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Perceived barriers and facilitators to group antenatal care among nurse- midwives and pregnant women in primary health centres in Blantyre, Malawi

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Abstract

Background

Group antenatal care (GANC) is an innovative model in which pregnant women receive care from facilitated peer groups, potentially improving health education and social support. Malawi has persistently high maternal mortality rates, and it is critical to explore effective antenatal care (ANC) strategies. We aimed to explore barriers and facilitators for the implementation of GANC as perceived by pregnant women and nurse-midwives in Blantyre.

Objective

To explore barriers and facilitators to group antenatal care among nurse midwives and pregnant women in selected primary health care in Blantyre, Malawi.

Methods

Purposive sampling was used to recruit pregnant women and nurse-midwives from antenatal clinics in selected health centres in Blantyre, Malawi. We conducted focus group discussions with pregnant women and in-depth interviews with practicing midwives. Twenty-one (21) participants were recruited in the study. Data were analysed using a thematic data analysis technique.

Results

Multiple themes emerged from data. The themes identified include improved health education and information sharing, peer support, time savings and efficiency, and women's empowerment through active engagement in care. These attributes have been reported to enhance knowledge, confidence, and adherence to antenatal guidelines. Similarly, participants cited significant barriers, including transportation constraints, limited resources, and staff shortages. Women and midwives highlighted that these obstacles hindered attendance and practical delivery of group care.

Conclusion

Group antenatal care was positively perceived as a means of empowering women and strengthening antenatal learning through shared experiences. However, its success is challenged by practical barriers such as transportation constraints, resource limitations, and staff shortages. Addressing these barriers through improved transportation, resource provision, and staffing could support the effective implementation of group ANC programs in resource-limited settings, such as Blantyre.

Introduction

Group antenatal care is the delivery of antenatal services to cohorts of pregnant women with similar gestational ages, combining clinical assessment, interactive learning, and peer support in a group setting [1–3]. The model has been identified as an essential strategy for addressing low antenatal care utilization, poor quality of care, and adverse maternal and neonatal outcomes [4–6].

Malawi has one of the highest maternal and neonatal mortality rates in sub-Saharan Africa, at 439 maternal deaths per 100,000 live births (WHO, 2018). Strengthening antenatal care (ANC) is critical for improving maternal and neonatal outcomes. Traditional individual ANC in low-resource settings often involve long waits and limited education. Additionally, limited opportunities for interactive health education and peer support, which reduce women's satisfaction with ANC services contribute to missed or delayed ANC visits [7–9].

Group antenatal care, in which cohorts of pregnant women (8–12 with similar gestational ages) meet together with a provider for check-ups and interactive learning, has been recommended as a way to enhance care. In centering Pregnancy-based models, standard assessments are combined with facilitated group discussions, peer support, and co-learning [10].

Evidence from Africa suggests that GANC is feasible and beneficial; it increases women's knowledge, peer support, and facility delivery rates, and that women report higher satisfaction [11, 12]. A recent large trial in Malawi reported that GANC participants had greater connectedness and empowerment, discussed more health topics, and experienced shorter wait times [13]. Based on these findings, the Malawi Ministry of Health has begun introducing the group ANC district (Chirwa et al., 2020; Jeremiah et al., 2021; Gresh et al., 2022). However, little is known about the perceived barriers and facilitators to implementing GANC in Malawi. Understanding the views of women and providers can guide programs to improve maternal health. This qualitative study was conducted in selected health centres in Blantyre District to explore the barriers and facilitators of pregnant women and midwives to GANC.

Methodology

The study used qualitative descriptive design. We recruited pregnant women enrolled in group antenatal care, and midwives facilitating group antenatal care sessions. The women were recruited purposively during the days for group antenatal care clinics where informed consent to participate was obtained. Additionally, the midwives were recruited purposively based on their involvement in providing support to women in groups.

Data collection

Data were collected through in-depth interviews among midwives and three focus group discussions (FGDs) with pregnant women in the groups, each FGD comprising five participants in each group. We collected data from 21 participants comprising focus group discussions for 15 pregnant women, with 5 participants in each group in each health facility, and in-depth interviews of 6 nurse midwives, where in each health centre, 2 nurse midwives were recruited. The data collection tool was developed by the researcher in line with literature.

