ORIGINAL RESEARCH

Perception of registered nurses and midwives on maternal health education in Nigeria

Clementina U. Nwankwo*[1], Chidum E. Ezenwaka[2]

[1] *Department of Nursing Science, Faculty of Health Sciences & Technology, Nnamdi Azikiwe University, Nnewi Campus, Nigeria*
[2] *Department of Para-Clinical Sciences, Faculty of Medical Sciences, The University of the West Indies, St Augustine Campus, Trinidad and Tobago*

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ABSTRACT

Objective: To assess the views of Nigerian Nurses and Midwives on Maternal Health Education (MHE) and the barriers to its implementation.
Methods: A total of 238 qualified nurses and midwives who participated in Mandatory Continuing Professional Development Programme (MCPDP) in South-eastern state of Nigeria voluntarily completed the self-administered research questionnaire. To avoid receiving duplicate copies of the questionnaires, all were serially numbered and all personal identifiers were removed. Of 348 participants that completed the questionnaires, only 238 met the inclusion criteria which included experience in antenatal clinics and qualifications in midwifery.
Results: The majority of the study participants (86%) had both nursing and midwifery qualifications and the majority (98%) believed that MHE is beneficial to pregnant mothers particularly in reducing maternal morbidity and mortality (95.3%). A high percentage of the respondents (92%) agreed that MHE should be intensified for pregnant mothers in their work places. The identified major barriers to MHE include attitude of some health professionals (79%), some cultural practices (77%), inadequate economic resources (75%) and insufficient health personnel (71%). 18% of the respondents agreed that the hospital policy of their work places does not promote MHE.
Conclusions: This study has demonstrated that nurses and midwives are aware of the importance of MHE in reducing maternal mortality and morbidity. There are still negative perceptions on the preparedness of the healthcare institutions towards MHE coupled with economic and cultural barriers. We recommend integrated MHE in the antenatal care plans of the pregnant woman.

Key Words: Maternal health education, Maternal mortality, Maternal morbidity, Millennium development goal, Developing countries

1. INTRODUCTION

Maternal health education (MHE) is important particularly for pregnant mothers so as to prevent communicable and non-communicable diseases that could potentially result in maternal or child mortality or morbidity. Other scholars had previously demonstrated the importance of health literacy and maternal health education has been adopted to promote health and prevent disease.[1] Indeed, several international conferences such as Safe Motherhood Conference in Nairobi, International Conference on Population and Development in Cairo, Fourth World Congress on Women in Beijing and the landmark Millennium Summit in 2000 were all efforts geared towards improving maternal health and reduce maternal mortality in the developing world.[2, 3] The 5th Millen-

*Correspondence: Clementina U. Nwankwo; Email: amakanwankwo114@yahoo.com; Address: Department of Nursing Science, Faculty of Health Sciences & Technology, Nnamdi Azikiwe University, Nnewi Campus, Nigeria.

nium Development Goal (MDG-5) was aimed at reducing maternal mortality by 75% and the international communities continued to monitor the progress and development in maternal health in this regard.[3] The vision of the United Nation for safe motherhood and child care cannot be completely achieved without adequate and functional maternal health education (MHE) integrated into the healthcare programmes of the healthcare institutions in the developing countries. For instance, a recent research studies in one of the developing countries showed that maternal health education had significant influence on health knowledge of pregnant mother and consequently enhanced a positive attitude amongst the expectant mothers.[4,5] It is of major concern that while maternal health education is integral part of antenatal care in developed nations,[6] such integrated educational programme in the antenatal care is non-existent in the health care systems in most developing countries.[4,5,7–9] For instance, recent research studies in Nigeria recommended that maternal health education should be included in antenatal care clinics, reviewed periodically and appropriately restructured in line with international best practices.[10] Although there are some progress towards the 5th MDG in terms of reducing maternal mortality ratio (MMR) in some developing countries,[2] there is still gap in the implementation of maternal health education in antenatal clinics in many of the developing countries.[7–9] There are several calls or recommendations for the introduction of maternal health education in antenatal care services in the developing countries.[7–9,11] This recommendation can only be successfully implemented if the nurses and midwives are part of the implementation strategy. Nurses and Midwives have the requisite training skills as the first respondents in healthcare institutions especially in divisions of maternal and child care; thus their perceptions on any healthcare policy, such as MHE, will determine, to a large extent, the successful implementation of such policy.

