SOCIOCULTURAL AND HEALTH SYSTEM FACTORS INFLUENCING ACCESS TO SAFE LEGAL ABORTION IN NIGERIA

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A thesis submitted in partial fulfillment of the requirement for the degree of Master of Science in Public Health

By

Yetunde Olotu

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Table of Contents

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List of Figures

List of Abbreviations

CAC	Comprehensive Abortion Care
D&C	Dilatation and Curettage
EMoC	Emergency Obstetric Care
HCPs	Health Care Providers
HIS	Health Information System
HMIS	Health Management Information System
LMIC	Low- and Middle-income Country
MCH	Mother and Child Hospital
MDCN	Medical and Dental Council of Nigeria
MLPs	Mid-level Providers
MMM	Maternal Morbidity and Mortality
MMR	Maternal Mortality Ratio
MOH	Ministry of Health
MVA	Manual Vacuum Aspiration
O&G	Obstetrics & Gynaecology
OOP	Out-of-pocket
PAC	Post-abortion Care
SSA	Sub-Sahara Africa
SDGs	Sustainable Development Goals
TOP	Termination of Pregnancy
WHO	World Health Organization

Key Definitions

Abortion: Termination of pregnancy (TOP) before the age of viability (1)

Comprehensive abortion care: the care that encompasses providing the appropriate information and management of abortion, as well as post-abortion care including family planning (2)

Illegal abortion: Abortion that is prohibited by law (1)

Induced abortion: Deliberate initiation of pregnancy termination (2)

Legal abortion: Abortion accepted by law (1)

Maternal Mortality Ratio (MMR): Number of maternal deaths in a given period of time per 100,000 live births

Safe abortion: Is an abortion that is carried out by a skilled person, using the appropriate method for the gestational age of the pregnancy (3)

Therapeutic abortion: Termination of a pregnancy that threatens the life of a woman or a fetus with a gross anomaly that is not compatible with life (4)

Unsafe abortion: abortion done by an unskilled person or in an environment lacking the least medical standard or both (2).

Abstract

Background
Abortion continues to be a sensitive and public health problem because of its significant contribution to maternal morbidity and mortality, its infringement on women's right to access quality abortion care, as well as the controversial legal, diverse social norms, and personal beliefs associated with it. Although Nigeria has a restrictive abortion law, however, in conditions where abortion is legal and post-abortion care, women still end up having an unsafe abortion.

Objectives
The study aims to explore the influence of health care providers' sociocultural beliefs and the health system on access to safe abortion in Nigeria, and to identify effective interventions proven to improve access to safe abortion so that recommendations applicable within the Nigerian context can be proposed .

Methodology
The study is mainly a literature review with a small portion of qualitative research at a secondary-level public health facility in Nigeria.

Findings
Sociocultural beliefs, limited skilled health workers, health workers' bad attitudes, lack of abortion supplies/resources, conscientious objection, poor task-sharing, and poor governance have been identified to negatively influence access to safe abortion, and these problems are significantly dependent on one another.

Conclusion
The culture and religious beliefs of health care providers negatively influence their attitudes and abortion service provision, and poor governance and funding of the health system are significant barriers in accessing safe abortion care. Therefore, a holistic approach is required to tackle these problems using evidence-based interventions including training of health workers to improve skills and attitudes, and good governance towards maternal health and abortion services.

Keywords: Abortion, Health system, Culture, Religion, Nigeria

Word counts: 13,195

1. Background

Abortion continues to be a sensitive and public health problem because of its significant contribution to maternal morbidity and death, its infringement on women's right to access quality abortion care, as well as the controversial legal, diverse social norms, and personal beliefs associated with it (1,5,6). As a medical doctor, with a special interest in maternal (and child) health, who lives in a country with restrictive abortion law that permits abortion only to save the woman's life, I have seen many women suffer and die from post-abortion complications due to clandestine abortion practices and more painfully, in women with legit reasons to seek safe abortion services at a qualified (public) hospital. Abortion contributes significantly to maternal morbidity and mortality (MMM) worldwide (2) and in Nigeria (7)

Globally, 121 million pregnancies are unwanted annually (8,9). About sixty percent of all unwanted pregnancies and thirty percent of all pregnancies result in induced abortion(9). Forty-five percent (25million) of all abortions are unsafe worldwide, out of which 97% occur in developing countries (10). The major driver of abortion is unplanned pregnancy (11). Even though globally the rate of unplanned pregnancies has reduced (due to the use of contraception), the proportion of unintended pregnancies resulting in abortion has increased in countries with restrictive abortion laws (8,9). Therefore, exploring and addressing the barriers to safe abortion is paramount to ensuring the safety of our girls and women even in the face of a restrictive law.

1.1 Nigeria's Social and Cultural Background

Nigeria is a multicultural and multireligious country with more than 250 tribes and 50 languages (12). The people value these determinants as much as the law (13). There are 3 main ethnic groups- Yoruba, Hausa-Fulani, and the Igbos- followed by smaller groups (Edo, Ibibio, Efik, Ijaw, etc.) (12). Culturally and religiously, abortion (and the use of contraceptives) is loathed and seen as an act of murder (14) and considered a sin of hindering the handwork of God, especially by the Muslims (15). As a result, there has been strong opposition from moralists and religious leaders against the liberalisation of abortion in the country (16). Women (and abortion providers) are condemned, shamed, discriminated against, and stigmatized when found to have carried out an abortion, therefore, they do it secretly in an unsafe way (17).

There are diversities and similarities in the social norms among the different cultures. Commonly, the nation's society is patriarchal in nature where it is believed that boys are better and have more prospects than girls (18), and men express dominating and authoritative attitudes over women (19). Surprisingly some women believe that according to the social norms, men, as the head of the home, have the right to beat them when they err(20). Girls/women are robbed of their rights to formal education, information about their sexual and reproductive health, the decision about when and who to marry, when to get pregnant, loss of power of autonomy over their body, right to work, access to money and health, with little or no role in decision-making in the home (21,22). Consequently, this has led to an increase in the rate of girl-child trafficking, child marriage, adolescent pregnancy, sexual abuse, unintended pregnancy, and unsafe abortion, and they take the blame alone (22,23). This gender inequality is widely accepted and practiced; however, some are more predominant in some regions than others.

1.2 **The Nigerian Abortion Law and Abortion Guidelines**

Nigeria operates a pluralistic law system, which operates in the Northern and Southern parts of the country. Nigeria has a restrictive abortion law revised in 1990, which generally permits abortion only to save the woman's life (4), the penalty given to the offenders is what differs slightly between these two regions. Sections 228, 229, and 230 of the Criminal code Act, which operates in the seventeen southern states, penalize the abortionist, the woman who seeks or self-induced abortion, and the provider of materials used for the procedure to fourteen, seven, and three years in prison respectively (24). The Penal Code Act, which operates in the nineteen northern states, has similar punishment as the Criminal Code, but in addition, Section 233 indicates a fine to the punishment of the abortionist if the woman dies from complications resulting from the unlawful abortion. Also, the Penal code Act sentences the abortionist to life imprisonment with a fine if it was done without the woman's consent (24).

However, there is a third (customary and religious) law- the Shari'ah law- which was adopted in 1999 and is applicable to twelve northern (Muslim) states (25). The Shari'ah penal code was broadened to comprise criminal cases (under which abortion was categorized) and differentiated from the Penal code in the use of the Quran to ascribe punishments based on the offenses committed. The law previously did not permit abortion on any ground and sentenced (only the) women who procure abortion services to death through various methods including stoning to death (26). But following the intervention of Amnesty International, which revolted against these acts and laws, as violations of human rights and discrimination against women (26), the Shari'ah Penal code for abortion-related matters was revised, which presently permits abortion to save the woman's life only, and sentences women to prison.

Nigeria has a national guideline (shown in appendix I) developed in 2018 in line with the WHO 2012 guideline on the management of abortion (4). It was developed by the Federal Ministry of Health (MOH), for therapeutic abortion, to expedite a decline in maternal morbidity and mortality (MMM) from medical conditions induced or aggravated by pregnancy that are life-threatening to the woman. It includes only clinical management and supporting treatment for abortion care.

1.3 **Abortion in Nigeria and the Nigerian Health System**

Abortion is the termination of pregnancy before the age of viability, which is 28 weeks gestation in a "low resource setting" country like Nigeria (4). Due to the restrictive abortion law, only therapeutic abortion and TOP for foetal anomaly are lawfully allowed (4). Post-abortion care (PAC) for post-abortion complications (either legal or illegal abortion) is also provided. The post-abortion complications could be simple complications (i.e., no sepsis or blood transfusion), moderate complication (will require treatment for either sepsis or blood transfusion or both), and severe complications, which requires additional treatment (27). Public hospitals provide the highest number of post-abortion complications (28). A recent study revealed that 55% of induced abortion services are provided by non-clinicians as compared to 45% in 2012 (29,30).

The three tiers of government control the three different levels of health care- primary, secondary, and tertiary levels, as shown in *figure 1* below, while *figure 2* illustrates the description of the pluralistic health sector- public and private- and their level of health care. Therapeutic abortion and PAC services are provided by obstetricians and gynaecologists in the secondary and tertiary teaching and non-teaching hospitals, and private hospitals, while any qualified and experienced medical officer in primary, secondary, and tertiary non-teaching health facilities, registered private hospitals can provide these services. Also, moderate, and severe post-abortion complications services are provided by the gynaecologist or an experienced medical officer at the secondary and tertiary health care levels, where facilities for blood transfusion, theatre, and complex medical and surgical interventions that may require the inputs of other specialties are available (27). Midwives and nurses provide PAC including mild post-abortion complications in primary health centers and some secondary health facilities.

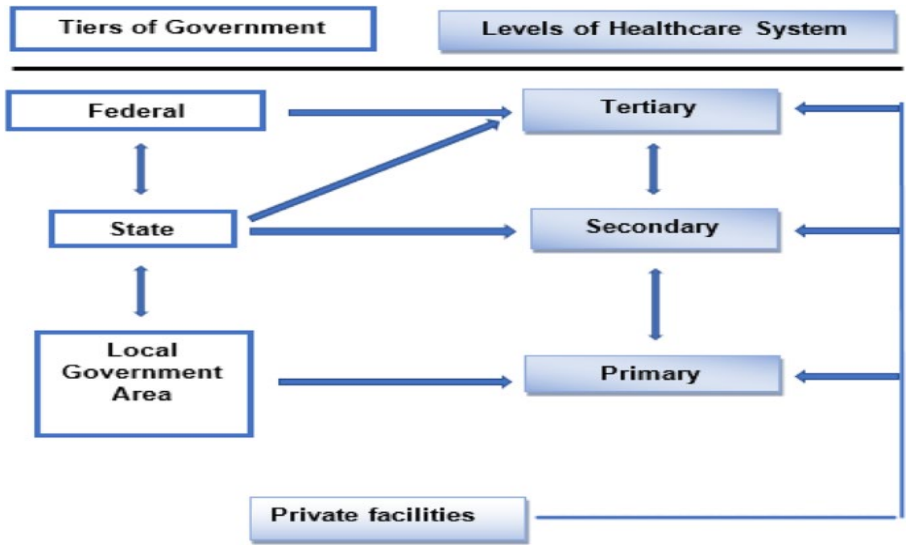

Figure 1. Nigeria's Health Care Service Delivery Structure (31)

