

# Factors Affecting Satisfaction with Antenatal Care Services Among Pregnant Women Attending Mafiga Health Center in Morogoro Municipality-Tanzania: Evidence from a Cross-Sectional Study

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## ABSTRACT

**Background:** Antenatal care ensures optimal health outcomes for the mother and the child. However, using ANC depends on pregnant women's satisfaction with the services provided. Therefore, the pregnant women's concerns, desires, and, views of health care services need to be explored.

**Methods:** We conducted a descriptive cross-sectional study of 262 pregnant women attending the ANC clinic at the Mafiga Health Centre in Morogoro Municipality 2018. A semi-structured questionnaire consisting of open and closed-ended questions was used to collect data. The association between the independent and the dependent variables was determined by using multivariate logistic regression. Pregnant women with experience of ANC clinic attendance three times and more at any ANC clinic in Morogoro Municipal were included in the study. Sick pregnant women and women with less than three ANC visits were excluded from the study.

**Results:** Most participants were satisfied with the care they received. The age group 20-34 years was four times [odds ratio (OR) 3.83(95% confidence intervals (CI): 1.35-10.87) more likely to be satisfied with antenatal service provided compared to younger women in the age group 17 to 19 years. Mothers who attended primary [OR = 5.62 (95% CI: 1.74-18.14)] or secondary education [OR = 7.92(95% CI: 2.25-27.91)] had higher odds of satisfaction with antenatal care service as compared to mothers who had no formal education.

**Conclusions:** Most participants were satisfied with ANC services and those not in formal education were more satisfied than educated ones.

**Keywords:** Satisfaction, Antenatal Care, Pregnant Woman.

## Introduction

Although the maternal mortality ratio (MMR) in Tanzania has decreased from 544(95% uncertainty interval: 414 to 657) to 337(130 to 841) deaths per 100,000 live births from 1990 to 2015, respectively, the rate is still almost twice the global MMR of 196 (173 to 224) deaths per 100,000 live births[1]. In 2017, maternal and neonatal death was the leading cause of premature death and disability in Tanzania [2]. One of the ways to prevent complications during pregnancy and childbirth is through antenatal care (ANC) which is the care that a pregnant woman receives through a series of consultations with trained healthcare workers from the beginning of her pregnancy to six weeks following the birth of the baby. According to the Tanzania Demographic and Health Survey, 98% of women aged 15 to 49 received ANC for their most recent birth in 2016, however only 51% had four or more ANC visits, which the WHO recommends [3]. One explanation for this gap is the lack of satisfaction women feel during their ANC appointments.

Quality ANC is essential for the health of the mother, the growth of the fetus, and the promotion of healthy behaviors and parenting skills [4]. A woman's satisfaction with the care she receives is a chief and essential component of the quality of ANC (Majrooh et al., 2014). It often determines the willingness of the pregnant women to subscribe, comply, and continue with the services [7]. Recently pregnant women's perceptions, views, and satisfaction with ANC services, became recognized measures of the quality and innermost element of quality assurance programs [6]. Some studies have reported that if pregnant women are satisfied with the care they receive, then the interpersonal relationship of the health care providers and the infrastructures for providing the care improves [7]. Meeting pregnant women's needs and satisfaction with ANC services will influence their behavior in terms of better compliance, fewer missed appointments, and less pain and anxiety. Previous studies demonstrated that pregnant women's dissatisfaction with healthcare services influences their use of that healthcare system. Dissatisfied pregnant women are more likely not to take part in the decision-making process and not to complete the ANC services schedule. One of the important determinants of dissatisfaction is not meeting expectations [8].

Even though the ANC services are free and highly accessible in Tanzania, most pregnant women in Morogoro Municipality are not satisfied with the ANC services offered (QIT 2016) (unpublished). According to the hospital quality improvement Team report, 67% of pregnant women were not satisfied with ANC services (QIT 2016) (unpublished). This report did not indicate the reasons for ANC services dissatisfaction at Morogoro Municipal ANC clinic. Baseline information about the reasons for dissatisfaction experienced by pregnant women can encourage further research and identify gaps in care for stakeholders to design intervention strategies and policies to promote ANC satisfaction services. Therefore, the purpose of this study is to assess factors affecting satisfaction with antenatal care services among pregnant women attending Mafiga Health Centre in Morogoro Municipality.

