Women’s Perceptions of the Causes of Maternal Mortality: Qualitative Evidence From Nsukka, Nigeria.

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Abstract
There have been reports of growing rate of maternal mortality in most rural areas in Nigeria. This study examined women’s perception of the causes of maternal mortality in Nsukka, a semi-urban area in South Eastern Nigeria. The study seeks to find out what rural women know about maternal mortality. Qualitative research design was adopted for the study. The study was conducted between the months of March and April, 2020. Two health facilities were used for the study (Nsukka Health Centre and University of Nigeria Teaching Hospital, Obukpa). In each of the health facilities, one Focus Group Discussion involving 10 women was conducted while 10 in-depth interviews comprising women not using antenatal was also conducted in a separate arrangement to complement the FGD. The participants were married and single mothers aged 18 to 40 years. Participants identified personal factors such as delay in seeking healthcare and poverty as contributing to maternal mortality. Among other Findings, result showed that lack of education and exposure, and sole reliance on the advice of relatives and other rural women within the immediate environment indirectly contributed to maternal mortality in the area. Despite advances in healthcare system and increased access to education, there are still superstitious and primordial beliefs that have continued to impact on healthcare seeking behavior of women. We recommend that massive orientation and sensitization in the area of public health should be carried out especially in the rural areas to address some of these issues identified.

Keywords
beliefs, culture, maternal mortality, superstitions, qualitative

Statement of Significance (SOS)
There is still a high case of maternal mortality especially in developing countries (Nigeria inclusive) where access to healthcare is limited. Various studies have shown that there are a number of factors that causes maternal mortality. Such factors include neglect, hospital related factors, physiological factors, etc. Unfortunately, such factors are unlikely to explain the role of culture, environment and primordial belief in explaining maternal mortality. This present study provides qualitative evidence of how superstition and primordial beliefs have continued to influence women perception of the causes of maternal mortality and how such held beliefs directly or indirectly impact on the rate of maternal mortality.

Introduction
Maternal mortality is a global phenomenon that has attracted international attention due to its deleterious effects on population and on the health of women and children. Every day, about 830 women die from complications related to pregnancy or childbirth (World Health Organization [WHO], 2019). It further reported that in low-income nations, one woman out of every 41 dies from maternal causes, and each maternal death has a significant impact on the health of surviving family members and the community’s resilience. In 2015, it was estimated that about 303,000 women died during and following pregnancy and childbirth (World Health Organization WHO [WHO], 2015). Despite the efforts of Safe Motherhood Programs, maternal mortality remains an issue, according to the research, with developing regions

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accounting for almost 99% (302,000) of global maternal fatalities in 2015. According to the UN Interagency Group for Child Mortality Estimation (2013), the global maternal mortality ratio was predicted to drop by 44% between 1990 and 2015, from 385 to 216 deaths per 100,000 live births. This translates into an average annual rate of 2.3%. However, this decrease is insufficient to reach the Sustainable Development Goals (SDGs), which call for a global maternal death rate of fewer than 70 per 100,000 live births by 2030. WHO in its continued effort to reduce the rate of maternal mortality globally has in recent past advocated for the strengthening of ‘Traditional Birth Attendants’ (TBAs) programs as an interim solution in pursuit of the greater goal of giving all women and children access to acceptable, professional, and modern healthcare. However, failure of the TBAs educational interventions has been identified as an obstacle against maternal mortality reduction. As Roost et al. (2004) have posited, it has not been possible to confirm a positive outcome in terms of decreased mortality from TBAs’ training programs.

The 53 low-income nations with a gross national income (GNI) per capita of $905 or less account for nearly all maternal mortality (Piane, 2019). Sub-Saharan Africa accounts for more than half (60%) of these nations (Azuh et al., 2017; Piane, 2019; WHO, 2010). United Nations International Children and Educations Fund (UNICEF, 2016) reported that Sub-Saharan Africa has the highest maternal mortality ratio at 535 maternal deaths per 100,000 live births. It explained that there are significant differences between countries, as well as within countries, and between women with high and low incomes, as well as those who live in rural and urban areas. Furthermore, in contrast to the scenario in industrialized regions, developing countries account for the vast majority of maternal mortality each year. (Azuh et al., 2017). Similarly, Piane (2019) reports that about one million African mothers die every 4 years from preventable diseases, but women in wealthier countries give birth with little chance of mortality. By means of a systematic review and meta-analysis, Montoya et al. (2014) studied the inequalities in maternal mortality levels in Sub-Saharan Africa. They claimed that in Sub-Saharan Africa, maternal mortality has declined. However, this reduction is insufficient to satisfy the Sustainable Development Goals (SDGs). Because there were so few published papers from specific African regions, the study urged additional research in Sub-Saharan Africa and an increase in the number of published papers from Africa overall. According to WHO (2014), women in developing countries have many more pregnancies than women in developed countries and their lifetime risk of death as a result of pregnancy is higher. Laing et al. (2017) in their study of barriers to antenatal services in The Gambia reported that in sub-Saharan Africa, pregnancy is regularly perceived to be a time of great vulnerability, with the women reporting feelings of insecurity and fear of dying. Adopting systematic review and thematic synthesis, Bradley et al. (2016) reported that disrespectful intrapartum care during facility-based delivery is exalted by women as being responsible for poor quality care that leads to maternal mortality in Sub-Saharan Africa.

Nigeria is the most populous country in Africa. It has a population of 201 million people (World Bank, 2019) with more than 250 ethnic identities. It has one of the highest maternal mortality ratios in the world. WHO (2015) report that Nigeria and India accounted for over one third of all estimated global deaths in 2015. It indicates that Nigeria had approximately 58,000 maternal deaths which translate into 19% of global total. The report further states that Nigeria is second worldwide, after India in the number of maternal deaths and the highest in Africa. The global maternal mortality ratio (the number of maternal deaths per 100,000 live births) decreased between 1990 and 2015 but the pace of reduction has been much slower in Nigeria compared to the rest of Africa (WHO, 2015). In their study of the factors influencing maternal morbidity and mortality among rural communities in South Western Nigeria, Azuh et al. (2017), noted that malaria and fever were the most prevalent illnesses contributing to maternal mortality in the research regions, with 80.3% indicating that they were the most common. Typhoid (13.9%), headache (1.9%), cold/cough (3.3%), diarrhea (0.3%), and diabetes accounted for the remainder (0.3%). Okonofua et al. (2018) conducted a study to better understand the causes of maternal death in low-income countries, and found that women were aware of the medical causes of death. While a few ladies stated heavenly reasons, the main causes mentioned by women were delays in getting to hospitals or delays once they arrived in hospitals.