Aim of the study

Given that registered nurses and midwives are the two healthcare professionals that interact closely with pregnant women in antenatal clinics in any hospital establishment, this study was designed to assess the views of qualified nurses and midwives on Maternal Health Education (MHE) and the barriers to its implementation in their work places in Anambra State of Nigeria, West Africa.

2. METHODS

2.1 Subjects' recruitment

The study was conducted in Anambra State of Nigeria, West Africa with a population of 4.2 million people and a landmass of 4,844 Sq km. The estimated population density was between 1,500 and 2,000 persons per square km of the land area [National Population Commission of Nigeria, 2014].[12] As at the time of the study Anambra state has about 507 health centres, 33 general hospitals and two university teaching hospitals. There were about 550 registered nurses on record of the state Ministry of Health at the time of the study which did not include practice nurses working outside the state Ministry. The Nursing and Midwifery Council of Nigeria (NMCN), Anambra State Chapter has a Mandatory Continuing Professional Development Programme (MCPDP) that all nurses and midwives must attend twice every 3 years before renewal of their practice license. We distributed the research questionnaire to all practice nurses and midwives that participated in MCPDP sessions for nurses and midwives in Anambra State of South-eastern Nigeria between April and September 2016. Of 348 participants that returned their questionnaires, only 238 (6 males and 232 females) met the inclusion criteria. Participants in the MCPDP sessions who have never worked in antenatal clinics or had no midwifery qualifications, retired or non-employed nurse or midwife graduates were excluded from the study. It should be noted that in Nigerian population, nursing and midwifery practice is not as distinctive as in developed countries where each specialty practice according to a specified role. In Nigeria, job advertisements for nurses and midwives usually emphasize on "double qualification" that is nursing and midwifery, and that is correctly reflected in this study as 86% of participants have both nursing and midwifery qualifications.

2.2 Study protocol

The research questionnaire tool was a modified version of a tested research questionnaire previously employed to assess the opinion of nurses and dietitians on diabetes self-management education (DSME) in Nigeria and in Trinidad and Tobago.[13,14] Briefly, the research questionnaire consists of three sections: (i) Subjects' background: which included gender, age, professional qualifications and place of employment. (ii) Views/opinion of the subjects on maternal health education in Anambra State: which included ten (10) questions with four (4) options of "Yes", "No", "don't know" and "I have reservations" and (iii) Barriers to maternal health education: which included six (6) questions with five (5) options of "strongly disagree", "disagree", "not sure", "agree" and "strongly agree". Since the nurses and midwives were educated the questionnaire was self-administered. In an attempt not to disclose the identity of the participants, the questionnaire did not contain any personal identifiers. Thus, during the study, the research questionnaire as well as the letters explaining the study and consent forms were given to all participants in the MCPDP sessions for nurses and midwives in Anambra State of Nigeria. After reading the letter explaining the purpose of the study, The nurses and

midwives who consented to participate in the study after a thorough study of the research protocol were requested to complete the questionnaires and return same to the principal investigator (CUN). The study protocol was reviewed by our institutional Ethics Committee and approval granted.

2.3 Statistics

The Statistical Package for the Social Sciences (SPSS) was used for the statistical analysis. Of the 348 MCPDP participants that completed the research questionnaires, the data of 110 subjects were excluded from analysis because they did not meet the inclusion criteria. We descriptively analysed the views of the remaining 238 participants on MHE and used absolute number and percentages (in parentheses) to present the results as shown below.

3. Results

The biodata of the two hundred and thirty-eight (238) nurses and midwives that satisfied the inclusion criteria for the study are shown in Table 1. The mean age of the respondents was 41.4 ± 10.6 years, and of the 238 participants, only six (6) were males. The majority of the participants (86%) had qualifications in both nursing and midwifery, and also the majority (70.2%) were employed in government hospital establishments (see Table 1).

