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Original Article

Women's Barriers to Access Maternal Healthcare Services in Southern Highlands of Tanzania: A Case of Meta Maternity Hospital

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Maternal, Healthcare, Reproductive, Barriers, Antenatal.

ABSTRACT

The improvement of maternal healthcare (MHC) is a global priority. However, barriers to accessing maternal healthcare services (MHCS) impede progress toward achieving sustainable Development Goals 4 and 5. The demand for maternal healthcare services (MHCS) is especially obvious in underdeveloped countries, where several obstacles restrict access to healthcare. This study aimed to identify obstacles to accessing maternal healthcare services. The primary objective of data collection questionnaires was to identify the variables influencing women's access to reproductive and maternal healthcare services. Between September 2022 and January 2023, 374 respondents' information was gathered and then thematically examined, the observed obstacles to using and obtaining maternal healthcare services were physical barriers, social obstacles, cultural obstacles, organization obstacles, and financial obstacles. The results of this study show that there must be a way to get around the problems listed above in order to improve access to maternal and reproductive health services.

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INTRODUCTION

Maternal healthcare service (MHCS) comprises the healthcare components of reproductive health care, adoption, pre-birth, and post-partum care to ensure a happy and satisfying experience and reduce maternal morbidity and death (Union, 2016). It is a crucial approach to improving women's pregnancy health (Pell et al., 2013). Most emerging nations struggle to improve maternal healthcare services to facilitate frequent health visits (Amouzou et al., 2014). However, the application of technology in maternal health care accelerates pregnant women to visit regular health care for a check-up; as a result, maternal services have improved (Noordam et al., 2011).

There was mutual agreement about providing good quality maternal care services to reduce deaths caused by pregnancy complications (Kinney et al., 2010). The World Health Organization (WHO) announced 75% of maternal deaths are caused by pregnancy complications and can be lessened by providing quality maternal healthcare with skilled maternal care specialists (Say et al., 2014). Furthermore, poor and inadequate maternal healthcare service violates women's right to access and use high-quality maternal services during pregnancy (Lappeman & Swartz, 2021).

The Government of the United Republic of Tanzania applied several strategies, policies, and interventions, including the National Strategy for Growth and Poverty Reduction (NSGPR) (Shija et al., 2011). Reproductive and Child Health Strategy (2005 – 2010), National Road Map Strategic Plan to Accelerate the Reduction of Maternal and Newborn Mortality (Plan, 2014), Millennium Development Goal 5 (MDG) of reducing maternal mortality by three-quarters by 2015 (Manyeh et al., 2018), Adoption of Sustainable Development Goals (SDGs) and; Health Sector Strategic Plan (Ministry of Health and Social Welfare (Mutale et al., 2013); to enhance the utilization of maternal healthcare services and lower obstacles to women seeking care.

This study aims to examine women's opinions on maternal health services, assess the barriers women face in accessing healthcare and identify factors that result in inadequate maternal health care services (MHCS), which increase the risk of pregnancy complications and increase maternal morbidity and mortality.

METHODS

Study Setting and Design

The study took place in Mbeya Urban's Meta Maternity Hospital (MMH). We chose MMH because it is among the southern highlands' most extensive maternity facilities and a wing of the Government-owned Mbeya zonal referral hospital (MZRH). MMH receives approximately 500 pregnant women monthly, with an average of 20 daily deliveries. The MMH has seven wards, with 80 postnatal and 42 antenatal beds. The research was conducted from September 2022 to January 2023. To perform qualitative research, we asked pregnant women to take part actively in conversations about maternal health. led by a female nurse specializing in maternal health.

Study Participants and Sampling

The data for research and findings were gathered from the Mbeya Region at Meta Maternity Hospital, and the scope of data collection was pregnant women, doctors, and nurses at outpatient clinics. The primary data collection method was a questionnaire.

The following formula was used to get the sample number for respondents (Mongi et al., 2015).

$$s = \frac{g^2 x l(1-l)}{n^2}$$

Where s is the required sample size, g is the level of assurance, which was set to 95% (standard

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value of 1.96), and l represents the anticipated number of those who participated in the study. (30%), and n is the standard deviation accepted (standard value of 0.005).
Most pregnant women were able to respond to the designed questionnaire. Three hundred seventy-four (374) pregnant women participated in the research; 274 were married, and 100 were single at the time of sampling.

