programmes. For instance, improving maternal health is included as the Fifth Millennium Development Goal (MDG). This goal calls for a 75 percent reduction in maternal mortality between 1990- 2015. USAID global health Initiative United Nations Programme on Aids (USAID, 2011) also targets reducing maternal mortality by 30 percent across all its assisted countries. The main objective of Safe Motherhood is ensuring that all women receive the care they need to be safe and healthy throughout pregnancy and child birth (Safe Motherhood, 2006). It has also been observed that most maternal death can be traced to five major medical causes such as severe bleeding, infection, unsafe abortion, complications, hypertensive disorder of pregnancy and obstructed labour.

The SMI services is built on “six pillars” that is hoped to take care of the five identified causes of maternal mortality. These pillars according to Adhikari (2018) includes: antenatal care, family planning, obstetric care, postnatal care, post-abortion care and STI/HIV/AIDS control.

Family planning according to Rosliza and Magdah (2010) is one of the main pillars of SMI; it is therefore a very crucial area that needs continuous strengthening and improvement in order to reduce maternal morbidity and mortality. Family planning is meant to ensure that individuals and couples have the information and services to plan the timing, number and spacing of pregnancies (Maternal Health Handout, 2000).

Antenatal care: According to Ogbalu, 2009, Antenatal is the period between the conception and the delivery of the child. This period is usually taken to be 40 weeks or 280 days. During this period, advice, health education, supervision and attention are given to pregnant women. Antenatal care services indirectly save the lives of mothers and babies by promoting and establishing good health before child birth and early postnatal period (Bulatoo & Ross, 2002).

Obstetric care is meant to ensure that all birth attendants have the knowledge, skill and equipment to perform a clean and safe delivery and to ensure that emergency care for high risk pregnancies and complication is made available to all women who need it (Maternal Health Handout, 2000).

Postnatal care: Postnatal period can be defined as the first six weeks after birth. It is critical to the health and survival of a mother and her newborn. The most vulnerable time for both is during the hours and days after birth. Lack of care in this time period may result in death or disability as well as missed opportunity to promote healthy behaviours, affecting women, newborns and children (Warren, Daly, Toure and Mongi, (nd)).

Postnatal care is meant to ensure that Post partum care is provided to mothers and babies, including lactation assistance, provision of family planning services and managing danger signs (Maternal Health Handout, 2000).

Post abortion care: Post abortion is meant to prevent complications where possible and ensure that complications of abortions are detected and treated appropriately, to refer other reproductive health problems and to provide family planning methods as needed (Maternal Health Handout (2000)).

Post abortion care: Post abortion care (PAC) services include; manual vacuum aspiration (MVA), dilation and constriction (D&C), post abortion contraceptive counseling, post abortion contraception, treatment and counseling on sexual abuse and violence, STI testing, voluntary counseling and testing (VCT)/HIV test only, STI treatment and Antiretroviral Therapy (ART).

The STI/HIV/AIDS Control is meant to screen, prevent and manage transmission of HIV/AIDS to baby, to assess risk future infection, to provide voluntary counseling and testing to encourage prevention and where appropriate to expand services to address mother to child transmission (Maternal Health Handout, 2000).

The SMI participants such as women's right advocates and health professionals realized that maternal mortality is not alone the outcome of insufficient health care, but also due to lack of access, low or non-utilisation of reproductive health services. (Starrs, 2006). Based on the aforementioned, the researcher felt a springboard had been provided under which the present study is being carried out.

Research Questions

The following research questions guided the study.

1. To what extent do child bearing mothers utilize Antenatal care services during pregnancy?
2. To what extent do child bearing mothers utilize Family planning services?
3. To what extent do child bearing mothers utilize obstetric care services during pregnancy?
4. To what extent do child bearing mothers utilize postnatal care services?
5. To what extent do child bearing mothers utilize post-abortion care services?
6. To what extent do child bearing mothers utilize STI/HIV/AIDS control services?

Hypotheses

The following null-hypotheses were tested at 0.05 level of significance.

- 1) There is no significant difference in the extent of utilization of SMI services by women of different ages.
- 2) There is no significant difference in the extent of utilization of SMI services by women of different levels of education.