Table 1. Biodata of the nurses and midwives

Parameters	N (%)
Mean age ± SD (yr.)	41.4 ± 10.6
Gender	
Male	6 (2.5)
Female	232 (97.5)
Professional qualifications	
Registered Nurse	22 (9.2)
Registered midwife	11 (4.6)
Registered Nurse & Midwife	205 (86.1)
Place of work (employment)	
Government Hospital/clinic	167 (70.2)
Private or Mission Hospital/clinic	71 (29.8)

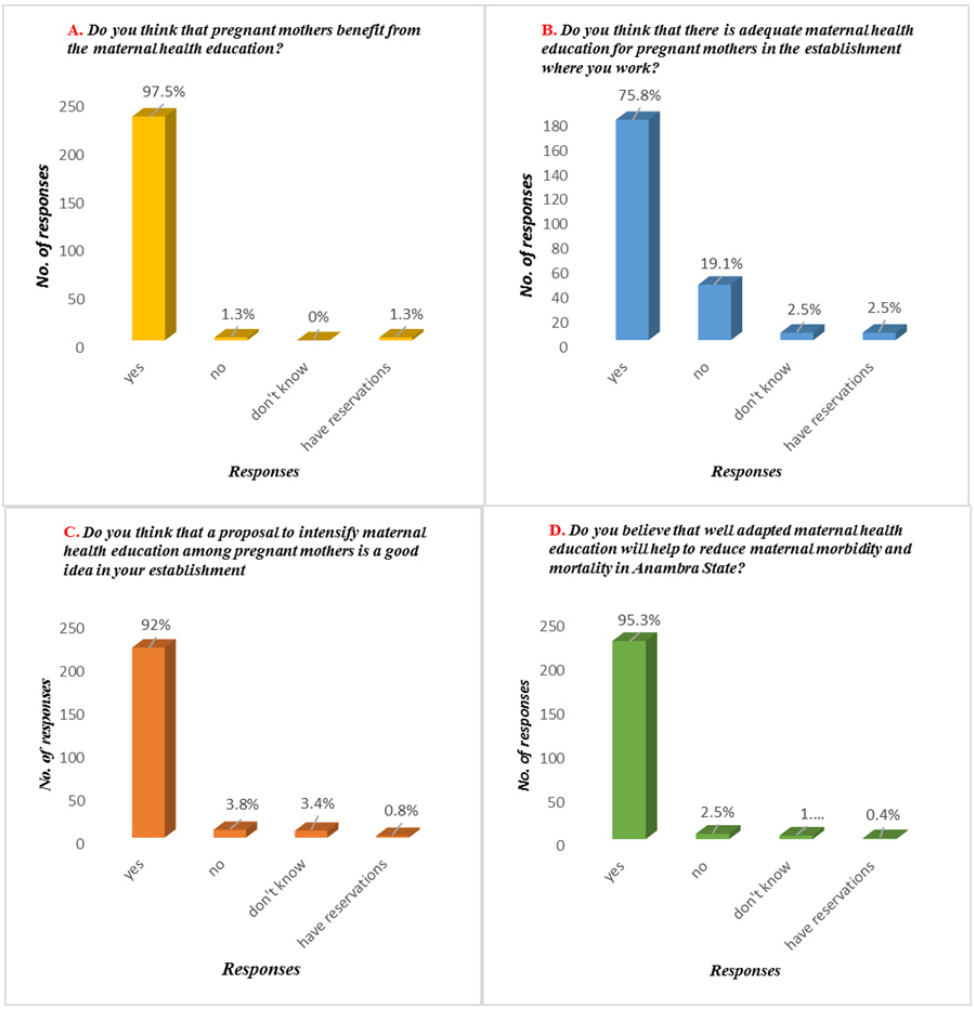

Figure 1. Charts (A-D) showing the views of Nurses and Midwives on Maternal Health Education (MHE) in Nigeria