## Methods

### Study Design and setting

We conducted a descriptive cross-sectional study at the ANC clinic in Mafiga Health Center, Morogoro Municipal, Morogoro region in Tanzania. Morogoro municipal is one among seven administrative districts in the Morogoro region, having an area of 73,039 km<sup>2</sup> and an estimated population of 602,114 (NBS). Morogoro urban district has six administrative divisions and nineteen wards. Mafiga ANC clinic

catchment area has a total number of 79,112 women of reproductive age. Between 35 and 40 pregnant women attend the clinic each day and 9,240 to 10,560 attend per year (MHIS 2017) (unpublished).

The participants for this study were pregnant women who attended the Mafiga ANC services. The sample size was calculated using the formula  $n = Z^2 p(1 - p)/e^2$ , where n is the desired sample size, z is the standard normal deviation (1.96), d is the degree of accuracy (0.05) and p is the proportion of pregnant women (0.19) [9]. Participants were selected through a simple random sampling method guided by the inclusion criteria set. Only pregnant women who made three or more visits to the Mafiga ANC clinic and could speak Kiswahili were selected for the study. Eventually, 262 pregnant women were selected between May and June 2017. The findings of this study would support Morogoro Municipal Council and other stakeholders in designing strategic interventions and policies that will promote ANC service satisfaction. A self-administered questionnaire was prepared based on the literature review. The questionnaire included both open and close-ended questions. Open-ended questions provided an opportunity for the participants to explain additional information that was not included in the option items. Before the main data collection, the questionnaire was pretested with 26 pregnant women who attended the Saba Saba ANC clinic. Following the questionnaire pretesting, questions that seemed unclear were modified or removed before the final questionnaire was attained. Data collection took place in the clinic premises after the participants were informed about the study's aim and confidentiality issues. The Kiswahili questionnaire was used during data collection. Participants were guided on how to complete the questionnaire and those who could not write were assisted by the trained research assistant.

The analysis was conducted using SPSS version 21 software. Specifically, descriptive and inferential statistics were applied. Frequency distribution of the participants' characteristics and factors for ANC dissatisfaction scores and associations of some characteristics were calculated using the same software. Further, cross-tabulations between independent and dependent variables and a chi-square test were used to show the association between study variables. Continuous variables were represented by means and standard deviations and categorical data by whole numbers and percentages. Odds ratios determined the association between women and factors of antenatal services dissatisfaction. A p-value of < 0.05 was considered statistically significant.

## Results

### Sociodemographic characteristics of study participants

A total of 262 respondents participated in the study with a mean age of 26.18 (SD ±5.084) years and a range of 17 to 40. Most of the participants (86%) were in the 20-34 age group. Most (72.9%) were married and 90% had education beyond the primary level. Forty-two percent (n=110) of the participants had given birth to two to four children (Table 1).

**Table 1: Social demographic characteristics of study participants (n=262)**

Variables	Frequency	Percent
Age (years)		
17-19	22	8.4
20-34	224	85.5
35+	16	6.1
Median age (Interquartile range (IQR)) 26 (22-29)		
Marital status		

Single	67	25.6
Married	191	72.9
Separated	3	1.2
Divorced	1	0.3
Level of education		
No formal education	15	5.7
Primary	132	50.4
Secondary	103	39.3
Higher education	12	4.6
Occupation		
Employed	22	8.4
Self-employed	46	17.6
Businesswoman	59	22.5
Peasant	37	14.1
Housewife	98	37.4
Number of Parities		
0	89	34.0
1	59	22.5
2-4	110	42.0
5+	4	1.5

