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RESEARCH ARTICLE

Listen to the Midwives in Limpopo Province South Africa: An Exploratory Study on Maternal Care

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Abstract:

Background and Aim:

South Africa is a middle-income country that did not reach the United Nations Millennium Development Goal 5 by 2015, because maternal mortality ratio increased between 1990 and 2015. Limpopo is a rural province, and its institutional maternal mortality ratio is higher than the national average. Studies reported that there is a shortage of midwives and medical equipment in the province. This study is part of a broader research program focusing on strengthening health systems for maternal care in Limpopo province, and it was aimed at exploring the experiences of Midwives prior to debriefing and training sessions conducted.

Methods:

Qualitative research was used whereby five focus group interviews were conducted with midwives from five districts to share experiences during the provision of maternal healthcare and to propose solutions thereof. Tesch's open coding qualitative data analysis was used.

Results:

The findings revealed that there is a lack of resources, feelings of isolation, problems related to logistical issues, staffing issues, demographic characteristics of the population, interinstitutional communication, and lack of administrative support.

Conclusion:

Hospital managers must revise how they allocate resources, improve inter-institutional cooperation, and change of management attitude. This study concludes that the midwives identified numerous challenges that originate from a lack of resources. Revision for resource allocation is hoped that it will solve logistical problems, increased inter-institutional cooperation in terms of capacity building and patient assessment suggested with the hope to minimize the challenges of communication and staffing.

Keywords: Experiences, Maternal care, Midwives, Ante-natal care, Maternal mortality ratio, Lack of resources.

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1. INTRODUCTION AND BACKGROUND

Linked with women's health are the Millennium Development Goal (MDG) 5 and Sustainable Development Goal (SDG) 3, which were geared towards improving health, including maternal health. Sub-saharan Africa is estimated to account for 66% of all maternal deaths, with a Maternal Mortality Ratio (MMR) of 546 [1]. The MMR of South Africa (SA) is estimated to be 138, which is considered a moderate number. Between 1990 and 2015, the worldwide MMR was reduced by 44% [2]. During the same timeframe, however, the MMR of SA increased by 28%, indicating a failure to achieve MDG 5 [1]. The institutional MMR (iMMR) of SA is 116, 9 as of 2017 which is worrying [2]. While the Centers for Disease Control and Prevention reported that the United States of America saw an increase of pregnancy-related deaths ranging from 7.2 deaths per 100,000 live births in 1987 and 17.2 in 2015 which is considerably high [3].

Limpopo is the northernmost province of SA, and by 2011, its population was estimated to be slightly above 5 400 000, which accounts for 10% of the SA population [4]. Approximately 90% of the provincial population lives in rural

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areas, and almost 50% are younger than 15 years old [5]. The province accounted for 7.2% of the national gross domestic product in 2010 [6]. The unemployment rate of Limpopo was 38.9% according to the 2011 census [4] and the province had the lowest average household income in SA [6, 7].

There is evidence of growing inequities in the maternal healthcare of SA. The nation-wide coverage of Ante-Natal Care (ANC) declined between 2008 and 2012 and the gap in access to these services between the poorest and the richest quartiles increased. Women under 20 years and those living in rural areas had markedly low ANC access, [8] making the women of Limpopo a vulnerable group. Indeed, the iMMR of Limpopo is 130.2, which is far from the highest provincial number, but still 10.5% higher than the national average [2].