The analysis of the probe questions to determine the opinion of the nurses and midwives on maternal health education (MHE) in the study population showed that while 98% of the respondents recognized the benefits of MHE to pregnant mothers (see Figure 1-A), a lesser percentage (76%) believe that there is adequate MHE programme in their places of work (see Figure 1-B). The majority of the nurses and midwives (92%) agreed with the proposal to intensify MHE for pregnant mothers in their places of work (see Figure 1-C), and 95.3% believe that MHE will help to reduce maternal morbidity and mortality in the population (see Figure 1-D). Figure 2 shows the results of the analysis of the question of the preparedness of the health care system for MHE in the population. The opinion of the nurses and midwives were almost evenly divided on the preparedness of the health-care system given that only 52.5% categorically agreed that their work places were prepared for MHE (see Figure 2-A). The participants that responded "No" or "don't know" or "I have reservation" to the question were about 112 (47%), a significant proportion that is not different from those that answered "yes" (see Figure 2-A). Consistent with this perceived inadequate preparation for MHE in this population, the majority of the respondents supported the proposal for non-governmental organizations to sponsor MHE (83.6%), and for frequent review and restructure of the current MHE to meet the needs of pregnant mothers (92%) (see Figures 2-C, 2-D).

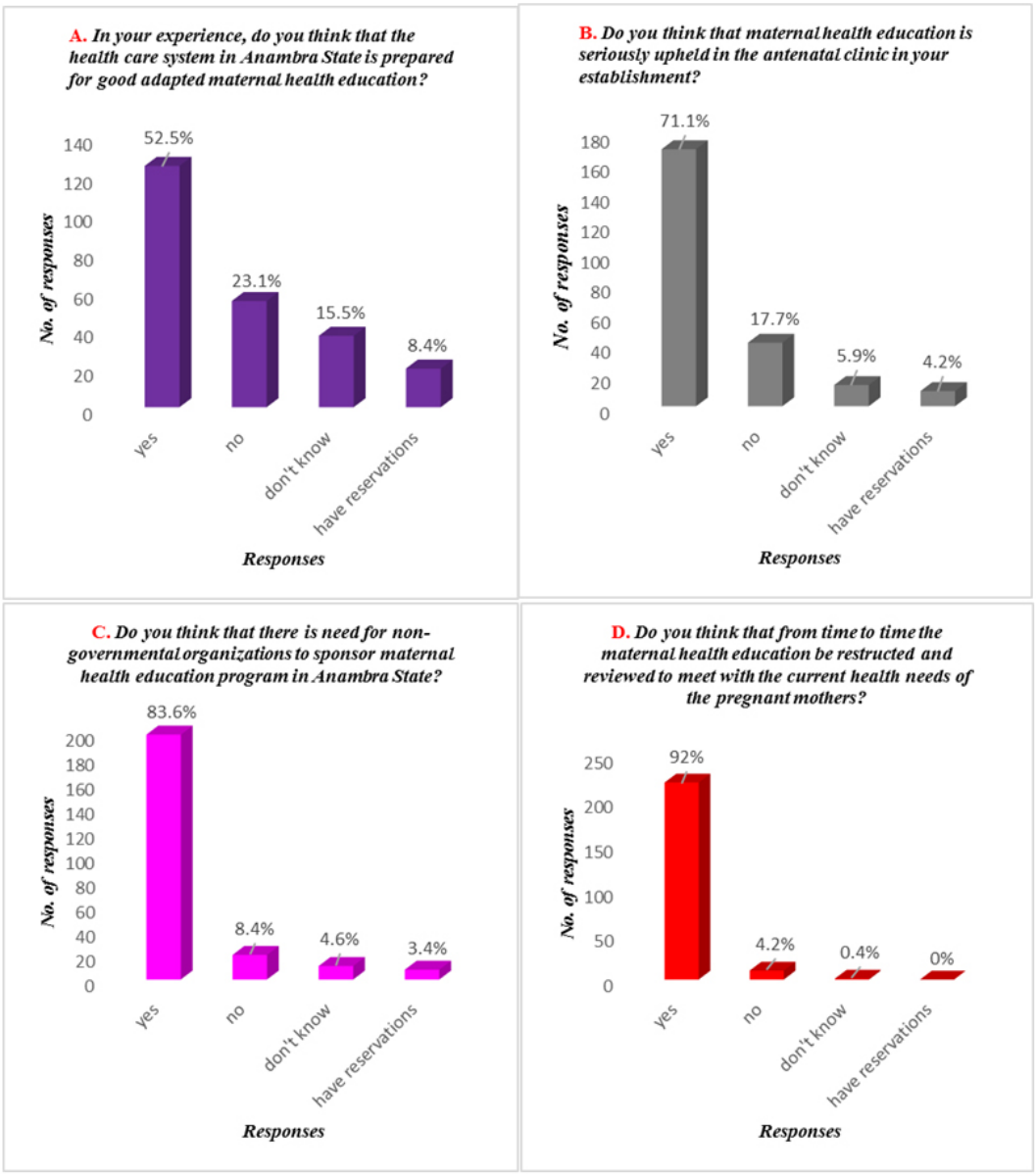

Figure 2. Charts (A-D) showing the views of Nurses and Midwives on Maternal Health Education (MHE) in Nigeria

