

Knowledge, attitudes and practices regarding complications of pregnancy and childbirth among women attending antenatal care in Maridi, South Sudan

Emmanuel Gai and J. Clarke McIntosh

Author Affiliation:

Mary Immaculate Hospital, Mapuordit,
South Sudan

Correspondence:

Emmanuel Gai
emmanuelgai959@gmail.com

Submitted: February 2025

Accepted: April 2025

Published: May 2025

Citation: Gai and McIntosh. Knowledge, attitudes and practices regarding complications of pregnancy and childbirth among women attending antenatal care in Maridi, South Sudan. *South Sudan Medical Journal*, 2025;18(2):64-67 © 2025 The Author (s) **License:** This is an open access article under [CC BY-NC](https://creativecommons.org/licenses/by-nc/4.0/) DOI: <https://dx.doi.org/10.4314/ssmj.v18i2.3>

ABSTRACT

Introduction: As South Sudan continues to address the various factors leading to peripartum mortality, the willingness of women to cooperate with steps to reduce maternal mortality is a vital concern. Experts recommend that facility-based delivery is a major factor in reducing peripartum mortality. This study aims to assess the knowledge, attitudes, and practices of pregnant women regarding complications during pregnancy and childbirth in Maridi County Hospital.

Method: This was a cross-sectional descriptive study. A questionnaire was administered to 54 women attending antenatal care (ANC) in Maridi County Hospital from the 1st to 5th July 2024 who consented. The questionnaire included both open and close ended questions which provided freedom to the respondents. It was prepared in English and translated into Juba Arabic. Data analysis was done using the statistical package for social sciences (SPSS version 23.0).

Results: All respondents had a favourable view of ANC and giving birth in a health facility. 85% had delivered their last child in a hospital or health care centre. Over 90% preferred the services of a midwife to that of a traditional birth attendant (TBA). Health care workers were identified as the major source of information regarding safe deliveries. The reasons for choosing skilled delivery were primarily for the health and safety of the mother and child. The major barriers to utilising skilled delivery were practical—distance, money, and transportation. Although 85% acknowledged that traditional and cultural pressures had negative effects on many women, they had little effect on the responders. While 38 responders considered attending ANC was the best means of ensuring a safe delivery, only 12 chose hospital delivery.

Conclusion: Despite the bias in data collection as all the responders were attendees at the ANC, the respondents showed more confidence in the medical system than in traditional methods, a great opportunity for increasing awareness of the potential dangers during delivery.

Keywords: peripartum mortality, antenatal care, hospital delivery, midwife, cultural pressures, South Sudan

Introduction

Globally, the estimated number of maternal deaths in 2010 was 529,000. These were predominantly in Africa (251,000) and Asia (253,000).^[1] For every pregnant woman who dies, at least 30 suffer serious injuries and often permanent disability.^[2] Maternal mortality/100,000 births was highest in Africa (830), followed by Asia (330). The average risk of dying from pregnancy-related causes in Africa is about 1 in 20, compared to 1 in 2000 in the more developed countries. South Sudan may be the leading country in Africa with a maternal mortality rate of 1,223 per 100,000 live births.^[3] Experts recommend that facility-based delivery is a major factor in reducing peripartum mortality.^[3]

This study aimed to assess the knowledge, attitudes, and practices of pregnant women regarding complications during pregnancy and childbirth in Maridi County Hospital.

Method

This was a cross-sectional descriptive study. A letter of introduction was obtained from Maridi Health Science Institute, permitting the research to be conducted. A questionnaire was administered to 54 women attending the antenatal care (ANC) in Maridi County Hospital, who consented. This served as the source for primary data collected from the 1st to 5th July 2024. Information from hospital records constituted the secondary data source. The questionnaire included both open and close ended questions which provided freedom to the respondents. The questionnaire was prepared in English and translated into Juba Arabic. Data analysis, using the statistical package for social sciences (SPSS version 23.0), and presentation was done on 16th and 17th July after it was fully processed.

Results

The median age of the 54 mothers was 30 years. All professed to be Christians, with 70.4% being married and 80% having 1-4 children. 44 of the respondents had had some formal education, although more than half stopped their education in primary school.

All the 54 women had sought antenatal care at least once during their previous pregnancies, suggesting a high level of awareness and access to ANC services.

When asked about the number of times pregnant women are supposed to attend ANC services, 48% believed that four times was ideal. 29.6% stated three times while only

7% said twice. However, the fact that 15% were unsure about how many times to attend ANC indicates a gap in knowledge that could be addressed through education programmes in the health facilities and at the community level. (Figure 1).

