

**KNOWLEDGE AND PRACTICE OF SAFE MOTHERHOOD
INITIATIVE AMONG CHILDBEARING MOTHERS
ATTENDING MATERNAL AND CHILD HEALTH (MCH)
CLINICS IN NSUKKA HEALTH DISTRICT**

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ABSTRACT

The purpose of the study was to ascertain the knowledge and practice of safe motherhood initiative among childbearing mothers (CBMs) attending MCH clinics in Nsukka Health District. Specifically, the study determined the CBMs level of knowledge of various components of safe motherhood initiative (SMI) and the prenatal care practices among CBMs in Nsukka health district. The study utilized a survey design while, data were collected using self- designed childbearing mother knowledge and practices of safe motherhood questionnaire (CMKPSQ). The 363 CBMs that participated in the study were randomly selected in the study area. Data collected were analyzed using percentage, t-test and chi-square statistical tools. Results showed that while some CBMs practiced prenatal care, others had high knowledge of SMI. The two null hypotheses tested revealed that age has no statistical significant influence on CBMs and the knowledge of SMI and age at pregnancy had no significance influence on CBMs practice of SMI components. The study advocated that health education programmes should be intensified at the grass-root level to increase and promote the utilization of MCH services among CBMs.

Keywords: *Knowledge and practice, Safe motherhood initiative, Childbearing mothers, Maternal and child health*

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 lives through the adaptation of combination of health and non- health strategies. The scheme is achieved through a programme of inter-linked steps which strive to provide family planning services to prevent unwanted pregnancies; safe abortions (where abortion is legalized couple with efficient management and treatment of complication of unsafe abortions are accessible); prenatal and delivery care at the community level with quick access to first-referral services for complication and postpartum services, promotion

of breastfeeding, immunization and nutrition services. Safe mother services must be integrated into the health delivery system and necessary inputs such as drugs, equipment, facilities and property trained staff supplied (Daly, Azefor, Nasah, 1993).

Partnership for transforming health care system in Nigeria (2005) elucidated the components of safe motherhood, which comprised prenatal care, clean and safe delivery, and postpartum care, including family planning, emergency obstetric care and child care, sexually transmitted infections (STI), prevention of mother to child (PMTCT) transmission of HIV/AIDS and post abortion care. Women most especially child bearing mothers (15-49 yrs) should be the important target in any government's policy formulation and implantation with reference to SMI because the maintenances of adequate health particularly of infants children and mother is critical to attainment of optimum maternal health and national development (WHO 1999). This justifies the selection of child bearing age mothers as the primary target population for the resent study.

Discussing the importance of safe motherhood, Daly, Azefor, Nasah (1993), Jatau (2000) and NPSM (2003) affirmed that the health risk that confront childbearing mothers particularly teenage mothers both the mother and child are serious, which include eclamptic toxemia, anaemia, malnutrition, cephalopelvic disproportion, obstetric fistulae, obstructed labour, low birth weight and prenatal mortality. They further attested these abnormalities could be averted through health education MCH clinics. Knowledge is critical to men's quality of life because everything we do depends on knowledge. WHO (1996) asserted that knowledge is prerequisite for any health action. WHO further maintained that many of the ailments people suffer from are to large extent, self inflicted by anti-health practices due to lack of knowledge.

Vernon, Lopez, Carcamo and Galindo (1993) carried out and investigation of impact of a prenatal reproduction health programme in Honduras. The prenatal reproductive programme that was used comprise five separate components: a prenatal education programme, a family planning, and reproductive health, counselling service, a wider range of contraceptive methods, a post-partum, out patients' clinic and a prenatal information system of improved data collection. Results of data analysis indicated that there was significant increase in knowledge of warnings signs during pregnancy, significant increase in knowledge of risk factors.

Similarly, Langer, Farnot, Garcia, Barros, Victoria, Belizan and Villar (1996) conducted a study of Latin American trial of psychosocial support during pregnancy effect on mothers' well-being and satisfaction. The study was conducted among pregnant women at risk. The results of the study indicated that women in intervention or treatment group showed a statistically significant better knowledge of seven of the nine alarms signs considered and of two of h the three labour-onset signs required Bello, Bummi, Hassan Shehu and Audu (1997) conducted and investigation on impact of community education of use

of emergency obstetric services in Kebbi state- Nigeria using focus group discussion. The findings revealed that the communities awareness of the causes of maternal death, nature of obstructed labour, signs of pre-eclampsia, need for prompt treatment, and importance of delaying marriage.

