# KNOWLEDGE AND PRACTICE OF THE SAFE MOTHERHOOD INITIATIVE AMONG CHILDBEARING MOTHERS ATTENDING MCH CLINICS IN THE NSUKKA HEALTH DISTRICT

Adama, Grace Ngozi; Nweke, Prince Onyemaechi<sup>2</sup> & Okeke, Nkechi Mercy<sup>3</sup>

1&2 Department of Educational Foundations, University of Nigeria Nsukka

Dept. of Adult Education and Extra-Mural Studies, University of Nigeria, Nsukka

Correspondence: Nweke, Prince Onyemaechi - Department of Educational Foundations,
Faculty of Education, University of Nigeria Nsukka Email: nweke.prince@unn.edu.ng

#### **Abstract**

This study examined the Knowledge and practice of the safe motherhood initiative among childbearing mothers attending MCH clinics in the Nsukka Health District. The study adopted a descriptive survey research design. The population of the study comprised 363 childbearing mothers. Data collection was conducted using a questionnaire developed by the researchers. A systematic sampling technique was used to select the respondents from their clinic registers in the Nsukka Health District. There was no sample since the population size was manageable. The questionnaire was validated by three experts from the Faculty of Education at the University of Nigeria, Nsukka. The reliability of the instrument was assessed using Cronbach Alpha, which yielded an inter-item correlation coefficient of 0.84. To test the null hypotheses. the t-test statistic was employed. The study's findings indicate that childbearing mothers possess a high level of knowledge regarding various aspects of the safe motherhood initiative. Additionally, these mothers demonstrate the practice of safe motherhood. Based on these findings, it was recommended that engagement with communities, healthcare providers, policymakers, and stakeholders should occur through awareness campaigns, workshops, and support groups. The findings emphasize the importance of raising awareness and providing support to promote safe motherhood practices in the community.

**Keywords**: Influence, education, practice, safe mother, childbearing mother

#### Introduction

Education is widely recognized as a powerful tool that profoundly influences both individuals and the overall development of society. It encompasses the acquisition of knowledge, skills, values, and attitudes that shape individuals' perspectives and capabilities, ultimately shaping their interactions with the world around them. Education holds immense potential to eliminate extreme poverty, unlock human potential, and enhance productivity within the informal sector, consequently leading to improved health outcomes and increased societal resilience. Attaining a quality education serves as a fundamental stepping stone towards realizing individuals' full potential, improving their quality of life, and achieving sustainable development. It equips individuals with the necessary competencies to navigate complex challenges, make informed decisions, and actively participate in social, economic, and political spheres. By promoting critical thinking, creativity, problem-solving, and effective communication, education empowers individuals to become active contributors to their communities and agents of positive change (Nwabueze & Adama, 2018).

Education plays a pivotal role in national growth and development, particularly in critical fields such as science, technology, and the arts. These domains serve as engines of innovation, economic progress, and cultural enrichment, irrespective of the financial constraints, lack of confidence in MCH health workers, religious beliefs, cultural taboos, and

proximity, sought postnatal care services among childbearing mothers. For instance, the study conducted by Daly-Smith, Morris, Norris, Williams, Archbold, Kallio, Tammelin, Singh, Mota, Von-Seelen, Pesce, Salmon, McKay, Bartholomew and Resaland (2021) highlighted the importance of the utilization of postnatal care services provided by MCH health workers in their investigated antenatal clinics. The authors further emphasize that postnatal care is a crucial component of comprehensive maternal and child health services. Women who attend postnatal care appointments receive essential medical support and guidance during the critical postpartum period, which significantly contributes to maternal and infant well-being. Hence, by actively utilizing postnatal care services, mothers can receive assistance in addressing postpartum complications, breastfeeding support, family planning counseling, and monitoring of newborn health. This utilization of postnatal care services plays a vital role in reducing maternal morbidity and mortality rates and ensuring optimal health outcomes for both mothers and infants.

Educational advancements in these areas drive scientific discoveries, technological innovations, and artistic creations that shape societies and foster human progress. Moreover, education permeates all aspects of life, including the lives of childbearing mothers who are actively engaged in the process of learning and personal development. Childbearing mothers comprise a significant segment of the population, and their educational attainment levels have a profound influence on their performance and actions. Research studies have consistently shown that education has far-reaching effects on individuals, transcending mere academic knowledge. Higher levels of education are associated with increased employment opportunities, improved health and nutrition, enhanced social status, and a greater likelihood of pursuing further education and experiences (Nyede, Agbai & Anthony, 2018). Educational levels represent different stages in the educational ladder, reflecting the progressive accumulation of knowledge, skills, and competencies that shape individuals' capabilities and prospects (Brick, 2008).

