

Barriers and challenges pregnant women encounter using maternal health care services in West Africa: A Systematic Review

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Abstract

Background: Enhancing the health of mothers, infants and children is a crucial public health goal in West Africa. This is derived from a series of factors which include a fundamental lack of maternal health care services, limited access to such services and poor nutrition. These factors all contribute to poor health for a significant number of West African mothers and this directly correlates with poor health of their new-borns. West African women are unable to access the same maternity services that are readily available to women in developed countries due to barriers that exist in accessing maternal health care. This research will provide a greater understanding of the barriers they face.

Methods: A literature review was conducted using the following electronic databases, Medline, CINAHL and PubMed. Within these databases a search was conducted to identify published literature relating to barriers and challenges in using maternal health care services. Articles from the years 2000 and 2017 were used. English language studies, titles and abstracts were used for searching database systems. Search terms using truncation and Boolean operators to locate relevant articles were used, 10 relevant papers were identified.

Results: 3 types of barriers were identified, perception of risk, infrastructure due to inadequate road networks, patient related barriers due to lack of information on patients proved to hinder women accessing antenatal care (ANC) services.

Conclusion: Barriers to the use of maternal health care services needs improvement, policies and existing interventions needs to be

strengthened if there is going to be a decrease in maternal mortalities and better health outcome.

Keywords: West Africa, Maternal Health, Barriers, Systematic Review

Introduction

Enhancing the health of mothers, infants and children is a crucial public health goal in West Africa (WHO, 2012). The welfare of mothers and infants establishes the health of the next generation and can aid in predicting future public health challenges for families, communities and the health care system (ODPHP, 2014). More than 600,000 women who die each year from pregnancy related complications were from the African regions, which represents only 12% of the world's population and 17% of its births. Africa has the highest maternal mortality ratio. Maternal deaths figures in Africa remains the highest globally with an average rising from 870 per 100,000 live births in 1990 to 1,000 per 100,000 live births in 2001 (Grieco and Turner, 2005, 2015). Research has estimated that there will be 2.5 million maternal deaths, 2.5 million child mortality and 49 million maternal disabilities in the West African region over the next 10 years. Improving the well-being of pregnant women, infants, and children is vital (Department of Health, 2013). The purpose of studying maternal health is to find ways to deal with the health determinants that is associated with maternal health. The African Region has a huge intraregional disparity in terms of coverage of fundamental maternal health interventions such as antenatal care. Whereas in Southern Africa reports show almost universal coverage in 2010 compared with West Africa where approximately one third of pregnant women did not receive antenatal care visits (WHO, 2017).

Health predicaments during pregnancy cause several difficulties. The health of the

mother, the baby's health or both are all conditions which can put a pregnancy under strain. In some cases, women develop health problems during the pregnancy whilst others have health problems before conceiving which often leads to further impediments. Another challenge to maternal health is the weight of a woman. The weight of a woman before and during pregnancy are crucial factors and concrete pointers of the current and future health of both mother and child. Intended to prevent or at least greatly reduce the health risks during pregnancy are services such as antenatal care, well managed delivery, neonatal and infancy care. These are all maternal health goals in West Africa, it offers both mother and child good health outcomes during pregnancy. It also protects the general health of the mother and offers new-born babies with the opportunity of survival (Tulchinsky et al, 2000). The improvement of women's health is seen as forming a basis for social and economic development in the West African Region. Women's health has been established as a human rights issue in this region and as such ought to be endorsed and shielded. The significance of this is evident as women in Africa make up more than fifty per cent of the continent's human resource, proving that women's health has a significant impact for the region's expansion. Often the approach is to enhance maternal health in a region based on understanding the socio-cultural determinants that are vital in shaping it (WHO, 2012).