Figure 3 shows the responses of the nurses and midwives to the probe questions to determine the potential barriers to MHE. While a high percentage, 79% (agree + strongly agree) of the respondents identified the attitude of some health professionals as major barrier (see Figure 3-A), a similar percentage 77% (agree + strongly agree) indicated that some cultural factors and practices are also important barriers (see Figure 3-B). Furthermore, while 75% (agree + strongly agree) identified inadequate economic resources (see Figure 3-C), a lower percentage (71%) identified insufficient health personnel as major barriers to MHE (see Figure 3-D). Interestingly, only 18% (agree + strongly agree) of the respondents agreed that the hospital policy of their work places does not promote MHE (see Figure 3-E).

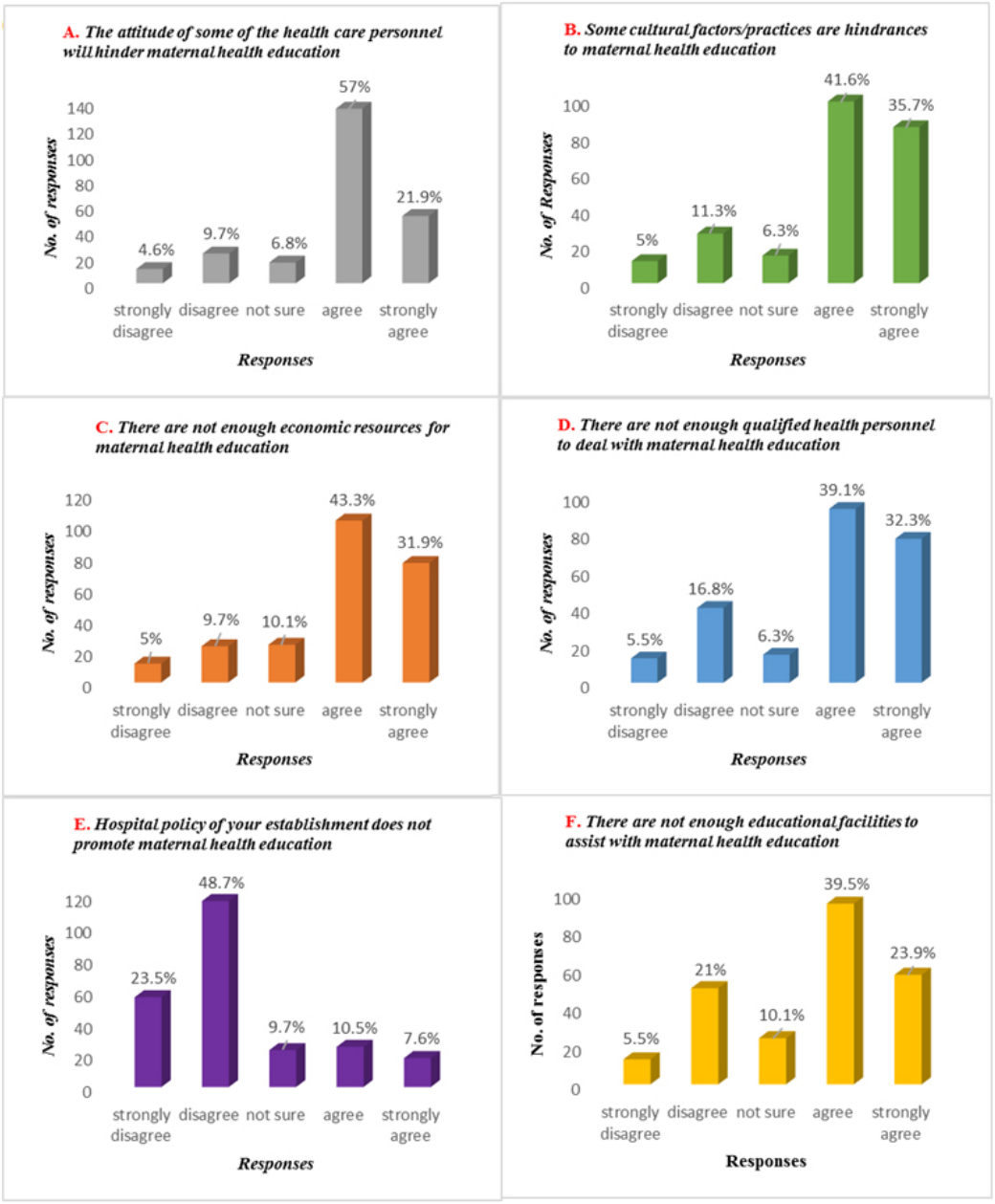

Figure 3. Charts (A-F) showing the potential barriers to Maternal Health Education (MHE) in Nigeria

4. Discussion

This study assessed the opinion of qualified nurses and midwives on maternal health education (MHE) and the potential barriers to its implementation in their work places in one South-eastern State of Nigeria, West Africa. The analysis of our data indicated that:

(1) High percentages of the nurses and midwives believed that pregnant mothers benefit from MHE, and also

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agreed that intensification of MHE will be a good idea,

(2) While 52% of the respondents categorically agreed that their work places were prepared for MHE, 18% agreed that the hospital policy of their work places does not promote MHE, and

(3) The identified potential barriers to MHE included attitude of some healthcare professionals, some cultural practices, inadequate economic resources and insufficient health personnel.

This study has shown that a high percentage of the nurses and midwives believed that pregnant mothers benefit from MHE as it currently exist in this population but supported the idea of intensification of MHE in the population. These findings are expected from such highly qualified healthcare professionals that interact very closely with pregnant and nursing mothers at the clinics. The nurses and midwives are professionally well placed to understand the benefits of health education to nursing mothers and pregnant women. Health education is essentially aimed at improving health awareness and literacy. Health education could be used to promote health and prevent diseases.[1] Thus MHE is directed at promoting maternal and child health in an attempt to prevent diseases that could result in morbidity and mortality. It is important that health promotion exercises must include MHE as a fundamental tool to prevent communicable and non-communicable diseases for the pregnant mother and child. Indeed, the 5th Millennium Development Goal (MDG-5) was aimed at reducing MMR by 75% by the year 2015.