Figure 2 shows that 29.6% of the mothers felt that one of the benefits of attending ANC was for education on the danger signs during pregnancy and childbirth, while 27.8% emphasised the importance of identifying these danger signs for early detection of complications. Additionally, 12 mothers or 22.2% valued the checking for foetal well-being, and 11 of them or 20.4% recognised the role of ANC in preventing mother-to-child transmission (PMTCT) of Human Immuno-deficiency Virus/Acquired Immuno-Deficiency Syndrome (HIV/AIDS).

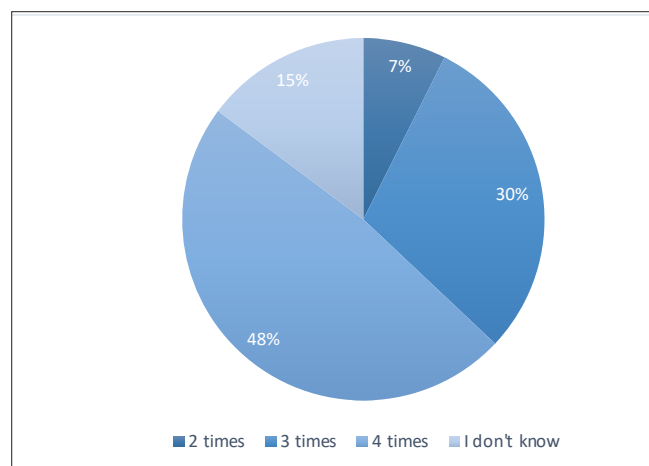


Figure 1. Mothers' responses to recommended frequency of ANC attendance

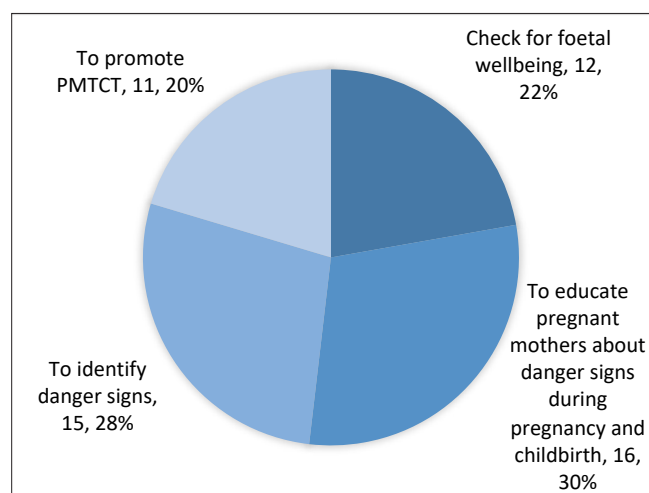


Figure 2. Benefits of attending ANC services

Almost all (93%) of the mothers were aware of potential complications indicating a strong awareness in the community about the risks associated with pregnancy.

Forty-six (85%) of the mothers reported that they learned about the risks of pregnancy and childbirth from health workers. Information obtained from friends and radio was significantly lower, each accounting for only 7% of the respondents. This suggests a reliance on professionals for credible information and an inadequate coverage of communication structures like television, or radio stations, thus reinforcing the importance of ongoing health education and community outreach programmes.

Half (51.9%) of the mothers interviewed, attributed complications to supernatural beliefs. Indicating a significant cultural or societal influence on perceptions of pregnancy health. 33.3% identified bewitchment as a factor contributing to complications, and 14.8%, pointed to the types of food consumed.

The responses to “How can pregnancy and childbirth complications be prevented” included ‘routine antenatal care visits (70.4%)’, ‘hospital delivery (22.2%)’, ‘early detection of common signs and symptoms (3.7%)’ and ‘a balanced diet (3.7%)’, suggesting that most mothers felt that regular medical check-ups are crucial for monitoring the health of both the mother and foetus.

Which traditional beliefs and practices influence you not to seek early medical help?

The data indicated that cultural taboos are the leading factor in influencing mothers not to seek early medical help, cited by 28 mothers. This highlights the significant impact of societal norms on maternal health decisions. Cultural stigma and negative experiences were reported as barriers by 33.3%, suggesting that past encounters with the healthcare system may deter women from future engagement. Misconceptions and fear, cited by 14.8% of the mothers, further illustrated the psychological and informational barriers that pregnant mothers face while accessing health care services.

Barriers to accessing skilled delivery included the long distance to healthcare facilities by 16 mothers, lack of money by 12, and transportation difficulties by 7, representing 29.6%, 22.2% and 13.0% of the respondents respectively. Additionally, the bad attitude of health workers and lack of partner support were mentioned as barriers for 13.0% of the women, while cultural and religious beliefs were noted by 9.3%.