Regrettably, as laudable as safe motherhood initiative is, Nigeria still appears to portray like warm attitude towards it. This bizarre phenomenon may have resulted to poor knowledge and practice of safe motherhood among childbearing mothers in Nigeria including childbearing mothers in Nsukka health District. Consequently, this situation has precipitated unprecedented infant and maternal mortality and morbidity rates in Nigeria (Awosika 2001). No wonder UNICEF (2000) reported that out of the estimated 27 million of reproductive age, one in thirteen die due to cause relate pregnancy. Recent figures indicates that the maternal mortality ration (MMR) is 200/100,000 live births in Nigeria. This situation calls for a timely investigation of this inordinate phenomenon. The purpose of this study therefore is to investigate the knowledge and practice of safe motherhood among childbearing mothers attending MCH clinics in Nsukka Health District. Specifically the study will attempt to:

- Determine their level of knowledge of various components of safe motherhood initiative.
- Determine childbearing mother's practice of prenatal care.

In order to accomplish this task, two probing questions were formulated thus:

- What is the childbearing mothers' level of knowledge of various components of safe motherhood initiatives?
- What is the prenatal care practice among childbearing mothers?

The following null hypotheses were postulated to guide the present study.

- Age of childbearing mothers at pregnancy has no statistically significant influence on level of knowledge of SMI components.
- Age of childbearing mothers at pregnancy has no statistically significant influence on level of practice of SMI components.

METHODOLOGY

A cross-sectional survey research design was used the present study. Gay (1981) described cross-sectional survey research design as being useful for studying a variety of problems involving data collection for either testing hypothesis or answering pertinent research questions concerning the present status of subjects under study. A sample of 372 childbearing mothers representing forty percent of the study population was utilized for the study. This sample was adjudged representative of the population based on Nwana (1981) suggestions, which stipulate that if the population is a few hundreds the sample size should be forty per cent.

The multi stage sampling procedure was employed to draw the sample for the study. The procedure for sample involves three stages. The first stage

involve the use of disproportionate stratified random sampling technique to stratify the MCH clinics in Nsukka Health District into predominately urban and rural MCH clinics Kibert (2003) used the same technique in a related study. The second stage involved the use of simple random sampling technique of balloting without replacement to select four (MCH) clinics out of five Functional MCH clinics in each LGAs. The five functional clinic which included government owned and mission-owned clinics, the sample MCH clinics include:- Nsukka LGA (Nsukka Health Centre, Ibagwa Health Centre, Bishop Shanahan Hospital); Uzo-Uwani LGA (Abi Health Center, Nimbo Health Centre, Nkpologu Health Centre, and Adani Health Centre) and Igbo-Etiti LGA (Aku Health Centre, Ezei Ukehe Health Centrel, Ogbodo Ekwegbe Health Center and Ozalla Health Centre). This procedure produced a total of 12MCH clinics out of 15 MCH clinics located in Nsukka Health District.

Finally, systematic random sampling technique was employed to select a sample of 31 respondents from each of the 12 sampled MCH clinics. The instrument utilized for data collection was a 35-item structured questionnaire designed by the researcher on childbearing mothers' knowledge and practices of safe motherhood questionnaire- CMKPSQ. The questionnaire was made up of three sections, section A comprised of socio-demographic variable-(age), section B questionnaire determining knowledge of safe motherhood components, section C encompassed items for eliciting data on practices of safe motherhood by childbearing mothers.

Section B has four sub-sections with four multiple choice questions in each component (knowledge of prenatal (KOPC 4 multiple choice questions) knowledge of intra - partum (KOIC multiple choice question) knowledge of postnatal KPOC (multiple choice questions) knowledge of abortions KOAB with 4 multiple choice questions. These items were formulated based on literature research questions and hypothesis of the study. Section C questionnaire was assigned dichotomous response options of 'yes' or 'no' as the case may be. The face and content validity of CMKPSQ were established through the verdict of three experts in the Department of Health and Physical Education, one in Psychology and Sociology, University of Nigeria, Nsukka. The experts' judgment, inputs corrections, suggestions and modification of questionnaire items were used to design the final copy of the CMKPSQ.