Improvement since 1990 in reducing maternal mortality has been remarkable. Maternal mortality rate (MMR), globally fell by 44 per cent over the period. Moreover, while improvement was extensive; it was not satisfactory to comprise attainment of the Millennium Development Goal 5 (MDG 5) target of a three-quarters decline. It was estimated that in 2015, around 800 women and girls died daily due to child birth-related impediments. It is evident that maternal

mortalities are now focused in sub-saharan Africa, where high fertility rates joint with insufficient access to quality antenatal care and skilled attendance at birth to eliminate the possibility of mortalities in this region (UNICEF, 2016). Presently, Nigeria is the top leading country in West Africa with the highest maternal mortalities and contributes to the global maternal mortality rate. Research conducted by UNICEF established that, a woman's likelihood of dying from pregnancy and childbirth in Nigeria is 1 in 13. In 2015, maternal death rates for Nigeria were 814 per 100,000 live births (Arogundade, 2018). The main problem is that most women within the West African region who become pregnant do not have access to maternal health care services.

Research has already been conducted with regards to some of the barriers and challenges pregnant women encounter when accessing maternal health care. Specifically, the research question in this review will help to identify areas that are contributing factors that women face when using maternal health care service in West Africa. It is emphasised that such systematic review may not offer any new findings but it rather reviews the quality of existing research conducted. Although to some extent, there has been improvement in the provision of maternal health care services in West Africa over the years. In Ghana there has been provision of trained midwives, provision of hospital beds in urban hospitals and trained health workers (Population council, 2016). However, measuring the effectiveness of access to maternal healthcare services is questionable, based on the fact that. According to the Millennium Development Goals 5 (MDGs 5), it stated that: Maternal Health ratio has decreased nearly 50% since 1990. But as well with MDGs goal 4 it falls short of the two- thirds decline that was aimed for. With these results about 289,000 maternal deaths was recorded in

2013. World Vision International (WVI, 2015). There is a need to evaluate the effectiveness of maternal health care services, however through evidence in current research already conducted this review will help to identify gaps or areas for further research and to carry obligatory adjustments. For example, health policies and existing interventions if required in maternal Health care services. The aim of this study is to evaluate the barriers and challenges pregnant women encounter when using maternal health care services in West Africa.

Search Protocol

Search strategy was used to perform a systematic review and to identify various peer reviewed articles and other publications relevant to barriers to maternal health services in West Africa. Boolean operators such as "and" "or" were used to search for relevant electronic database articles. This technique was used to reduce time and to avoid getting inappropriate results for articles. Below is a full list of search terms as they were paired in the stages of the electronic search.

- ◆ Pregnant women AND barriers OR services AND west Africa
- ◆ Antenatal AND barriers AND west Africa AND services
- ◆ Pregnant women AND Challenges AND utilisation AND west Africa
- ◆ Pregnant women AND services AND Challenges AND west Africa

The research strategy was based on three stages as described by (Khan, et al., 2011). The scoping review was done to make out if similar study has already been conducted or not.

Stage 1: stage one used basic keywords such as maternal health services and antenatal care to find related studies utilising minimal database platform such as PubMed. This was done to ensure that no previous scoping reviews was done

using library of systematic review. Originally some systematic reviews were identified which was done by (Jahan, et al., 2016). The systematic review was Facility-Based Maternal Death in West Africa but was not applicable to the research topic of this systematic review. It only focused on maternal deaths and did not really address the leading factors that might be causing maternal deaths.

Stage 2: during stage two keywords were increased by using Boolean operators and more database search was used including WHO, Google Scholar, PubMed and Medline.

Stage 3: extended searching of references was used from the articles and research materials that were already extracted during stages one and two to expand the range of research.

Inclusion Criteria

For a systematic review to be authentic, research material must solely be based on studies that have been conducted and appropriate to barriers to maternal health care services in West Africa. Quantitative research such as cohort study and case control study were included in the inclusion criteria. However, a time frame was applied from the year 2000 to 2017, this was done in order not to limit accessing relevant studies. Also, only articles written in English language was considered. Some grey literature was also used.

Exclusion Criteria

The exclusion criteria played a crucial role in minimising bias, studies that were conducted before the year 2000 were not included because of the development of surrounding maternal health. Research conducted in other languages were excluded to understand what is being written.