Fifteen (15) medical professionals participated in the research, including three (3) medical assistants, eight (8) nurses, and four (4) assistant medical doctors. Four (4) males and seven (7) women comprised the medical personnel participant population, as summarized in Table 1. The length of employment at the facility of the medical personnel ranged from two (2) to 17 years. Medical personnel were chosen particularly randomly due to their expertise and background in prenatal medical services because they worked in the labour ward and antenatal clinic.

Data Collection and Analysis

Using pre-made questionnaires, structured questions were employed to collect information from participants. Open-ended interview inquiries were used to obtain participants' opinions on healthcare service accessibility, acceptability upon arrival, and healthcare quality. However, the interviewer was free to veer from the planned questions. In addition, a professional obstetrician/gynaecologist who was a part of the research team was available for any psychotherapy during an interview that lasted 30 to 40 minutes. Only 50 participants at MMH were tested before the questionnaires were distributed. The pre-testing was done to ensure the accuracy and dependability of the data that would be gathered. It was also used to gauge how long the discussion would last. Following pre-testing, necessary corrections were performed.

The data was processed and analysed using the Statistical Package for Social Science (SPSS) (Ekpenyong et al., 2019; Shudura et al., 2020). In addition, grouping analysis (Alamneh et al., 2022; Mahmood et al., 2019) was employed to categorize pregnant women based on age, sex, schooling, marital status, and household makeup.

Ethical Permission

The study was given ethical approval on 30th August 2022 with Ref No: SZEC-2439/R. A/V. I/145a by Mbeya Medical Research and Ethics Review Committee. All interviewees had signed informed consent before participating in the study and were allowed to end the process anytime. Confidentiality was maintained during the study.

RESULTS

A random selection of 374 women and fifteen (15) medical professionals participated in the interview and assisted in identifying obstacles to the use of maternal health care (MHC). Physical, social, cultural, organizational, and financial barriers were revealed.

Socio-demographic Characteristics of the Study Participants

The study included all 374 eligible women. Almost all of those who participated were aged 36 - 45 years (47.9%), with primary education (56.1%) and household income ranging from TZS 250,000-400,000 (52.7%), as shown in *Table 1*.

Adequate Maternal Visits Stratified by Socio-Demographic Characteristics

The majority of respondents, 217 (58%), had an adequate number of visits (≥8) which varied significantly by physical barriers, organization barriers, social barriers (P <0.001), and household income (P <0.001). Specifically, the data presented in Table 2 indicates that those with low household income accounted for 71.9% (n=41) of the respondents who reported having sufficient maternal visits. Similarly, 71.5% (n=88) of those who faced geographical barriers, 100% of those who experienced poor quality of care and shortage of medications, and 86.1% (n=31) of those who encountered prejudice and stigma reported having adequate maternal visits. Nonetheless, it is worth noting that there was no statistically significant variation in the frequency of sufficient maternal visits when considering

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different levels of education, age groups, and socioeconomic constraints.

Table 1: Socio-demographic characteristics of interviewees

Variable	Category	N (%)
Education level	University	45 (12)
	Secondary	119 (31.8)
	Primary	210 (56.1)
Age range	18-35	52 (13.9)
	36-45	179 (47.9)
	46-55	119 (31.8)
	Above 55	24 (6.4)
Household income	50,000-250,000	57 (15.2)
	250,000-400,000	197(52.7)
	Above 400,000	120 (32.1)

Table 2: Proportion of adequate maternal visits stratified by socio-demographic variables (n=374)

Variable	Category	N (%)	P-Value
Education level	University	22 (48.9)	0.092
	Secondary	78 (65.5)	
	Primary	117 (55.7)	
Age range	18-35	32 (61.5)	0.885
	36-45	101 (56.4)	
	46-55	69 (58.0)	
	Above 55	15 (62.5)	
Household income	50,000-250,000	41 (71.9)	0.000
	250,000-400,000	94 (47.7)	
	Above 400,000	82 (68.3)	
Physical barriers	Geographical barrier	88 (71.5)	0.001
	Lack of transportation	51 (50.5)	
	Cost barrier	78 (52.0)	
Organization barriers	Inadequate staffing	128 (53.8)	0.000
	Poor quality of care	15 (100)	
	Lack of coordination among healthcare workers	39 (45.9)	
	Inadequate reproductive health	23 (95.8)	
	Lack of drugs	12 (100)	
Social barriers	Cultural and traditional beliefs	27 (49.1)	0.000
	Economic barrier	92 (64.3)	
	Gender inequality	30 (41.7)	
	Discrimination and stigma	31 (86.1)	
	Male involvement	37 (54.4)	
Financial barriers	Lack of health insurance	95 (59.4)	0.338
	Cost of medical supplies and equipment	34 (50)	
	Lost income due to medical appointment	23 (53.5)	
	Cost of medications	65 (63.1)	