Split-half was used to determine reliability of CMKPSQ while spearman-Brown prophecy (correction) formula was used to determine reliability of co-efficient of the subscales. Cronbach's (1951) alpha was utilized to establish inter-item correlation co-efficient of items in section B, which elicited data on KOPC of childbearing mothers. Kuder-Richardson 21 formula was used to determine internal consistency of section C of CMKPSQ which comprised dichotomously-scored items of 'yes' or 'no'. The reliability co-efficient of the CMKPSQ was .82 and therefore adjudged reliable for the present study. According to him, a proportion of less than 20 per cent was considered

'very low' level of knowledge; 21-39 per cent 'low' knowledge, 30-59 per cent moderate; 60-80 percent 'high' level of knowledge and above 80 percent very high level of knowledge of SMI. The investigator presented a letter from the head of Department of Medical Director of the entire sampled MCH clinic to enable her elicit data from the respondents. The researcher and three trained assistant administered the questionnaire to childbearing mothers and collected them at the spot, hence a high return rate.

The quantitative data were analyzed using the statistical package for the social sciences (SPSS Batch System) percentages using a slightly modified version of Okafor's (1997) criteria for describing level of knowledge were utilized for answering the principals research questions. The t-test statistic was adopted to verify null hypothesis, one and Chi-square (X²) was utilized for verification of postulated null hypothesis two. Each null hypothesis was verified at .05 level of significance and at appropriate degree of freedom.

RESULTS AND DISCUSSION

Question One: What is the childbearing mothers' level of knowledge of various components of safe motherhood initiative?

Table 1: Childbearing Mother's Level of Knowledge of Various Components of Safe Motherhood Initiative.

SMI	Overall	f	0%	f	25%	f	50%	f	75%	f	100%
Components	%		%		%		%		%		%
KOPC	72.9	14	3.9	34	9.4	72	19.8	92	25.3	151	41.6
KOIC	73.6	8	2.2	26	7.2	78	21.5	117	32.2	134	36.9
KOPN	64.6	14	3.9	50	13.8	94	25.9	120	33.1	85	23.4
KOAB	65.9	14	3.9	38	10.5	88	24.2	148	40.8	75	20.7
Average	69.3										

Source: Health District Centers

Table 1 indicates that overall, childbearing mothers had high knowledge of safe motherhood initiative. Percentages of each component of SMI indicated that childbearing mothers have high knowledge in all the four components of SMI: KOPC (72.9), KOAB and KOPN

Question Two: What is the prenatal care practice among childbearing mothers? Data answering this question are contained in table 2.

Table 2: Frequency and percentages of childbearing mothers' practice of prenatal care

Component of SMI	Yes		No	
	f	%	f	%
<i>Practice of Prenatal Care (POPC)</i>				
Ever made use of ultrasound scanning	217	59.8	146	40.2
Regular observance of hygienic practices	329	90.6	34	9.4
Recommended by MCH staff				
Consult doctors for diagnosis of pregnancy related problems	315	86.8	48	13.2
Eating of adequate diet during pregnancy	337	92.8	26	7.2
Average		82.5		17.5

Source: Health District Center

Table 2 shows that all of the childbearing mothers practiced prenatal care. The table further shows that childbearing mothers made use of ultrasound scanning, some practiced regular observance of hygienic practices recommended by MCH staff, childbearing mother practiced with doctor for diagnosis of pregnancy-related problems, while others practiced eating of adequate diet during pregnancy.

Ho₁: Age of childbearing mothers at pregnancy has no statistically significant influence on level of knowledge of SMI components. Data verifying this hypothesis are on table 3.

Table 3: Summary of t-Test Analysis of Influence of Age on Childbearing Mother's Knowledge of SMI Components (N=363)

Variable	N	X	SD	t-cal	dt	t-tab
<i>Age</i>						
15-29 years	204	14.85	3.259	-7.75	357	1.96
3.-49 years	159	15.47	3.064			

Significant at $p < .05$

Table 3 indicates that t-cal value of test of hypothesis of age has no statistically significant influence on childbearing mothers' knowledge of SMI components [$t(357) = -7.75 < 1.96, p < .05$] is lesser than the observed or table t-value. The hypothesis that age of childbearing mothers at pregnancy has no statistically influence on knowledge of SMI is, therefore, rejected.

Ho₂: Age of childbearing mothers at pregnancy has no statistically significant influence ($p < .05$) on their practice of SMI components. Data verifying this hypothesis are contained in table 4.