Quality Assessment: Appraisal of Rigour

Upon completion of the inclusion and exclusion criteria process in stages two,

appraisal of rigour was incorporated to avoid being bias and to fortify the study. Critical Appraisal Skill Programme (CASP) tool was utilised to assess the quality of the qualitative and quantitative studies.

Data Synthesis & Extraction

This study consisted of both qualitative and quantitative research studies; therefore meta-analysis was not done due to the variation of studies and lack of statistical findings. The heterogeneity of different study patterns and their results were synthesised. It is important to investigate heterogeneity in study findings. Variations may be due to methodological differences or in the characteristics of the included studies. Study design, six of the study in the analysis should be explored and discussed to be rigorous, transparent and avoid the possibility for becoming bias (Pearson, 2004).

Originally a total of 2598 research materials were identified after the three stages, with 2590 from stage one and additional eight research materials were extracted from references of other research articles. After duplicate a total of 2598 articles were screened by using the inclusion and exclusion criteria technique. By thoroughly going through the abstract, forty articles were included for full studies.

A total of thirty-five articles were scrutinised for eligibility and were eliminated due to the reasons below:

- ◆ Articles focused on childbirth delivery and mortality rates
- ◆ Articles focused on other regions of Africa
- ◆ Other languages
- ◆ Global maternal health care service

Based on a detailed review for eligibility a total of thirty-five articles were excluded and leaving ten relevant articles for CASP analysis, after which eight articles, were included for the systematic review.

Results

Key Barriers women face accessing maternal Health care service

Table 1 has presented and summarised a brief analysis of 10 of the included studies. However, key factors and further interpretation from the West African region of barriers to maternal health care service will be described below. Barriers to the use of maternal health care services were identified and grouped into 3 themes. Perception about risks of the conditions and advantage of utilising skilled health care services, infrastructure, and patient related barriers.

Perception about risks of the conditions and advantage of utilising skilled health care services

Perception of the conditions and risks associated with pregnancy were reported in 4 out of the 10 papers as the leading to hurdle to service utilisation. In one study conducted in Gambia with young pregnant women it was reported that there was lack of understanding of signs and symptoms of pregnancy. The inability to identify basic signs and symptoms of pregnancy means that, women can begin pregnancy at a disadvantage stage as they are unaware of the medical attention their bodies may need. As such attending ANC maternal screening was underestimated due to the lack of insight on the risk factors associated with pregnancy.

In one study conducted in Kano state, Northern Nigeria, the responses of healthcare workers highlighted that carelessness on maintaining general good health and negligence were some of the reasons why women did not attend antenatal care. When probed it became evident that there was a lack of education and understanding of the reasons for antenatal care. Women did not attend appointments due to lack of knowledge of pregnancy and the significance of antenatal care. In another study conducted

in Nigeria it cited that women from poorer rural communities with limited education encounter challenges with regards to affordability and accessibility of the use of maternal health care service.

Infrastructure

Infrastructure was cited in 3 out of 10 studies as an obstacle to maternal health services) In Ghana it was identified that there were long journey times taken to get to adequate health care facilities due to poor road networks. This was identified as a huge barrier for pregnant women to accessing good services. Nearly 40%, presented that journey times due to bad roads networks to an adequate health care facility was presented as big barrier for pregnant women. Nearly 20% of hospitals are from rural areas and can take up to 2 hours travelling time to reach in the raining season due to bad road conditions. In another study conducted in Senegal, lack of equipment supplies and breakdown of machines posed barriers to uptake of maternal health care services.

Patient related barriers

3 out of 10 studies conducted in 3 countries in West Africa cited patient related barriers having an influence over ANC utilisation. Studies conducted in Ghana, Senegal and Nigeria found out that most hospitals and clinics do not provide information patients such as leaflets or pamphlets that patients can take away about women accessing maternal health services. Alongside a lack of readily available materials about maternal services is patient refusal of treatment due to cultural beliefs. A research work completed in Kano Nigeria highlighted that pregnant women did not have good access to ANC due to refusal of pregnant women to be seen by male health workers and in some cases refusal of treatment altogether due to cultural believes.