**Level of satisfaction with antenatal care**

We rated the level of satisfaction with ANC services based on participant’s responses to questions about the physical environment at the antenatal clinic, clinic flow and waiting time, laboratory services, care given at the antenatal clinic by health care providers and the way health care workers addressed women during their visits. The investigator reviewed all participants' answers and rated them in three groups. Those who scored below 50% were grouped as those who were not satisfied with the quality of the antenatal care provided. Those who scored between 50% to 80% were considered to have average satisfaction and those who scored above 80% were regarded as highly satisfied with the service received. 30 (11.5%) were not satisfied with antenatal care service, while the majority 190 (72.5%) had average satisfaction and 42 (16.0%) were highly satisfied. The distribution of the level of satisfaction with the quality of antenatal care among women attending Mafiga Health Center in Morogoro Municipality based on different socio-demographic characteristics is shown in Table 2.

**Table 2: Sociodemographic characteristics and distribution of level of satisfaction on the quality of antenatal care among women attending Mafiga Health Center in Morogoro Municipality May-June 2018**

Variables	Total	Level of satisfaction n (%)		
		Not satisfied [Score below 50%]	Average satisfied [Score 50-80%]	Highly satisfied [Score > 80%]
Total respondents	262 (100.0)	30 (11.5)	190 (72.5)	42 (16.0)
Age (years)				

17-19	22 (8.4)	6 (2.3)	11 (4.2)	5 (1.9)
20-34	224 (85.5)	20 (7.6)	168 (64.1)	36 (13.7)
35+	16 (6.1)	4 (1.5)	11 (4.2)	1 (0.4)
<b>Marital status</b>				
Single	67 (25.5)	8 (3.1)	49 (18.7)	10 (3.8)
Married	191 (72.6)	19 (7.3)	140 (53.4)	32 (12.2)
Separated	3 (1.1)	2 (0.8)	1 (0.4)	0 (0.0)
Divorced	1 (0.4)	1 (0.4)	0 (0.0)	0 (0.0)
<b>Level of education</b>				
No formal education	15 (5.7)	6 (2.3)	8 (3.1)	1 (0.4)
Primary	132 (50.4)	14 (5.3)	100 (38.2)	18 (6.9)
Secondary	103 (39.3)	8 (3.1)	74 (28.2)	21 (8.0)
Higher education	12 (4.6)	2 (0.8)	8 (3.1)	2 (0.8)
<b>Occupation</b>				
Employed	22 (8.4)	4 (1.5)	13 (5.0)	5 (1.9)
Self-employed	105 (40.1)	8 (3.1)	82 (31.3)	14 (5.3)
Unemployed	135 (51.5)	18 (6.9)	95 (36.3)	22 (8.4)
<b>Number of Parities</b>				
0	89 (34.0)	11 (4.2)	59 (22.5)	19 (7.3)
1	59 (22.5)	9 (3.4)	37 (14.1)	13 (5.0)
2+	114 (43.5)	10 (3.8)	94 (35.9)	10 (3.8)

### Factors associated with satisfaction with antenatal services

We created a binary variable, satisfaction with antenatal care (Yes/No), by combining average satisfied and highly satisfied levels. 232(88.6%) women were satisfied and 30 (11.4%) women were dissatisfied with antenatal services. We performed logistic regression to assess socio-demographic factors associated with satisfaction with the antenatal service provided. Education level, age, and occupation showed a significant relationship with satisfaction with antenatal care while others were not statistically significant. Looking at age groups, those in age groups 20-34 years had 3.83 (1.35-10.87) times higher odds of being satisfied with antenatal service provided as compared to younger women of age group 17-19 years. On education level, mothers who attended primary, secondary, or higher education had higher odds of satisfaction with antenatal service provided OR 5.62(1.74-18.14), 7.92(2.25-27.91) respectively as compared to mothers who had no formal education (see table 3).