[2] Analysis of maternal mortality between 1990 and 2015 showed that only nine countries (Maldives, Bhutan, Cambodia, Cape Verde, Timor-Leste, Iran, Laos, Rwanda and Mongolia), of the 95 developing countries with a high MMR in 1990, have recorded significant reduction in MMR in 2016 report.[2] Unlike the nine identified countries above, a point estimate for the relative reduction in MMR during the same period for Nigeria was 39.6% with about 10% chance that no progress has been made.[2] The global report on MMR as it affects Nigeria should be of major concern to all healthcare professionals in the developing countries. For example, the finding in the current study may be important in determining potential causes of non-performance of 5th MDG in many developing countries including Nigeria given that preparedness of healthcare institution in terms of infrastructural facilities and health policies are important in any attempt to promote health and prevent diseases.[1]

In this study, 18% of the nurses and midwives agreed that the hospital policy of their work places does not promote MHE just as a higher percentage (47%) did not agree that their work places were prepared for MHE (see Figure 2-A). These opinion or perception from nurses and midwives have important healthcare implications in relation to the rate of maternal morbidity and mortality. Adequate healthcare infrastructure, skilled attendants, essential obstetric services and a focus on maternal and child health should constitute the major strategic framework of a well prepared healthcare institution that intend to promote health and improve maternal health.[15] A safe motherhood does not essentially need technology but rather a well-planned organizational strategy that should include proper maternal education. It should be noted that every mother or child, irrespective of background or place of residence, needs skilled maternal and child care that is safe and administered by skilled professional with training to act properly when unpredictable complications arise.[15] Based on the opinion of the nurses and midwives in this study, the workplaces in this Nigerian study population appeared inadequately prepared to prevent unpredictable complications that could lead to maternal mortality or morbidity. It should be recalled that previous research reports from many developing countries showed that maternal health education is not an integral part of antenatal care as in developed countries.[4,5,7–9] Indeed, one study in Nigeria has recommended that MHE should be included in antenatal care clinics, reviewed periodically and appropriately restructured to meet international standards.[10] The results of the current study confirmed the previous recommendations. We believe that implementation of these recommendations, might be an important step towards attaining the sustainable development agenda of the 5th MDG which Nigeria is still struggling with.[1]