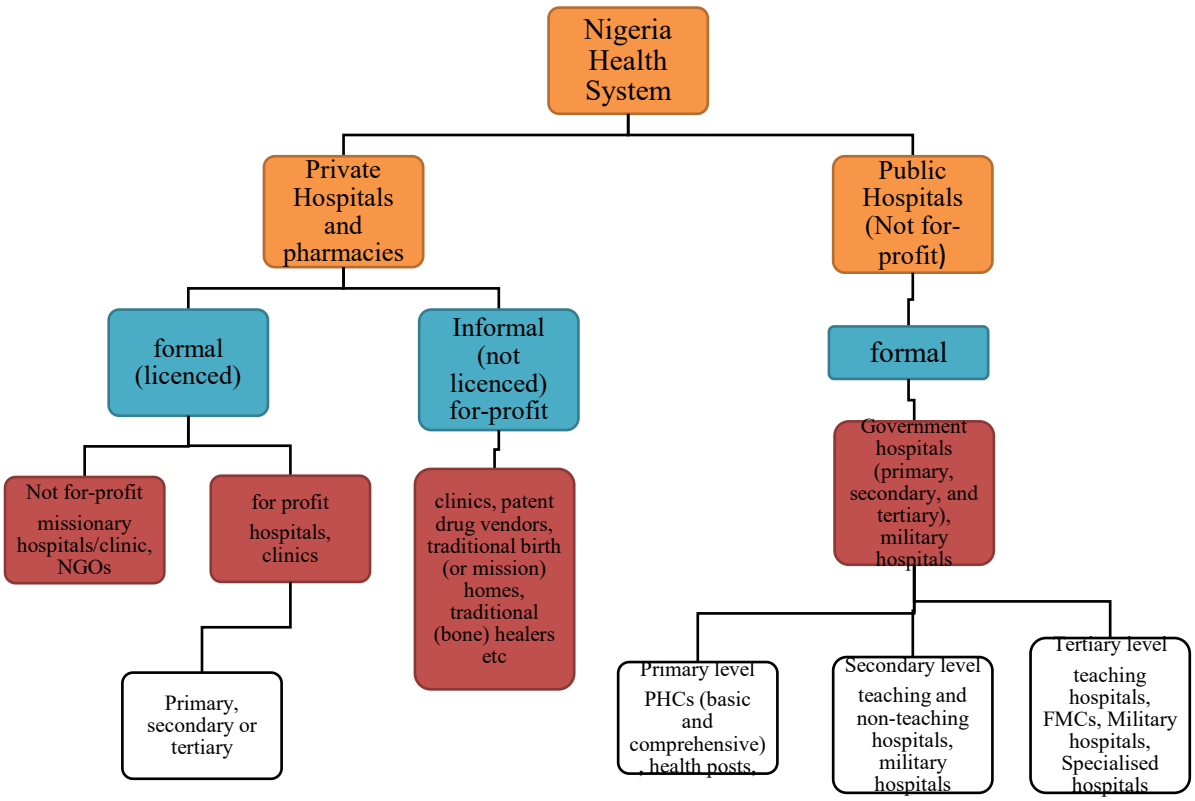

Figure 2 Nigeria Health System Organisation (31)

There are clinical (auxiliary nurses, pharmacists) and non-clinical (patent drug vendors (who are persons without formal training in pharmacy), traditional birth attendants, e.t.c.) persons who are not qualified or allowed to provide abortion services, but they do (32). These sets of people provide mostly illegal abortion and post-abortion complications such as incomplete abortion.

Health system financing in Nigeria

Health financing in Nigeria is via different means mainly through tax revenue, out-of-pocket (OOP), external or donor funding, and health insurance (which could be social or community) (33). The national health insurance scheme (NHIS) was established in 2005 with the aim of increasing universal access to health to prevent impoverishment from paying OOP, however, only less than five percent of the Nigerian population utilize this scheme (34). The main health system financing (more than 70%) is through OOP, and this has been found to impoverish the citizens and an important barrier to accessing health care (33).

2. Problem statement

Unsafe abortion accounts for 4.7%-13% of maternal mortality globally (35), with Africa contributing the highest to the maternal mortality ratio (MMR) related to abortion (36). North America and Europe have the highest rate of safe abortion because abortion is less restrictive or legalised in most parts of these regions, whereas, greater than fifty percent of unsafe abortions occur in Asia, mostly in the south and central Asia (37). Out of all cases of abortion in Latin America and Africa, three-quarter is unsafe, especially in Africa (2), where hindrances to safe abortion are still pronounced, majorly because abortion is still partially or completely illegal (38). This simply shows that restricting abortion does not reduce abortion, rather it increases unsafe abortion practices and complications. It is worthy to note that not all legal abortions are safe and not all unsafe abortions are illegal (39).

Nigeria ranked fourth worldwide with a high maternal mortality ratio in 2017 (40), and abortion accounts for 20-40% of maternal mortality (4,7). The Nigeria Demographic Health Survey (NDHS) in 2018 reported the MMR to be 512maternal deaths/100,000 live births(20). In 2012, induced abortion was estimated to be 1.25million in Nigeria and 212,000 women were treated for unsafe abortion complications (5.6 per 1000) while unfortunately, 285,000 could not receive PAC (11). Unsafe abortion is measured by the number of complicated abortions that are presented at the health facility for PAC, and this is thought to be underestimated as not every woman presented for treatment (1,29).

There is a scarcity of data on therapeutic abortion and no study found in Nigeria on the incidence, trends, or practice of therapeutic induced abortion rather it is chiefly on induced illegal abortion and its safety (11,32,41–43). According to a recent study, the incidence of unintended pregnancy in Nigeria was 69 per 1000 women in the reproductive age 15-49years (43) as compared to 59 per 1000 in 2012 (7). This could be attributable to the slow address of the unmet need for contraception in the country (20). Also, the effect of the Covid-19 lockdown in the last two years cannot be overemphasized as SRHR services such as access to contraceptives or safe abortion care were denied because these services were perceived to be nonessential in the phase of the pandemic (44). Impoverishment because of the lockdown (45) led to an increase in the rate of early child marriage and teenage pregnancy, and consequently unsafe abortion (44).

The incidence of unintended pregnancy resulting in abortion remained at 33 induced abortions per 1000 women as reported in 2012 (43). There is no concrete information to justify that all induced abortions resulted from unplanned pregnancies as some pregnancies were planned but due to unforeseen circumstances such as gross fetal anomaly, and severe maternal medical conditions, TOP became inevitable. Also, data on the trend of unsafe abortion in Nigeria is lacking, however, in Sub-Sahara Africa, there is a decline in the unsafe abortion trend and its complication between 2000-2019 due to improved liberalisation of abortion law and increased use of misoprostol (29). Most abortion services in Nigeria public hospitals are PAC from complications of induced unsafe abortion (28). In 2016, a study carried out in 26 developing countries revealed that Nigeria ranked fourth behind Pakistan, Bangladesh, and Mexico in the annual number of women who received treatment for abortion complications (28).

The barrier to achieving safe abortion in Nigeria is largely due to the restrictive abortion law that only allows legal abortion if the woman's life is threatened. From my clinical experience, some women who fall into this category still seek the unsafe TOP pathway for several reasons. Some barriers identified include sociocultural factors such as cultural and religious beliefs, unacceptable social norms, gender and power inequalities, and poverty (46). The cultural and religious beliefs and unethical attitudes like condemnation and discrimination are sometimes transferred from health care providers, who are part of the society, to the patient unprofessionally (47), which in turn drives the woman who has a legal abortion care need to seek it somewhere it is provided without discrimination but may be unsafe. In the case of

complicated unsafe abortion, discriminatory attitudes of health workers serve as the reason for the delay in seeking care by the woman (48).

In addition, girls/women with legit indications for safe abortion are driven away from the health facility to incur abortion clandestinely due to the cost of the service (20). High facility cost of abortion care push women, especially the poor, to clandestine ways of TOP such as ingestion of pharmaceutical and nonpharmaceutical abortifacient agents, insertion of objects through the cervix such as sticks, bicycle spokes, hangers, while others visit quacks who carry out unconventional abortion procedures on them (16,29). The cost of the service does not start from the treatment but commences from indirect costs, such as transportation, food, and time lost at work to procedures (49). Poor service delivery, unavailability of human and medical/instrumental resources or supplies, and longer hospital stay are the other health system factors identified to contribute to why women seek abortion precariously or delay seeking safe abortion service (47,50).

Consequently, unsafe abortion leads to immediate/short-term complications such as uterine perforation with or without gut injuries, sepsis, excessive bleeding, hysterectomy, and death (2,51). Long-term complications such ectopic pregnancy and infertility may occur (52). Other possible consequences especially when related to rape include psychological development of low self-esteem, social withdrawal, depression, suicidal thoughts, and attempts (53).

Another crucial impact identified is the financial complication of PAC service on the individual, health system, the community, and the country at large (27). The post-abortion complications managed in the public tertiary and secondary health facilities cost the health system as much as US$70, US$112, and US$258 per patient for simple, moderate, and severe complications respectively (27,54). The amount to pay is determined by the gestational age, method of the procedure (medical or surgical), and the level of complication (54).

2.1 **Justification**

Since the law prohibits abortion on request unless when the pregnancy becomes life-threatening to the girl or woman, this research is focusing on access to therapeutic abortion and PAC. That is, in instances where legal (induced) abortion is indicated in the presence of a live fetus (such as in cases life-threatening maternal medical conditions and gross fetal anomaly), or dead fetus (missed abortion), incomplete abortion, other post-abortion complications (4). However, because of limited studies on therapeutic abortion, other instances where abortion is legal (in other LMICs) are considered.

Several studies done in Nigeria on factors influencing or contributing to access to safe abortion services are from the demand side (that is, the patient's point of view) and partly from the supply side (the health system)- mostly the health providers' attitudes and practices (47,50) and the cost of abortion services (49,50). There is a knowledge gap about the influence of other health system components or the whole health system on access to safe abortion services in Nigeria. This study aims to carry out a literature review, to bring together all the components of the health system, as well as the sociocultural beliefs of the health workforce (which is a component of the health system) and see how they relate to influence access to safe abortion services. In addition, the study will contain a small portion of qualitative research in a health facility to triangulate with the information obtained from the literature. This may form a basis for a larger study on the health system factors influencing access to safe abortion so that services for the legal indications for abortion are provided safely for all women while the relevant stakeholders or policymakers are working on liberalising the abortion law.

2.2 Overall Objectives

The overall objective is to explore the influence of sociocultural and health system factors in accessing safe abortion in Nigeria and recommend interventions that can improve access to safe abortion services.

Specific Objectives

i. To explore the effect of health care providers' sociocultural beliefs in accessing safe abortion in Nigeria
ii. To identify the influence of health system factors such as service delivery, health provider skills and attitudes, commodities, costs of service, and governance in accessing safe abortion in Nigeria
iii. To identify effective interventions to improve access to safe abortion care services in Nigeria and make recommendations

3. Methodology

This research is a combination of mainly a literature review and a small portion of an exploratory qualitative study**.**

3.1 **Literature Review**

Works of literature were strategically searched for through electronic (online) databases using search engines, such as PubMed, Google Scholar; Google search, and Library- the Vrije University Library, where information from various journals was obtained. Also, information was retrieved from the websites of WHO, United Nations, UNFPA, Nigerian Federal Ministry of Health (MOH) and Ministry of Justice, NDHS, and International human rights organizations. Keywords or search terms as shown in appendix II were combined with the use of the Booleans operators, AND, OR, & NOT, to form strings. Snowballing was also done.