Factors Associated with the Number of Maternal Visits

In bivariate logistic regression analysis, maternal visits were significantly associated with household income and physical and social barriers. In multivariate logistic regression analysis, household income, lack of transportation, cost barrier, discrimination, and stigma remained the factors associated with the number of maternal visits.

The individuals in question were undoubtedly compared to those belonging to a specific

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household income range from TZS. 50,000 to TZS 250,000/-, women with household income ranging from TZS. 250,000 to TZS 400,000/- were determined to be 0.4 times. (95% CI = 0.198 -0.788) less likely to have adequate maternal visits. In addition, women faced transportation and cost barriers with 0.4 times (95% CI: 0.218 - 0.894) and 0.3 times (95% CI: 0.170 - 0.660) lower odds of having adequate maternal visits than those facing geographical barriers. On the other hand, women who encountered discrimination and stigma had 9.4 (95% CI: 3.023 - 29.205) more chances of receiving appropriate maternity visits than those who faced societal barriers such as cultural and traditional views (*Table 3*).

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Table 3: Logistic regression analysis of adequate maternal visits and associated factors (n=374)

Variable	Category	cOR	P-Value	aOR	P-Value
Education level	University	1			
	Secondary	1.989(0.992 - 3.990)	0.053		
	Primary	1.315(0.690 - 2.506)	0.405		
Age range	18-35	1		1	1
	36-45	0.809(0.430 -1.523)	0.512	0.845 (0.413 - 1.729)	0.644
	46-55	0.863(0.443 - 1.680)	0.664	0.793 (0.372 - 1.690)	0.547
	Above 55	1.042(0.384 - 2.825)	0.936	0.795 (0.264 - 2.399)	0.684
Household income	50,000-250,000	1		1	
	250,000-400,000	0.356(0.187 - 0.677)	0.002	0.395 (0.198 -0.788)	0.008
	Above 400,000	0.842(0.421 - 1.686)	0.627	0.664 (0.314 - 1.406)	0.285
Physical barriers	Geographical barrier	1			
	Lack of transportation	0.406(0.233 - 0.705)	0.001	0.442 (0.218 - 0.894)	0.023
	Cost barrier	0.431(0.260 - 0.715)	0.001	0.335 (0.170 - 0.660)	0.002
Organization barriers	Inadequate staffing	0.0 (0.000 - 0.000)	0.999		
	Poor quality of care	1.0 (0.000 - 0.000)	1.000		
	Lack of coordination among healthcare workers	0.0 (0.000 - 0.000)	0.999		
	Inadequate reproductive health	0.0 (0.000 - 0.000)	0.999		
	Lack of drugs	1			
Social barriers	Cultural and traditional beliefs	1			
	Economic barrier	1.871 (0.997 - 3.512)	0.051	1.411 (0.700 - 2.844)	0.336
	Gender inequality	0.741 (0.365 - 1.501)	0.405	1.195 (0.552 - 2.587)	0.652
	Discrimination and stigma	6.430 (2.178 - 18.979)	0.001	9.396 (3.023 - 29.205)	0.000
	Male involvement	1.238 (0.607 - 2.523)	0.557	1.570 (0.688 - 3.582)	0.283
Financial barriers	Lack of health insurance	0.854 (0.513 - 1.422)	0.545		
	Cost of medical supplies and equipment	0.585 (0.314 - 1.088)	0.090		
	Lost income due to medical appointment	0.672 (0.327 - 1.382)	0.280		
	Cost of medications	1			

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DISCUSSION

The research examined the factors influencing maternal healthcare accessibility and utilization, providing valuable insight into the complicated dynamics. The findings emphasize the importance of household economics and physical and social barriers in defining women's access to and use of maternal healthcare services.