II. Methodology

The survey research design was employed in the present study. The multi-stage procedure was utilized to select 1250 from 932,911 eligible mothers of the child bearing age (15-49 years) in the selected towns. The instrument for data collection was a 58-item structured questionnaire known as Safe Motherhood Initiative Utilization Questionnaire (SMIUQ). The questionnaire is made up of seven sections. Section A contains 2 items designed to elicit responses on the socio-demographic characteristics of the respondents on the age and level of education of child bearing mothers. Sections B contains 17 items to elicit responses on the extent of utilisation of antenatal care services; section C contains 11 items designed to elicit responses on the extent of utilization of family planning services, section D contains 5 items designed to elicit responses on the extent of utilization of obstetric care services, section E contains 10 items designed to elicit responses on the extent of utilization of postnatal care services, section F contains 6 items designed to elicit responses on the extent of utilization of post abortion care services and section G contains 7 items designed to elicit responses on the extent of utilization of STI/HIV/AIDS control services. The respondents were required to indicate on a 4-point scale, using always (AL), occasionally (OC), rarely (RA) and never (NE).

The instrument was validated by three experts in the Department of Human Kinetics and Health Education and Measurement and Evaluation. The reliability of the data collected was computed using Cronbach alpha co-efficient. The internal consistency of the instrument was computed and the overall was .869, the instrument was considered good enough to be used for the study. The questionnaires were administered by the researcher and four research assistants on a house to house basis to all eligible mothers in the selected towns, which was translated in such a way that the illiterate mothers understood them.

In order to establish the extent of utilization the criterion mean was set at 2.5 indicating that any mean below 2.5 was considered low level of utilisation while any mean of 2.5 or above was considered high level of utilisation. The hypotheses were tested using one-way analysis of variance (ANOVA) at 0.05 level of significance.

III. Results

Research Question 1: To what extent do child bearing mothers utilize antenatal care services?

Table 1: Mean of the Extent of Utilization of Antenatal Care Services of Child Bearing Mothers in Anambra State (n = 1237)

Items	\bar{x}	Decision
Diet and nutrition	3.64	H
Family/child spacing	3.22	H
Child care	3.52	H
HIV/AIDS and other STI	2.91	H
Advice on what to do if problem occur during pregnancy	3.44	H
Safer sex	3.43	H

Personal hygiene	3.48	H
Nutritional advice	3.57	H
Information about breastfeeding	3.56	H
Blood analysis	3.48	H
Urine analysis	3.46	H
Routine drugs	3.49	H
Malaria drugs	3.46	H
Tetanus toxoid immunization	3.44	H
Supplement of Vitamin A	3.30	H
Voluntary HIV testing and counseling	3.06	H
Antenatal services utilization (overall)	3.60	H

Table1 shows that the mean score of antenatal service care services of 3.60 and was above the criterion mean (\bar{x} =2.5) set for the study indicating a high level of utilization.

Research Question 2:

To what extent do child bearing mothers utilize family planning services?

Table 2: Mean of the Extent of Utilization of Family Planning Services of Child Bearing Mothers in Anambra State.(n=1237)

Items	\bar{x}	Decision
Family planning counseling	2.70	H
Coitus interrupts	2.15	L
Vasectomy	1.84	L
Tubal ligation	1.91	L
Infectibles	2.32	L
Pills	2.44	L
Diaphragm and Cervical caps	2.38	L
Male condom	2.98	L
Fertility awareness (safe method)	2.90	L
Foaming tablets, gels and creams	2.36	L
Intra uterine contraceptive devices/copper T	2.29	L
Family planning services utilization (overall)	2.39	L

Table 2 shows that the mean score of family planning service of 2.39 was below the criterion mean (\bar{x} =2.5) set for the study indicating a low level of utilization.

Research Question 3:

To what extent do child bearing mothers utilize obstetric care services utilization?