Ethical considerations

Ethical approval was obtained from the College of Medicine Research and Ethics Committee (COMREC; Ref. No. P.03/25-1446). Informed consent was obtained from all study participants, including mothers and nurse-midwives, prior to data collection. All participants initially provided verbal consent, followed by written informed consent through signing consent forms. Participation in the study was entirely voluntary, and participants were informed that they could refuse to participate or withdraw at any stage without facing any penalties. To safeguard participants' identities and ensure data confidentiality, unique identification codes were used. Authorization to conduct the study was also obtained from the relevant health facilities.

Data management ana analysis

The recorded interviews were transcribed whereby the transcripts and interviews were preserved in a password protected computer. The folder was developed and used to manage the data. The backup was made where data was kept in google drive and external hard drive. Thematic data analysis was used to analyse the data following the Braune and Clarke (2006). The steps followed include familiarisation, coding, searching for themes, naming the themes and development of report. The themes were developed and presented, whereby sub-themes and verbatim quotations were used to illustrate participants' experiences and provide supporting evidence for each theme.

Findings

Facilitators to GANC implementation

Ability in enhancing education and knowledge sharing

Women, nurses, and midwives reported that GANC sessions provided clearer and richer information about pregnancy and health. It was found that pregnant women were able to gain a better understanding of topics such as nutrition, breastfeeding, danger signs, and HIV prevention through interactive group education. Furthermore, it was found that women in the GANC shared experiences with breastfeeding, nutrition practices, and other health-related knowledge. The other participants said:

"I learned a lot from other mothers in the group. Some of them had more experience, and their advice made me less worried about what I was going through." (FGD 2, Participant No.4)

"*As of me I love this group antenatal care because this pregnancy is the 3rd while this one is her first. But for this 3rd pregnancy the journey was good because I knew signs of labour very well because their midwife was able to explain well the difference between true labour and false labour. When i was home I noticed the true labour and for me being a multipara I counted the time from false labour to true labour and I reached to the hospital*" (FGD 1, Participant No.3).

Nurse-midwives also recognized that peer learning complemented their professional input and created a supportive learning environment. Some participants said:

"It is not only the midwife teaching; mothers also learn from one another, and this encourages participation" (Midwife No. 5)

Being capable of enhancing peer support and interaction

The study found that GANC was helpful as it created an environment for enhancing peer support and community building among pregnant women. It was found that the women were able to follow up with each other when they had noted that one was absent to attend the session, such that they were able to hear some challenges the women experienced and find a way to help each other. It was further found that the pregnant women visited each other in their homes when they were in trouble, such that they were becoming a part of the solution to support their peers and were reporting some issues they observed to the midwives for further support. Some participants explained this as follows:

"Women in GANC know each other by name and place, even their weaknesses, like they know one member usually comes late for the clinic. Some they relate even at home. They visit each other in their homes. They share phone numbers. These women follow each other up when they see that she is not coming for GANC. I remember one time one shared on the group that one member had undergone a caesarian section. And another member delivered twins, the group knew because they follow up each other" (Midwife No.2).

"As I said women were making friends in the villages. They visit each other's homes where they interact and discuss their experiences. When they have noted that one of them encounters a problem, they share the news to the midwives. Which is good" (Midwife No. 5)

Another participant explained:

"There is one group which graduated and have formed a support group at the community where they meet and discuss matters concerning motherhood., as a midwife I feel it is a good thing because they are still supporting each other well" (Midwife No. 6)

It was further highlighted that the interaction and support were also enhanced between the midwives and the pregnant women, as they were able to check each other through phone calls as the midwives were following up when one woman was missing. One woman explained:

"I don't know for other groups but our group has known each other through GANC and we have made friends through GANC. Again, what was also interesting is the way our midwives were treating us. When she noticed that one is missing for the clinic, she was calling us on the phone to check up on us, or she was making sure that we have started our clinic together" (FGD2, Participant No. 1).

Another midwife added that group antenatal care has enhanced community interaction between midwives and women, which has made some men observe the benefits of this program, such that they recommend it and request it to be part of the program.