Studies have looked into the phenomenon of maternal mortality in Nigeria (Olonade et al., 2019; Tasneem et al., 2019; Adegoke et al., 2013; Ijadunola et al., 2010; Okonofua, 2010). Nonetheless, there is a paucity of study on women’s perceptions of reasons for maternal mortality in South Eastern Nigeria and in particular, Nsukka taking into cognizance the socio-cultural belief system of the people. Nsukka people are rooted in tradition and socio-cultural belief with a unique custom; hence the motivation to conduct a study of women’s perception of reasons for maternal deaths in the area. It is speculated that they have always held on to elements of their culture and not letting go certain superstitious and primordial belief system. As Opata and Asogwa (2017) opined, the Nsukka Igbo of Southeastern Nigeria have numerous ways of recreating and upholding their cultural beliefs and inheritances. Women are at the centre of maternal mortality; therefore, their perspectives are critical in identifying areas in which maternal healthcare could be improved. The general objective of this study was to examine women’s perceptions of the causes of maternal mortality. The study also attempted to uncover socio-cultural determinants that
would serve as a starting point for future research into maternal mortality and its contributing factors in the region. The specific objectives of the study are

1. To investigate women’s perception of reasons for maternal mortality in Nsukka.
2. To examine if there are socio-cultural belief factors ascribed to maternal mortality in Nsukka.

**Primordial Beliefs and Maternal Mortality in Nigeria**

According to Piane (2019), the professional literature on cultural factors that contribute to maternal mortality in Nigeria is scarce. However, Muoghalu (2010) pointed out that there are taboos against eating giant plantains, milk, eggs, snails, snakes, and okra soup during pregnancy in certain earlier writings. However, he said that it is still unknown whether this causes vitamin shortages in pregnant women. A study by Abubakar et al. (2018) observed that cultural norm such as “Kunya” (shyness, especially on anything that relates to sexual acts) in Hausa cultural context, which is more prominent in the first pregnancy, usually restricts women from seeking health related assistance in pregnancy and childbirth. A survey conducted by Gazali et al. (2012) in Maiduguri, Northern Nigeria revealed many socio-cultural factors influencing maternal health utilization. These include large family size, polygamy, purdah, traditional medicine, low self-esteem among women. Furthermore, through supernatural theories of causation, behavioral taboos are thought to contribute to maternal difficulties and deaths. Women may die during or after childbirth as a result of these cultural practices. For example, Muoghalu (2010) report that a pregnant woman in some Nigerian communities is believed to bleed or die during her pregnancy as a result of witchcraft, supernatural abilities, infidelity, or being disrespectful to her husband. Piane (2019) stressed that families who believe in supernatural diagnosis will seek care from religious or traditional healers rather than medical physicians. Also, Maduforo (2011) had equally revealed that a significant number of the study respondents (pregnant women) adhere to traditional beliefs and food taboo.

Abasiattai et al. (2006) in a survey among the Annang in South-South Nigeria showed that most of the participants felt that hospitals generally connote sickness and were places reserved for sick people only. For them, the most common causes of maternal death were spiritual attacks from enemies and punishment by the gods for infidelity. According to Okolocha et al. (1998), Nigerian women had a good understanding of obstetric hemorrhage as a cause of maternal death, but their attitudes, habits, and circumstances hindered them from seeking or delaying modern obstetric care. They highlighted those causes such as infidelity, witchcraft/evil forces and disobedience constituted 8.3% of the causes of death mentioned by their study participants. Surprisingly, despite the moderate link to obstructed labor and consequent mother and newborn death, Cutie (2007) and WHO (2006) have observed that none of the published journal publications or popular press pieces mention female genital mutilation as a contributing factor. Worthy of note is that socio-economic and cultural factors impact on access to and acceptance of modern family planning methods with attendant effect on maternal mortality (Piane, 2019). This present study investigates what women know about the causes of maternal mortality in Nsukka area of Nigeria. Nigeria is a multi-ethnic society with over 250 ethnic groups. These ethnic groups have different cultural and historical backgrounds. Therefore, a study of this nature among the Nsukka people is apt owing to their unique culture and dearth of literature on maternal mortality in the area.

**Methodology**

**Study Design and Study Area**

Qualitative research designs were used to gain a deeper understanding of the perceptions of women on the causes of maternal mortality. The study was conducted in Nsukka area of Nigeria between the months of March and April, 2020. The area is situated in Enugu state which is an Igbo society. It plays host to the University of Nigeria, Nsukka. The 2006 census puts the population of Nsukka Local Government Area (LGA) at 309,633 persons (National Bureau of Statistics, 2010). With an annual growth rate of 2.3% (National Population Commission & [NPC, 2006), the 2016 population of Nsukka LGA was put at 316,922 persons. Verbal as well as written informed consent and cooperation of the respondents were solicited and obtained from each participant after having been fully briefed on the study objectives, risks, benefits, and steps taken to ensure confidentiality. Permission to conduct the study was also obtained from the principal officers of the health centers that were used for the study.

**Participants Recruitment**

The sample population comprised of ten (10) women who are not attending antenatal services and twenty (20) women who seek antenatal services. Those who were attending antenatal care were used for the Focus Group Discussions (FGDs) while those who do not seek antenatal care were used for the In-depth interview (IDI) sessions. Pregnant women attending antenatal care services in two health facilities—Nsukka Health Centre and University of Nigeria Teaching Hospital, Obukpa were chosen for the FGD. The FGDs were conducted within the premises of the hospitals. These hospitals were therefore, venues for the FGDs and in each, one FGD involving 10 pregnant women each was conducted. Thus, making it a total of two FGDs with 20 participants overall. Special arrangements were made with Participants of the
sessions were conducted in English, Igbo and occasionally recorded and later transcribed verbatim. The IDI and FGDs and analysis processes. The interviews were digitally audio- records of each participant were labeled (e.g., PP1, PP2, PP3, scheduled date and time. After each interview, interview were conducted at the participants’ places of residence at a required attributes were selected for inclusion. Interviews for purposively selecting them was to ensure that women with antenatal care services were purposively selected. The reason for choosing hospitals as venues for the FGDs was to get access to as many pregnant women as possible at the same time. To be eligible for inclusion, participants were expected to have met the following criteria: (i) must be pregnant and (ii) must be a native of Nsukka. For the IDI, Interview participants were selected using a purposive sampling procedure. In doing this, we approached prospective participants at their places of residence. Participants who showed interest were screened for eligibility and were selected as part of the study sample. However, because it was difficult to identify women who were not attending antenatal clinics, we also adapted by asking the already selected participants to refer us to other members of their community who share the same attribute for inclusion. Accordingly, new willing participants were identified and selected until the sample size of 30 (both FGD and IDI) eligible participants were gotten. The number of the study participant was limited to 30 as a result of the unwillingness of some pregnant women to participate in the study. Some women who met the criteria for inclusion declined the request to participate due to lack of time and other undisclosed personal reasons.