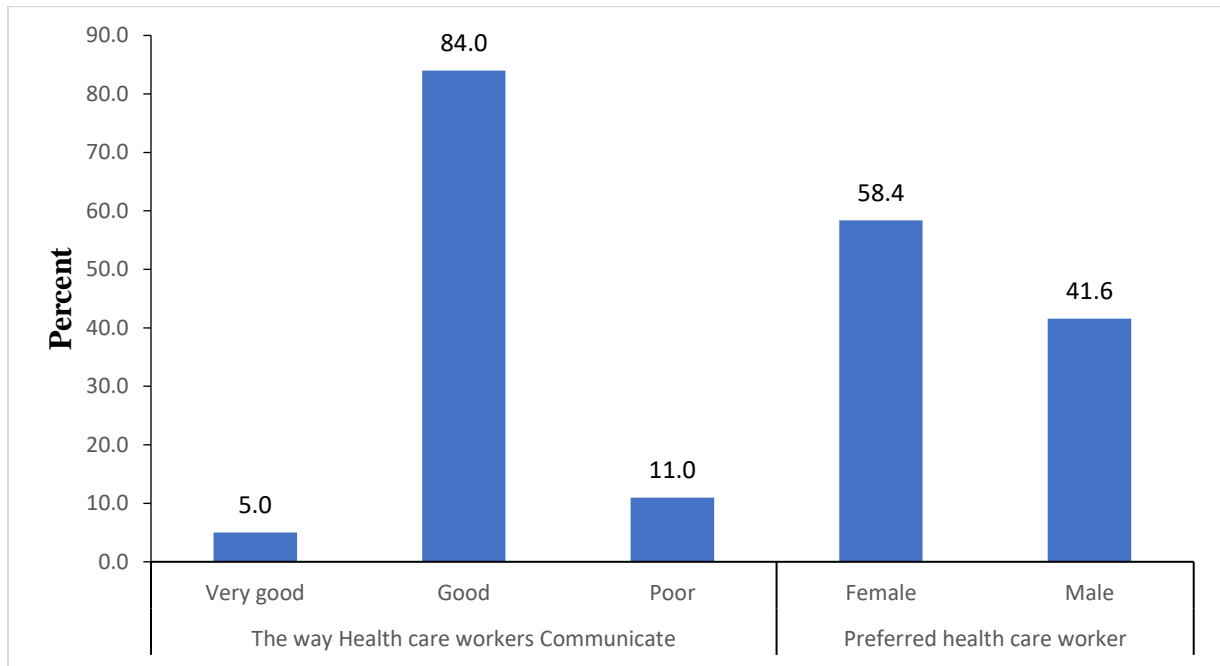
**Table 3: Logistic regression analysis of factors associated with satisfaction with antenatal care (n=262)**

Variable	Satisfied with antenatal care		Odds ratio (95% CI)	P-value
	Yes (%)	No (%)		
<b>Total</b>	<b>232(88.6)</b>	<b>30 (11.4)</b>		
<b>Age (years)</b>				
17-19	16(72.7)	6(27.3)	-	