"The strength with this group antenatal is that women are followed from the time they start GANC to the time they deliver the baby. This program has also built a relationship between women and midwives as it enhanced interaction that facilitated support. We are also receiving recommendations from their husbands that they easily approach us such that some men are also attending group antenatal care with their wives, which is very important" (Midwife No. 5)

Being time saving and efficient

Most participants emphasized the advantages of GANC as a strategy to enhance efficiency and save time. Women reported that when they came for GANC sessions, they spent less time compared to routine individual appointments. This is because services such as health assessments, health education, and peer discussions are integrated and delivered collectively, thereby reducing the need for multiple separate consultations. One participant said:

"GANC has benefitted me too because I was spending less time and saves time. Previously before I joined GANC, when I attended the traditional ANC, I would come at 8 am and find myself on number 91 to be assisted, but with GANC were spending less time, we form a circle then the midwives were coming on time and the clinic was taking approximately 45 minutes and then we go and do other things to support my family" (FGD 3, Participant No. 3).

Another participant added that:

"We also spend less time for antenatal care. Like we were starting at 8 and finishing in good time compared to those attending the traditional ANC. You see those that are outside its now 10 am but they haven't started the ANC but for use we don't spend much time like that" (FGD 2, Participant No. 5)

The midwives concur that the programs save time for women, as they do not spend much time at the facility to get support. One midwife narrated:

"GANC women do not stay long at the facility; they stay less than 3 hours. you know how Ndirande is, antenatal women are more and when they come they reach up to 5 hours while attending them but GANC women stay less than hours so that they should reach home early and do household chores on time and also have time to rest"(Midwife No.5)

It was further found that GANC saves time for healthcare providers as they are able to deliver services to multiple women at once rather than repeating the same information and procedures individually. One midwife narrated:

"On maximum we meet 12 women at once, as such they do not stay long at the facility as such they go home on time. With this, it also creates time for the midwives to do other duties assigned" (Midwife No. 1).

Women empowerment and active engagement

This study found that GANC played an important role in enhancing women's empowerment and fostering active engagement in matters regarding maternal and reproductive health. The women were empowered to take part in self-assessments, such as blood pressure monitoring, weight checks, and recording information in health passports. Some participants said that:

"Another benefit is we were able to do self-assessment like blood pressure monitoring and other things unlike the traditional ANC. We were doing on our own and we were able to know whether the blood pressure is high or low because our midwife told us" (FGD 2, Participant No. 3).

"But also, women are empowered and take responsibility of their own health, this is shown when women do self-monitoring of their blood pressure and weight. After that they record in the health passport" (Midwife No. 5)

"When we arrive we greet each other and we are given a weighing scale where we measure each other in pairs, then we measure each other blood pressure and record in the health passport book, when you identify a problem, we report to the midwife, whether the bp is high or low. After that we start group discussion" (FGD 1, Participant No. 4).

It was further found that women were empowered to facilitate some of the training sessions with fellow women on topics they were knowledgeable and experienced. For instance, if one or more women missed some sessions, other women were empowered to train their fellow women so that they remained on the same page. One participant explained this as follows:

"I will give you my example remember one day I wanted to be absent from GANC because I wanted to go to my child school and on the same day I was supposed to come for GANC,I felt I was late with the time for GANC, I wanted to give up because the time was around 10 then I forced myself to come, I find that my friends were already done with group discussion, and medical assessment and self-assessment, but my friends helped me with everything they taught me what they learnt on that particular day"(FGD 1, Participant No. 5)

Perceived barriers to provision of GANC

This study investigated perceived barriers to the provision of group antenatal care in healthcare facilities. Four themes were identified from the participants' narratives: infrastructure and logistical limitations, lack of privacy, irregular attendance patterns, staffing challenges, and training needs.

Infrastructure and logistical limitations

Participants reported that inadequate physical space, limited seating, and insufficient supply sometimes hindered the smooth delivery of GANC activities. These limitations affected both the comfort of women attending the sessions and the ability of health care providers to conduct group assessments efficiently. It was highlighted that there was inadequate space for the group cohorts, resulting in only one group. One participant said:

"Indeed, privacy is a challenge, the facility has no adequate space. When there are more than one group, we struggle to identify room for the other groups and this makes the midwives to recruit one group only" (Midwife No.5).