Data Collection

Both in-depth interviews [IDI] and focused group discussion [FGD] were employed for the study. The study participants were grouped into two: those attending antenatal care services and those not attending. FGD was used to elicit information from women attending antenatal services while IDI was the instrument used to get information from women not attending antenatal care services. One FGD was conducted in each of the two health facilities used for the study (Nsukka Health Centre and the University of Nigeria Teaching Hospital, Obukpa). Each FGD consisted of ten pregnant women attending antenatal section in the hospital. For ease of identification and comparison, after each FGD section, the audio records were labeled FDG1 and FDG2, respectively. For the IDI sections, Individual, in-depth interviews (IDI) were conducted in person using an unstructured interview guide. Verbal consent was obtained before the commencement of the IDI sessions. Ten women who were not attending antenatal care services were purposively selected. The reason for purposively selecting them was to ensure that women with the required attributes were selected for inclusion. Interviews were conducted at the participants’ places of residence at a scheduled date and time. After each interview, interview records of each participant were labeled (e.g., PP1, PP2, PP3, etc.) to ensure easy identification during data management and analysis processes. The interviews were digitally audio-recorded and later transcribed verbatim. The IDI and FGDs sessions were conducted in English, Igbo and occasionally “Pidgin” [this is a type of English, also called Broken English, which is spoken in most parts of Nigeria]. Both data (FGD & IDI) were collected by the authors. However, a note-taker and a moderator were always present to take notes and moderate each session. Both the FGD and IDI guides were structured to elicit information on women’s perceptions of causes of maternal deaths. Participants were specifically asked if they had heard of pregnant women dying, what they knew about maternal fatalities, and the medical and other reasons of maternal mortality. They were also asked to describe the events that led to maternal deaths that they were aware of. The women were asked a series of questions in no particular order, and they were told they could answer or not answer any of them. FGD and IDI were chosen to identify variations in the responses that women give.

Data Analysis

Thematic analysis was used to analyze the data. We did this by reading and rereading the transcripts, noting any similarities and discrepancies between and within the accounts of the participants. Qualitative computer package (Nvivo 11, QSR) was used to organize and assist in the task of first-level analysis. Responses were further categorized within relevant themes. The content and format of transcripts were also described during the data analysis process. We were able to obtain insight into women’s perspectives of the causes of maternal fatalities and what might be done to prevent them as a result of the findings.

Ethical Approval

In accordance with the Nigerian national guidelines and regulations, ethical approval is not required for this study as it did not involve human or animal subjects in a way that might cause harm by any means [National Health Research Ethics committee (NHREC, 2020). Educated assent was properly gotten from all members included within the study. However, for purposes of confidentiality, all participants were anonymized. Participants were informed before the start of the interview that they had the option to ignore any question(s) they did not want to answer and to end the interview whenever they wanted. Table 1 showing the socio-demographic characteristics of the respondents.

Results

Socio-Demographic Characteristics of the Participants

Four broad themes emerged from the responses of the participants: personal factors, hospital staff and equipment related reasons, physiological factors and cultural factors/ superstition.
Asogwa et al.

Personal Factors

The participants enumerated a lot of personal factors that could lead to maternal mortality. These factors ranged from delay in seeking care, poverty, non-compliance with doctors’ prescriptions, preference for home delivery, non-usage of health facility, illiteracy, and ignorance, among others. The delay in seeking care was one of the most prominent personal factors identified by the women. Many of the participants claimed that many women die from maternal-related causes as a result of their failure to seek medical help in a timely manner. A participant in one of the FGD sessions commented thus:

Many pregnant women take their health for granted. Some women don’t even like going to the hospital. My experience with some women has shown me that they visit the hospital during their pregnancy only when they get signs of sickness. Others will tell you that it is not good to start visiting antenatal care clinics in the first few months of pregnancy because some of the drugs they give affect the development of the child. Because of this, they seek antenatal care at later stages of their pregnancy when things might be late (FGD1, 40 years, Nsukka Health Centre).

Similarly, another FGD participant maintained that most women die during and after childbirth due to noncompliance with doctors’ prescriptions and instructions or indulgence in self-medication. She narrated thus:

I do not doubt in my mind that some women are the architecture of their death. This is how I lost my neighbour who is my friend as well. During her pregnancy, she refused to enroll for antenatal care against all bits of advice. Instead, she chose to be taking concoctions from one local medicine man. One day she took one of those concoctions and after a while, she started bleeding heavily and lost her life (FGD2, 33 years, University of Nigeria Teaching Hospital, Obukpa).

Most of the women were of the view that most women do not visit the hospital until their conditions get critical. Such an attitude complicates the delivery process. One FGD participant noted that “some women in the village delay going to the hospital until their conditions get worse and sometimes when they get to the hospital the doctor will not be there to attend to them” (FGD1, 31 years, Nsukka Health Centre). Corroborating this, an IDI participant who opined that she does not attend antenatal for reasons of pride and family tradition, explained that “some other women too do not go to hospital early because they want to deliver at home and enjoy the pride that come with it but when it gets complicated they may try to see doctors” (PP7, 37 years).

We further probed to know why these women delay seeking for antenatal services. Prominent among their responses were religious belief, illiteracy and to an extent poverty. Some of the participants believed that some religious groups instruct their members not to take medications when they are sick. Rather, they asked them to pray fervently or to come to the religious house to be prayed for to get healed. Many participants, therefore, lamented, that some women held this misconception, which motivated them to avoid health clinics. Their resolve not to seek antenatal care was fueled by opinions expressed by their religious leaders toward it. As one participant put it; “some women are brainwashed into believing that they can get healed from their sicknesses through prayers alone” (FGD2, 25 years, University of Nigeria Teaching Hospital, Obukpa). Another participant also quipped that “instead of seeking medical care, the woman or her relatives will engage spiritual or traditional herbalist” (FGD1, 30 years, Nsukka Health Centre). Buttressing these points, a participant stated thus:

There are some religions that admonish their members not to take drugs during illnesses. At least I am aware of one but I don’t think it is wise for me to mention it here. Surprisingly, some women buy this idea and leave themselves at the mercy of death. I know of a woman who during her pregnancy kept on visiting prayer houses. Seven months into her pregnancy, she started bleeding and some people were invited to pray for her. The bleeding continued after all until one of her relatives angrily rushed her to the hospital where her life was saved (FGD2, 25 years, University of Nigeria Teaching Hospital, Obukpa).