In the previous years for about a decade, Maternal Mortality Reports have been published in the United Kingdom every three years, which consistently raised concerns about maternity care observed. The reports pointed out that observations of women during pregnancy, labour, delivery, and puerperium are either not being done or not being completed fully, or are not recorded on Early Warning Score systems which lead to complications that either passed unnoticed or are not escalated appropriately. This has resulted in delays in referral and intervention, which increased the risk of maternal morbidity or mortality [2]. To avoid complications in pregnant women during labor and delivery, a study conducted by Sehhatie, Najjarzadeh, Zamanzadeh, and Seyyedrasooli [8] concluded that the provision of one-to-one delivery care by midwives will improve birth outcomes and this type of care must be promoted at all costs. It was also indicated by Filby, McConville, and Portela [2] that in order to have positive maternal and birth outcomes, the important social, cultural, economic, personal, and professional challenges of midwives need to be prevented. In South Africa, a study conducted by Spencer, du Preez, and Minnie [9] pointed out that there is a need to support midwives as they are experiencing organizational and personal challenges that might affect the provision of care during childbirth. According to Mashigo [5], midwives in Tshwane South Africa also experience challenges such as shortage of staff, shortage of material resources, fear of decision making, and lack of management support, which lead to problems in the ethical conduct of duties. It was against this background that the study determined the challenges faced by midwives in Limpopo province when providing maternal care.

1.1. Problem Statement

Whilst other countries succeeded in reducing maternal mortality, Sub-Saharan countries, including South Africa, still struggle to reduce the total maternal mortality rate. It is reported that the majority of these deaths could have been prevented, if Health Care Workers were adequately trained to deal with emergencies, especially in rural areas like Limpopo province. According to NDoH [11], both KZN and Limpopo provinces were rated last of the list of all 9 provinces in reducing maternal mortality in South Africa, which means that there is an urgent need to improve on maternal service delivery in order to achieve a 0% mortality rate by 2020 in this province [10]. Unfortunately, access to prevention, care, and treatment services for maternal emergencies remains a serious challenge in South Africa, and health systems are rarely designed to deal and provide exclusive maternal care in cases of emergencies, with negative attitudes of Health Care Workers posing a serious threat to service delivery [11].

1.2. Purpose of the Study

The aim of this study was to determine the midwives' challenges on maternal Health outcomes in order to develop strategies to improve maternal outcomes in the Limpopo province of South Africa.

1.3. Objectives of the Study

The objectives of this study were to:

- Explore and describe experiences of midwives when providing maternal care in maternity care units of Limpopo province.
- Determine interventions to be employed to improve maternal care based on explorative results of the challenges experienced by midwives.

2. MATERIALS AND METHODS

2.1. Study Site and Context

The study was conducted in Limpopo province. The province is located in the north of the Republic of South Africa. The province is divided into five districts: Mopani, Capricorn, Waterberg, Sekhukhune, and Vhembe District. The midwives who participated in this study were from all 5 districts and worked in the delivery rooms either in hospitals or primary health care clinics.

This study constitutes a part of a collaborative research program funded by the South African Medical Research Council (SAMRC) and Swedish Research Council for Health, Working Life and Welfare (FORTE), which focuses on strengthening health systems for maternal care. As part of this program, workshops have been held to which SA midwives were invited to share their experiences and thoughts on maternal healthcare.

2.2. Population and Sampling

The study population was all midwives who are working in the delivery rooms of all the districts and worked in the delivery rooms either in hospitals or primary health care clinics.

Homogenous purposive sampling was used to include all midwives who participated in the five focus group interview sessions conducted. The sample was homogenous because only midwives who are working in the delivery rooms in all the districts either in hospitals or primary health care clinics were included in the interview sessions.

2.3. Data Collection

Data were collected through Focus Group (FG) interviews which were conducted in English because all midwives who were included are conversant with the language, and it is the

medium of instruction. A total of five focus group interviews were conducted, one for each district in the Limpopo province. Several midwives participated and there were between 12 and 15 participants in each FG. In each FG, one of the participants was a manager in the district office. A voice recorder was used to capture all interview sessions conducted.

The study conforms with the principles of the Declaration of Helsinki, outlined by World Medical Association [12] under the umbrella of ethical clearance received for the whole collaborative research program from the Ethics Committee at the University of Limpopo (Research Ethics Number – TREC/117/2017: IR) and permission to collect data was sought with the Limpopo Department of Health Research Committee.