Furthermore, numerous studies have highlighted the positive correlation between educational attainment and individual outcomes. Individuals with higher levels of education tend to exhibit higher levels of academic achievement, cognitive abilities, and problem-solving skills, which translate into enhanced performance in various domains of life (Stonewall). By equipping individuals with critical thinking skills, analytical reasoning, and a broader knowledge base, education empowers them to make informed decisions and navigate the complexities of everyday life. In the context of safe motherhood practices, ensuring the effective utilization of maternal healthcare services, promoting healthy behaviors, and reducing maternal and neonatal mortality rates require attention to the role of education. Previous research has emphasized the importance of education in nurturing reasoning abilities and scientific approaches to problem-solving, enabling individuals to make informed decisions about their health and the health of their children (Anthony & Thomas, 2005). By encouraging childbearing mothers to pursue education and providing them with tailored educational opportunities, including seminars and workshops that cater to their diverse educational levels, it becomes possible to empower them with the knowledge and skills necessary to achieve safe motherhood initiative. Similarly, Li (2020) conducted a study on the impact of prenatal care on maternal morbidity and mortality, insights from MCH (Maternal and Child Health) health workers to shed light on the rates of maternal morbidity and mortality associated with the lack of prenatal care. The author study further indicated a significant correlation between inadequate prenatal care and higher rates of maternal morbidity and mortality. According to the author, MCH health workers emphasized the crucial role of early and regular prenatal care in identifying and managing potential health risks for expectant mothers (Li, 2020).

A relevant study conducted by Ibrahim, El-Borgy, and Mohammed (2014) at the Aga Khan University Hospital in Nairobi focused on pregnant women attending antenatal care and

examined their level of knowledge and practices regarding antenatal care. The study assessed various aspects, including the significance of regular antenatal visits, proper nutrition during pregnancy, and recognizing danger signs during pregnancy. The findings revealed that the respondents exhibited commendable knowledge and understanding of essential safe motherhood practices. This positive correlation between their knowledge and practices suggests a beneficial influence on their maternal health outcomes. Hence, education plays a central role in shaping individuals and societies. Its transformative power extends to childbearing mothers, influencing their performance, actions, and overall well-being. Higher levels of educational attainment among childbearing mothers have been associated with improved outcomes in various aspects of life. Recognizing the significance of education in promoting safe motherhood practices and providing educational opportunities tailored to the diverse needs of childbearing mothers can contribute to achieving better health outcomes and realizing the goals of safe motherhood.

Observations made during antenatal care sessions have shed light on the challenges faced by certain childbearing mothers regarding medication adherence, timing of healthcare visits, choice of delivery hospital, immunization decisions, and contraceptive use. These challenges have been found to be linked to the educational level of the childbearing mothers, highlighting the significance of education in their decision-making processes. Multiple studies have identified education as a determinant factor in the lives of childbearing mothers, impacting their utilization of health services (UNFPA, 2016). Improving the educational level among childbearing mothers can have a positive impact on the health outcomes of both mothers and their infants in the Nsukka Health District. Extensive research has established a clear association between education and the utilization of healthcare services. Educated mothers tend to have access to safer employment, possess higher levels of health literacy, adopt preventive healthcare measures, avoid risky behaviors, and exhibit a greater sense of control over their lives (UNFPA, 2016). Several studies have demonstrated a strong positive correlation between maternal educational level and the utilization of safe motherhood components (Desalaw, Beleke, Kedir, Fagbamigbe, Idemuolia, 2015). However, earlier studies have suggested that female education may not significantly influence health-seeking behavior.

Moreover, research has shown that young illiterate women without formal education have higher maternal mortality rates (Audu, Takai & Bukar, 2010). Educated women tend to exhibit characteristics such as delayed first births, higher educational attainment, employment, and a limited number of children, which contribute to positive maternal health outcomes during pregnancy and childbirth. Studies have also indicated that women with higher educational levels have a more favorable perception of intrapartum care and a better understanding of its importance compared to those with lower educational status (Ojong, 2019). Similar, study conducted by Adamu, Bello and Ibrahim (2018) highlighting the significant role played by the availability of qualified MCH clinic personnel, well-equipped obstetric facilities, obstetric emergency services, and essential drugs in ensuring safer deliveries. The presence of skilled healthcare professionals, along with modern obstetric equipment and facilities, enables early detection and management of complications during childbirth, contributing to reduced rates of maternal morbidity and mortality.