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Table 1. Respondents’ Demographic Characteristics.

| Characteristics          | Frequency (%) |
|--------------------------|---------------|
| Age                      |               |
| 18–25                    | 6 (20)        |
| 26–33                    | 14 (46.7)     |
| 34–40                    | 10 (33.3)     |
| Occupation               |               |
| Civil servant            | 9 (30)        |
| Trader                   | 17 (56.7)     |
| Artisan                  | 4 (13.3)      |
| Level of Education       |               |
| Primary education        | 3 (10)        |
| Secondary education      | 20 (66.7)     |
| Tertiary education       | 7 (23.3)      |
| Marital status           |               |
| Married                  | 25 (83.3)     |
| Single mother            | 5 (16.7)      |
| Religion                 |               |
| Christianity             | 18 (60)       |
| ATR                      | 8 (26.7)      |
| Others                   | 4 (13.3)      |
| Income level             |               |
| 18,000 and below         | 21 (70)       |
| 19,000–100,000           | 7 (23.3)      |
| Above 100,000            | 2 (6.7)       |
| Area of residence        |               |
| Nsukka                   | 30 (100)      |
Illiteracy was also identified by the women as militating against the use of antenatal care by some women. They explained that some women are either unaware of the importance of antenatal care or are ill-informed about it. They emphasized that many women are illiterate, and as a result, are unaware of essential antenatal care services. One participant observed that “there are some pregnant women who do not know much about antenatal care. Even when you try to educate them on the importance, some of them will see you as trying to show off” (FGD2, 40 years, University of Nigeria Teaching Hospital, Obukpa). Equally, some of the participants averred that some women are not properly informed about the need for antenatal care. Their expression was that some women are ill-informed (most probably by those who lack the basic knowledge of antenatal) on the importance of antenatal. An FGD participant stated that some women might have embraced antenatal care but because they were misinformed about the whole thing, they started avoiding it. This FGD participant explained:

Education is very important in the life of every woman. In my village (Edem), a lot of girls get married at a very tender age without even completing secondary education. So they have little or no knowledge of antenatal care. They mostly rely on whatever the old women in the village might tell them. In most cases, they seek the help of Traditional Birth Attendants (TBA). I am not saying that the TBAs do not work; I believe that it works because I patronize them sometimes (it however, does not stop me from going to the hospital to check the state of my baby) but it should not be substituted for antenatal care. A girl from my clan nearly lost her life during pregnancy. She never attended antenatal and was equally consuming alcohol on a daily basis. At a stage, the foetus died in her womb four days without her knowledge. As a result, she developed complications and lost consciousness. It took the efforts of doctors to save her life (FGD2, 39 years, University of Nigeria Teaching Hospital, Obukpa).

The participants also mentioned poverty as one of the reasons some women do not visit antenatal clinics. Most of the participants stated that some women avoid going to hospitals because they feel that it is expensive. According to them, there are still a couple of women out there who still avoid the hospital. These set of people perceive the hospitals as a place for the rich. An IDI participant stated thus: “I don’t have the money to visit the hospital. . . so I use local herbs. Besides if God says that I will die, I will die whether I visit the hospital or not” (PP10, 40 years). Affirming this, a woman in the FGD section stressed: “I can tell you that there are a lot of women out there, especially in the rural villages, who still see hospitals as a place for the rich.

**Hospital Staff and Equipment Related Reasons**

Among the factors raised during our discussion with the women was their displeasure with some of the hospital staff and complaints about lack of equipment in a few of the hospitals and clinics around. They particularly pointed out that nurses do not help matters during child delivery. According to them, some nurses, especially those who have never been to labor are fond of maltreating pregnant women. One of the participants commented: “the attitude of some of these nurses is nothing to write home with. . . they treat you with levity” (FGD1, 28 years, Nsukka Health Centre). Continuing further, this participant stated: “some of these nurses are just wicked. I think they take pleasure watching you suffer and that is why they behave the way they do, mostly when doctors are not around.” Continuing in this line, a participant further shared her knowledge and experiences thus:

When you go into the labour ward, at times, you will wonder if women were born to be cruel to women. If you see the level of cruelty meted out to pregnant women! Just imagine that a woman is screaming in pains and the nurses will be shouting ‘madam abeg allow person hear word oh. . . When una dey do d thing e dey sweet you I dey there? [This loosely means stop making noise because you enjoyed the sex before you conceived and I was not there]. . . this is dehumanizing and could make a woman give up (FGD2, 35 years, University of Nigeria Teaching Hospital, Obukpa).

This participant was not particularly happy with the nonchalant attitude of some nurses as shown by her explanation. Another participant shared her experience thus:

In November (2019), an incident took place in one of the hospitals around here; I will not mention the name please, where I used to go for antenatal checks. A nurse neglected a woman who was in serious pain after childbirth. The nurse ignored the woman and by the time her husband came in and raised an alarm for doctors to come, it was too late. Unfortunately, the woman died and it took the intervention of the police as the husband almost beat the woman to death. That is why I never visited the hospital again (FGD2, 25 years, University of Nigeria Teaching Hospital, Obukpa).

Continuing, the participant further expressed her anger by saying that Nigerians are fond of leaving things to God. She stressed that “God will not come down from heaven to exercise our rights for us.” According to her, the hospitals and persons involved should be sued for professional negligence. Another participant who, at the time of this discussion was animated while recalling her experience, has this to say:

I once went to a private hospital to deliver my first child, the nurses who attended to me after the doctor left rained abuses on me after I challenged one of them for heating my stomach and making jest of me. They did not even mind my condition. They lacked the manners of professionals. I don’t know if it was because I did not attend my antenatal care services with them during the pregnancy period. I almost died during delivery. I left the place feeling emotionally bad because of their unprofessional act (FGD1, 34 years, Nsukka Health Centre).
Another FGD participant also quipped:

Some have argued that there are good nurses but I am yet to come across a truly caring nurse in this country. Nurses here are easily irritated and they yell at you at the slightest provocation. I don’t know why. And the funny thing is that some of these nurses are not qualified. . . they are auxiliary nurses and most of us don’t know that (FGD1, 32 years, Nsukka Health Centre).

Regarding the lack of equipment in most hospitals, participants blamed the government and owners of private hospitals. They acknowledged that some women have died during delivery because of a lack of equipment especially those requiring Cesarean Section (CS). Reacting to this, a participant stated that:

The number one problem is medical facilities. Can you imagine a clinic without ECG, a clinic with miserable thermometers, poor electricity, degraded laboratory tools, miserable surgical room with no difference from a carpenter’s workshop. Do you know the cause of all these (she queried)? I tell you; it’s the government (FGD2, 32 years, University of Nigeria Teaching Hospital, Obukpa).