2.4. Trustworthiness

The criteria for trustworthiness confirmed the credibility of the findings. Data were collected from midwives themselves, voice recordings were transcribed verbatim; as purposive sampling was used to include participants in the Focus Group intersessions, and the context of the study was described. Voice recordings were kept in the computer file with an opening code known by the researchers only. The reliability of the data rested on the midwives and their managers being interviewed as the providers of maternal care in Limpopo province maternity units [13].

2.5. Data Analysis

Data were analyzed using the eight steps of Tesch's open coding method as outlined in Creswell [14]. The researchers got a sense of the whole by reading all the verbatim transcriptions. The researchers scaled-down the data collected to codes based on the existence or frequency of concepts used in the verbatim transcription and similar topics that emerged were grouped together and were clustered separately. The researchers abbreviated the topics that emerged as codes. These codes were written next to the appropriate segments of the transcription. The researcher developed themes and sub-themes from coded data and the associated texts and reduced the total list by grouping topics that relate to one another to create meaning of the final themes and sub-themes.

3. RESULTS

The findings reflected aspects that could be addressed in order to improve the care provided by midwives in the midwifery units; the themes and sub-themes are presented as follows:

3.1. Theme 1: Midwives' Challenges Experienced during the Provision of Care in the Maternity Unit

Throughout the FG interview sessions conducted, there were similar challenges which were mentioned by the midwives in all the five districts of the province which lead the researchers to view the provision of maternal care in Limpopo province posing problems to midwives (Table **1**). This has emerged in the six subthemes which are presented as follows:

3.1.1. Shortage of Material and Human Resources Impedes the Provision of Quality Midwifery Care

Midwives were concerned about the shortage of different resources which included a shortage of midwives who have to take care of women who are pregnant, in labour, delivery, and those in the puerperium stage. A midwife said: "*It is challenging to be expected to provide excellent maternity care whilst you do not have enough midwives in a day to cover a shift let alone those specialist midwives that we are dreaming of and we do not have. We are extremely short-staffed in the maternity ward*".

Another midwife who is experiencing the same challenge indicated that: "*We are short-staffed, and it is impossible to do all maternal observations as expected by midwifery books based on the theory that we learned from school*".

A midwife who has a shortage of material resources said: "*We are expected to provide quality care to pregnant women, but we do not even have enough gloves to do per vaginal examination nor soap to wash hands before and after such procedures*". A midwife who experienced shortage of material resources said: …… "*I am working at the deep rural clinics, and when you discover that the pregnant women in labour cannot successfully deliver at the clinics due to complications and you try calling the ambulance, they say ambulances are out they will send the one that will be first available*".

Table 1. Themes and sub-themes reflecting the challenges experienced by midwives in limpopo province during provision of maternal care and suggestions made by midwives themselves.

Main themes	Sub-themes
1. Midwives' challenges experienced during the provision of care in maternity units	1.1 Shortage of material and human resources impedes the provision of quality midwifery care 1.2 Poor versus lack of autonomy in decision making by managers 1.3 Existing negative attitudes leading to poor provision of maternity care 1.4 Experienced overcrowding of women in maternity units leading to the provision of substandard care 1.5 Lack of knowledge by midwives observed 1.6 Lack of management support to midwives problematic
2. Suggestions made by midwives geared towards improving maternal care	2.1 Benchmarking should be done with countries having the same challenges 2.2 A need for more in-service education and on-the-job training outlined 2.3 An outline that debriefing for midwives is necessary for them to execute their duties maximally

3.1.2. Poor Versus Lack of Autonomy in Decision Making by Managers

The midwives were concerned in all facilities about the lack of decisiveness and autonomy that their managers have, and which affects how they should provide care in their work environment. This was confirmed by the following statements: "*Our immediate managers are scared to take decisions always, it is like they do not have the power to execute their activities*". Another midwife with the same opinion said: "*Managers that we have cannot take decisions. They will always indicate that they are still going to ask what to do from their seniors, imagine if the decision must be taken at that time. This retards care provided by midwives*".