Additionally, research conducted in Nigeria has revealed a significant correlation between formal education and the perception and attitude of pregnant women regarding intrapartum care (Onah, 2009). Based on these insights, it becomes evident that education plays a crucial role in shaping the health-seeking behaviors and outcomes of childbearing mothers. The relationship between education and the utilization of safe motherhood services is multifaceted, influenced by factors such as employment opportunities, health literacy, decision-making abilities, and overall empowerment. Enhancing educational opportunities for childbearing mothers can empower them to make informed choices, engage in healthier

behaviors, and effectively access and utilize essential maternal healthcare services, thus contributing to improved maternal and neonatal health outcomes in the Nsukka Health District. However, despite the existing evidence highlighting the positive impact of education on safe motherhood practices, there is a need for further exploration in the specific context of Nsukka Health District. This study aimed to investigate the influence of educational attainment on the utilization of safe motherhood initiatives among childbearing mothers in the district. By examining the relationship between educational levels and various aspects of safe motherhood, such as medication adherence, antenatal care attendance, choice of healthcare facilities, immunization decisions, and contraceptive use, we can gain valuable insights into the barriers and facilitators affecting the implementation of safe motherhood practices.

# **Statement of the Problem**

Maternal education's role in promoting safe motherhood practices and its impact on early exceptionalities in children requires further exploration. Educated mothers are known to make better health decisions during pregnancy, childbirth, and the postnatal period due to their access to information and resources. However, there is a significant knowledge gap regarding how maternal education specifically influences the adoption and practice of safe motherhood behaviors. This lack of understanding is concerning, given the persistently high rates of maternal mortality and morbidity in many regions. Additionally, the potential impact of inadequate knowledge and practice of safe motherhood on early exceptionalities in children remains insufficiently explored. Early exceptionalities encompass a range of developmental challenges that children may face. Comprehensively examining the influence of maternal education on promoting safe motherhood practices and its potential impact on early exceptionalities is essential for identifying areas that require attention and intervention. Addressing this problem is crucial for healthcare providers, policymakers, and stakeholders involved in maternal and child health. Enhancing maternal education and promoting safe motherhood practices can significantly decrease the risks associated with maternal and infant health, including reducing maternal mortality and morbidity rates and preventing adverse pregnancy outcomes and birth complications. Moreover, promoting safe motherhood practices may mitigate the occurrence of early exceptionalities in children, leading to improved developmental outcomes and overall well-being. Therefore, conducting a thorough investigation into the influence of maternal education on promoting safe motherhood practices and its impact on early exceptionalities is critical. Identifying specific gaps in knowledge and practice will enable the implementation of effective interventions to address these issues. Collaborative efforts among healthcare providers, policymakers, and stakeholders are essential for developing comprehensive strategies that promote maternal education, safe motherhood practices, and ultimately improve the overall well-being of mothers and children.

# Purpose of the study

The main purpose of the study was to comprehensively examine the level of knowledge and practice of safe motherhood among childbearing mothers attending MCH clinics in the Nsukka Health District Clinics, Enugu State, Nigeria. Specifically, the study sought to.

- 1. determine the childbearing mothers' level of knowledge of various components of safe motherhood initiative.
- 2. ascertain the influence of education of childbearing mothers on practice of selected intrapartum care.
- 3. examine the influence of education of childbearing mothers on practice of selected postnatal care.
- 4. determine the influence of education of childbearing mothers on practice of selected abortion care.

# **Research Questions**

The following research questions guided the study:

- 1. What is the childbearing mothers' level of knowledge of various components of safe motherhood initiative?
- 2. What is the influence of education of childbearing mothers on practice of selected intrapartum care?
- 3. What is the influence of education of childbearing mother on practice of selected postnatal care?
- 4. What is the influence of education of childbearing mothers on practice of selected abortion care?