Further expounding on the issue, most of the participants believed that the problem with some primary health care centers is not just in the establishment of structures, or laboratory facilities but also the provision of equipment. Some of the participants were of the view that it makes no sense to build primary health care centers without equipping them and/or not staffing them properly. Participants further lamented that in some government health centers, you find cases where people queue for long hours to see the doctor and their fear is compounded when it involves CS. Reacting to this, a participant stated:

Childbirth can be easy and uncomplicated and when that is the case, there is always great joy in the family. The problem with Nigeria is when there are serious complications with the birth - our doctors in Nigeria don’t seem able to grapple with these complications or our facilities are not up to it. I don’t know what it is. In the UK and US and other western countries, if you have your baby from 26 weeks - they will try to save your baby. I know two families that this happened to and their kids are very fine now but if it were to be in Nigeria, birth at 26 weeks – the possibility of saving the child is at 1/100. The reason is simple; they don’t have the facilities to care for a baby that young. My prayer for everyone giving birth in this area is that their birth should be a straightforward one because when the story enters, it’s only God and a very well trained doctor that can help. If the mother dies during childbirth in the UK, an inquiry is launched but here it is hardly done. I am not being sentimental oh; I lost my auntie to childbirth in Nigeria many years ago. Till today, I don’t know what caused it. Her kids have had to grow up without their mother and it is said that many years on, it is still happening (FGD1, 34 years, Nsukka Health Centre).

Attending antenatal care clinics is important for safe delivery, knowing where to go for the actual delivery is equally important according to the women. Most of them resigned their fate to God stressing that anything can happen during pregnancy. A participant stated thus: “where do I start from; it’s with the grace of a God we deliver safely here and even elsewhere. I have heard of laboratory mishaps in the Western world that lead to the death of women during childbirth” (FGD2, 31 years, University of Nigeria Teaching Hospital, Obukpa).

Death Due to Physiological Factors

Apart from other factors earlier mentioned as causes of maternal mortality, many participants, especially the FGD participants, demonstrated knowledge of some of the physiological causes of maternal mortality. In the course of the discussions, the participants identified some physiological condition that leads to maternal deaths. Prominent among those factors include obstetric hemorrhage, prolonged labor, ectopic pregnancy, maternal and postpartum sepsis, abortion, hypertensive disorders. Commenting on this, a participant stated that “sometimes women die during pregnancy due to excessive bleeding during or even after delivery” (FGD1, 38 years, Nsukka Health Centre). Another participant also quipped that “excessive bleeding is very dangerous. . . a lot of women die as a result of this, especially immediately after delivery,” (FGD1, 26 years, Nsukka Health Centre). Stressing more on this another participant said:

To be honest with you, this is one of the things I fear most whenever I get pregnant. It scares me a lot because I have seen people die as a result of this. Just recently, a colleague in our workplace lost his wife due to too much bleeding after delivery. It happens everywhere (FGD2, 37 years, University of Nigeria Teaching Hospital, Obukpa).

Prolonged labor also featured during the discussions. Most of the participants acknowledged that maternal mortality occurs due to prolonged labor. They affirmed that many women had died as a result of prolonged labor. However, they expressed a lack of knowledge as to what causes prolonged labor. One participant stated: “I am well aware of women dying as a result of prolonged labor but I do not know what the cause could be” (FGD1, 23 years, Nsukka Health Centre). Another participant also said that “when labor lasts longer than necessary, the implication is that the woman becomes weaker and weaker and could die from it” (FGD2, 30 years, University of Nigeria Teaching Hospital, Obukpa). Shifting a bit from the positions of others, a participant from one of the FGDs elaborated that:

Some of the women who die because of prolonged labour one way or the other contributed to it. There are some pregnant women who when told that they cannot deliver through the
References were also made to cases where fertilized ovum develops outside the uterine cavity (ectopic pregnancy). Few of the FGD participants expressed awareness of the existence of such cases while most of the IDI participants indicated a lack of knowledge of such cases and wondered how possible that could be. An FGD participant stated thus: “I know about it having been diagnosed with it in the past during my first pregnancy but till today I cannot still comprehend what caused such abnormality in my body” (FGD1, 29, Nsukka Health Centre). On the other hand, an IDI participant expressed surprise as to what that could be. She said: “I don’t know what that means because I have not even heard of such thing before and I am not even sure if that kind of thing is possible. It’s not from God” (PP4, 36 years). Concerning women dying due to illness before or after delivery, the participants demonstrated awareness of the occurrences of such a situation but maintained that seldom does it happen, at least to their knowledge. One participant stated that "a woman can die due to sickness during pregnancy or after delivery. It can happen to anybody but it is not common” (PP2, 35).

Unsafe abortion was another cause of maternal death according to the participants. According to them the majority of abortions performed in Nigeria are unsafe and are done in secret and are terminated by persons lacking the necessary skills. Commenting on this an IDI participant said:

We have a lot of quack Chemist (patent medicine dealers) around here. Sometimes some of these young girls who get pregnant for their boyfriends seek their help for abortion. And without giving concern to the number of months of the pregnancy, they will just prescribe drugs for them to take. In some cases, they will just go home and bleed to death while those who survived do not fancy recalling their ordeals (PP4, 36 years).

Commenting on the same abortion, another IDI participant narrated an experience thus:

This abortion stuff is a dangerous thing. I have seen people die as a result of abortion. Currently, my younger sister is in the hospital because of an unsafe abortion. She got pregnant without our knowledge and secretly went to abort the child in one of the chemist shops around. She bled profusely and almost died in the process if not that we intervened when we got the information (PP8, 30 years).

Cultural Factors and Superstition

From our analyses of the responses of the participants, many of them, especially the IDI participants, admitted their belief in the workability of humans conjured supernatural forces that work against the safe delivery of pregnant women. Prominent among them were witchcraft and evil spirits. Other factors identified were wicked relatives and to an extent, infidelity. They averred that there are so many people especially in the villages that do not wish for your progress either financially or children-wise. Consequent upon this, they will do everything possible to scuttle your progress. An IDI participant stated that “you have to be careful here especially when you are pregnant to avoid stories that touch the heart” (PP10, 40 years). Another participant equally stated: “you don’t need to ask the question as to whether women die here during pregnancy or not. Haven’t you heard of the atrocities committed by witches and other forces? It is real my brothers” (PP9, 30 years). This perception is shared by almost all the IDI participants as evidenced by their responses. Commenting further, a participant stated thus:

When you are a pregnant woman in this village, on no account should you disclose how far you have gone, if not witches and wizards from your village or husband’s village that doesn’t want to see you deliver safely will all gather for your sake in the delivery ward on your delivery date (PP1, 20 years).