The findings show that household income considerably affects maternal healthcare consumption. Women with higher incomes more likely to have adequate maternity visits than those with lower incomes. This finding is consistent with earlier studies demonstrating that financial resources are critical in encouraging the use of maternal healthcare services (Boro & Saikia, 2020) Women with higher incomes may have greater access to financial resources that bolster their ability to seek regular maternal healthcare. In contrast, women with lower incomes may face financial constraints that impede them from overcoming barriers related to transportation costs and costs associated with healthcare services and medication (Sialubanje et al., 2014). Improving access to maternal healthcare for women from lower income brackets requires targeted interventions and support mechanisms to alleviate financial constraints.

Physical barriers, specifically lack of transportation and cost barriers, significantly impact maternal healthcare utilization (Syed et al., 2013). Women facing these barriers had lower odds of having adequate maternal visits than those facing geographical barriers. The transportation challenge restricts patients' ability to access healthcare facilities, particularly among people with low incomes or in rural or remote areas with limited public transportation options (Boro & Saikia, 2020). The cost barrier, encompassing expenses associated with transportation and healthcare services, further compounds the challenge faced by women with limited financial resources (Sialubanje et al., 2014). Addressing these physical barriers through innovative solutions, such as mobile clinics, transportation subsidies, or telemedicine services, can help overcome geographical limitations and reduce the financial burden of accessing maternal healthcare.

In contrast to our study's unexpected finding regarding social barriers, earlier studies have consistently reported that social factors, including cultural beliefs, gender inequality, and discrimination, can act as barriers to healthcare utilization. Cultural and traditional beliefs have been highlighted as influential factors that may restrict women's access to and utilization of maternal healthcare service (Ganle, 2014). Gender inequality, including limited decision-making power for women and restrictive social norms, has also been associated with lower maternal healthcare utilization (RamPrakash & Lingam, 2021). Discrimination and stigma, although not extensively explored in previous studies, have been acknowledged as potential deterrents to seeking maternal healthcare (Muhorakeye & Biracyaza, 2021). The current study found that women facing discrimination and stigma had higher odds of having adequate maternal visits than those facing social barriers related to cultural and traditional beliefs. Women who face prejudice and stigma may seek healthcare as a form of empowerment or rebellion against societal expectations. It is critical to examine this finding cautiously since it undermines long-held ideas about social barriers' role in healthcare utilization (Muhorakeye & Biracyaza, 2021). More studies should examine the complicated connection between social influences, individual experiences, and healthcare-seeking behaviours.

The research found that maternal healthcare use was unaffected by education level or age range. Although the percentage of women having adequate maternity visits varied by education level and age group, these differences were not statistically significant. These findings contradict prior research, which found a link between higher education levels, age groups, and increasing usage of maternal healthcare services (Amwonya et al., 2022). While criteria like education level and age may not influence healthcare utilization, it is

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crucial to note that health literacy and cultural views do.

Our findings highlight the importance of tailored initiatives to increase maternal healthcare consumption. Policymakers could address financial barriers by aiding low-income women with transportation and healthcare costs. Improving transportation infrastructure in underprivileged places and launching outreach programs to connect women with healthcare providers can have a substantial impact. Furthermore, actions to promote inclusivity and combat discrimination in healthcare settings are critical in ensuring that women from all socioeconomic backgrounds are comfortable accessing and receiving maternal healthcare.

While this study gives significant insights, it is critical to recognize its limitations. Self-reported data, for example, may be prone to recollection bias or social desirability bias. Furthermore, the findings may be limited to the population and geographic region analysed and not apply to other populations or situations. Future studies should encompass various demographics and locales to investigate other potential factors that influence maternal healthcare consumption.

CONCLUSION

The findings highlight the complexities of the factors that influence maternal healthcare consumption. By addressing household income disparities, overcoming physical barriers, and fostering inclusive healthcare environments, we can strive towards improving access to and utilization of maternal healthcare services. Ultimately, these efforts will contribute to better maternal and child health outcomes, ensuring the well-being of women and their families. Overcoming those obstacles necessitates a comprehensive strategy that includes strengthening healthcare facilities and raising knowledge and education. Governments, healthcare professionals, and communities must collaborate to guarantee that every single woman receives equal healthcare during pregnancy, resulting in healthier pregnancies and better outcomes for newborns and their mothers.

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