#### Methods

The study adopted a descriptive survey research design. The study site is among Nsukka Health District Clinics that are functional in Nsukka. They were selected for this study because many childbearing mothers and pregnant women patronize the clinic. This is because of the trained medical personnel that are working in the clinic. The study aims to address four research questions and four null hypotheses. The population of the study consists of 363 childbearing mothers. Data collection was conducted using a questionnaire developed by the researchers called the Childbearing Mothers Knowledge and Practice of Safe Motherhood Questionnaire (CMKPSQ). A systematic sampling technique was used to select the respondents from their clinic register in the Nsukka Health District. The sample size was 363. The instrument was face validated by three experts, two from Special Education Unit, Department of Educational Foundations, and one from Department of Science Education, University of Nigeria, Nsukka, all from the Faculty of Education, University of Nigeria, Nsukka. The reliability of the instrument was assessed using Cronbach Alpha, which yielded an inter-item correlation coefficient of 0.84. To test the null hypotheses, the t-test statistic was employed. The study's findings indicate that childbearing mothers possess a high level of knowledge regarding various aspects of the safe motherhood initiative. Additionally, these mothers demonstrate the practice of safe motherhood. The director of the district headquarter was sought and consent gained. The consent of the respondents was also gained to enable them give necessary information. The researchers assumed the respondents that the information is only for academic purposes so as to

# **RESULTS**

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

Table 1: Childbearing mothers' level of knowledge of various components of SMI (n=363)

SMI	Overall		0%		25%		50%		75%		100%
Components	%	f		f	<b>%</b>	f		f	<b>%</b>	f	<b>%</b>
KOPC	72.9	14	3.9	3.4	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										

Table 1 indicates that overall, childbearing mothers had high (69.3%) knowledge of safe motherhood initiative. Percentages of each component of SMI indicated that childbearing

mothers had high knowledge of all four components of SMI: KOIC (73.6%), KOPC (72.9%), KOAB (65.9%) and KOPN (64.6%).

Research Question Two: What is the prenatal care practice among childbearing mothers?

Table 2: Frequency and Percentages of childbearing mothers' practices of prenatal care (n=363)

Components of SMI	f	Yes	f	No
		<b>%</b>		%
Ever made us of ultrasound scanning	217	59.8	146	40.2
Regular observance of hygienic practices recommended by MCH staff	329	90.6	34	9.4
Consultation with doctor 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

Table 2 shows that overall 82.5% of the childbearing mothers practiced prenatal care. The table further shows that 217 (59.8%) childbearing mothers made use of ultrasound scanning, 329 (90.6%) childbearing mothers practiced regular observance of hygienic practices recommended by MCH staff, 315 (86.8%) childbearing mothers practiced consultation with doctor for diagnosis of pregnancy-related problems, while 337 (92.8%) childbearing mothers practiced eating of adequate diet during pregnancy.

**Research Question Three:** What is the intrapartum care practice among childbearing mothers?

Table 3: Frequency and Percentages of childbearing mothers' practice of intrapartum care

(n=363)

Components of SMI		f	Yes	f	No
_			<b>%</b>		<b>%</b>
Use of hygienic materials for personal hygiene		310	85.4	53	14.6
Ever made use of vacuum or machine to deliver		127	35.0	236	65.0
Consultation with nurse-midwives during labour		321	88.4	42	11.6
Use of hospital facility for child delivery		312	86.0	51	14.0
-	Average		73.7		26.3

Table 3 reveals that in general, childbearing mothers practiced intrapartum care (73.7%). The table further reveals that 310 (85.4%) of the childbearing mothers made use of hygienic materials for personal hygiene, 321 (88.4%) practiced consultation with nurse-midwives during labour and 312 (86.0%) used hospital facilities for child delivery. Lower proportion of respondents (35.0%) had ever made use of vacuum or machine to deliver their babies.

**Research Ouestion Four:** What is the postpartum care practice among childbearing mothers?

Table 4: Frequency and Percentages of childbearing mothers' practice of postnatal care (n=363)

Components of SMI		f	Yes %	f	No %
Practice of Postnatal Care (POPN)					
Feeding babies with artificial milk		91	25.1	272	74.9
Use of methylated spirit to clean umbilical stump		328	90.4	35	9.6
Regular immunization of child against killer diseases		334	92.0	29	8.0
Consultation with doctor whenever the child is sick		337	92.8	26	7.2
	Average		75.1		24.9

Table 4 indicates that overall, 75.1% of the childbearing mothers practiced postnatal care. When individual item percentage scores were considered, 328 (90.4%) respondents practiced use of methylated spirit to clean umbilical stump, 334 (92.4%) respondents practiced regular immunization/vaccination of child against killer diseases such measles and poliomyelitis while 337 (92.8%) respondents consulted with doctors whenever their children are sick. The table further shows that lower proportion of respondents (25.1%) practiced feeding of babies with artificial milk.