Discussion

This study identified barriers relating to the use of maternal health services in West Africa. 10 articles that examine maternal health barriers in West Africa were identified by systematically searching electronic databases.

The most commonly cited barriers included were perception about risks of the conditions and advantage of utilizing skilled health care services, lack of education and the lack of insight on the risk factors associated with pregnancy. Research studies conducted in Ghana, Senegal and Nigeria witnessed a high level of infrastructure issues relating to maternal health services and utilization. The studies illustrated that, although health facilities have been made available, accessing them is problematic. Those in rural areas of these countries struggle to access ANC services. Road structures are the leading causes of limited access to ANC services. One study conducted in Ghana was modelling geographical access of women to health facilities. Although every effort was made to compile a complete dataset describing the landscape, it is also true that it will by no means be possible to capture the fullness of local details. Efforts to decrease maternal health challenges by enhancing the quality and accessibility of facility-based care will have little impact where long distance and poor infrastructure issues are involved. However, the pace at which improvement is taking place, extra effort is required for these countries to achieve the MDG 5 (Millennium Development Goals) target of decreasing maternal mortality rate by three quarters (Ghana Health Service, 2017). Studies also indicated that cultural barriers is another leading force to lack of access to maternal services in West Africa. Due to religious reasons women especially, those from Muslim background find it difficult to access ANC services. Traditional practices that encourages preference for home delivery under the supervision of a

traditional birth attendant were very common amongst those from poor rural areas than those from urban communities. Several researches conducted in maternal health and women's issues in rural sub-Saharan Africa, have proposed different ways by in which intra-household units may influence women's health. However, evidence from different locations propose that power is widely influenced by constructs at the interpersonal and societal levels (Lowe, et al, 2016). This systematic review has several limitations; the first limitation is that there was only limited data available to the topic area, focusing on solely on West Africa made it difficult to consider other barriers that might be related to utilisation of maternal health care services in the continent of Africa.

Conclusion

Barriers to the use of maternal health care service exist in West Africa that leads to mortalities and poor health outcomes, all these predicaments can be prevented. Although this research has not come up with any new intervention or identified any gaps. However, it gives an indication to re-evaluate ANC policies, interventions and researchers to focus more on maternal health issues which are supposed to be fundamental part of quality antenatal care. For this reason, West African countries must put together evidence on a higher-level on maternal barriers for country specific interventions can be forming to increase maternal health care services utilisation.