Table 3: Mean of the Extent of Utilization of Obstetric Care Services of Child Bearing Mothers in Anambra State .(n = 1237)

Items	\bar{x}	Decision
Parental antibiotics	2.37	L
Anticonvulsants for pre-eclampsia and eclampsia	2.36	L
Removal of placenta	2.52	H
Removal of retained products	2.71	H
Assisted vaginal delivery	3.13	H
Obstetric care service utilization (overall)	2.62	H

Table 3 shows that the mean score of obstetric care service of 2.62 was above the 2.5 criterion mean set for the study indicating high level of obstetric service care utilization.

Research Question 4:

To what extent do child bearing mothers utilize postnatal care service utilization?

Table 4: Mean of the Extent of Utilization of Postnatal Care Services of Child Bearing mothers in Anambra State. (n= 1237)

Items	\bar{x}	Decision
Check for bleeding	3.34	H
Check for temperature	3.24	H
Check the breast to prevent swelling breast	3.21	H
Manage anemia when it occurs	3.29	H
Promote nutrition	3.37	H
Promote insecticide treated bednets	3.43	H
Give vitamin A supplement	3.34	H
Complete Tetanus Toxoid	3.14	H
Counseling on family planning	3.07	H

Utilization of Safe Motherhood Initiative Services among Child Bearing Mothers in Anambra State

Have complications such as bleeding infections or postnatal depression	2.67	H
Postnatal care service utilization (overall)	3.23	H

Table 4 shows that the mean score for the postnatal care service of 3.23 was above the criterion mean ($\bar{x}=2.5$) set for the study indicating a high level of utilization.

Research Question 5:

To what extent do child bearing mothers utilize post abortion care services?

Table 5: Mean of the Extent of Utilization of Post Abortion Care Services of Child Bearing Mothers in Anambra State. (n = 1237)

Items	\bar{x}	Decision
Manual Vacuum Aspiration (MVA)	2.27	L
Dilation and Constriction (D&C)	2.22	L
Post abortion counseling on contraception	2.29	L
Treatment and counseling on sexual abuse and violence	2.51	H
Sexual transmitted infections (STI) testing	2.86	H
Voluntary counseling and testing (VCT)/HIV test	3.03	H
Post abortion care services utilization (overall)	2.53	H

Table 5 above shows that the mean score for the post abortion care services of 2.53 was above the criterion mean ($\bar{x}=2.5$) set for the study indicating a high level of utilization.

Research Question 6:

To what extent do child bearing mothers utilize STI/HIV/AIDS control services?

Table 6: Mean of the Extent of Utilization of STI/HIV/AIDS Control Services of Child Bearing Mothers in Anambra State.(n=1237)

Items	\bar{x}	Decision
STI/HIV/AIDS counseling and testing	2.81	H
Antiretroviral Therapy Services (ART)	2.60	H
Prevention of Mother to Child Transmission (PMTCT)	2.43	L
Youth-Friendly Services	2.31	L
TB Services	2.38	L
Availability of Post-exposure Prophylaxis (PEP)	2.43	L
Availability of malaria and STI	2.69	H
STI/HIV/AIDS control services utilization (overall)	2.52	H

Table 6 above shows that the mean score for the STI/HIV/AIDS control services of 2.52 was above the criterion mean ($\bar{x}=2.5$) set for the study indicating a high level of utilization.

Hypothesis 1

There is no significant difference in the extent of utilization of safe motherhood initiative services by women of different ages in Anambra State.

Table 7: Summary of ANOVA on influence of Age of Child Bearing Mothers on the Extent of Utilization of SMI in Anambra State.

Source of variance	Sum of squares	DF	Means of squares	F-cal	F-crit	Decision
Antenatal service care utilisation						
Between groups	11.714	3	3.905	17.514	2.60	S
Within group	274.903	1233	.223			
Total	286.617	1236				
Family planning service utilisation						
Between groups	12.220	3	4.073	7.377	2.60	S
Within group	680.802	1233	.552			
Total	693.021	1236				
Obstetric care service utilisation						
Between groups	76.150	3	25.383	35.779	2.60	S
Within group	874.763	1233	.709			
Total	950.913	1236				
Post natal care service utilisation						
Between groups	29.042	3	9.681	23.997	2.60	S
Within groups	497.401	1233	.403			
Total	526.443	1236				
STI/HIV/AIDS Control service utilisation						
Between groups	42.248	3	14.083	16.396	2.60	S
Within groups	1058.997	1233	.859			
Total	1101.245	1236				
Post abortion care service utilisation						
Between groups	27.619	3	9.226	13.427	2.60	S
Within groups	847.253	1233	.687			