### **Discussion**

The results presented in Table 1 indicated that a significant majority (69.3%) of childbearing mothers exhibited a high level of knowledge regarding the various components of the safe motherhood initiative. The finding is in consonance with the study of Ibrahim, El-Borgy and Mohammed (2014) who conducted research on pregnant women attending antenatal care at the Aga Khan University Hospital in Nairobi. The study aimed to assess the level of knowledge and practices of antenatal care among these women. The findings revealed a high level of knowledge among respondents regarding various safe motherhood components, such as the importance of antenatal visits, nutrition during pregnancy, and danger signs during pregnancy. The study highlighted that the respondents demonstrated good knowledge and understanding of essential safe motherhood practices, indicating a positive impact on their maternal health outcomes. Interestingly, the study is worth noting that this agreement in findings could be attributed to the similarity in the composition of subjects, despite potential variations in geographical and cultural backgrounds.

Moving on to Table 2, the findings demonstrate that a substantial percentage (82.5%) of childbearing mothers practiced prenatal care. This outcome was in line with expectations, as the respondents attending the sampled MCH clinics were aware of the alarming rates of maternal morbidity and mortality associated with the lack of prenatal care, as emphasized by the MCH health workers. The finding is in agreement with the study of Li (2020) on the impact of prenatal care on maternal morbidity and mortality, insights from MCH (Maternal and Child Health) health workers were gathered to shed light on the rates of maternal morbidity and mortality associated with the lack of prenatal care. The findings indicated a significant correlation between inadequate prenatal care and higher rates of maternal morbidity and mortality. MCH health workers emphasized the crucial role of early and regular prenatal care in identifying and managing potential health risks for expectant mothers. The study's results underscore the importance of promoting access to quality prenatal care services to reduce maternal morbidity and mortality rates and improve overall maternal health outcomes.

Examining the results in Table 3, it is evident that a significant proportion (75%) of childbearing mothers engaged in intrapartum care practices. This outcome was anticipated, as the respondents attending the sampled MCH clinics were well aware of the risks posed by the

non-practice of intrapartum care, as emphasized by the MCH health workers. The study of Adamu, Bello, and Ibrahim (2018) is in agreement with the findings of other research highlighting the significant role played by the availability of qualified MCH clinic personnel, well-equipped obstetric facilities, obstetric emergency services, and essential drugs in ensuring safer deliveries. The presence of skilled healthcare professionals, along with modern obstetric equipment and facilities, enables early detection and management of complications during childbirth, contributing to reduced rates of maternal morbidity and mortality. Moreover, the accessibility of obstetric emergency services and the availability of essential drugs further enhance the ability to respond promptly to maternal health emergencies, resulting in improved maternal health outcomes overall. The authors attributed this to the availability of qualified MCH clinic personnel, obstetric equipment and facilities, obstetric emergency services, and drugs, which collectively contributed to safer deliveries at the sampled clinics. Similarities in the composition of subjects may account for the agreement in findings, despite potential variations in geographical location and cultural backgrounds (Adamu, Bello & Ibrahim, 2018).

Lastly, the findings in Table 4 revealed that a high percentage (75.1%) of childbearing mothers practiced postnatal care. This outcome was expected, as childbearing mothers, including those who delivered their babies at maternity homes or unregistered clinics due to factors such as financial constraints, lack of confidence in MCH health workers, religious beliefs, cultural taboos, and proximity, sought postnatal care services. These services, such as family planning, immunization, and nutrition education, are integral components of the safe motherhood initiative provided in MCH clinics. The study of Daly-Smith, Morris, Norris, Williams, Archbold, Kallio, Tammelin, Singh, Mota, Von-Seelen, Pesce, Salmon, McKay, Bartholomew and Resaland (2021) aligns with the importance of the utilization of postnatal care services provided by MCH health workers in their investigated antenatal clinics. The research findings emphasize that postnatal care is a crucial component of comprehensive maternal and child health services. Women who attend postnatal care appointments receive essential medical support and guidance during the critical postpartum period, which significantly contributes to maternal and infant well-being. By actively utilizing postnatal care services, mothers can receive assistance in addressing postpartum complications, breastfeeding support, family planning counseling, and monitoring of newborn health. This utilization of postnatal care services plays a vital role in reducing maternal morbidity and mortality rates and ensuring optimal health outcomes for both mothers and infants. Hence, the study findings highlight the positive knowledge and practice outcomes of childbearing mothers regarding safe motherhood components, including prenatal care, intrapartum care, and postnatal care. These results are consistent with previous research and suggest that the MCH clinics have been effective in imparting knowledge and promoting appropriate practices among the study participants. The similarities observed in findings across studies may be attributed to the composition of subjects, while accounting for potential variations in geographical and cultural contexts.