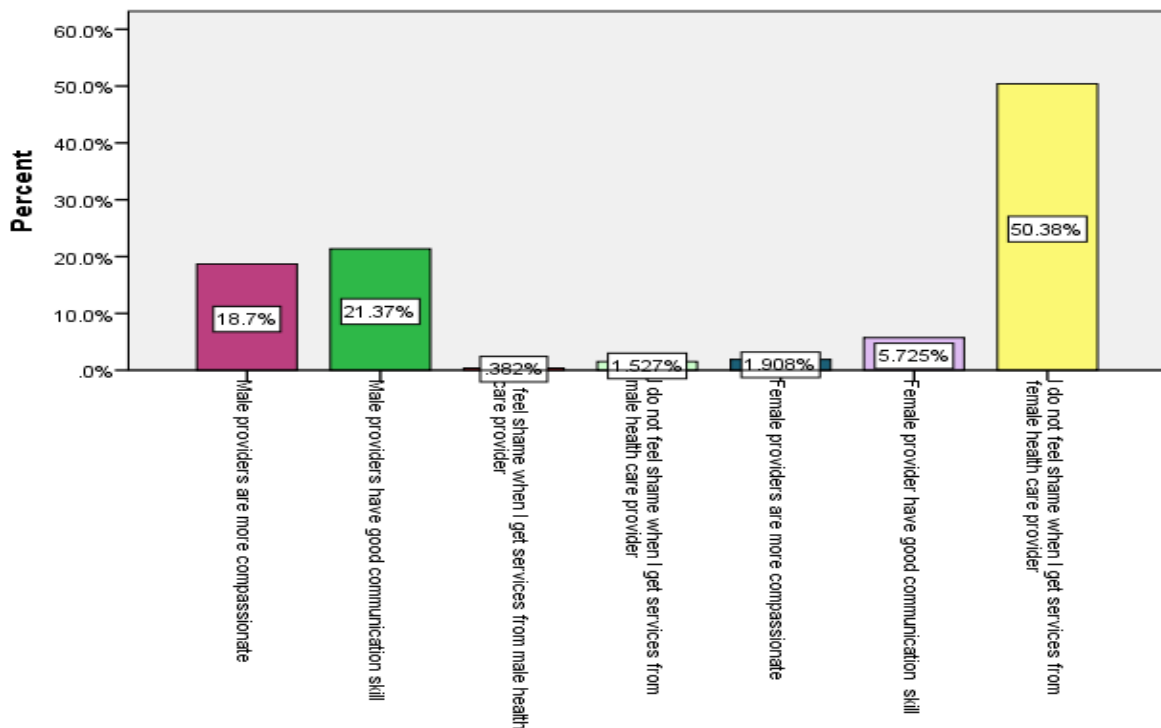
20-34	204(91.1)	20(8.9)	3.83(1.35-10.87)	0.01
35+	12(75.0)	4(25.0)	1.13(0.26-4.89)	0.88
<b>Marital status</b>				
Single	59(88.1)	8(11.9)	-	
Married	172(90.1)	19(9.9)	1.23(0.51-2.95)	0.65
Separated	1(33.3)	2(66.7)	0.07(0.01-0.84)	0.04
Divorced	0	1(100.0)	-	-
<b>Education level</b>				
No formal education	9(60.0)	6(40.0)	-	
Primary	118(89.4)	14(10.6)	5.62(1.74-18.14)	< 0.01
Secondary	95(92.2)	8(7.8)	7.92(2.25-27.91)	< 0.01
Higher education	10(83.3)	2(16.7)	3.33(0.53-20.91)	0.20
<b>Occupation</b>				
Employed	18(81.8)	4(18.2)	-	
Self-employed	40(87.0)	6(13.0)	1.48(0.37-5.90)	0.58
Businesswoman	57(96.6)	2(3.4)	6.33(1.07-37.49)	0.04
Peasant	33(89.2)	4(10.8)	1.83(0.41-8.22)	0.43
Housewife	84(85.7)	14(14.3)	1.33(0.39-4.53)	0.65
<b>Number of parities</b>				
0	78(87.6)	11(12.4)	-	
1	50(84.8)	9(15.2)	0.78(0.30-2.03)	0.62
2-4	100(90.9)	10(9.1)	1.41(0.57-3.49)	0.46
5+	4(100.0)	0	-	-

#### 4.6 Communication with mothers during antenatal care service and preferred health care workers

Of the 232 participants in this study, 84% reported that they were satisfied with the way healthcare workers addressed them during ANC visits while 11% were not. We also looked at women's preferences for healthcare workers. We saw that 58.4% preferred to be attended by female health care workers (see Figure 1), among the reasons that were reported by women for the preference of female health care providers were, being comfortable (50%), female providers had good communication skills (6%) and more compassionate (2%). On the other hand, 42% of respondents who preferred services from male health care providers were due to, male providers being compassionate (19%), having good communication skills (21%), and 2% because they were not ashamed of receiving services from male health care providers (see figure 2).