Total	874.931	1236				
SMI Cumulative overall						
Between groups	5.692	3	1.897	5.653	2.60	S
Within groups	413.887	1233	.336			
Total	419.579	1236				

Table 7 shows that the f-cal (5.653) is greater than the f-critical (2.6) at 0.05 level of significance. This means that age has influence on the extent of utilization of SMI services by women of different ages in Anambra State.

Hypothesis 2

There is no significant difference in the extent of utilization of SMI services by women of different levels of education in Anambra State.

Table 8: Summary of ANOVA on influence of Level of Education of Child Bearing Mothers on the extent of Utilization of SMI Services in Anambra State.

Source of variance	Sum of squares	DF	Means of squares	F-cal	F-crit	Decision
Antenatal care service utilisation						
Between groups	11.133	3	3.711	16.609	2.60	S
Within groups	275.484	1233	.223			
Total	286.617	1236				
Family planning service utilisation						
Between groups	8.792	3	2.931	5.281	2.60	S
Within groups	684.230	1233	.555			
Total	693.021	1236				
Obstetric care service utilisation						
Between groups	1.063	3	.354	.460	2.60	NS
Within groups	949.850	1233	.770			
Total	950.913	1236				
Postnatal care service utilisation						
Between groups	2.331	3	.777	1.828	2.60	NS
Within group	524.112	1233	.425			
Total	526.443	1236				
STI/HIV/AIDS control service utilisation						
Between groups	19.937	3	6.646	7.578	2.60	S
Within groups	1081.308	1233	.877			
Total	1101.245	1236				
Post abortion care service utilisation						
Between groups	2.920	3	.973	1.376	2.60	NS
Within group	872.011	1233	.707			
Total	874.931	123				
SMI Cumulative Overall						
Between groups	.351	3	.117	.344	2.60	NS
Within group	419.228	1233	.340			
Total	419.579	1236				

Table 9 shows that the f-cal (.344) is less than the f-critical (2.6) at 0.05 level of significance. implies that there is no significant difference in the extent of utilization of SMI services by women on their level of education in Anambra State.

IV. Discussion Of Findings

Utilisation of SMI Services among Child Bearing Mothers in Anambra State

Table 1 showed that there was high level of utilisation of antenatal care services among child bearing mothers in Anambra State (\bar{x} =3.60). The implication of the finding therefore, is that the child bearing mothers in Anambra state attend antenatal care services to a large extent. The findings was contrary to the views of Awusi, Anyanwu and Okeleke (2009) whose respondents showed reasons for non-utilization as lack of maturation, non-accessibility, cultural and negative roles played by husband. The findings is supported by that of Fekede and Mariam (2007) that reported a high level of utilization of antenatal care services among child bearing mothers but indicated that effective behavior change communication is needed to bring about proper antenatal care services utilization among child bearing mothers.

Data in table 2 showed that there was low level of utilisation of family planning services (\bar{x} = 2.39) among child bearing mothers in Anambra State. That the child bearing mothers reported a low level of family planning services utilization in this period of information, communication and technology may give room for doubts. However, a high level of family planning counseling reported by the child bearing mothers may have given leverage to the reported low level of family planning services utilization in Anambra State. The finding was not in agreement to the findings of Costello, Osrin and Manndharl (2004) which estimated that the adequate supply of family planning services could lessen maternal deaths in developing countries by at least 20 percent.

Thus, increasing the strategies of contraceptive information and services is regarded as one of the main strategies to reduce maternal deaths, especially those from unsafe abortion. In this study family planning utilisation in Anambra State is low and the findings of Rostiza and Majdah (2010) indicated that male participation and sharing of responsibility in strengthening family planning will help the women to practice family planning services because according to them one neglected area in family planning is male participation, gender awareness and sharing responsibility by both partners.