Another participant equally stated that:

When you are a pregnant woman in Nigeria, you are not expected to disclose it to even your siblings, if possible your mother, until the first trimester passes by. . . now you are sure that the pregnancy will stay against all household witches and wizards (PP5, 33 years).

Another participant narrated how her close female friend’s situation impacted on her belief toward the reality of witchcraft.

A friend of mine was due for delivery but could not. She stayed in labour room for five days or more. One of her sisters suggested this could be the handiwork of witches. She urged the husband to take her to a particular herbal home but the husband refused and she left in anger. Meanwhile, in the midst of all these, doctors have advised that she should go for CS in other to save the mother and her child. It was not long until her sister returned with a small bottle containing some liquid which she claimed to have gotten from the herbalist. She went straight and rubbed it on her sister’s belly and legs and to my surprise, after like 20 minutes or so she was delivered of a baby girl. Since then I started believing that these people (witches) are working indeed (FGD2, 19 years, University of Nigeria Teaching Hospital, Obukpa).

Besides witchcraft, participants also identified evil spirits as contributing to maternal mortality. Some of them believe that this is one dimension of the problem that is overlooked. Commenting on this, an IDI participant stated that “death of a mother during pregnancy or child delivery as well as miscarriage is not of God but the devil” (PP6, 33 years). Another participant was of the view that even though physical factors could contribute to maternal mortality, one cannot be blind to
the fact that evil spirit is at work. According to her, “there are few physical factors that can cause it like a man beating the wife, too much stress, hitting the stomach on the floor but as far as I am concerned, I still attribute them to demonic manipulations” (PP2, 35 years). Participants further expressed belief in the efficacy of certain objects tied on the body to ward off evil spirits. They explained that at times, safety pin or tiny stick is attached to the woman’s cloth or hair to ward off witch or evil spirits. A participant explained that “safety pin or a strand of the stick is usually attached to their clothes/wears or even somewhere around their hairs to protect fetus and the mother against evil spirit/demon especially at noon and night (PP5, 33 years). The participants also expressed fear and concern about some neighbors and relatives whom they termed “wicked ones.” Some of the women were of the view that some neighbors and relatives could also cause maternal death through diabolic means. One participant explained thus: When you are a pregnant woman in this area, you are supposed to be very careful, you don’t have to show neighbors how happy you are, because some of them might get jealous and cause you miscarriage, even death” (PP7, 37 years). Furthermore, infidelity was also mentioned as contributing to maternal mortality. Some participants explained that married women who engaged in extra-marital affairs are likely to die during pregnancy as a form of punishment from the gods. They explained that this was instituted by their forefathers decades ago. A participant commented:

It is a taboo for a married woman here to engage in extra-marital affairs. . one of the obvious punishments was suffering and death during child delivery as a form of punishment from the gods which also serve as a deterrent to others. Our forefathers made it so and no one has been able to undo it (PP9, 30 years).

In the same vein, an FGD participant added:

I have heard about deities striking people mad as a result of adultery, but I have not seen a victim myself. Although I kind of believed the narrative because it came from people I trust. But the thought of going mad is dreadful (FGD1, 26 years, Nsukka Health Centre).

**Discussion**

Using a qualitative approach, the study investigated women’s perceptions of the reasons for maternal deaths in Nsukka local government area taking into cognizance that Nigeria is a country having a high maternal mortality rate. The results indicate that most of the women, especially the FGD participants were well aware of the prominent causes of maternal mortality. The disparity in the responses of the FGD and the IDI participants in some of the issues raised may not be unconnected to education and exposure. The participants identified personal factors such as delay in seeking healthcare, poverty, and illiteracy as contributing to maternal mortality. They explained that most women do not fully understand the context of pregnancy and as a result do not attend an antenatal clinic and chose to seek healthcare only when it is too late. This attitude could lead to pregnancy-related morbidities and mortality as some women take early signs of danger for granted. It therefore heralds the need to educate women, especially rural women, on the importance of antenatal so that they can discover danger signs early and take appropriate actions. Concerning poverty, participants said that some pregnant women avoid antenatal services due to their inability to foot the bills. Because of this, several women stay away from hospitals and could die due to complications during childbirth. These findings are in line with those of Okonofua et al. (2018), who identified poverty and a delay in seeking medical help as factors that may predispose women to maternal death. Furthermore, our findings revealed that illiteracy contributes to maternal mortality. Participants averred that due to lack of education and exposure, some women especially in rural villages lack the basic health knowledge and rely solely on the advice of relatives and rural women. This finding aligns with that of Adeniran et al. (2015) who had earlier found a similar result.

Our result also revealed that the women were of the view that some maternal deaths are caused by negligence on the part of hospital personnel especially nurses. They complained that some nurses abuse pregnant women and delay unnecessarily before attending to women in labor. The fact that women associate such views with maternal mortality emphasizes the need for more action. Women may be hesitant to seek help because they are afraid of being assaulted. These delays, according to Okonofua et al. (2018, p. 13), can be addressed in a variety of methods, including “staff training and retraining, regular use of maternal death reviews and surveillance to address management gaps, staff monitoring/evaluation.” Hussein and Okonofua (2012) and Hussein et al. (2016) in their studies of maternal mortality in Nigeria have found similar results wherein women linked poor staff attitudes to maternal death. Linking poor staff attitudes to maternal mortality does not speak well of the country and deterring women from seeking care is one of the immediate results. Equally, our findings showed that the lack of needed medical types of equipment contrubutes to maternal mortality. The complaint was that when a complication is developed during pregnancy, most of the hospitals around lack the necessary equipment to handle the situation. In such cases, they are referred to hospitals outside the locality and life could be lost in the process. Nnebue et al. (2016) has equally found that none of the health facilities studied could deliver even the full range of basic essential obstetric care (EOC).

Concerning the physiological factor that causes maternal mortality, the participant demonstrated awareness and enumerated some of the common medical factors influencing maternal mortality such as obstetric hemorrhage, prolonged labor, ectopic pregnancy, maternal and postpartum sepsis, abortion, etc. Reasons for such awareness may not be unconnected with the fact some of the participants attained some
levels of secondary and tertiary educations. Similar to other findings (Okonofua et al., 2018; Say et al., 2014), our findings showed that some of these physiological causes of maternal death are still prevalent in the study area especially obstetric hemorrhage and abortion. The participants admitted that obstetric hemorrhage is still high because of negligence on the part of some women who do not attend antenatal clinics either because of lack of education or awareness. Furthermore, our findings also revealed that unsafe abortion is still carried out clandestinely in this area and it has remained one of the prominent causes of maternal mortality among teenagers in most rural villages. These unsafe abortions are usually aided by poorly trained patent medicine dealers who mainly use the rural areas as a safe haven to perpetrate this unhealthy act. This is a dangerous trend that needs urgent attention from the government.