Articles found following the combination of keywords were all initially collected and saved in a folder, following which they were filtered based on criteria such as the type of abortion (PAC, induced legal and illegal, therapeutic), determinants of barrier to access (sociocultural, health system components), country or regions with legalised or liberalised abortion(Nigeria, LMICs, developing countries), year of publication. Peer-reviewed and grey kinds of literature, systematic and narrative reviews, as well as articles and fact sheets from internationally recognised websites, were used. Publications written only in the English language retrieved were initially narrowed down to ten years period, but due to insufficient information found within this period, and some data that would contribute significantly to this research were found beyond the ten years span, the search was then extended to fifteen years duration (2008-2022). However, important information such as the ICPD 1994, Maputo Protocol 2003 were also used.

Information was mostly from LMICs/developing countries, with a few publications from Europe with legalised abortion that are important to the research were also used. Articles on abortion laws, induced abortion, therapeutic abortion, barriers to access to safe abortion and maternal health services, PAC, post-abortion complications, management of abortion, conscientious objection, and task-shifting of abortion care were searched and used. While articles on the causes of abortion and social determinants of abortion (minus the sociocultural and health system factors) were excluded from the study result. Other searches were on health care providers' attitudes and practices of abortion, health financing, health information system, and abortion interventions. The research population included adolescents from 10-15 years (little was found about this group) and women in the reproductive age 15-49years as these are the groups most affected by the study, aside from the fact that the literature found was centered around these age groups.

3.2 **Qualitative Research**

3.2.1 Study type

An exploratory qualitative study design was also used for this research to investigate the knowledge and perception of health care providers about abortion, and their perception of the influence of the health system on safe abortion services, to compare with what is known and therapeutic abortion- which little is known about found. The research table provided in Appendix III gives the details of what the study design encompassed. The eligible study participants are doctors and nurses working in the obstetrics and gynaecology (O&G) department and have been involved in the management of abortion in the study facility.

3.2.2 Study Area

The study was carried out at Mother and Child Hospital (MCH), Akure. It is a 100-bedded secondary-level specialized health facility in Ondo State, in the Southwestern part of Nigeria. The hospital was commissioned about 12 years ago following the Safe Motherhood Initiative (*Abiye* Initiative) to provide free maternal and child (under-5) health services to reduce maternal and under-5 mortality in the state. It is a center for medical intern (House Officer) training, qualitative research, and clinical trials. This facility was chosen for the study because firstly, it is a facility that is equipped to provide obstetrics and gynecological (O&G) services including therapeutic abortion and PAC services. Secondly, it has facilities for managing emergency and complicated abortion cases including blood bank, theatre, and referral services. And lastly, it is one of the public health facilities that provide the highest number of maternal health care services in the city (Akure) since its inception. The O&G department has the emergency unit, antenatal/gynecological ward, labor ward, postnatal ward, family planning unit, and theatre.

3.2.3 Sampling and Recruitment of study participants

The participants were selected by the purposeful sampling method. Their background characteristics such as sex, years of experience, religion, and ethnicity/tribe were considered to ensure diversity in the information obtained, but this was difficult to achieve because of the limited sample size. Following ethical approval to carry out the study at this facility, I informed and discussed the study via phone call, and virtually with the Heads of the O&G department and the Nursing Services. After their approval, a virtual meeting was held with the doctors and nurses separately. As the researcher, I discussed with them in detail the study including the benefits and risks, and answers were provided to every question that arose, also doubts about the study were clarified. Everyone was invited to volunteer by sending me a personal message to ensure confidentiality.

A total of 12 nurses (all females) volunteered to participate but only 10 were eligible. Out of these numbers, two dropped out for personal reasons. Consent forms (in appendix IV) were sent electronically and scanned back to me after they were signed. Seven interviews were eventually conducted as one was not completed due to an issue of privacy on the part of the respondent. With regards to the doctors, four voluntarily showed interest, while others were reached out to through phone calls to ask for their participation, but only a doctor showed interest. The table below provides some information about the participants that took part in the study.

Table 1 Study Participants

Participants	Number	Sex	Religion	Ethnicity/Tribe
Doctors	5	4 males; 1 female	4 Christians; 1 Muslim	4 Yorubas; 1 mixed tribe (Yoruba and Igbo)
Nurses	7	All females	All Christians	6 Yorubas; 1 Igbo

3.2.4 Data collection, processing, and analysis

An in-depth interview (IDI), using a drafted topic guide (presented in appendix V) with open-ended questions, was conducted. All the interview sections were through virtual call and audio recorded in addition to note taking. The interviews lasted between a range of 30mins and an hour. The interview involved an interviewer and the respondent. At the end of each data collection, the information acquired (notes taken and audio recordings) was transcribed manually, and each transcript was given a code. The transcripts were broken down into themes and sub-themes, and a coding framework was developed using the objectives and issues of the topic guide, and new issues found were added to analyze the data. Analysis of the data was commenced

simultaneously as the data processing was ongoing. The data were managed using atlas.ti software and manual interpretation of analysis were done. The whole process of the data collection, processing, and analysis was done only by the researcher.

3.2.5 Ethical consideration

Information about the study, being a sensitive issue was cautiously discussed with the health workers including the risks and benefits. Concerning confidentiality, participants were told not to inform anyone about their participation in the study. Also, because the sample size is small and the possibility of guessing rightly who said what may emerge, the wards the nurses are working in were not mentioned and the ranks of the participants were totally omitted from the result to prevent a breach of confidentiality. Full autonomy of participants was granted, and their cultures and religions were respected. Also, consent for participants with respect to audio recording was sought.

Harm was avoided by ensuring privacy during the interview at all costs. Names of participants were not mentioned or written down, and notes and recordings were paraphrased to ensure the identity of the respondent is unknown. In addition, questions drafted were nonjudgmental, or insensitive, and the freedom not to answer any questions was granted. Participants were not cajoled or coerced to obtain information. There was no issue of power relations as all participants showed interest voluntarily so, there was no reason to be intimidated to join in the study.

3.3 Analytical Framework

Two frameworks were considered to possibly fit this study: The WHO health system building block framework (fig 2 below) and the Person-centered Framework for Reproductive Health Equity (fig 3 below). But there were missing relevant parts needed to present the result of the research therefore, a new framework, shown in Fig. 3, was developed by extracting the relevant aspects of these two frameworks, and adding some other variables.

The WHO framework has six building blocks that make up the components of the health system, with the aim that with good accessibility, efficient coverage, good quality, and safety, it will cumulate into improved health and efficiency, responsiveness, and social and financial risk security for the people, but this framework is not person-centered. That is, it misses the connection of the people to these components to achieve the expected outcome, as a result this framework was not used.

Figure 2. The WHO Health System Framework (56)

The Person-centered Framework for Reproductive Health Equity illustrates how societal and community determinants and facility quality influence the health-seeking behavior of the people on one part and the effect of facility quality of care on the outcome of care provided to the individual. This would have been a better framework, as it incorporates most of the components of the health system building blocks and illustrates how this affects the outcome of care for the patient, but some essential components of the health system (cost/finance, governance/leadership) are missing.

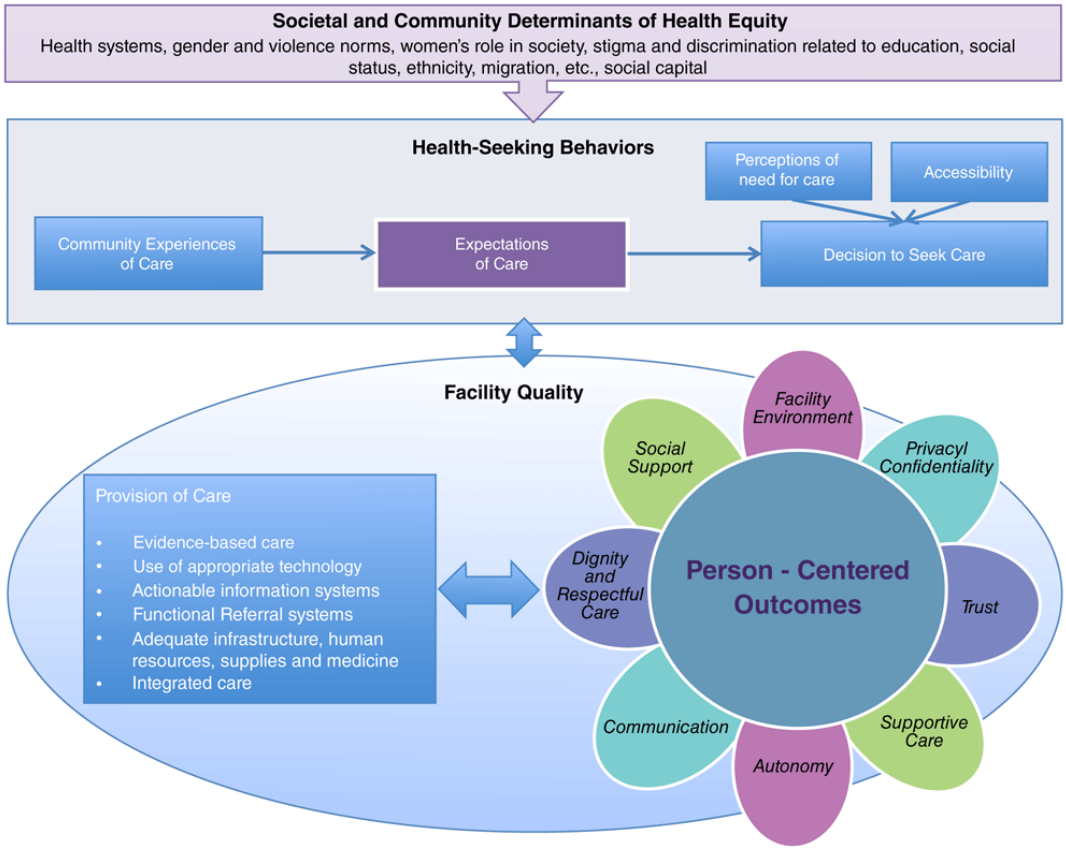

Figure 3. Person-centered Framework for Reproductive Health Equity (57)

A new framework developed and used for this study is titled **Influencers of Access to Safe Abortion Framework**. The rationale behind the invention of this framework is to have a model that holistically views and addresses the different angles of the demand (peoples' abortion service needs) and supply (health facility/system provision of service) sides on how they influence access to safe abortion (either independently or dependently) and the outcome on the individual.