**Figure 1: Response of mothers on the way health care workers communicate during antenatal care visits and preferred health care worker.**



**Figure 2: Reason of respondents to prefer male/female health provider on ANC services**



## DISCUSSION

### **Socio-demographic characteristics of women attending antenatal care services**

This study showed that a few numbers 11.4% of antenatal mothers were not satisfied with care. Furthermore, it was revealed that antenatal mothers in age groups 20-34 years were highly satisfied with antenatal service provided OR 3.83(1.35-10.87) as compared to younger women of age group 17-19 years. In addition, primary education mothers 50.4% had higher odds of dissatisfaction compared to secondary education 39.3%. The findings of the current study oppose those of the study done in Southern Ethiopia on maternal antenatal care service satisfaction which revealed that the majority of pregnant women 84.1% age range of 20 to 34 years whose education level was secondary and above were less likely satisfied with ANC services compared to those whose education level was lower as those who could read and write [11].

### **Factors associated with satisfaction with antenatal care services**

The study revealed that 89% of participants were satisfied with antenatal clinic privacy. The finding of this study was in agreement with the study done by (Yabo et al., 2013). The result of the current study was high compared with the study done in Egypt by (Ismail and Essa 2017) whereby less than half of respondents reported there was a violation of privacy in the antenatal clinic.

Furthermore, the study done in Nigeria on perception and satisfaction with the quality of antenatal care services found that about 28% of respondents were not satisfied with the cleanliness of ANC toilets. This is because there was no cleaner at the ANC clinic and also on observation, there was a shortage of staff which made it difficult to allocate one for cleanliness [9]. Additionally, the current study findings reported that more than half of the respondents were satisfied with the organization and workflow of the ANC clinic. This is because they were waiting only for 30 minutes before they received the service. This finding corresponds to that of a study done in South West Ethiopia on Satisfaction with focused antenatal care service [13]. In addition in the study done by (Yabo et al., 2013) in the assessment of the quality of ANC service, it was reported that more than two-thirds of the respondents were satisfied with ANC services because they were waiting only 30 minutes [12].

It was noted that 4% of antenatal mothers paid to receive some of the services at the antenatal care clinic. This study's findings are supported by the study done by (Dulla et al., 2017) whereby 5.8% of participants were charged for services related to ANC. However, this finding was much lower compared with the study done in Egypt whereby about 34% of respondents were unsatisfied because they were charged for ANC services (Ismail & Essa, 2017). In contrast, the study done in Ethiopia reported that all of the respondents were satisfied with ANC services because they were not charged for any ANC service [12].

This study revealed that some of the respondents complained of missing laboratory services during their ANC visit. The finding of this study corresponds with that of a study done in Bursa rural health centers, whereby women were complaining due to the absence of some laboratory tests for pregnancy-related cases [11].

Different studies have been done to assess clients' satisfaction with care based on nurse's gender. The studies were revealed irrespective of the findings. For instance, the study done by (Budu et al., 2019) in Ghana revealed that more than three-quarters of respondents were satisfied with the care provided by male nurses due to their politeness while the study done by (James and Merlin 2016) revealed that more than three-quarters of respondents were satisfied with the care provided by female nurses. The current study identified that more than half (58.4%) of respondents preferred to be attended by female healthcare providers. The result of this study is in agreement with the study of Yabo et al. [12] but was high compared



with the study done in Jordan whereby less than half of respondents preferred female healthcare providers to male [15, 16].

Based on compassion, most of the respondents appreciated that male healthcare providers showed more compassion than female healthcare providers. This result was supported by a study done in Liverpool [17]. Almost all of the respondents accepted that healthcare providers took the time to listen to their feelings and complaints. Similar findings were reported in a study done by Yabo [12] which showed that nearly three-quarters of respondents said that health providers were attentively listening to their feelings and complaints during ANC services.