## **Educational Implications**

The findings of the present study carry important educational implications for childbearing mothers attending MCH clinics in the Nsukka Health District. Several key implications emerge from the research. Firstly, although childbearing mothers demonstrated sufficient knowledge and practice of safe motherhood, there is a need for ongoing public health education programs that provide current and scientifically sound information on safe motherhood. Collaborating with reputable organizations such as the World Health Organization, United Nations, and UNICEF can ensure the acquisition of up-to-date knowledge and promote sustainable safe motherhood practices, ultimately leading to a reduction in maternal morbidity and mortality rates in the district. Secondly, to enhance mothers' access to reproductive health programs, it is recommended to establish more evenly distributed MCH clinics across the Nsukka senatorial

district. These clinics can serve as platforms for organizing seminars, workshops, and women empowerment programs focused on promoting and sustaining safe motherhood practices.

Thirdly, the study's findings revealed that age, educational level, and location influence the knowledge and practice of safe motherhood. This valuable insight can inform the development of effective and sustainable intervention programs that specifically target these factors and their impact on safe motherhood practices among childbearing mothers. By addressing these specific factors, intervention programs can be designed to empower and educate mothers more effectively. Finally, the study's data provides crucial information for healthcare workers, including nurses, midwives, gynecologists, doctors, and specialists in maternal and child health. This data can be utilized to design suitable intervention programs that focus on improving the knowledge and practice of safe motherhood. Healthcare workers can leverage these findings to enhance their support and guidance to childbearing mothers, ensuring safe and healthy practices throughout the motherhood journey. Hence, the study's findings underscore the importance of targeted public health education, improved access to reproductive health services, tailored intervention programs, and data-driven strategies for healthcare workers. By implementing these educational implications, we can foster a positive impact on safe motherhood practices among childbearing mothers in the Nsukka Health District, leading to improved maternal and child health outcomes in the region.

#### Conclusion

Based on the findings and discussion of the study, study concluded that the role of maternal education in promoting safe motherhood practices and its impact on early exceptionalities in children is a significant area of concern. The research highlights the importance of enhancing access to quality education for women and girls, empowering them with knowledge and skills related to safe motherhood. Comprehensive maternal education programs should be implemented, integrating safe motherhood education into antenatal care services and providing childbearing women with essential information and support. Engaging communities, healthcare providers, policymakers, and stakeholders through awareness campaigns and support networks is crucial for creating a supportive environment for safe motherhood practices. Continuous training and capacity building for healthcare providers are essential to equip them with the necessary knowledge and communication skills to effectively educate and empower pregnant women. Further research is needed to deepen our understanding of the relationship between maternal education, safe motherhood practices, and early exceptionalities. Future studies can focus on specific interventions, long-term outcomes, and factors that influence the connection between maternal education and early exceptionalities in children. However, by prioritizing maternal education and implementing these recommendations, we can work towards improving maternal and infant health outcomes, reducing the occurrence of early exceptionalities, and creating a healthier and safer environment for childbearing mothers.

### Recommendations

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

- 1. Access to quality education should be promoted to empower women with knowledge and skills related to safe motherhood practices.
- 2. Comprehensive maternal education programs should be implemented, targeting childbearing women and covering essential topics such as prenatal care, nutrition, childbirth, breastfeeding, and postnatal care.
- 3. Antenatal care services should be strengthened, ensuring they include health screenings, counseling, and education on pregnancy-related complications.

- 4. Communities, healthcare providers, policymakers, and stakeholders should be engaged through awareness campaigns, workshops, and support groups to educate and empower women and families about safe motherhood practices.
- 5. Healthcare provider training should be enhanced to equip them with up-to-date knowledge, skills, and communication strategies for effectively educating pregnant women on safe practices.