Another participant complained that:

"We also have problems with chairs. There are not enough for a group of 12 women, this becomes a burden, and we tend to borrow from other clinics to avoid women sitting on the floor……" (Midwife No.1)

Additionally, a shortage of equipment for self-assessments, such as BP cuffs and scales, was found to be a limitation to the provision of GANC at the facility, as this hindered self-assessment activities, BP monitoring, and other resources, such as chairs. Some participants explained this as follows:

"We also have problems with chairs. There are not enough for a group of 12 women; this becomes a burden, and we tend to borrow from other clinics to avoid women sitting on the floor" (Midwife No.1).

"The challenges we have so far are inadequate resources to conduct G-ANC, such as a blood pressure machine, a weighing scale. This makes the clinic delay or take a longer time because the midwives borrow the blood pressure machine and weighing scale from the other clinics…." (Midwife No.2)

Absenteeism

Irregular attendance by women has been identified as a challenge. Factors such as competing household responsibilities, distance from the healthcare facility, and other socioeconomic barriers contributed to inconsistent participation, which disrupted the continuity of care and group cohesion. One participant said:

"Another issue that makes women not to attend GANC is the choice of the place for delivery. Some women as pregnancy advances they go to their village for delivery because they follow a guardian at the village. We have met these cases where women delivered at Zomba, Mulanje so for them to come back for other visits, like contact 9 becomes very difficult" (Midwife No.1).

Another participant said:

"*…. some pull out because they want to deliver at their home village, some transfers to other places"* (Midwife No.4)

Another participant narrated:

"we met a challenge whereby our midwife was not available on the day of GANC contact and the one who was assigned to conduct GANC forgot to conduct the care circle, sometimes we could observe that the assigned midwife was not honoring the clinic, she was giving a lot of excuses that she has no transport, not taking it serious" (FGD 3, Participant No.3)

Lack of well-trained staff

Healthcare providers reported that limited staff and heavy workloads made it difficult to deliver GANC effectively. Additionally, some staff members highlighted the need for further training in group facilitation techniques, participatory teaching methods, and clinical skills specific to GANC to ensure high-quality service delivery. Some participants explained this as follows:

"*Another challenge is that there are few trained GANC midwives who are conducting GANC because many trained midwives got transfers to other facilities, so this is a challenge indeed"* (Midwife No.1)

"There is staff shortage for those who have knowledge on GANC, as such some GANC are dissolved and found that on that day women are being mixed with those attending traditional ANC" (Midwife No.6)

Another participant said:

"In addition, there is a lack of interest in midwives who were not trained on Group antenatal, as most of those who were trained transferred and we have new staff who have no knowledge in GANC ……" (Midwife No.2)

Discussion

This study explored the barriers and facilitators of the provision of GANC among selected healthcare facilities in Blantyre District. In terms of barriers, this study revealed that infrastructural and logistical challenges hindered the provision of GANC services. Infrastructural and logistical challenges undermine service delivery. It was found that limited space and a lack of chairs compromised the quality of service delivery and comfort among women. These issues were further studied, revealing a lack of other equipment such as blood pressure machines and weighing scales, thereby disrupting routine monitoring and peer-led self-management practices among pregnant women. These deficiencies undermine the quality of service delivery and self-care practices, thereby defeating the purpose of GANC [1, 2]. The study further identified high absenteeism among women attending GANC sessions in Blantyre district facilities, with many opting to deliver at closer health centers or in their villages, rather than returning to the enrolled site. This resulted in failure to complete the recommended contacts, posing the risk of limited access to essential information that they would have learned in other contacts. This aligns with previous evidence that highlighted the increased incidence of failure to complete the contacts, as stipulated by the WHO [15, 16].

The current study revealed a significant shortage of trained personnel in the healthcare facilities involved in providing GANC. While training programs are being implemented, not all healthcare workers receive this training, leading to gaps in the knowledge and skills necessary for effective GANC delivery. Another challenge is the frequent transfer of trained staff from facilities. This was found to create a knowledge gap, as these staff members were being replaced by individuals with limited knowledge in GANC. Previous studies have highlighted similar issues related to staffing instability as a hindrance to service provision, thereby reducing the quality of care and disrupting continuity of service delivery, which is essential in group-based models [6, 17–19].