### **Level of satisfaction with antenatal care**

In the level of satisfaction, the study revealed that a few respondents 11.4% were not satisfied with ANC service while the majority 88.6% of respondents were satisfied with the care, and 16.0% were highly satisfied. Those who were not satisfied were mainly of the age group 20-34 years and were married and had a primary education level. Conversely, this finding of the current study opposes those of a study done in Egypt by (Ismail and Essa, 2017) which showed that more than half (58.9 %) of respondents were unsatisfied with the overall antenatal care services while more than one-quarter of 26.9% were moderately satisfied and only 14.2% were highly satisfied. Furthermore, the current findings were relatively similar to those of the study by (Tsfaye et al., 2017), done in Southern Ethiopia on Maternal Antenatal Care Service Satisfaction and Factors Associated with Rural Health Centers which showed that only 33.4% of respondents were highly satisfied with the care they received. The former study indicated that more than three-quarters (88.5%) of the respondents were satisfied with the overall antenatal care services.

### **List of abbreviations:**

AIDS, Acquired Immune Deficiency Syndrome: ANC, Antenatal Care: DEMM, Director Executive, Morogoro Municipal: MHIS, Municipal Health Information System: MOMM, Medical Officer, Morogoro Municipal: HIV, Human Immune Virus: MOHCDGEC, Ministry of Health, Community Development, Gender, Elderly, and Children: MUHAS, Muhimbili University of Health and Allied Sciences: PI, Principle Investigator: QIT, Quality Improvement Team: RA, Research Assistant: SP, Sulfadoxine pyrimethamine: SPSS, Statistical Package for Social Sciences: TT, Tetanus Toxoid Vaccine: VDRL, Venereal Disease Research Laboratory WHO, World Health Organization.

### **Ethics approval and consent to participate**

The ethical approval for this study was obtained from Muhimbili University of Health and Allied Sciences (MUHAS) Senate, Research and Publications Committee Ref. No DA.287/298/01. A/. All participants were comprehensively informed about the study's aim and procedures; their written consent was obtained upon agreement of their participation.

### **Consent for publication**

Written informed consent for publication was obtained from all participants' prior interviews. To ensure the confidentiality of the data, no names were used, participants were identified by numbers. All rights of participants were observed this included the freedom to participate and withdraw from the study at any time.

### Availability of data and material

The dataset used and analyzed during the current survey is available from the corresponding author on reasonable request

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### Authors' contributions

ASS and BSK conceptualized and designed the study, supervised the data collection, analyzed the data, interpreted the results, and drafted the manuscript. LTM supervised and designed the study, interpreted the results, and drafted the manuscript. All authors read and approved the final manuscript.

### References

1. Kassebaum NJ, Barber RM, Bhutta ZA, Dandona L, Gething PW, Hay SI, et al. Global, regional, and national levels of maternal mortality, 1990–2013;2015: a systematic analysis for the Global Burden of Disease Study 2015. *The Lancet*. 2016;388(10053):1775-812.
2. Roth GA, Abate D, Abate KH, Abay SM, Abbafati C, Abbasi N, et al. Global, regional, and national age-sex-specific mortality for 282 causes of death in 195 countries and territories, 1980–2013;2017: a systematic analysis for the Global Burden of Disease Study 2017. *The Lancet*. 2018;392(10159):1736-88.
3. Tanzania Demographic and Health Survey and Malaria Indicator Survey (2015-16 TDHS-MIS). In: Ministry of Health CD, Gender, Elderly and Children (MoHCDGEC) [Tanzania Mainland], Ministry of Health (MoH) [Zanzibar], National Bureau of Statistics (NBS), Office of the Chief Government Statistician (OCGS), and ICF, editor. Dar es Salaam, Tanzania, and Rockville, Maryland, USA: MoHCDGEC, MoH, NBS, OCGS, and ICF; 2016. p. 630.
4. Fagbamigbe AF, Idemudia ES. Wealth and antenatal care utilization in Nigeria: Policy implications. *Health care for women international*. 2017;38(1):17-37.
5. Singh N, Ponna SN, Upadrasta VP, Dudala SR, Sadasivuni R. Determinants of the utilization of antenatal and postnatal care services in Telangana. 2017. 2017;6(8):10.
6. Al-Hussyeen AJ. Factors affecting utilization of dental health services and satisfaction among adolescent females in Riyadh City. *The Saudi Dental Journal*. 2010;22(1):19-25.
7. Fagbamigbe A, Adegoke Akanbiemu F, Adebowale A, Ma-nuwa Olumide A A, Korter G. Practice, Knowledge and Perceptions of Antenatal Care Services among Pregnant Women and Nursing Mothers in Southwest Nigeria. *International Journal of Maternal and Child Health*. 2013;1:7-16.