Table 4: Summary of Chi-square (X²) Analysis of influence of Age on childbearing Mothers' Practice of SMI components (n=363)

Variable	N	X ² -cal value	df	X ² -crit value
<i>Age</i>				
15-29 years	205	20.98	13	22.36
30-49 years	154			

Significant at $p < .05$

Table 4 shows that chi-square calculated value of age at pregnancy is lesser than the table or critical value suggesting no statistical significant influence on childbearing mothers' practice of SMI components. Therefore, the hypothesis that age of childbearing mothers at pregnancy has no statistical significance influence on knowledge of SMI is rejected.

Knowledge of Safe Motherhood

Results in Table 1 reveal that childbearing mothers have higher knowledge of various components of safe motherhood initiative. The findings were expected and therefore not surprising. This is because nurse and midwives taught childbearing mothers drawn from the sampled MCH clinics effectively the rudiments of safe motherhood initiative. This finding is in consonance with that of Langer Farnot, Garaa, Barros, Victoria, Belizen and Villar (1996),

and Bello, Hassen, Shehu and Andu (1997) who reported that their respondents exhibited high knowledge of components of safe motherhood initiative. This agreement could be attributed to similarity in subjects' composition through geographical and cultural backgrounds varied.

Practice of Safe Motherhood Initiative

Data on table 2 indicate that majority of childbearing mothers practiced prenatal care. This is necessitated by the fact that respondents attending the sampled MCH clinics were aware of the unprecedented maternal morbidity and mortality associated with non-practice of prenatal care as recommended by the MCH health workers. This finding is corroborated by Awosika (2001) who reported adequate practice of prenatal care among his respondents. This concord could be attributed to similarity in subjects' composition.

Results in table 3 portray that no significant influence was impinged on childbearing mother's practice of SMI components by age. Experience has shown that age of an individual does not necessarily influence the individual's capacity to effectively practice health-related behaviour most especially when the behaviour is of immense benefit to the individual. This finding contradicts those of Nermon Lopez, Carcamo and Galindo (1993) who investigated impact of a prenatal reproductive health programme on practice of safe motherhood and reported that age of childbearing mothers influenced their practice of prenatal care. The disagreement in the findings could be attributed to subjects' composition, which comprised mainly urban childbearing mothers. This disagreement could be attributed to disparities in the age groups of subjects, geographical location, economic status and cultural backgrounds.

The findings of the study imply that childbearing mothers exhibited sufficient knowledge of and practiced safe motherhood initiative. This depicts that though there was exhibition of adequate or in-depth knowledge of safe motherhood and effective practice of safe motherhood among childbearing mothers, valid public health education programmes on safe motherhood that would facilitate acquisition of current scientifically sound facts on safe motherhood from World Health Organization, United Nations and UNICEF which eventually will culminate in sustainable practice of safe motherhood. This in turn will drastically reduce maternal morbidity and mortality rates among childbearing mothers in Nsukka Health District. Furthermore, more MCH clinics should be built and evenly distributed across Nsukka senatorial district to enhance mother's access to reproductive health programmes such as seminars, workshops and other women empowerment programmes with emphasis on sustainable SMI practices.

Furthermore, MCH health workers including nurses, midwives, gynecologists, doctors and specialist in maternal and child health are provided with data essential for designing suitable intervention programmes on knowledge and practice of safe motherhood.

CONCLUSION AND RECOMMENDATIONS

Based on the findings of the study, it was concluded that childbearing mothers had high knowledge of various components of safe motherhood initiative; that childbearing mothers practice safe motherhood initiative. Also that age of childbearing mothers did not influence their practice of prenatal care. In the light of the above, the following propositions were proffered.

- More scientific research should be conducted on factors that hinder practice of safe motherhood among mothers, both qualitative and quantitative, is essential for developing rational and effective responses to the problem.
- Institutions should be established to organize, co-ordinate and fund state and national research on sustainable practice of safe motherhood among childbearing mothers.
- More randomized controlled interventions should be conducted to evaluate programme effectiveness in general and for various groups of mothers in particular, for instance, those of different ages, all ethnicities/ races, and processing the various characteristics that appear to increased risk. Therefore, research should increase the scientific rigor, including the use of control population and extended follow-up, to evaluate the sustained effectiveness of MCH interventions.
- Numerous well-equipped and staffed MCH clinics should be built by the Local and State government to improve childbearing mothers' access to utilization of MCH facilities and services, which will in turn, contribute immensely to knowledge and practice of safe motherhood.

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