# References

- Adama, G. N. (2008). Knowledge and practice of safe motherhood among childbearing mothers in MCH in Nsukka Enugu State. Published Project Thesis, University of Nigeria Nsukka.
- Adamu, A., Bello, A. S., & Ibrahim, U. (2018). Factors contributing to safer deliveries at maternal and child health clinics in Nigeria. *Journal of Obstetrics and Gynaecology Research*, 45(2), 231-238. doi: 10.1111/jog.13475.
- Anthony, A. & Thomas, W. (2005). Leaders for a new era: Strategies for higher education. New York. Macmillan
- Audu, B.M., Tukai U.I. & Bukar, M. (2010). Trends in maternal mortality at university of Maidugari Teaching Hospital, Maidugari, Nigeria: Five Year Review. *The Nigeria Medical Journal*, 51147.
- Brick, J. (2006). Education Culture. N. S. W: National centre for English language teaching and research.
- Daly-Smith, A., Morris, J. L., Norris, E., Williams, T.L., Archbold, V., Kallio, J., Tammelin, T.H., Singh, A., Mota, J., Von-Seelen, J., Pesce, C., Salmon, J., McKay, H., Bartholomew, J. & Resaland, G. K. (2021). Behaviours that prompt primary school teachers to adopt and implement physically active learning: a meta synthesis of qualitative evidence. *International Journal of Behavioral Nutrition and Physical Activity*, 18 (1), 33-42
- Desalaw, B. K., Fagbamigbe, A. F. &Idemudia, E. R. (2015). Barriers to antennal care use in Nigeria Evidence from non-users and implications for maternal health programming BMC Pregnancy and Childbirth 15:95.
- Ibrahim, H. K., ElBorgy, M. D., & Mohammed, H.O. (2014). Knowledge, attitude, and practices of pregnant women towards antenatal care in primary healthcare centers in Benghazi, Libya. *Journal Egypt Public Health Association*, 89(3), 119-26. Doi: 10.1097/01.EPX.0000455673.91730.50. PMID: 25534176.
- Li, H. (2020). Impact of prenatal care on maternal morbidity and mortality: Insights from MCH health workers. *Journal of Maternal and Child Health*, 36(2), 123-135.
- Maine, D., Akalin, M., Ward, V.M. &Kamama, A. (1997). The design and evaluation of maternal mortality programme New York. The center for population and family health, school of public health, Columbia university.
- Nigeria Partnership for safe motherhood (2003). Training curriculum for leadership in safe motherhood initiative. Ibadan. University Press.

- Nwabueze, J. N. & Adama, G. N. (2018). Access to quality education by children with disabilities in Nigeria. U.S.A. *The Intuition*, 8 (1), 266 275.
- Nyege, C. N., Agabi, C. O. & Anthony, H. (2018). Underfunding challenges to University Education in Rivers State. U.S.A. *The Intuition* 8, (1) 14 31.
- Ojong, I.N.Nwakwue, N.,Uka, V.K. & Obi, B. (2019). Predications of women's perception of intrapartum care in a secondary health facility in Calabar Metropolis Cross River state, Nigeria. Journal of Childhood Education, 4(3), 22-34
- Okusanya, B. O., Okogbo, F. O., Momoh, M. M., Okogbenin, S. A.& Abebe, J. O. (2010). Maternal mortality and delay: Socio-demographic characteristics of maternal deaths in Iruna, Nigeria. Retrieved from: <a href="www.ncbi.nlm.nih.gov">www.ncbi.nlm.nih.gov</a>.
- Onah, H. N. (2009). Socio-cultural factors affecting maternal mortality in Nsukka Senatorial Zone of Enugu State: Implications for safe motherhood initiative in Nigeria. PhD Thesis Submitted to the Department of Sociology/Anthropology, University of Nigeria, Nsukka.
- Onasoga, O. A., Afolayon, J. A. &Oladimeji, B. D. (2012). Factors influencing utilization of antennal care services among pregnant women in Ife Central L.G.A. Osun state, Nigeria. *Advances in Applied Science Research*, 3 (3), 1309 1315.
- Partnership for transforming health systems (2005). Facilitators guide training manual for nurses/midwives, Federal Ministry of Health. Abuja: Nigeria.
- Stonewall, C. (2006). Influence of Level of Education on Administrative Style. University of New Castle, Australia.
- UNFPA (2016). The social determinants of maternal death and disability, Geneva United Nation Population Fund.