8. 8. Galle A, Van Parys AS, Roelens K, Keygnaert I. Expectations and satisfaction with antenatal care among pregnant women with a focus on vulnerable groups: a descriptive study in Ghent. *BMC women's health*. 2015;15:112.
9. 9. L Nwaeze I, Enabor O, Oluwasola TAO, O Aimakhu C. Perception and satisfaction with the quality of antenatal care services among pregnant women at the university college hospital, Ibadan, Nigeria. *Annals of Ibadan postgraduate medicine*. 2013;11:22-8.
10. 10. Golafshani N. Understanding Reliability and Validity in Qualitative Research. *The Qualitative Report*. 2003;8(4):597-606.
11. 11. Dt T, Ah M, Bl N, Negesa L. Maternal Antenatal Care Service Satisfaction and Factors Associated with Rural Health Centers, Bursa District, Sidama Zone, Southern Ethiopia: A Cross-sectional Study. *Journal of Women's Health Care*. 2017;06.
12. 12. Yabo AN. Assessment of Quality of Antenatal Care (ANC) Service Provision Among Pregnant Women in Ambo Town Public Health Institution, Ambo, Ethiopia, 2013. *American Journal of Nursing Science*. 2015;4:57.
13. 13. Chemir F, Alemseged F, Workneh D. Satisfaction with focused antenatal care service and associated factors among pregnant women attending focused antenatal care at health centers in Jimma town, Jimma zone, South West Ethiopia; a facility-based cross-sectional study triangulated with qualitative study. *BMC Res Notes*. 2014;7:164.
14. 14. Wakgari N. Antenatal Care Utilization and Its Associated Factors among Pregnant Women in Boricha District, Southern Ethiopia. 2017;14:76-84.
15. 15. Ahmad MM, Alasad JA. Patients' preferences for nurses' gender in Jordan. *International journal of nursing practice*. 2007;13(4):237-42.
16. 16. Ahmad M, Alasad Alshraideh J. Who is preferred more in Jordan: Male or female nurses 2007.
17. 17. Ross D. Challenges for Men in a Female Dominated Environment. *Links to Health and Social Care*. 2017;2(1):4-20.
18. Majrooh MA, Hasnain S, Akram J, Siddiqui A, Memon ZA. Coverage and quality of antenatal care provided at primary health care facilities in the 'Punjab' province of 'Pakistan'. *Plos one*. 2014 Nov 19;9(11):e113390.
19. Ismail NI, Essa RM. Pregnant Women's Satisfaction with the Quality of Antenatal Care At Maternal and Child Health Centers in El-Beheira Governorate. *therapy*. 2017 36 - 46.
20. Budu HI, Abalo EM, Bam VB, Agyemang DO, Noi S, Budu FA, Peprah P. "I prefer a male nurse to a female nurse": patients' preference for, and satisfaction with nursing care provided by male nurses at the Komfo Anokye teaching hospital. *BMC nursing*. 2019 Dec;18(1):1-9.
21. James M, Merlin M. Assessment of the level of satisfaction with nursing care given by female and male staff nurses among the patients admitted in a selected hospital of New Delhi. *Indian Journal of Nursing and Midwifery Research*. 2016;3(2-3):26-31.
22. Tesfaye DT, Mekonnen AH, Negesa BL. Maternal Antenatal Care Service Satisfaction and Factors Associated with Rural Health Centers, Bursa District, Sidama Zone, Southern Ethiopia: A Cross-sectional Study. *J Women's Health Care*. 2017;6(363):1-5.