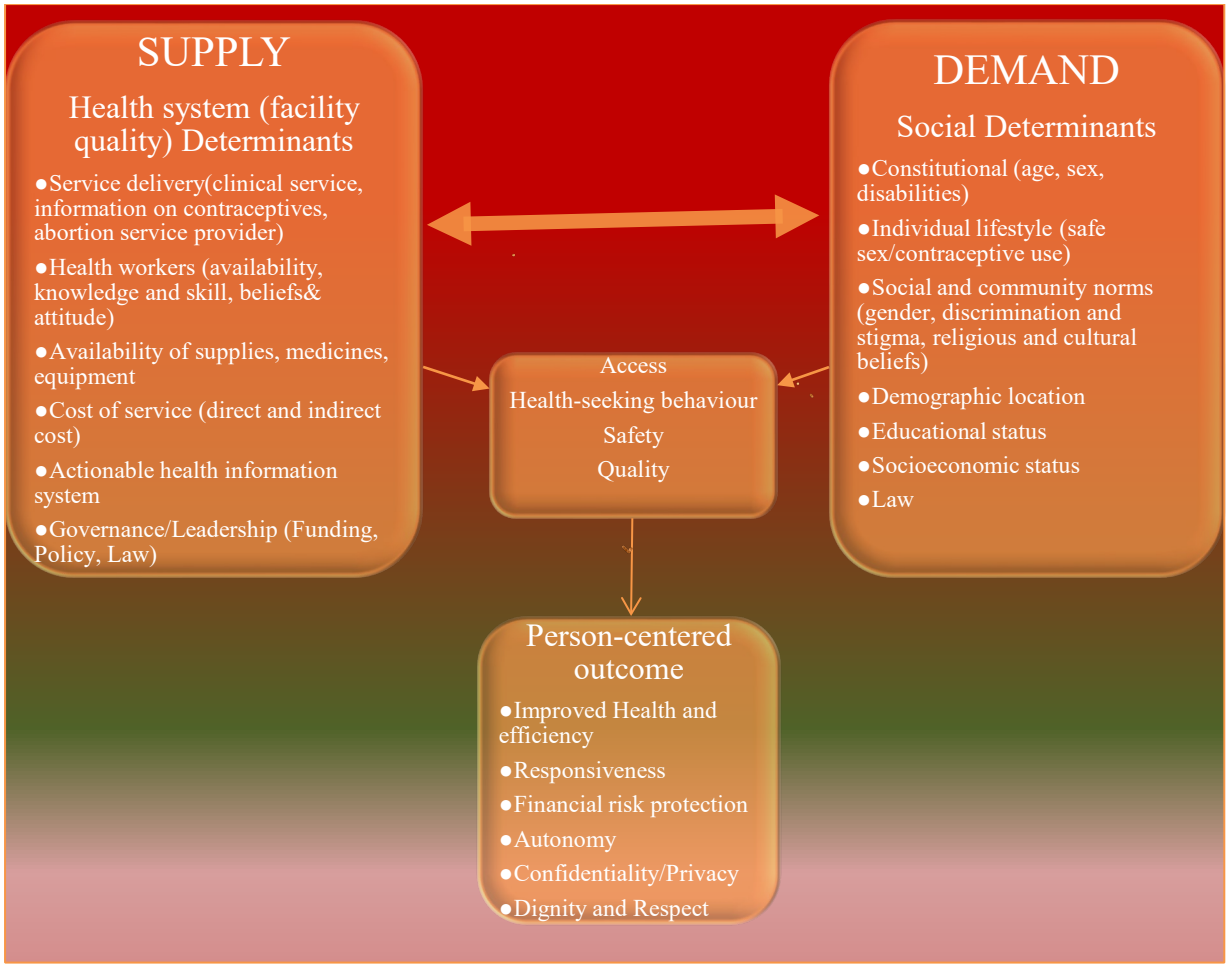

Fig 4

Limitation of methodology

With respect to the literature review, there is limited study on therapeutic (legal) abortion generally, therefore pieces of literature from countries with liberalised/legalised abortion were used in combination with PAC in the Nigerian context. The time to prepare for the (qualitative) study was short given all the other requirements and ethical clearance from both sides (school and study facility) required additional time. In addition, time for interviews and analysis was also limited therefore, the sample size was small, and the study may have missed sufficient variation in respondents. Also, because the interview was virtual, there were periods of bad network connection due to network fluctuations that accompanies rainy or thunderstorm weather that Nigeria is experiencing presently, consequently, apart from prolonging the study unnecessarily due to rescheduling of interviews, there were also times of missed or not clear responses of respondents which could have been vital to the study.

4. Results

The new framework developed for this study was used to analyze the result. The socio-cultural part of the social determinants aspect of the framework was selected to be included in this study because the health care providers are part of the society that upholds their cultural and religious beliefs towards abortion in different ways. Then, the whole health system portion (supply) of the framework is used in this section. Every section of the result has both the literature search first and the qualitative interview findings which may support or contradict each other.

4.1 Sociocultural Factors

Globally, people express diverse perceptions, beliefs, and attitudes toward abortion including the law that governs it and the women who seek abortion services (58) and Nigeria is not an exception to this (59). It was found worldwide that despite evolving globalisation in which cultural and religious beliefs opposing abortion are thought to decline, these beliefs strongly hold firm when matters concerning abortion law, attitudes, and practices are discussed everywhere (58). Societal cultural and religious beliefs, aside from the restrictive law, have been identified to be significant hindrances to safe abortion care (60).

In Nigeria, the two main religions- Christianity and Islam- firmly oppose abortion because abortion is seen as an act of murdering a child (14,61). These beliefs are so strongly preserved that a study in the country reported that the decisions of policymakers on the liberalisation of abortion law are gravely judged by their cultural and religious beliefs (62). As a result, moves to legalise abortion have since been faced with strong opposition (63). Some of the respondents' opinions shared during the interview were that we are living in a culturally and religiously sensitive society where people hold on to their religion and a doctor said,

"…the law being in the society where we are, where we are very religious, we are not yet advanced to the level where we can safely promulgate to allow procurement of abortion by the citizen"

Also culturally, abortion is unaccepted, abhorred, and perceived to be an immoral act, and people who do abortions are seen to have been promiscuous or wayward in getting pregnant especially if it is an adolescent or an unmarried woman (14) Even in the context of abortion from rape-related pregnancy, the girl or woman alone takes the blame (for the rape and abortion) and is labeled with callous names because of a society that embraces gender inequality, power imbalance, and social norms that allow men to be promiscuous and violent and blames women for any consequences (64). The anti-abortion attitudes of the different cultural groups are expressed in their cultural beliefs. An example is a scenario shared during the interview by one of the respondents who referred to a case and culture in the Eastern part of Nigeria where it is believed that if a man responsible for a pregnancy gets to know that that pregnancy will be aborted, then the man will die if the pregnancy is aborted. In this instance, to prevent the man from knowing the abortion is conducted secretly and maybe unsafely.

These beliefs, compounded by the law, are also upheld by health care providers who because of discrimination from their friends and families or their own beliefs decline the provision of quality service or behave unprofessionally by acting disrespectful and discriminatory towards these women especially those who seek post-abortion care for complicated induced illegal abortion in public hospitals (65,66). However, this belief is not applicable to therapeutic abortion when the mother's life is at risk because of a medical condition or in the presence of a fetal anomaly (67). During the interview, the respondents were asked with respect to their beliefs, if they will provide abortion services if abortion becomes legalised in Nigeria, almost half of the respondents said that based on their personal and religious beliefs, they will decline abortion services either by referring the woman somewhere else or will tell the woman to go somewhere else by herself or ask another health care provider who can provide the service to so. Women are denied their rights to services and consequently suffer from unnecessary morbidities or preventable deaths because of refusal, based on beliefs, by duty bearers to provide services.

4.2 Health System Factors

4.2.1 Service Delivery

Many women have suffered at the hands of health workers and abortionists from abortion complications because of their lack of skills in safe abortion procedures (4,68). Women have been denied access to legal abortion for varying reasons such as unavailability of trained health workers, gestational age of the pregnancy, and cost among others (69). A significant number of women denied access to safe abortion go somewhere else to get the service where these barriers are absent, and some come down with abortion complications (69). When primary and secondary preventions of unsafe abortion in form of adequate access to safe legal abortion care and availability of PAC services respectively are lacking, maternal deaths are bound to continue (70).

With respect to this study, service delivery encompasses the clinical service (the quality of the service), the types of abortion services provided by the health care providers (which are legal abortion and PAC), the infrastructure in place to provide the service, and the health worker providing the service.

Clinical service

This addresses the method used for the management of the type of abortion care and other associated care such as pain management, information and counseling, PAC including family planning, and treatment of the underlying medical condition (37). There are two internationally approved methods of abortion management- medical method (using mifepristone plus misoprostol or misoprostol alone) and surgical method (manual vacuum aspiration)- indicated with respect to the gestational age or the type of abortion care required (3). Studies have shown the various dangerous ways or methods abortion is carried out either when self-managed (use of abortifacient substances like herbal mixtures; insertion of dangerous objects such as clothing hanger, bicycle spoke, into the vagina, or fall on the abdomen) or managed by a provider including doctors most especially in private hospitals (use of mixture of various medications, and D&C) (71,72). These methods have led to complications such as excessive bleeding, incomplete abortion that is not well managed, pelvic injuries and infection, and uterine perforation (71,73).

During the interview, the doctor respondents mentioned a departmental guideline that is used in managing abortion, in line with internationally accepted guidelines. All the respondents said misoprostol is the drug used for medical TOP while manual vacuum aspiration (MVA) is used for surgical termination, and dilatation and curettage (D&C) is no more used. However, three nurse respondents were using MVA and D&C interchangeably, and could not clearly distinguish between the two, while one affirmatively mentioned the use of D&C in the management of incomplete abortion at the facility even though it is not part of the facility protocol.

When asked if the facility always provides safe abortion services, a doctor respondent said,

"I wouldn't say always, because we had a few instances we referred patients managed for TOP that had issues…so not always but very few"

Legal abortion services and Post Abortion Care (PAC)

Due to the lack of studies on therapeutic abortion services in Nigeria and other developing countries, therefore, studies on PAC will be discussed mainly. According to a study, only about 25.8% of "referral-level health facilities" in Nigeria can provide a complete package of comprehensive post-abortion care services (74). It has been observed that there are varying degrees of hitches experienced by the patients in accessing care at individual, community, and health system levels (75). Health system barriers to PAC services include facility shortage of abortion supplies and providers, facility policies that only allow doctors to provide the service, bad attitudes of health care providers, facility and/or provider's conscientious or religious refusal of service, malfunctioning or unavailability of instruments, lack of bed space (76–78)

Despite post-abortion complications being a component of emergency obstetric complications (EMoC), the provision of this service is scarce in the primary level of care and mostly provided in the secondary and tertiary hospitals (70,79). Comprehensive PAC service is composed of the provision of basic treatment for post-abortion complications, information and counseling on family planning, facilities for blood bank or transfusion, theatre for abdominopelvic surgeries, and availability of a good referral system (37,74,79).

During the interview, when respondents were asked a question on how readily available abortion services are, a majority said the service is readily available, but there are instances of delay in getting the service or not getting the service at all because of unavailability of resources, either human (which is said to be the commonest) or supplies. A nurse respondent said,

"Not readily available all the time. Sometimes the instrument is faulty; the doctor to carry out the procedure is busy somewhere like in the theatre, or unwell and if the patient needs urgent attention, she will be referred to a higher facility".

Information on contraceptives/family planning (FP)

While primary-level public health facilities are expected to be able to provide at least a short-acting contraceptive service, higher health facilities should be able to provide both short and long-acting, and permanent methods of contraceptives (74,80). However, information and provision of post-abortion contraceptives are not readily available in some primary-level public health facilities especially in rural areas mainly due to stock out of supplies (75,80). According to a study conducted in 176 public health facilities in the country, almost all secondary and tertiary health institutions can provide both short and long reversible contraceptives but less than half (44%) of the secondary facilities and nearly (91%) of all the tertiary facilities can provide a permanent method of contraception (80).