Another interesting finding was that many of the respondents hold superstitious and primordial beliefs about maternal mortality. Our findings showed that they believed that witchcraft, evil spirits as well as infidelity are among the causes of maternal mortality. The findings indicated a belief among most of the participants that some wicked people attack pregnant women through witchcraft. They explained that there are people within your immediate environment who do not wish for your success and could revert to witchcraft and other diabolic means to harm you. Furthermore, our analyses of the results demonstrated that evil spirits were also held as a factor causing maternal death. Some of the participants believed that maternal mortality is not of God but rather another ungodly means through which evil spirits express themselves. This sort of belief and superstitions may not be scientifically proven, however, it is remarkable to note how high these beliefs and superstitions are held among these people. We also found that marital infidelity is believed to contribute to maternal mortality. A woman who indulges in extra-marital sex stands greater chances of death during childbirth. These findings are similar to other findings in maternal mortality literature. For example, Muoghalu (2010) reported that in some communities in Nigeria, it is believed that a pregnant woman is could bleed or die during pregnancy because of witchcraft, spiritual manipulations and infidelity. While the findings are related to findings elsewhere (e.g., Muoghalu, 2010 & Piane, 2019), they accentuate the cultural practices that continue to impact on risky health practices in a place like Nigeria and other parts of sub-Saharan Africa, where certain customs have defied necessary change. As Piane (2019, p. 86) stressed; “families that believe in supernatural etiology will seek care from faith or traditional healers and not medical providers.” The findings have important implications on healthcare for women initiatives as they could help in reconstructing those obstructive socio-cultural practices to consistent use of antenatal services.

Conclusion and Recommendations

In this stage of human and technological development, when education and modernity are thought to have eliminated some risky health behaviors, there are still traces of people who, because of certain cultural and superstitious beliefs, are yet to embrace modern healthcare delivery system. Even with the knowledge of antenatal care services, some women are still reluctant to embrace it. The University of Nigeria is situated in Nsukka and there is this undocumented argument that the inhabitants of the surrounding communities and villages are dropping some of their primordial beliefs while embracing Western education and lifestyle. This study therefore concludes that some of these primordial and superstitious beliefs that are detrimental to maternal and child well-being are still upheld and practiced. This attitude is not necessarily influenced by demographic elements such as age but was, however, influenced by elements of the social structures such as residence, the level of sexual education of the women, traditional beliefs and other personal factors. The implication is that when individuals such as those we have studied hold such beliefs to the detriment of their health, they are predisposed to several reproductive health problems like hemorrhage and delayed delivery which could lead to maternal mortality. Therefore, finding a feasible way to reduce maternal mortality requires community-centered approach to maternal health. This involves engagement of informed community members, mobilization and empowerment of women. When a community is well mobilized, engaged and empowered, they will be in a good position to find ways that will work for them in order to reduce maternal mortality. We therefore, recommend that massive orientation and sensitization in the area of public health should be carried out especially in the rural areas to address some of these challenges identified in the study. Furthermore, we believe that socioeconomic empowerment of women, reorientation of health providers, community engagement, the establishment of more health facilities, and improvements in care quality are critical in efforts to improve women’s access to maternity care and reduce maternal mortality in the country. Thus, our findings may be instructive to health sociologists, public health professionals and policymakers in the efforts to reduce maternal mortality.

There were some limitations of the study. First, The FGDs was small in number and had just one focus—women attending antenatal care. We thought that for wider representation, we should have conducted different FGDs for pregnant women attending antenatal care services that are educated, those not educated or for different age brackets. Secondly, we felt that there may have been a selection bias as we did not include the perceptions of women who were not pregnant. This may have presented a broader viewpoint on the issue. Furthermore, we also felt that the number of participants was not adequate. This may have limited a
comprehensive understanding of women’s perceptions of reasons for maternal death. Moving forward, further researches should address these limitations identified in the study.

Despite the limitations, the findings improve our understanding of reasons for maternal mortality and the cultural practices that continue to impact on risky health practices in places like Nigeria and other parts of sub-Saharan Africa, where certain customs have defied necessary changes in the healthcare system. The study findings also provide important insight for policy-making aimed at improving health care-seeking behavior and creating awareness on the dangers of maternal mortality in the country.

Authors’ Note
This article is not simultaneously submitted to any other journal for review and/or publication.

Declaration of Conflicting Interests
The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding
The author(s) received no financial support for the research, authorship, and/or publication of this article.