In terms of facilitators of GANC provision, the study found that the model offered some benefits that enhanced care delivery. This model fostered knowledge sharing among women, thereby boosting the acquisition of critical health information on nutrition, danger signs, and self-management. This peer-led exchange created a supportive environment in which women helped each other, shared personal experiences, and built mutual encouragement. This aligns with evidence from previous studies that stressed the capacity of GANC to create an environment for knowledge sharing that improves health literacy and other essential issues, such as birth preparedness [15, 20, 21]. Based on HBM, perceived benefits my influence adoption of n initiative such as participation in GANC, based on its significant. These empowered relationships and meaningful interactions create social bonds and trust for supporting each other during their pregnancy journey (Lazar, 2023; Zielinski et al., 2023). The study further highlighted that GANC is essential in enhancing women's empowerment. The model offers opportunities for women to feel and monitor their health through BP checks and other monitoring [3]. This empowerment enhances women's confidence in healthcare decisions, thereby influencing positive health outcomes.

GANC was found to save time for both women and healthcare workers in Blantyre district facilities, with group settings minimizing the duration that nurses spend on education compared to one-on-one interactions, allowing efficient delivery of health promotion topics to multiple women simultaneously. According to HBM, time saving is an indication of the existing benefits which may influence one to participate easily in GANC activities. Women spent less time at facilities overall, bypassing the long waits common in individual ANC, freeing them to attend to household activities and businesses, which boosts attendance and satisfaction. Evidence has shown that one of the factors contributing to poor attendance of antenatal care is the long waiting time at healthcare facilities [7, 8, 23, 24]. GANC serves as a strategy for addressing the challenges experienced in ANC by ensuring that women's and healthcare workers' time is saved and managed well.

Conclusion

In conclusion, this study revealed that infrastructural deficits, logistical shortages, absenteeism, and trained personnel instability pose barriers to GANC provision in Blantyre district facilities. The facilitators of the provision of GANC were the capability to enhance peer knowledge sharing, self-monitoring empowerment, mutual support, and time efficiency for women and providers. This demonstrates its transformative potential in Malawi through improved health literacy, birth preparedness, HIV prevention and satisfaction, and improved quality of health care support among pregnant women. Targeted interventions, including infrastructure upgrades, retention

strategies, transport support, and scaled training, are essential for harnessing the benefits of equitable maternal outcomes and national health policy integration.

Strength and Limitations

The strength of the study lies in its comprehensive ness and it focuses on collecting data from women as well as health workers. The study was conducted in the Blantyre district in selected healthcare facilities; therefore, the results from this study may not be generalized. This study used a qualitative research approach in which participants were purposively selected. This may have resulted in bias regarding the recruitment of the participants.

Abbreviations

ANC	Antenatal Care
FGD	FocusGroup Discussion
GANC	Group Antenatal Care
HBM	Health Belief Model

Declarations

Ethical Compliance

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards. Ethical approval for this study was obtained from College of Medicine Research and Ethics Committee (COMREC) prior to the commencement of the research (Ref no. P.03/25-1446). Informed consent was obtained from all study participants, including mothers and nurse-midwives, prior to data collection. All participants initially provided verbal consent, followed by written informed consent through signing consent forms. Participation was voluntary, and participants were informed of their right to decline participation or withdraw from the study without penalty. Identification codes were used to protect participants' identities and maintain the confidentiality of the collected data. Permission to conduct the study was also obtained from the respective health facilities.

Conflict of Interest declaration

The authors declare that they have no affiliations with or involvement in any organization or entity with any financial interest in the subject matter or materials discussed in this manuscript.

Consent for publication

Not applicable

Availability of data materials

The authors confirm that the data supporting the findings of this study are available within the article and its supplementary materials.

Competing interests

Authors have no competing interest.

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Author contribution

C.M. conceptualized the study, designed the methodology, conducted the literature review and developed the study framework. Data collection and analysis were performed C.M., C.M. drafted the initial manuscript, while C.M., E.C., PM, FC, AC and U.K. provided critical revisions and guidance. All authors reviewed and approved the final version of the manuscript**.**

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