3.1.3. Existing Negative Attitudes Leading to Poor Provision of Maternity Care

During the focus group sessions, it was indicated that there is an observation made in the labour wards that nurses and doctors do not always have a good working relationship as they often argue over work-related issues. This was indicated by the following excerpts: "*Jooooo! Midwives and doctors fight a lot, firstly they will fight because the doctor did not respond timeously when he/she was called to come and attend to a women in labour who is complicating; secondly they will fight about the fact that sometimes doctors do not want to take quick decision for example when a women should be taken straight away for caesarean section because she has passed an action line maybe*". Another midwife who had made the same observation said: "*Doctors do not always come when they are called; they want to give telephonic instructions and when a midwife refuses then they will fight each other sometimes.*"

3.1.4. Experienced Overcrowding of Women in Maternity Units Leading to the Provision of Substandard Care

There is a concern raised by midwives relating to the numbers of women they are admitting into the labour units, which is an impossible workload with the total number of midwives they have. The total number of women admitted end up receiving care that is not of quality. This was voiced by midwives who said: "*We admit large numbers of women in maternity units which we are unable to manage because we have shortage of midwives and moreover shortage is extreme to specialist midwives who can manage some of the complications whilst waiting for the doctors' intervention*".

Another midwife in support said: "*We have large numbers of women who are pregnant and in labour that we are admitting and we cannot manage, and this poses a serious problem because it means we are not managing and this leads to us not doing the right things which at the end of the day we lead us into trouble*". Another midwife said: "*We admit a lot of women that we cannot manage especially in the tertiary hospitals and most of them are admitted with complications*".

3.1.5. Lack of Knowledge by Midwives Observed

A concern was raised mostly by the managers participating in the focus groups that many of the midwives in the maternity wards seem to be lacking knowledge on how to use existing maternal care protocols, which will guide their practice. This was confirmed by the following excerpts: "*We have observed during visits in maternity wards that most midwives are just working, but they do not have enough insights of the protocols which exists to guide them when monitoring pregnant women in labour for example. When you ask them, they do not know*".

Another midwife who shares the same sentiments said: "*Midwives do not know how to deal with complicated cases whilst still waiting for medical intervention though they have maternity guidelines readily available for them*".

3.1.6. Lack of Management Support to Midwives Problematic

The midwives voiced with sadness that they lack support from management and what they get is criticism if something in the maternity wards goes wrong. This was, for example, expressed in the following excerpts: "*The management always pins mistakes to us; they do not really care about us though we are working in a strenuous environment*".

Another midwife said: "*Our managers are rude to us; they do not support us, and they always shout at us in front of patients, and this is bad because it makes us stressful*".

3.2. Theme 2: Suggestions by Midwives Geared Towards Improving Maternal Care

In order to overcome the challenges experienced by the midwives, there are several suggestions that they themselves made towards getting rid of some of the negative things they experience. This has emerged in the subthemes of this theme.

3.2.1. Benchmarking Should be Done with Countries Having the Same Challenges

One of the suggestions from the focus groups was that because countries have different challenges when benchmarking is done, it should be with the country that has the same maternal health challenges. This was raised by the midwife who said: "*We cannot benchmark with the first world countries like Sweden in Europe; such countries do not know what we are experiencing; therefore, we need to benchmark with countries like Botswana and Lesotho*".

Another midwife with the same opinion indicated that: "*We need to be realistic here because we are in Africa; therefore, we need not compare our maternal problems with those of Europe because their birth rate is even low*".

3.2.2. A Need for more In-service Education and On-the-job Training Outlined

Midwives emphasized that they need to have more knowledge related to existing protocols and new developments in midwifery care; therefore, they will appreciate it if there could be continuous in-service education and on-the-job training in maternity units. This was pointed out by a midwife who said: "*We need to get training whilst working all the time, especially with the protocols that are in use in order to avoid mistakes that might occur*".

Another midwife indicated that: "*I specifically think that in-service education sessions will assist in updating our knowledge*".