During the interview, when respondents were asked if the information on contraception is provided to patients before going home, many of the respondents said yes but three explicitly said it depends on the patient and/or the reason for the abortion.

"Depending on the reason for admission, if it is a case of PAC from illegal abortion, they are counseled on FP to prevent unwanted pregnancy rather than risking their lives; the best option is FP since you cannot counsel the patient on abortion because it is illegal…For medical conditions, you advise them to present as soon as they become pregnant to ensure early management of their illness such as control of the blood pressure to prevent reoccurrence and early cervical cerclage for cervical incompetence. So, it depends on the cause of abortion that will determine the follow-up advice for such patients"

A majority also mentioned the need for contraception for adolescents and young unmarried women, as well as older women or women with 3 or more children.

"If it a teenager, we refer to the adolescent clinic to receive information about abstinence from sexual activity, or to get FP including emergency contraceptives; we counsel them on hygiene…the best person to talk to is the parent. Because they are the ones the patient stays with. We also counsel on how to avoid unsafe abortion practices. For adults, who have 3-4 kids, we counsel them on FP too".

The contraceptive unit in the facility is either invited or the patient is sent to them for proper and detailed information and counseling, and they are advised to get it done before leaving the hospital "*but not all visit the FP unit because of their beliefs about it"*, a nurse respondent mentioned.

Abortion Service Provider

Mainly doctors and sometimes mid-level providers (MLPs) (nurses, midwives, and community health workers) provide safe abortion services. The choice of the service provider by the girls and women is dependent on many factors (30). Evidence has shown that task-sharing of abortion care among doctors and MLPs improves access to safe abortion services (81). However, when doctors alone are permitted to carry out abortion and PAC services, as in most cases of Nigeria, it consequently delays access to

service and causes the patient to go somewhere else where the provision of service is quickly provided, regrettably sometimes by an unskilled person (66).

At the facility of this study, doctors are the main provider of abortion services while the nurses ensure patients have procured all necessary materials for the procedure, ensure availability of procedure couch or bed, all investigations have been done, and assist in the procedure. A nurse respondent said the role of the nurses is "*to make the materials and instrument ready for the procedure. Provide the consent form for the patient to sign, and ensure the investigations are all done. Reassure them and provide psychological support. Do the vital signs"*

When asked why they are not carrying out the procedure themselves, one of the respondents said it is the hospital protocol. A doctor respondent when asked if nurses should be permitted to do the procedure said,

"Yes. Why not, they should be allowed to because, well, abortion is a minor procedure. Doctors need more hands, so if we allow them, we first train them on how to do it, it will help to focus on other emergencies while they quickly do that one. And it will also facilitate quick service provision"

Globally, conscientious objection has been described to be a complex issue and contributes to the challenges in accessing safe abortion care timely (82). The common reasons for conscientious objection to abortion are personal, cultural, or religious beliefs, stigmatization of abortion care providers, and lack of knowledge about what conscientious objection is by health care providers (83). Studies have shown that conscientious refusal is legally allowed even in some countries where abortion is legal (84), but in Nigeria, the medical code of conduct did not explicitly talk about conscientious objection, it only talked about withdrawing an already initiated care (85). Some clinicians who can provide abortion services hide under or misinterpret this law to decline the provision of services (86,87). This is worse in the rural areas in low-resource countries where staff shortage is already a disadvantage, refusing to provide legal abortion and/or PAC pushes the women to unskilled persons, further endangering their lives (87).

During the interview, all the respondents were against conscientious objection in the presence of any form of an emergency including post-abortion complications from an illegal abortion. However, while the majority said they will provide abortion services if abortion becomes legal in the country, a few said they will refuse to provide the service for personal and religious reasons.

"Because of my religious belief, if abortion becomes legal in Nigeria and despite working in a public hospital, I will not provide the service neither will I refer the woman because referring means I support the abortion. I would rather tell her to go and sort herself out or another abortion care provider attends to her. After all, the law permits me to decline any service I do not want to provide", said a doctor respondent.

There is no documentation on self-abortion in the national safe abortion guideline (4) and scarce studies on self-management of legally acceptable abortion in Nigeria, rather it is on induced (illegal) abortion. Studies done to discover the effectiveness and safety of self-managed induced abortion with misoprostol revealed a marked success with minimal complications (88). Complications reported are attributed to women not getting adequate and needed information about how to use the drug, what to expect, side effects, and how to know if the abortion is complete or not (89). Also, women use other unapproved means as previously mentioned including the use of contraceptive pills and supplements to self-manage abortion (90). Although most abortion providers are advocating for abortion self-care however, some are uncomfortable with it because women may not come back to the hospital for follow-up or present on time until adverse complication sets in (91).

4.2.2 Health Workforce

Availability of health care providers

The health workforce is an important integral part of the health system that is required to provide quality health care, using evidence-based care, acquired skills, and the appropriate technology or method (3). WHO has declared a global decline in health workers which it described as a disaster (92), and forecasted an estimate of 10 million shortage of health workers by 2030 (93). This shortage is said to be worse in the LMICs because of the freedom to migrate to high-income countries (HICs) for greener pastures (92). Factors such as poor working conditions, political and economic unrest, and low enumeration are the identified reasons for this massive emigration in LMICs including Nigeria which initially has deficient health workers from low education and training and unemployment of health workers due to financial incapacitation (94,95).

In recent years, Nigeria has been experiencing a huge annual medical brain drain of doctors including specialists and nurses to Europe and America such that the ratio of doctor to patient is 1:5,000 as compared to WHO's recommendation of 1:600, thus worsening an already debilitated health system (96,97). While there is international migration, there is also internal migration from one part of the country to another, from rural to urban, as well as the public to private hospitals (98), further making access to abortion services in these areas difficult. There is no study in the country specifically about the inadequacy of skilled abortion care providers, however, it won't be wrong to assume that the brain drains (inclusive of O&G specialists, skilled medical officers, and nurses/midwives who can provide abortion care) may contribute to the reduction in the skilled abortion care provider. The other form of unavailability is irregularity or lateness to work by health workers mainly in the public hospitals despite having a relatively adequate number of staff, especially in suburban and rural areas (98). Reasons such as lack of basic amenities, career stagnation, far away from family in addition to reasons for emigration are why health workers do not come regularly to work (98,99).

Consequently, this leads to a high workload for remaining staff, uptake of services (including abortion services) they are not skilled in (100), longer waiting times in the hospital, or prolonged hospital stay (101). As a result, patients in need of therapeutic abortion are either subjected to prolonged hospital admission or forced to visit private hospitals that may have unskilled abortion providers for prompt service delivery, but in exchange receive unsafe abortion service and its resultant complications. In the case of PAC especially for moderate and severe abortion complications, many women have lost their lives due to delays within the health facility in receiving care because the doctor to provide the service is not available or the only doctor available is busy or unskilled (100,102). During the interview, all the respondents at the facility of the study attest to the shortage of staff as a significant barrier to obtaining abortion services timely from longer waiting periods to prolonged duration of hospital stay. One of the respondents said,

"Currently, even in the country, there is a paucity of staff. At our facility, we have a shortage of doctors who are the ones that carry out the abortion procedures either therapeutic or post-abortion complications. Especially, during call hour when it is only one doctor on duty".

Attitudes of health care providers

Another factor related to health workers is their attitudes towards patients. Health workers' attitudes are dependent on many variables such as their personal characteristics and beliefs, which has been mentioned in the sociocultural part above; the cadre of health worker (a nurse, doctor, or others), nurses, and health attendants are noticed to be more discriminatory than doctors (103,104); who is seeking the abortion care (married, unmarried, adolescent), and reason for the abortion service (rape or incest, PAC from illegally induced abortion) (103,104). During the interview when the respondents were asked about the attitudes of health care providers towards patients who seek abortion care, some

respondents referred to the type of abortion influencing the attitudes. Complicated illegally induced abortions were reported as triggering negative attitudes:

"If it's for a medical reason, their attitudes are not bad because they understand the situation. But if it is a case of post-abortion complication from illegal abortion, the attitude is negative because of our cultural and religious beliefs apart from the legal aspect", said one of the doctors.

Health workers are noticed to disrespect, discriminate, or condemn girls and women who present to public hospitals for PAC most especially following an induced illegal abortion (47,104,105). Even in places where abortion is legal, because of the fear of discrimination by health workers, women go somewhere else to procure abortion care which may not be properly managed and result in (more) complications (41,106,107). Eight respondents mentioned that the reason some patients gave for the delay in seeking care was health care providers' bad attitude. A nurse respondent gave a case of a married woman who presented in septic shock from a septic abortion that was illegally done at a private hospital and eventually died. She said while the woman was asked why she presented late despite still bleeding and seeing fleshy tissues per vagina, the patient said, she was afraid the nurses and doctors will abuse her committing abortion as a married woman, and that they wouldn't understand why she did it. And the nurse said,

"That was when I realized the magnitude of our words and actions as health workers when I heard the woman died within 48hours of presentation. It really pained me, and I hope health workers can learn from that"

Knowledge, Skills, and use of Evidence-base abortion care

The knowledge of health care providers about and the use of evidence-based, internationally appropriate, and acceptable methods or procedures to provide abortion service is important in determining how safe the abortion service is (3). Continuous education and training on abortion procedures and comprehensive abortion care have been recommended by the WHO to ensure abortion care providers are up to date in providing safe abortion services to women (3). With respect to the WHO definition of unsafe abortion, the main cause of unsafe abortion in many registered and unregistered private hospitals and clinics, and even public hospitals is the lack of knowledge and skill of the health worker providing the service for abortion, resulting in the use of inappropriate technique, method, or procedure for gestational age rather than the standard of the environment where it is provided (10,29,108). In Nigeria, it is mandatory that doctors undergoing residency training in teaching hospitals go for update courses or continuous training whereas, in other public non-teaching hospitals and private hospitals, doctors do not have this opportunity for continuous training or do not go at all because their employers cannot sponsor them, therefore, they may not be conversant with the latest acceptable practice about abortion care (102,109).

During the interview, half of the respondents could only partially define safe abortion correctly. All the respondents have knowledge of medical and surgical methods of managing abortion, and that the choice of method depends on gestational age and type of abortion with reference to the Nigerian guideline on abortion management. The study facility has a departmental protocol for abortion management drafted using the national guideline, however, there were some differences in the response of the respondents on how the procedure is done While some said medical method with misoprostol only or misoprostol combined with mifepristone is indicated within the first trimester to induce (legal) abortion, some said MVA is the method of choice if the gestational age is within this period of pregnancy. For pregnancy beyond 12 weeks, all doctor respondents said cervical ripening and induction with misoprostol is done, then sometimes, followed by oxytocin infusion.

4.2.3 Availability of good infrastructure, adequate supplies, and medicines

Unavailability of drugs, a functioning blood bank for transfusion, theatre service for surgeries, bed space(s) for admission or procedures, and a good referral system are the identifiable infrastructural inadequacies that prevent timely access to safe abortion care (109). Facilities for manual vacuum aspiration (MVA), a good referral system, and blood transfusion service are lacking in the primary level health facilities where basic emergency obstetric care (EMoC), including minor and partly moderate abortion complications, are expected to be provided (110). This either causes a delay in receiving care prolonging complications or a reason to refer which may also further delay care or the patient finds another source for treatment or care.