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References
Abasiattai, A. M., Umoiyoho, A. J., Udoma, E. J., & Etuk, S. J. (2006). Community perception of the causes of maternal mortality among the Anang of Nigeria’s South-East coast. *Tropical Journal of Obstetrics and Gynaecology*, 22(2), 189–192. https://doi.org/10.4314/tjog.v22i2.14525
Abubakar, R., Yohanna, S., & Zubairu, H. (2018). Cultural perceptions influencing obstetric complications among women in Kaduna, Northwestern Nigeria. *Nigerian Journal of Clinical Practice*, 21(7), 832–839.
Adegoke, A. A., Campbell, M., Ogundeji, M. O., Lawoyin, T. O., & Thomson, A. M. (2013). Community study of maternal mortality in south west Nigeria: How applicable is the sisterhood method. *Maternal and Child Health Journal*, 17(2), 319–329.
Adeniran, A. S., Aboyeji, A. P., Fawole, A. A., Balogun, O. R., Adesina, K. T., & Adeniran, P. I. (2015). Male partner’s role during pregnancy, labour and delivery: Expectations of pregnant women in Nigeria. *International Journal of Health Science*, 9(3), 305–313.
Azuh, D. E., Azuh, A. E., Iweala, E. J., Adeloye, D., Akanbi, M., & Mordi, R. C. (2017). Factors influencing maternal mortality among rural communities in southwestern Nigeria. *International Journal of Women’s Health*, 9, 179–188. https://doi.org/10.2147/IJWH.S120184
Bradley, S., McCourt, C., Rayment, J., & Parmar, D. (2016). Disrespectful intrapartum care during facility-based delivery in sub-Saharan Africa: A qualitative systematic review and thematic synthesis of women’s perceptions and experiences. *Social Science & Medicine*, 169, 157–170. https://doi.org/10.1016/j.socscimed.2016.09.039
Cutie, C. R. (2007). Associated social, economic and political factors. *Women’s Health Journal/Isis International, Latin American and Caribbean Women’s Health Network*, 3, 75–90.
Gazali, W., Mukhtar, F., & Gana, M. (2012). Barrier to utilization of maternal health care facilities among pregnant and non pregnant women of child bearing age in Maiduguri Metropolitan Council (MMC) and Jere LGAs of Borno State. *Contemporary Journal of Tropical Medicine*, 6, 12–21.
Hussein, J., Hirose, A., Owolabi, O., Imamura, M., Kanguru, L., & Okonofua, F. (2016). Maternal death and obstetric care audits in Nigeria: A systematic review of barriers and enabling factors in the provision of emergency care. *Reproductive Health*, 13(1), 47–11. https://doi.org/10.4116/s12978-016-0158-4
Hussein, J., & Okonofua, F. (2012). Time for action: Audit, accountability and confidential enquiries into maternal deaths in Nigeria. *African Journal of Reproductive Health*, 16(1), 9–14.
Ijadunola, K. T., Ijadunola, M. Y., Esimai, O. A., & Abiona, T. C. (2010). New paradigm old thinking: The case for emergency obstetric care in the prevention of maternal mortality in Nigeria. *BMC Women’s Health*, 10(1), 6–8. https://doi.org/10.4116/1472-6874-10-6
Laing, S. P., Sinmyee, S. V., Rafique, K., Smith, H. E., & Cooper, M. J. (2017). Barriers to antenatal care in an urban community in the Gambia: An in-depth qualitative interview study. *African Journal of Reproductive Health*, 21(3), 62–69.
Maduforo, A. (2011). Superstitions and nutrition among pregnant women in Nwangele local government area of Imo state, Nigeria. *Journal of Research in National Development*, 8(2), 1–8.
Montoya, A., Calvert, C., & Filippi, V. (2014). Explaining differences in maternal mortality levels in sub-Saharan African hospitals: A systematic review and meta-analysis. *International Health*, 6(1), 12–22. https://doi.org/10.1093/inthealth/ihx037
Muoghalu, C. (2010). Socio-economic and cultural factors in maternal mortality in Nigeria. *Gender and Behaviour*, 8(2), 3226–3239.
National Bureau of statistics. (2010). Nigerian poverty profile 2010. Federal Government of Nigeria.
National Health Research Ethics Committee (2020). *Standard Operating Procedures for Health Research Ethics Committees*. Federal Ministry of Health.
National Population Commission (NPC). (2006). *Nigeria national census: Population distribution by sex, state, LGAs and senatorial district: 2006 census priority tables* (Vol. 3). http://www.population.gov.ng/index.php/publication/140-popn-distri-by-sex-state-igas-and-senatorial-distri-2006
Nnebue, C. C., Ebenebe, U. E., Duru, C. B., Egenti, N. B., Emelumadu, O. F., & Ibeh, C. C. (2016). Availability and continuity of care for maternal health services in the primary health centres in Nnewi, Nigeria (January – March 2010). *International Journal of Preventive Medicine*, 7(1), 44–49. https://doi.org/10.4103/2008-7802.177885
Okolocha, C., Chiwuzie, J., Braimoh, S., Unuigbe, J., & Olumeko, P. (1998). Socio-cultural factors in maternal morbidity and mortality: A study of a semi-urban community in Southern Nigeria. *Journal of Epidemiology and Community Health, 52*(5), 293–297.

Okonofua, F. (2010). Reducing maternal mortality in Nigeria: An approach through policy research and capacity building. *African Journal of Reproductive Health, 14*(3), 9–13.

Okonofua, F. E., Ntoimo, L. F. C., & Ogu, R. N. (2018). Women’s perceptions of reasons for maternal deaths: Implications for policies and programs for preventing maternal deaths in low-income countries. *Health Care for Women International, 39*(1), 95–109. https://doi.org/10.1080/07399332.2017.1365868

Olonade, O., Olawande, T. I., Alabi, O. J., & Imhonopi, D. (2019). Maternal mortality and maternal health care in Nigeria: Implications for socio-economic development. *Macedonian Journal of Medical Sciences, 7*(5), 849–855. https://doi.org/10.3889/oamjms.2019.041

Opata, C. C., & Asogwa, O. (2017). Title, rituals, and land use: The heritage of a Nigerian society. *Sage Open, 7*(2), 1–11. https://doi.org/10.1177/2158244016689129

Piane, G. M. (2019). Maternal mortality in Nigeria: A literature review. *World Medical & Health Policy, 11*(1), 83–94. https://doi.org/10.1002/wmh3.291

Roost, M., Johnsdotter, S., Liljestrand, J., & Essen, B. (2004). A qualitative study of conceptions and attitudes regarding maternal mortality among traditional birth attendants in rural Guatemala. *Obstetrics & Gynecology International Journal, 111*(12), 1372–1377. https://doi.org/10.1111/j.1471-0528.2004.00270.x

Say, L., Chou, D., Gemmill, A., T uphol, Ö., Moller, A.-B., Daniels, J., Gülmezoglu, A. M., Temmerman, M., & Alkema, L. (2014). Global causes of maternal death: A WHO systematic analysis. *The Lancet Global Health, 2*(6), e323–e333. https://doi.org/10.1016/S2214-109X(14)70227-X

Tasneem, S., Nnaji, A., & Artac, M. (2019). Causes of maternal mortality in Nigeria; a systematic review. *International Journal of Health Management and Tourism, 4*(3), 200–210. https://dergipark.org.tr/en/pub/ijhmt/issue/51171/669500

United Nations International Children and Educations’ Fund. (2016). *Annual result report*. https://www.unicef.org/publicpartnerships/files/2016arr_health.pdf

World Bank. (2019). *Population, total-Nigeria*. https://data.worldbank.org/indicator/SP.POP.TOTL?locations=NG

World Health Organization. (2006). Female genital mutilation and obstetric outcome: WHO collaborative prospective study in Six African countries. *Lancet, 367*, 1835–1841.

World Health Organization. (2014). *Maternal mortality fact-sheet*. https://apps.who.int/iris/bitstream/handle/10665/112318/WHO_RHR_14.06_eng.pdf

World Health Organization. (2015). *Trends in maternal mortality: 1990 to 2015*. https://www.afro.who.int/sites/default/files/2017-05/trends-in-maternal-mortality-1990-to-2015.pdf

World Health Organization. (2019). *Maternal mortality: Fact-sheet*. https://www.who.int/news-room/fact-sheets/detail/maternal-mortality

World Health Organization (WHO). (2010). *Trends in Maternal Mortality: 1990 to 2008*. Retrieved October 20, 2019, from https://www.who.int/reproductivehealth/publications/monitoring/9789241500265/en/