3.2.3. An Outline that Debriefing for Midwives is Necessary for them to Execute their Duties Maximally

In all interview sessions conducted, it was clear that the midwives are stressed by the environment they are working in. This was confirmed by the following excerpts: "*All midwives that you see here we must be debriefed one at a time because we have several challenges at work and even at work and this affects our work*".

Another midwife said: "*We need debriefing which is accompanied by body massage because we are too stressed to be fruitful at work*".

4. DISCUSSION

These findings of challenges in maternal health care are similar to those described by a recent systematic review published in 2018 that identified several barriers for the out of hospital emergency care in low and middle-income countries. Among the findings were poor communication, poor access to ambulance vehicles, lack of equipment, and lack of skills among emergency medical services (EMS) personnel. The study concluded that the focus of improvement should be on access, means of transport, and training [4]. These solutions comply well with the suggestions to take measures from the midwives in this study.

Lacking communication, competence, and management were some of the findings of this study. An investigation at the Limpopo provincial hospital suggests that the hospital's high MMR might originate from low-quality care of the peripheral district hospitals due to lack of competence and poor referral systems. That investigation also states that the provincial hospital is understaffed and lacks equipment [7]. Also, the participating midwives in this study complained about a shortage of resources. Another study at a district hospital in South Africa found that there was a critical shortage of equipment and that the available equipment was of low quality. They concluded that in order for quality care to be provided, functional equipment needs to be provided [6]. Measures should also be taken against the lack of vehicles as previous studies have pointed out [4].

When it comes to suggestions, the midwives questioned benchmarking with countries that have different challenges in maternal health rather with countries with similar problems. Benchmarking in history is a term from the business field, and the aim was to collaborate in order to compare practice and to evaluate if the outcomes will be able to change current practices [15].

In addition, the midwives in this study suggested counselling as one of the measures to handle the present overwhelming situation in maternal health care. No other studies were found with those results, and further research in this regard is needed. More knowledge is needed to attend to the experienced situation and other studies presented high MMR and possible moves to improve the situation have not to be compromised.

5. METHODOLOGICAL CONSIDERATIONS

The trustworthiness of a qualitative study can be evaluated in terms of credibility, dependability, and transferability [15]. The credibility of this study might be strengthened by the heterogeneity among the midwives regarding age, first language, and years of practice, and participants were from hospitals and primary health care clinics; however, no participants were from the private sector.

To further strengthen credibility, representative quotations were used to demonstrate the findings. The credibility might also be compromised when a convenience sampling method was used, but in this study, purposive sampling was used to include participants. The transferability of the study is of the author's opinion that the main findings are likely to be transferable to midwives in the northern districts of South Africa.

CONCLUSION AND RECOMMENDATION

Previous research has already shown high MMR in the north of South Arica. The present study shows that midwives in Limpopo suffer from a variety of challenges regarding the situation in maternal healthcare. Building on the midwive's perspective, measures should be taken for quality care to be provided; functional equipment needs to be provided, manpower and skills should be increased. Interinstitutional communication, cooperation in terms of capacity building and patient assessment should be improved, as should the revision of resource allocation, as suggested by the midwives. To listen to the midwives might open up a move to attend to the present situation in maternal health care.

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

The ethical clearance received for the whole collaborative research program from the Ethics Committee at the University of Limpopo (Research Ethics Number - TREC/117/2017: IR) and permission to collect data was sought with the Limpopo Department of Health Research Committee.

HUMAN AND ANIMAL RIGHTS

No animals were used in this research. All human research procedures followed were in accordance with the ethical standards of the committee responsible for human experimentation (institutional and national), and with the Helsinki Declaration of 1975, as revised in 2013.

CONSENT FOR PUBLICATION

Informed consent was obtained from all participants prior to data collection.

AVAILABILITY OF DATA AND MATERIALS

Due to confidentiality issues, it is not permitted to share the data.

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CONFLICT OF INTEREST

The authors declare no conflict of interest, financial or otherwise.

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Declared none.

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