Lack or insufficient supplies of materials, stock out of medicines such as antibiotics, pain killers or anesthetic drugs, and misoprostol, and poor storage system of drugs (for refrigeration) are other identifiable factors for unavailability of abortion service (102,109). Misoprostol is a widely available drug for medical induction of abortion that can be purchased over the counter without fear or need for a doctor's prescription, and it is also included in the list of essential medicines by WHO (3). Its wide availability has been found to have improved access to abortion care, especially through self-management (111). Although, the manual vacuum aspiration (MVA) kit is now well recognized widely as the preferred tool for surgical abortion as dilatation and curettage (D&C) is being discouraged, however, it is not widely available and relatively expensive compared to misoprostol (112). Facilities that can afford it reuse it more than the recommended times or until it becomes damaged. Therefore, some private facilities resort to the use of dilators and curette to carry out D&C which causes pelvic injuries and uterine perforation (112).

During the interview, another obstacle to receiving a prompt surgical abortion procedure or referring the patient with incomplete abortion is faulty or unavailability of the MVA kit. A respondent said,
"…Occasionally, the MVA kit is not available or nonfunctioning. The patient may request to be referred due to delay in receiving the procedure or be referred by the doctor".

4.2.4 Cost of the service

To access health care in Nigeria, more than seventy percent of the population pays for health services via out-of-pocket (OOP) (33). As a result, most do not seek care at the facility which does not mean that they are well, rather, it suggests they cannot afford health care and subsequently seek care from untrained personnel or totally neglect orthodox medicine for alternative medicine that could be unsafe which also apply to abortion services (34).

During the interview, health insurance is not accepted at the study facility and almost all the health workers are unaware of whether health insurance covers abortion or PAC services in public hospitals that accept health insurance. Although, a nurse respondent who had worked at a facility where national health insurance is registered or accepted said,
"I had a patient in my previous facility who had the NHIS, which covered few things she needed for incomplete spontaneous abortion service, and others were paid out-of-pocket".

Direct cost of service

In a study carried out in 2020, it was found that there was a wide difference in the percentage of women who preferred to use a public or private hospital to meet their abortion care needs but couldn't use it. The study showed that the cost of the abortion service (and distance) was the commonest reason for not using their desired service provider (30). There is a scarcity of studies on the influence of (public) hospital financial cost of legal abortion on access to abortion care, rather, it is more about the cost of post-abortion complication care from unsafe abortion, which was found to be highly expensive compared to if the patient had sought care in a hospital equipped to provide safe abortion services

(27,49,68,113). In a systematic review of the financial implications for abortion-care seekers, the cost of induced abortion and complicated abortion treatment ranged from USD 11-66 (roughly 4,600-27,500 Nigerian naira) and USD 21-158 (roughly 8,720-66,000 Nigerian naira) respectively. The comments of three of the respondents during the interview were in line with this finding about how *"patients pay through their nose"* to get treatment for post-abortion complications that would literarily not have cost them much if they had come to obtain the PAC in a qualified or equipped hospital.

During the interview, respondents gave an estimated range of 20,000-30,000 Nigerian naira (47-70USD) for the cost of procuring a safe legal abortion and PAC at the study facility from obtaining a card to discharge home, which included procurement of a consultation card, materials for the procedure, procedure fees, compulsory blood donation, and blood investigations and occasional radiological (ultrasound scan) investigation, and bed fees (when indicated). Only one respondent said it is affordable because some private hospitals ask for more and extort patients. Two respondents think this amount is fair considering the facility level and the expertise to provide safe abortion service, however, one of them said,

"Looking at the economic situation of the country <40% of patients would only be able to afford it".

"Most people are living below average here. So, if they see where it can be done for them cheap and they just buy misoprostol, Buscopan, and the rest under 1000 naira (2.35USD), they won't go and be patronizing people who will collect up to 20,000 Naira (47USD), demanding a pint of blood. They will always go to the cheaper place unless those that value their health", said one of the nurses.

The majority said the amount is costly and this is one of the reasons some patients go somewhere else. Although, most patients in need of therapeutic abortion stay and source for the money because they are afraid of dying from the medical condition threatening their lives or the severe post-abortion complications. In emergency cases, respondents mentioned the hospital policy of an "emergency form" that is provided for patients who do not have money, to release all necessary required resources, including blood to save the woman's life which she must pay back fully before going home.

Indirect cost of service

Women who need admission include those for therapeutic abortion, missed abortion, and moderate and severe post-abortion complications. The waiting period and prolonged hospital admission, lead to the closure of business, low productivity, deduction of pay by employers, or receiving queries at work because of absenteeism from work, all culminating in loss or reduction in income (114,115). In addition, there is the indirect cost of transportation to the hospital and the cost of feeding either being provided (and paid for) by the hospital, bought from a food vendor, or brought by relatives (who take transport to bring the food) (115). This extra cost of time, resources, income, and the fear of losing a job impede accessibility and affordability of service.

In emergency situations at the study facility, all the respondents said they attend to all emergencies promptly irrespective of whether it was an illegally induced abortion or not. Other reasons for delay mentioned include technical or logistics such as power failure (no electricity or no fuel in the power generating set), long hospital procedures, and a delay in processing blood in the blood bank which is a mandatory requirement according to hospital protocol before an abortion procedure is commenced either medically or surgically.

4.2.5 Health information system

A health information system (HIS) is an essential aspect of the health system that serves as an alarm or notification about the trend of health issues, to be able to prioritize effectively, propose and implement strategic interventions to address the health problems, as well as monitor and evaluate the progress of the implemented strategies to achieve the desired goal (116). Incapacitated or weak HIS of

a health facility from deficient, inexact, or untimely data collection, recording, processing, and reporting leads to poor performance assessment on the facility proposed goals (117). Low-quality data resulting from incompleteness or inaccuracies could be in the form of omission, duplication, parallel reporting media, and lack of capacity to analyze and use data for decision making (117).

There is a significant deficit of national data on abortion, including the NDHS, despite being a major reproductive and public health issue contributing significantly to maternal morbidity and mortality in the country. The numbers of unsafe abortions known were estimated based on patients who present at the (public) facility for PAC, whereas some do not come to the hospital for treatment or die before reaching the hospital. These sets of patients are omitted from the data on the incidence of or deaths from unsafe abortion, thereby, not allowing for proper and adequate planning for effective intervention (29).

On facility-based data reporting, public hospitals in Nigeria have the health management information system (HMIS) department that is responsible for recording and reporting health-related conditions which can be retrieved when needed for purposes like research, national, regional, or facility planning, funding, and so on. During the interview, all the respondents were asked about how information on abortion cases is documented and they said they really do not know much about the HMIS department and how they work, but abortion cases are recorded in a book.

"There is a record book where all cases including abortion are recorded that contains the patients' biodata such as name, age, sex, and address; diagnosis; date of admission (if indicated); date of discharge, and outcome", said one of the nurses.

They also said there is the possibility of forgetting to document some cases, especially during overwhelming periods. Another respondent said,

"Every ward in the facility has an admission and discharge book. So, when a patient comes into the ward, her information is documented inside a register including the diagnosis, however, there could be times that information is forgotten to be documented due to the busy activities in the ward at that time but seldomly happen"

4.2.6 Governance/Leadership

Governance is a broad word that is used in different spheres or organizations. This research is focused on governance in relation to the health system within which the hospital functions, and at the level of facility management. Good governance ensures universal access to quality health care for everyone, everywhere irrespective of age, gender, geographical location, ethnicity, educational or socioeconomic status; respecting peoples' right to information and health services including abortion (118). Globally, every country is urged to improve access to SRH services, including abortion by meeting targets 3.1, 3.7, and 3c of the SDG by 2030 (119).

Lack of political accountability contributes to maternal mortality (120). There is a failure on the part of the government to implement its commitment to international treaties such as the International Conference Population Development (ICPD) 1994, Maputo Protocol 2003, and SDG 2015, which emphasized improving universal access to comprehensive sexual and reproductive health (SRH) care services (121–123). To ensure the right of women to access SRHR services including abortion, many European and North American countries liberalised/legalised their abortion laws, resulting in highly safe abortion practices in these regions and contributing minutely, if at all, to MMM (1). In 2004, Nigeria ratified the Maputo Protocol on human and peoples' rights on access to information and service on reproductive health (124), however, the government has failed to liberalise the law by considering the inclusion of physical and mental health of the woman, as well as in circumstances of rape and incest as legal indications for abortion (125). Despite several moves and advocacies by the ministry of health,

the society of obstetricians and gynecologists of Nigeria, and other human rights organizations to ensure the passing of the "Termination of Pregnancy Bill", this Bill is yet to be passed by the legislators (32).

Furthermore, the health system is generally poorly funded which is demonstrated by the limited allocation on health of an average of 5% of the total national budget which is far below the at least 15% pledged at the Abuja Declaration on Health twenty-one years ago (126,127). There is a lack of transparency (by not declaring the state health budget) and unavailability of information on how much the three tiers of governments spend on SRH services including maternal health under which legal abortion services fall. Therefore, insufficient funding of the health system has rendered many public hospitals less equipped, poorly stocked with abortion supplies and resources, poorly staffed, lack of funding for training and continuous education, low salary, and poor remuneration (109,112,128,129).

During the interview, some respondents mentioned that the lack of funds in the facility indirectly hinders access to care as it affects the procurement of medical and surgical supplies, fueling of the generating set, or purchasing of laboratory reagents needed to carry out investigations.

Laws and guidelines made by lawmakers, policymakers, and professional bodies on roles and responsibilities, and abortion practices, are sometimes made without clarity leading to misinterpretation by medical directors, managers, or HCPs which sometimes is to the detriment of the patient. According to the only official national guideline on legal abortion management in Nigeria, the "guideline is for doctors practicing at the facility level, taking into cognisance the task as well as the knowledge and skill of all cadre of health care workers. In addition, health program managers, program coordinators as well as instructors and reproductive health trainers may find it useful" (4). This statement lacks clarity about the other cadre of health care workers referred to and their roles in the provision or access to safe abortion.

4.3 **Effective Interventions**

Effective intervention involves delivering evidence-based care with the goal of improving health and meeting the health needs of the people (3). Several interventions have been reported to be successful either globally, regionally, or nationally.in improving abortion service delivery. Firstly, studies have shown that countries with liberalized/legalised abortion laws have enhanced access to safe abortion (10). There is a reduction in maternal mortality due to abortion in countries where abortion law reforms took place in form of liberalization/legalization, such as South Africa, Romania, and Bangladesh (130). These countries following amendments to their abortion law experienced a massive and drastic reduction in their MMR from 32.69, 148, and 24 deaths per live birth to 0.8, 5, and 12 deaths per live birth respectively from the 1990s to 2005-2007 (130). However, studies have shown that legalising abortion law alone cannot improve access but together with supplementary policies or strategies such as training and task-sharing among health workers, community awareness about the legality of the law are all proven to be successful in achieving safe abortion care (107,130).

Task-shifting of roles in the provision of abortion care has been found to effectively increase accessibility and availability of service (3,131). Allowing other mid-level providers (MLPs) to offer abortion care does not only improve access but also protects against financial insecurity or catastrophe for the patient (110). It also helps to optimize the number of health care providers by sharing roles to timely meet patients' needs and achieve universal health coverage (81,110). Two qualitative studies done in Uganda, and Tanzania on abortion task sharing in the use of manual vacuum aspiration (MVA) by doctors and MLPs showed patient satisfaction from receiving prompt MVA services offered by MLPs in the absence of the doctors, and training of MLPs and doctors in primary health facilities on MVA use increased uptake of abortion MVA service at these facilities respectively (66,132). However, some studies have also reported obstacles in effecting task-sharing roles, which include: 1) conscientious refusal (133); 2) lack of knowledge on PAC and use of MVA by MLPs (66); 3) the feeling of another health worker taking up your duty (81).