Discussion

One of the major goals of the Ministry of Health (MoH) and various Non-Governmental Organisations (NGOs) is the reduction of maternal mortality in South Sudan. Although this was a targeted survey in a specific health facility and where skilled delivery is readily available, the results are encouraging. Cultural practices and taboos have been major obstacles of getting more women to deliver in the health facilities in the past. For example, a study by Ntambwe et al.^[4] on the cultural beliefs and practices of pregnant mothers in South Sudan found that many pregnant mothers relied on traditional healers and herbal remedies for prenatal care, often leading to delays in seeking proper medical care when complications arose. This highlights the importance of addressing cultural beliefs and practices in improving maternal and child health outcomes in South Sudan.

However, in this study, although those forces were acknowledged, all the women had a favourable view of the hospital as a place for safe delivery. The reasons they were attending the ANC included monitoring foetal well-being, health education to mothers, identifying risk factors, promoting anti-retroviral therapy in mothers with HIV, among others.

Although the findings in Maridi may not generally reflect the attitudes in South Sudan at large, as the Equatorial States have traditionally had a higher rate of education, there are good reasons to be encouraged by the findings. The levels of education of the responders probably reflects most of the urban and suburban areas of South Sudan, with 80% having some education, but less than half of those reaching secondary or tertiary levels. That suggests to us that the primary schools in our nation could be vehicles of conveying the knowledge of the risks of pregnancy and the benefits of attending ANC and hospital delivery.

However, this study contrasts with others in East Africa. Studies conducted in Kenya,^[5] Uganda^[6] and Tanzania^[7] found that pregnant mothers had a low knowledge level about complications during pregnancy and child delivery.

Although we acknowledge the strongly positive attitudes towards hospitals and health care workers may be a reflection upon the favourable impact that AMREF has had upon the Maridi community, these data suggest that the greatest barrier to the women in South Sudan delivering in health care facilities is the ability to access skilled deliveries rather than the attitude of the women. None of the women had a fatalistic view regarding birth

complications and all felt that those complications could be prevented. These data suggest that the presence of health care facilities and transportation to those facilities are the keys to reducing peripartum mortality in South Sudan. In addition, this study suggests that addressing issues of birth safety is important at the primary school level so that the attitudes we see in Maridi may become more widespread.

Conclusion

Tackling the tremendous challenge of reducing peripartum mortality for women and their babies will require commitment from the Government of South Sudan and the Ministry of Health, well directed funds from outside sources, and the cooperation of the community, particularly the pregnant women. The findings of this study indicate that the women, the most critical players, can be educated and persuaded to cooperate in reducing peripartum mortality if the facilities and trained personnel are present. Significant steps have been taken to train midwives in this country to address the issue. Infrastructure has improved to make transport to facilities capable of managing high risk pregnancies and deliveries more feasible. The women in Maridi are sending a strong message that they are ready to cooperate. With appropriate instruction through primary schools, these attitudes can spread throughout the country. Now we need more county hospitals with proper equipment and personnel to implement these goals.

Acknowledgements: The authors thank the World Health Organisation (WHO), the United Nation International Children's Fund (UNICEF), South Sudan Country offices and South Sudan National Bureau of Statistics (NBS) for providing the dataset. The main author (a medical student) appreciates the research supervisor Mr Justin Mangwi for his guidance and equipping him with essential research knowledge that enabled me to finish this research dissertation successfully. Furthermore, I thank my co-author, Dr Clarke McIntosh (Director of Medical Ward in Mary Immaculate Hospital) and SSMJ team for helping me to edit this paper. The contents (a summary of a student dissertation) are solely the responsibility of the authors and do not necessarily represent the official views of the supporting offices.

Conflicts of interest: None.

Funding: The small cost of the study was covered by South Sudan Government, through the school administration and research training programme.

References

1. Abouzahr C. Global burden of maternal death and disability. *Br Med Bull* 2018; 67:1–11.
2. Dannay F. Maternal survival in developing countries: what has been done, what can be achieved in the next decade? *Int J Gynecol Obstet* 2020; 70(1): 98–97.
3. World Bank and Gender Data Portal, 2020. <https://genderdata.worldbank.org/en/economies/south-sudan>
4. Ntambwe M, Ibrahim K. Cultural beliefs and practices of pregnant women in South Sudan. *African Journal of Reproductive Health* 2018;22(3):45-56.
5. Mwangi, J, Khamugisha B. Knowledge on complications of pregnancy and childbirth among mothers in selected rural health facilities in Kenya. *International Journal of Nursing and Midwifery* 2018;10(2):13-20.
6. Namukwaya E, Okello V. Knowledge level of pregnant mothers on complications during pregnancy and child delivery in rural Uganda. *African Health Sciences* 2017;17(3):840-847.
7. Mgaya A, Lugaya B. Assessment of knowledge on complications of pregnancy and childbirth among pregnant women in Tanzania. *BMC Pregnancy and Childbirth* 2019;19(1):1-8.