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Competing Interests: None

Table 1. Summary of the included research papers

Citation	Target Countries	Study Design	Study Objective	Findings
Oguntunde, O., Surajo, M., Dauda, SD., Salihu, A., Anas-Kolol, S., and Sinai, I, 2017, Overcoming barriers to access and utilization of maternal, newborn and child health services in northern Nigeria: an evaluation of facility health committees, BMC Health Services Research	Northern Nigeria	Mixed methods study	Perceptions about facility health committees' contribution to improved quality of health care services, with focus on maternal and child health services.	Facility health committees in northern Nigeria are clearly effective in improving maternal and child health, as recognized not only by the facility members themselves, but also by facility health providers and facility clients.
Agunwa, CC., Obi, IE., Ndu, AC., Omotowo, IB., Idoko, CA., Umeobieri, AK., and Aniwada, EC, 2017, Determinants of patterns of Utilisation of maternal and child health service utilisation in a rural community in South Eastern Nigeria, BMC Health services Research	South Eastern Nigeria	Cross sectional Analytical study	This study seeks to describe the patterns of utilization of maternal and child health (MCH) services (Family planning, Antenatal care, skilled delivery, child immunization and Child outpatient) in rural areas, and identify factors that are significantly associated with and responsible for determining them.	The study revealed that increasing age, educational level, monthly income, number of children and occupation of both women and their husbands were associated with increased MCH service utilization.
Fagbamigbe, AF., and Idemudia, ES., 2015, Barriers to antenatal care in Nigeria: evidence from non-users and implications for maternal health programming, BMC Health services Research	Nigeria	Cross sectional study	To identify and prioritise reasons given by respondents for not utilising ANC facilities in Nigeria	Affordability, availability, and accessibility of ANC providers were the common factors facing utilisation of ANC in Nigeria
Kostera, W., Ondoaa, P., Sarr, AM., Sow, AI., Schultsza, C., Sakande, J., Diallo, S., and Pool, R., 2016, Barriers to uptake of antenatal maternal screening tests in Senegal, Journal of SSM population Health (2) 784–792	Senegal	Mixed Methods Study	Measure the uptake of the six recommended antenatal maternal screening tests and to identify and explain barriers to testing.	Antenatal maternal screening tests appear not to be a priority for health staff and community alike.
Liang, SP., Sinmyee, SV., Rafique, K., Smith, HE., Cooper, MJ., 2017, Barriers to Antenatal Care in an Urban Community in the Gambia: An In-depth Qualitative Interview Study, African Journal of Reproductive Health September, ; 21 (3): 63	Gambia	Qualitative interview study	To explore the attitudes of pregnant women, their male partners and key informants towards antenatal services and to identify barriers associated with access.	Implications for antenatal care policy in the Gambia, and the need for further development of outreach programmes to engage pregnant women who are asymptomatic or belong to vulnerable demographic groups.
Lowe, M., 2017, Social and cultural barriers to husbands' involvement in maternal health in rural Gambia, Pan African medical Journal, 27:255	Gambia	Exploratory qualitative study	To explore through perspective of rural men and traditional birth attendants, the underlying social and cultural factors affecting husband's involvement in maternal health issues pertaining to pregnancy and delivery in rural Gambia.	Husbands' involvement in maternal health in The Gambia is influenced by the prevailing social and cultural practices of gender role and norms, which are also at the root of maternal health problems.
YAR'Zever, IS and Said, I.Y., 2013, Knowledge AND Barriers in Utilization of Maternal Health Care Services in Kano State, Northern Nigeria, European Journal of Biology and Medical Science Research Vol.1 No. 1, March 2013, pp.1-14	Northern Nigeria	Descriptive cross-sectional study	To assess married women's knowledge of maternal health care facilities and services and the determining factors influencing utilization of maternal health services	Programs to improve maternal healthcare have not succeeded in overcoming the socioeconomic obstacles in the way of married women' utilizing maternal health services.
Pagalday-Olivares, P., Sjöqvist, BA., Adjordor-van de Beek, J., Abudey, S., Silberberg, AR., and Buendia, R., 2017, Exploring the feasibility of eHealth solutions to decrease delays in maternal healthcare in remote communities of Ghana, BMC Health services Research	Ghana	Mixed Methods	Assesses the feasibility, in terms of potential of and requirements, of eHealth solutions to improve maternal healthcare in remote areas of Kpando, Ghana.	eHealth solution will have the highest impact by providing accurate clinical information. Clinical information is crucial for the prevention and early detection of pregnancy complications.
Gething, P W., Amoako, JF., Frempong-Ainguah, F., Nyarko, P., Baschieri, A., Aboagye, P., Falkingham, J., Matthews, Z., and Atkinson, PM., 2012, Geographical access to care at birth in Ghana: a barrier to safe motherhood, BMC Health Service Research	Ghana	Spatial data	Assessment of geographical access to maternity care at birth in a high burden country based on a calibrated journey-time model.	Current international benchmarks of maternal health care provision are inadequate, location and accessibility of services are not taken into account with the women they serve.
Smith, KV and Sulzbach, S., 2008, Community-based health insurance and access to maternal health services: Evidence from three West African countries, Social Science & Medicine (66) 2460-2473	Senegal, Mali, Ghana	Household Survey data	Examine the relationship between CBHI membership and access to formal sector maternal health care.	membership in a CBHI scheme is not sufficient to influence maternal health behaviors e it is the inclusion of maternal health care in the benefits package that makes a difference

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