Another convincing intervention that has been shown to be productive is value clarification training and continuous education for abortion health providers on the provision of abortion information and counseling, their attitudes towards patients, and the correct use of medical and surgical methods of abortion procedures (107). Training in technical aspects and good quality abortion care is not always sufficient as health providers may also have moral objections. There is a need to enable critical reflection on personal and professional norms and values and distinguishing beliefs from reality to address the stigma associated with abortion, which is what value clarification and attitude transformation (VCAT) is all about (134–136)Due to the effectiveness of VCAT in improving health workers' perception and attitudes toward abortion seekers, it is being advocated to be incorporated into health workers' training (136).

Self-management of abortion is another measure shown to effectively address barriers to accessing safe abortion care (3). Although, this was not discussed under the context of legal abortion, however, studies done to discover the effectiveness and safety of self-managed induced abortion with misoprostol revealed about 94% to 99% success rate without complication, while the 6% with complications warranted medical assistance for complications ranging from bleeding that requires a blood transfusion to surgical removal of retained products (111,137)**.** As a result of this evidence, WHO has strongly recommended in its new abortion care guideline that self-management of abortion should be encouraged (3)**.**

An effective intervention in Nigeria that received international recognition was the Safe Motherhood Initiative (called the "Abiye" initiative) implemented by a former governor of Ondo state Nigeria, during his tenure (2009-2017) to address the high MMR in the state which was the highest in the South-west then. The initiative provided free maternal health, community awareness, and campaign programs on maternal health, and health system strengthening. Although it was not solely for abortion services, it addressed maternal medical conditions endangering their lives that required legal TOP, and post-abortion complication care. At the end of the project, maternal mortality in the state dropped by 84% (138).

5. Discussion

The study has shown how access to safe (legal) abortion is strongly impacted by sociocultural beliefs of duty bearers, restrictive abortion laws, health care providers' (HCPs) bad attitudes, limited skilled HCPs, lack of clear guidelines and policies especially on conscientious objection, and task-shifting leaving services to be provided chiefly by doctors, insufficient supplies and resources, lack of guidance on self-management, and poor governance.

The influence of the cultural and religious beliefs of relevant stakeholders of health including government authorities, legislators, HCPs, and the society at large has resulted in the unavailability of clear policy on abortion, failure to liberalise abortion law, HCPs' biased perception, and unprofessional treatment of girls/women with (especially illegal) post-abortion complications by discriminating and disrespecting them forgetting the "do no harm" quote of medical ethics. A global and currently "hot" example, that is believed to be influenced by morals embedded in religion and culture is the case of overturning the 1973 *Roe v Wade* ruling in the United States, a country with a previous legal abortion law now has seven states confirmed to ban abortion, and several states have policies that are in favor of ban while some retain abortion legality irrespective of the overruling (139). The rude behaviour and refusal of HCPs to provide care influenced by their religious and cultural beliefs have deterred many women from coming to seek care either for legal or post-abortion complication care even when they need medical help (107).

In a restrictive abortion environment, the relevance of the abortion care providers is greatly essential in ensuring quality service delivery. However, there must be adequate, skilled, and non-judgmental HCPs to clinically implement this restrictive law. If any of these characteristics are lacking, access to quality abortion care will be faulty. Sufficiency of abortion care providers will ensure timely reception of care and address longer waiting periods (access); training and capacity building of HCPs on abortion will ensure the safety of abortion care, and improve providers' attitudes (for instance, following a VCAT) towards the provision of PAC (most especially) and legal abortion will embrace the utilisation of service culminating in improved health, responsiveness, confidentiality, dignity, and respect for the patient, in addition, it may create more space for public discussions on liberalising abortion law.

The competencies of abortion care providers are useless when resources to work with are lacking. The study has shown that the lack of resources such as medicines, supplies, equipment, or infrastructures for blood bank, theatre, and good referral system also contribute to long waiting periods and exacerbates already complicated abortion because of delay or completely obstruct access to care. This may lead to mortality in severe states such as no blood for transfusion in a case of excessive bleeding; poorly functioning theatre facility for emergency surgical interventions as in abortion complicated by a perforated uterus, and delay in referring patients or poorly equipped ambulance for resuscitation due to poor referral system. This will negatively affect the health-seeking behavior, safety, and quality of abortion service provided, consequently leading to a poor health outcome.

As revealed by the study facility that logistics, such as power failure, may be the problem at times and not resources, likewise the high cost of health service, this, in turn, shows the direct connection to poor governance/leadership and poor funding of the health system affecting the affordability of health care and availability of necessary infrastructures and resources (including human resources) to achieve universal access to care are readily available to reduce abortion contribution to MMM. Limited passion for maternal health on the part of the government, MOH, or facility medical directors hinders achieving target 3.1 of the SDG, whereas political interest and commitment to maternal health, have been shown to improve a country's productivity and economic growth.

Conscientious objection was also discovered to negatively influence access to safe abortion; however, this was found to be closely related to the ambiguity, incomplete, or lack of clarity of laws, policies, or guidelines on conscientious objection (140). As a result, HCPs interpret or misuse it for personal reasons or gains. The inclusion of exceptions or conditions when a conscientious objection is not allowed could probably reduce or solve the contribution of conscientious refusal to unsafe abortion. The Nigerian

Code of Medical Conduct only obliged a doctor who wants to withdraw a service not to leave a patient health-wisely stranded but that the continuum of care is appropriately handed to another qualified doctor. However, this document did not mention anything about refusing to initiate a service provision (85). Therefore, some health workers have misinterpreted this statement as a right to refuse care (as stated by some respondents at the study facility) and therefore use this as a form of weapon to deny women abortion services or choose who, when, or which abortion-related case they want to attend to base on their beliefs about abortion (82).

In addition, mentioning only doctors and not listing out the other cadres of health workers in the national guideline makes task-sharing of abortion services difficult and limited to only doctors as seen in many public hospitals in Nigeria, consequently limiting availability and access to prompt abortion care. On the other hand, other unskilled health workers may refer to the "other cadre of health workers" as being qualified to provide abortion services that are unsafe for the unsuspecting girl or woman. There is silence about self-management of abortion in the Nigerian context because legal abortion is expected to be managed in a qualified health facility. However, other minor instances such as incomplete abortion that medical procedure can take care of can be considered with proper follow-up by a skilled HCP to overcome the barrier of access including prolong hospital stay.

The analytical framework used for this study was developed by me to fit the context of my study as described in the methodology. However, important findings such as conscientious objection and task-shifting are absent or silently hidden in the framework, which I think should be prominent because of their influence on access to safe abortion care. A further review of the framework will be good to develop a more comprehensive model for safe abortion care.

Limitation

There was limited data and no statistics in the literature on therapeutic (legal) abortion in Nigeria but mainly PAC, therefore, the findings may not totally provide the true picture of safe legal abortion in Nigeria and further research is needed. Data on health information and governance on abortion are grossly missing, as a result, by proxy, information about these in relation to maternal health was used together with my own personal experience which may not give a complete representation of the true picture with respect to abortion. In addition, the limited time for the study affected recruiting other relevant respondents that could have added better information to the study. For example, the lack of including medical directors and health information experts resulted in gaps in the data on governance and HIS as the doctor and nurses had little knowledge about this.

6. Conclusions and Recommendations

The culture and religious beliefs of health care providers negatively influence their attitudes and abortion service provision, and poor governance and funding of the health system are significant barriers in accessing safe abortion care. Each component of the health system is crucial, but most importantly they are dependent on one another to influence safe and quality abortion services. Recognising the importance and dependence of these components, should therefore, guide policymakers to approach and tackle these problems holistically by using evidence-based interventions proven to improve access to safe abortion care and services.

Based on the findings of this study, I would like to recommend the following:

- The Nigeria legislators should put aside personal beliefs and revisit the abortion law and take responsibility for the commitment and ratification made concerning the Maputo Protocol by considering the inclusion of pregnancy that endangers not only the life but also the physical and mental health of the mother, and in instances of rape and incest to broaden and improve access to safe abortion.
- The Federal MOH, with other relevant stakeholders including the SOGON, should review and update the current National Guidelines on Safe Termination of Pregnancy using the latest WHO guidelines on abortion and develop a comprehensive guideline that will include sections on
    i. Post-abortion complication care, stating that it is a mandatory care to be provided by all qualified and skilled HCPs irrespective of what led to its need.
    ii. Task shifting of abortion care, stating clearly, and assigning roles to the appropriate cadres of health workers that should provide what type of abortion service, putting into consideration the relevance of MLPs in task-sharing to facilitate abortion service delivery.
    iii. Self-management of abortion, can be allowed in instances of incomplete abortion that require only medical procedure and foetal anomaly already confirmed at the health facility with proper guidance and follow-up by a skilled HCP
    iv. Conscientious objection. In collaboration with the Medical and Dental Council of Nigeria (MDCN), the Federal MOH should include conditions when an objection is not allowed. I would propose exemptions should be considered in instances of emergency abortion care, like every other EMoC; when referral service is not available or timely
- The MDCN and the Nigeria Nursing Council should include, in the academic and clinical curriculum of medical and nursing students, compulsory training on abortion procedures, familiarisation with medical ethics, and non-judgmental attitudes regarding abortion to improve their knowledge, skill, and professionalism as they prepare them to enter the pool of qualified health workers.
- The federal and all state MOH should ensure regular training (including newly recruited doctors and nurses/midwives) and re-training of health care providers at all levels of health care on abortion clinical services including the use of MVA kit, training on family planning, and incorporation of VCAT into the training program. In-facility training of abortion care providers can be conducted to minimize costs and address the feasibility of regular training.
- At the health facility level, the hospital management led by the medical director should remove unnecessary protocols that delay timely access to care including those that impede task-sharing, and structure the system to facilitate easy directions and movement within the facility.
- The federal and state governments should ensure a proper and transparent budget for maternal health services, while the facility medical directors should also ensure adequate fund is available for procuring supplies and medicines for abortion services and regular maintenance and replacement of equipment needed for quality abortion services.
- I would recommend that individuals or institutions (like FIGO, WHO, IPAS, Guttmacher) interested in safe abortion care embrace and review this newly developed framework and create a comprehensive framework that can be used to analyse access to safe abortion by clearly including relevant factors such as conscientious objection and/or remove less relevant ones.