In this study, the nurses and midwives identified several barriers to MHE in this Nigerian population. These included the attitude of some healthcare professionals, some cultural practices, inadequate economic resources and insufficient health personnel (see Figure 3). We do not intend to discuss exhaustively all elements of the identified barriers to MHE in this study population. However, negative attitude of some healthcare professionals towards their profession may be related to lack of empowerment or job satisfaction. Thus, we have to advocate that all healthcare professionals especially the nurses and midwives, who interact very closely with the pregnant women and children during the clinics, should be adequately empowered with the required education and training to play their roles. Given that 70% of nurses globally are females,[16] as confirmed by the female/male ratio in this study (see Table 1), female healthcare professionals cannot afford to be apathetic to issues that dearly affect their gender. The female healthcare providers, especially nurses and midwives, should be academically empowered to use their hid-

den maternal potentials to exert pressure and demand change in the ways maternal, newborn and childcare are provided in their work places and even globally.[17] Sociocultural changes in any environment is initiated through appropriate education. In some cultures in the developing coutries, death during pregnancy or childbirth is treated as natural and many pregnant mothers are not encouraged to attend antenatal clinics during pregnancy. For example, a report from Tanzania showed that less than 50% of all pregnant mothers received skilled professional attendance during childbirth,[19] resulting that maternal morbidity and/or mortality readily occurs when unpredicted complications arise during labour. This type of cultural practice is a potent barrier to maternal health education and would ultimately reduce the level of awareness of the pregnant mothers.[17] In many developing countries, there is always low financial allocation to Ministries of Health. For example in India, the national budgetary allocation for healthcare in 2010 was US$4.5 billion whereas in the USA, the estimated annual direct and indirect costs for diabetes care in the same year was US$31.9 billion.[18] Indeed, in this study, almost 84% of the respondents thought that non-governmental organisations should take over the sponsorship of MHE in their work places (see Figure 2-C). The respondents expressed this opinion in view of the usual scarce economic resources available for MHE. Again, low family income, especially in families where the husbands are the sole income earners, and there are no social welfare support systems or free medical service, constitute major barrier to attending MHE lessons where information that might reduce the level of ignorance is shared and discussed. Although some developing countries have demonstrated their ability to reach the 75% reduction in MMR as envisioned in the 5th MDG,[2] the health of mothers, newborn and children has continued to rank low on the global health and development agenda, especially in the developing world.[17] The challenges of paucity of health personnel in the developing world, including Nigeria, appear perennial. We are of the view that MHE needed to improve maternal and child care services needs only a well-planned workforce that is well integrated and coordinated.[20] Although the nurses and midwives identified insufficient healthcare professionals as a barrier to MHE (see Figure 3-D), previous studies from different developing countries have reported non-integration of MHE in the antenatal care programme.[4,5,7–9] Thus, it would appear that inadequate number of nurses and midwives may not be a major barrier to MHE but rather non-integration and proper coordination of healthcare education.[20] We strongly believe that MHE that is integrated into the antenatal clinic programme with a referral link to emergency obstetric and newborn care for the management of life-threatening complication will ultimately serve to reduce maternal mortality and improve health as previously suggested.[20]

5. Conclusion

In conclusion, this study has demonstrated that the nurses and midwives in this study population are aware of the importance of MHE in reducing the rate of maternal mortality and morbidity. There are still negative perceptions on the preparedness of the healthcare institutions in the study population in the background of scarce economic resources, inherent cultural practices and poor professional attitudes. Nigeria is among the developing countries that have not met the target of the 5th MDG as reported in 2016.[2] Therefore, we suggest that any attempt at improving maternal and child care in this population must include a well-integrated and a well-coordinated MHE in the antenatal care plans of the pregnant woman.

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Conflicts of Interest Disclosure

The authors declare that they have no competing interests.

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