Table 3 showed that the child bearing mothers in Anambra State reported a high level of obstetric care service utilization ($\bar{x} = 2.62$). The implication is that the child bearing mother's obstetric care utilization revealed a slight high utilisation because the child bearing mothers exhibited low utilization in parental antibiotics and anticonvulsants for pre-eclampsia and eclampsia. The finding was not surprising since an important strategy to decrease maternal death is seen in treating pregnancy complications and therefore ensuring the access to quality emergency obstetric care (EOC). This was in agreement to the findings of Jowett (2002) which states that the universal availability of EOC can reduce maternal mortality by 74 percent.

Table 4 showed that the child bearing mothers in Anambra State reported a high level of postnatal care service utilization of ($\bar{x} = 3.25$). The result that there is a high level of postnatal care utilization was not surprising because women after delivery visit hospitals and do some check-up, which if not done sometimes lead to child and maternal mortality. This was contrary to the findings of Titaley, Dibley and Roberts (2008) who found out reasons for non-utilisation as lack of financial support for mothers who are economically disadvantaged, also that programmes should be designed to increase awareness and improve access to primary care services, especially for rural and remote communities. Overbosch, Nsawah-Nuamah & Vanden Boom (2004) in their finding stated another indicator of health service access and availability was for mothers' attendance for antenatal care. Antenatal care counseling could improve mothers' awareness and knowledge of the importance and the availability of postnatal care services, and motivate them to utilise postnatal care services.

Table 5 showed that the child bearing mothers reported high level utilization of post abortion care services in Anambra State ($\bar{x} = 2.53$). The finding was expected because to prevent complications where possible and ensure that unsafe abortion does not lead to maternal mortality, there should be utilisation of post abortion care services. This was contrary to the findings of Yilma, Mulugeta & Solomon (2010) where women expresses reasons for non-utilisation as a result of unavailability of service, lack of community support, services are expensive and facilities are distantly located.

Table 6 showed that there is high level utilization of STI/HIV/AIDS control service in Anambra State ($\bar{x} = 2.52$). It shows the result when compared to the great awareness done by both government and private agencies on STI/HIV/AIDS. This was not in agreement with the findings of Philip & Duncan (2013) who estimated reasons for non-utilisation as a result of unavailability or unsuitability of STI services, cultural factors in sexual and health-care seeking behaviour, difficulties in the provision of essential drugs, a lack of political will to develop appropriate policies, and financial support for STI control programmes.

Influence of socio demographic variables on the extent of utilization of SMI services in Anambra State.

The summary of ANOVA on influence of age of child bearing mothers on the extent of utilization of SMI services in Anambra stated on table 7 indicates that all the mean of the age of the child bearing mother contributed in their extent of utilization of child bearing mothers and were influenced by age of parents ($\bar{x} < 0.05$). The results in the table 8 showed that there is no influence and is surprising because it goes contrary to the findings of Harrison (1997) who stated that educational level of the women are influencing factors in the utilization of maternal care during pregnancy or delivery.

V. Conclusions

Based on the findings of the study, it was clear that the child bearing mothers in Anambra State had a high level utilization of antenatal care services, obstetric care services, postnatal care services, post abortion care services had low level of utilisation. Age had influence, while level of education had no influence on the extent of utilization of Safe motherhood. It was recommended that Federal ministry of health should organize health intervention programmes through seminars and workshops that will enable child bearing mothers to utilize maternal health services. The Federal government with the state administration should work in collaboration to improve grassroots health care and Family planning services. Health educators and community health workers should always work with the nurses and medical doctors to educate pregnant mothers to report signs and symptoms of pregnancy related medical problems during antenatal care services.