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Appendices

Appendix 1

LEGAL INDICATIONS FOR THE SAFE TERMINATION OF PREGNANCY IN NIGERIA

The conditions that may constitute a threat to the life of a woman who is pregnant, who could benefit from safe legal termination of pregnancy, are listed below:

Obstetric & Gynaecological Conditions

- Hyperemesis gravidarum refractory to treatment with severe hepatic or renal impairment
- Genital tract cancers (see oncology below)
- Severe fetal conditions/ malformation not compatible with extra uterine life
- CNS abnormalities such as anencephaly, hydrocephalus with no demonstrable brain tissue
- CVSabnormalities such as transposition of great arteries without shunts, Atrio-ventricular discordance
- Multiple organ dysgenesis

Maternal Heart and Vascular Diseases

- Severe Aortic Stenosis (Aortic valve area ≤1.0cm2)-might be due to Rheumatic Heart Disease (RHD) or congenital heart disease (Bicuspid aortic valve)
- Severe Mitral Stenosis (Mitral valve area ≤1.5cm2)-might be due to Rheumatic Heart Disease (RHD)
- Eisenmenger Syndrome – Reversal of shunt – left to right to right to left
- Hypertension in the first or second trimester that cannot be controlled, including pre-eclampsia and Eclampsia
- Pulmonary embolism
- Atrial Septal Defect (ASD), Ventricular Septal Defect (VSD) and Patent Ductus Arteriosus (PDA) with either atrial fibrillation and or severe pulmonary hypertension
- Congenital Cyanotic Heart Disease (Tetralogy of Fallot (TOF)/Trilogy of Fallot, Severe Pulmonary Stenosis, Transposition of great arteries without correction)
- Severe Eustein Anomaly
- Dilated cardiomyopathy (DCM) with depressed ejection fraction(EF) ≤ 30%
- Peripartum Cardiomyopathy – Cardiac failure with depressed ejection fraction (EF) ≤ 30%
- Coarctation of the aorta with left ventricular dysfunction
- Mechanical Valves – in situation of
- Rheumatic Heart Disease
- Mitral valve or Aortic Valve replacement on warfarin as anticoagulant
- Endomyocardial fibrosis with arrhythmias- Atrial Fibrillation (AF)
- Hyperterophic Cardiomyopathy (HCM) with arrhythmias
- Any heart condition where the mother is in stage 3 or 4

Kidney Diseases

- Severe connective tissue disease like Systemic Lupus Erythematosis (SLE) with severe kidney damage refractory to treatment
- Worsening renal failure

Cancers

- Cancer of the Cervix, Uterus, Ovary, Breast & Leukaemia
- Other oncological cases that require treatment
- Malignant neoplasia that require surgery, chemotherapy and/or radiotherapy that is incompatible with the life of the fetus

Blood Diseases

- Haemoglobinopathies with complications as acute sequestration, acute chest/brain syndrome and pseudo-toxaemia of pregnancy

Psychiatric and Other Mental Disorders

- Psychiatric disorders with suicidal ideation
- Severe depression with suicidal tendencies such as may occur in rape and incest

Other Conditions

- Advanced Diabetes Mellitus refractory to treatment and /or with organ failure
- Thyroid diseases requiring radio-iodine e.g. Graves' disease
- Thyro-cardiac disease with atrial fibrillation

Note: Any other maternal pathology that puts the life of a pregnant woman at risk as determined by a qualified medical practitioner e.g.
- Autoimmune diseases (SLE, Scleroderma),
- Drugs: Immunosuppressive drugs,
- Infections: Overwhelming sepsis, Pott's disease, Rubella syndrome

Appendix II

Keywords or Search terms

Problems	AND	**Determinants**	AND	**Region**
Abortion		Religion		Worldwide
TOP		Culture		Developing countries
PAC		Health care provider availability, attitude, knowledge		LMICs
Therapeutic abortion		Service delivery		Nigeria
Unsafe abortion		procedure		
Maternal health		Conscientious objection/refusal		
		Task-sharing/shifting		
		Resources/supplies/equipment		
		misoprostol		
		MVA		
		Cost of service		
		finance		
		Health information		
		Data collection		
		Governance		
		International treaties		
		Laws		
		Effective intervention		
		Framework		

TOP, Termination of pregnancy; PAC, Post-abortion complication; MVA, manual vacuum aspiration; LMICs, low-and middle-income countries

Appendix III: Research Table

Specific objectives	Issues/variables	Methods/Tools	Respondents
1. To identify the sociocultural norms and beliefs of doctors and nurses in MCH, Akure on access to safe legal abortion care	• Their cultural beliefs about abortion • Religious beliefs • Their perception about abortion and abortion law	• Literature review • In-depth interview	Doctors and Nurses
2. To explore the health system factors influencing access to safe abortion	• The legal abortion services provided and availability of the services • The availability, and attitudes of health care providers • The knowledge and skill of HCPs on abortion management, including PAC and contraceptives • Conscientious objection to abortion • Sharing of abortion services between qualified doctors and nurses • The availability of resources, supplies, medicines, equipment, and infrastructure for abortion services • The effect of the direct cost of service • The effect of the indirect cost of service • Proper record keeping of abortion cases • The role of governance in abortion services	• Literature review • In-depth interview	Doctors and Nurses
3. To explore the effective interventions proven to improve access to safe abortion and provide recommendations	• Recommendations on strategies for intervention	• Literature review • In-depth interview	• Doctors and Nurses

Appendix IV

CONSENT FORM FOR DOCTORS AND NURSES

Introduction

I am Yetunde Olotu. I am a Master student at KIT Royal Tropical Institute, Amsterdam. I am conducting a study on the sociocultural and health system factors influencing access to safe legal abortion in Nigeria

The aim of the study is to explore the influence of health workers' beliefs and the health system on access to safe legal abortion (together with this interview) in order to recommend strategies the health system can implement to improve access to safe legal abortion services.

As a doctor or nurse in the department of obstetrics and gynaecology of this facility, I would like to invite you to be a part of this study.

Participant code	
Gender	Female | Male| Other
Age (years)	20-30 | 31-40 | >40
Highest educational qualification	
Professional level	Intern ⎪Medical Officer (with level) ⎪Consultant Midwife ⎪Nursing Officer (with level)
Years of Experience	Less than a year | 1-6years | 7-12years| 13-18years| above 18 years
Ethnicity/Tribe	Yoruba ⎪ Igbo ⎪ Hausa ⎪ Other tribes
Religion	Christianity ⎪ Islam ⎪ other religions

If you agree to participate, I hope that the information you provide will help to improve the access to safe legal abortion care. The study will occur between June and July 2022.

Procedures including confidentiality

If you agree to participate in this study, I will interview you on your beliefs and perception about abortion and the law, knowledge about abortion and management, attitudes towards legal abortion seekers, service delivery, clinical management, the costs of abortion service, availability of abortion supplies, medicines, and tools and so on. You can express your honest opinion freely in this interview.

The interview will be virtual because of distance, and I will ensure nobody can hear us on my side, including putting the camera on on my side throughout the interview. I will also suggest you ensure you are not overheard on your side to ensure privacy and confidentiality.

To prevent forgetting or change what you are saying I will record the answers you give, if you agree with that. Everything that will be said and written down will be kept totally confidential. Your name will not be recorded or written down. Notes will be kept in a locked place. Only I will have access to the anonymous notes. The recorded files will be deleted 6 months upon the completion of the study.

In publications, the findings will focus on the health system as a whole and not on your particular answers, so that nobody can recognise the setting and your opinions.

Risk, discomforts and right to withdraw

After having agreed to participate in the interview, you are still free to refuse to answer any question that makes you uncomfortable. You can also withdraw from this study at any time. Also if any of the questions trigger emotions, I can stop the interview and give you time to deal with your emotion. However, if you wish not to continue, then you are free to.

Benefits

This study may not help you directly, but the results will help to improve the health system to facilitate safe legal abortion care.

Sharing the results

At the completion of the study, I will share the result in form of a presentation with KIT. In addition, the results will be available to you if you are interested in having a copy by sending it to your email.

Consent and contact

Do you have any questions that you would like to ask?
Are there any things you would like me to explain again or say more about?
Do you agree to participate in the interview?

DECLARATION: TO BE SIGNED BY THE RESPONDENT

Agreement respondent

The purpose of the interview was explained to me and I agree to be interviewed …….. (name of person).

_____

Signed Date

WITNESS SIGNATURE

_____

Signed Date

If you have any questions or want to file a complaint about the research you may contact:

Contact information organization:	Contact for Ethics Committee:
KIT Royal Tropical Institute Mauritskade 64 1091 Amsterdam	

Appendix V

Topic Guide for the Study

Introduction of the interview

My name is Yetunde Olotu. I am a Public Health Master's student at the KIT Royal Tropical Institute, Amsterdam. I am writing my thesis and conducting a study on the Sociocultural and Health System Factors Influencing Access to Safe Legal Abortion in Nigeria. The findings of this study will be used to provide recommendations on how to improve access to safe abortion care. I will be asking some questions in relation to the title of this study, you can answer freely to the best of your knowledge, and you are free not to answer any question you are not comfortable with. Also, freely ask for further explanation about any question you do not understand.

Overall Objective: To explore the influence of the sociocultural and health system factors in accessing safe abortion in Nigeria and recommend interventions to improve access

Topic Guide

Objective 1**:** To explore the sociocultural beliefs of doctors and nurses about abortion	
Questions	**Probing**
1. What is your opinion or what beliefs do you have about abortion? 2. How do you see or perceive those who seek abortion services? Both legal and PAC 3. With respect to your beliefs, if abortion becomes legalised, will you provide the service freely and willingly?	• Do you think it should be liberalised or legalised? • Cultural belief? • Religious belief? • Personal belief? • Give reasons for your answer • If your answer to question 3 is no, what will you do or tell a woman who approaches you for an abortion service?
Objective 2: To identify the health system factors influencing access to safe abortion care	
Questions	**Probing**
1. What do you know about the law that governs abortion in Nigeria? 2. Are there instances abortion is legal? 3. What is abortion and safe abortion? 4. What abortion services are provided in this facility? 5. How readily available are the services? 6. Who provides what type of abortion service at your facility? 7. Tell me about the management of abortion?	• What do you think about this law? • If your answer to (2) is yes, can you tell me about the instances you know? • What is the age of viability in the Nigeria context? • Are there instances the services are not available? If yes, when, and why? • Doctors and/or nurses? • Who provides what abortion services? • Medical methods: indications? • Surgical methods: indications? • Pain management? • Others?

8. What are the attitudes of health care providers towards a patient who seeks abortion service? Legal or care for post-abortion complication 9. Within the facility, how fast do patients receive cold and emergency abortion services (if provided)? 10. What delays have you identified from patients receiving care? 11. What information do you provide the patient following PAC? 12. Do you think the service you provide will or will not make a patient come back or refer someone else to your facility for safe abortion care? Explain 13. What are the requirements to provide a safe abortion service? 14. Averagely, how much does it cost to provide a safe abortion service? 15. How about the indirect cost of service? 16. Do you think the cost is expensive, fair, or cheap (affordable) for the patients? 17. How can the cost affect patients' access to care? 18. Does your facility have a health information department? 19. Who and how are the abortion cases at your facility recorded? 20. What role does the hospital management influence access to abortion care?	• How do you and other providers receive the patient? Warmly. discriminatory or indifferent? • What are the possible causes of delay within the facility? • What are the possible reasons for the patient's delay in seeking care or in being referred to your facility? • Family planning/contraception? • The consultation fees • Resources/supplies/medicines for the procedure and procedure fees • Investigations including Ultrasound scan • The average waiting time before a health provider attends to the patient or procedure carried out? • The duration of hospital stay/bed fee • How do patients get food? Cost of buying food/meal • Will patients stay irrespective of the cost or leave? • What is their function? • Any possibility of inaccuracies (omission, duplication, incompleteness)? • The interest of the management in abortion service? • Readily available resources? • Hospital protocol?
Objective 3: To identify interventions that can improve access to abortion services from doctors and nurses	
Questions	**Probing**

1. How do you think access to safe legal abortion services can be improved in your facility and generally?	