References

- [1]. Adhikari, S. (2018). Pillars of Safe motherhood initiative, Public Health Notes. www.publichealthntes.com
- [2]. Awusi, V., Anyanwu, E. & Okeleke, V. (2009). Determinants of antenatal care services utilisation in Emevor village, Delta State, Nigeria. *Benin Journal of Postgraduate Medicine*. 11, 234-240.
- [3]. Bulatoo, R. A. & Ross, J. A. (2000). *Rating maternal and neonatal health programs in developing countries*. Carolina: University of North Carolina.
- [4]. Costello, A, Osrin, D & Mandndhar, D (2004). Reducing maternal and neonatal mortality in the poorest communities. *British Medical Journal*, 329, 1166-1168.
- [5]. Ibeh, C. (2008). Is poor maternal mortality index in Nigeria a problem of care utilization? A case study of Anambra State. *African Journal of Reproductive health*. 12 (2), 132- 140.
- [6]. Jatau, A. A.(2000). Strategies for promoting safe motherhood in Nigeria by the 2010. *Nigeria Journal of Health Education*, 9, 282-294.
- [7]. Jowett, M. (2000). Safe motherhood interventions in low-income countries: An economic justification and evidence of cost-effectiveness. *Health Policy*.53 (3), 201-225.
- [8]. Kurjak, A. & Bekavac, I. (2001). Perinatal problems in developing countries: Lessons learned and future challenges. *Journal of reproductive medicine*. 29 (3), 179-187.
- [9]. Maternal Health Handout (2000). Pillars of Safe Motherhood Initiative. www.Am_MH_16sec3-2.pdf.
- [10]. Maternal and Neonatal Program Effort Index (MNPI) (2007). *A tool for maternal health advocates*. USA. Glastonbury CT 06033.
- [11]. Ogbalu, A.I. (2009). *Maternal and child health education*. Onitsha: Varsity press.
- [12]. Overbosch, G.B., Nsawah-Nuamah, N. N.& Van den Boom, G. J. (2004). Determinants of antenatal care use in Ghana. *Journal of AfricanEconomic*. 13, 277–301.
- [13]. Philip, M. & Duncan (2013). Interventions against sexual transmitted infections (STI) to prevent HIV infection. *British Medical Bulletin*. 58 (1), 129-153.
- [14]. Price, L. L.(2002). *Safe motherhood initiative at ten*. World Bank project: Switzerland solution press.
- [15]. Rosenfied, A. & Maine, D. (1985). Maternal mortality – a neglected tragedy. What is the M in MCH? *The Lancet*, 2, 8446, 83-85.
- [16]. Rosliza, A. M. & Majdah, M. (2010). Male participation and sharing of responsibility in strengthening family planning activities in Malaysia. *Malaysia Journal of Public Health Medicine*. 10 (1), 23 – 27.
- [17]. Safe Motherhood (2006). http://www.safe_motherhood.org.
- [18]. Starrs, A. M. (2006). Safe motherhood initiative. 20 years and counting. *The Lancet*, 368, 1130-1132.
- [19]. Titaley, C. R., Dibley, M. J. & Roberts, C. L. (2008). Factors associated with non-utilisation of postnatal care services in Indonesia. *Journal ofEpidemiological Health*. 63, 827-831.
- [20]. United Nations Fund for Population Affairs (UNFPA) (2005). Country profile for population and reproductive health policy development and indicators.
- [21]. United Nations Children Fund (UNICEF) (2000). *Multiple Indicator Cluster Survey*. Lagos, Nigeria.
- [22]. USAID (2011). The United States Government global health initiative. <http://www.usiad.gov/ghi>
- [23]. Warren, C., Daly, P., Toure, L. & Mongi, P. (nd). *Postnatal care: Opportunities for Africa's newborns*.
- [24]. World Health Organisation (WHO) (2004a). Maternal Mortality in 2000: Estimates developed by WHO, UNICEF and UNFPA. *Department of Reproductive Health and Research*. Geneva.
- [25]. World Health Organisation (WHO) (2004b). Population dynamics and reducing maternal mortality. *Seminar on the Relevance of Population Aspects for the Achievement of the Millenium Development Goals*. New York.
- [26]. Yilma, M., Mulugeta, B. & Solomon, T. (2010). Utilisation of Post-abortion care services in three regional states of Ethiopia. *Ethiopian Journal of Health Development*. 1, 24-36.

Onwurah, Chrysantus Chinyere. " Utilization of Safe Motherhood Initiative Services among Child Bearing Mothers in Anambra State of Nigeria" .IOSR Journal of Nursing and Health Science (IOSR-JNHS), vol. 8, no.02 , 2019, pp. 89-96.