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Research Article

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Pregnant women's perceptions of quality of antenatal care services at Kanifing General Hospital

Abstract

Background: Perception of the quality of antenatal care is important in understanding the relationship between quality and utilization of antenatal care services. The aim of this study was to assess pregnant women's perceptions of the quality of antenatal services provided at Kanifing General Hospital (KGH).

Methods: A descriptive cross-sectional design was used. One hundred and thirty-eight booked pregnant women in KGH`s antenatal clinic was systematically selected and interviewed using an adapted questionnaire. Data was analysed using the Statistical Package for Social Sciences version 23. Ethical approval obtained from The Gambia Government/ MRC Joint Ethics Committee (R017027v2.1).

Findings: The findings showed 68.8% of the participants booked for antenatal care in their second trimester. The ability to obtain drugs by pregnant women was rated low (M = 3.14, SD ± 1.09). The time the midwives spent during their assessment with pregnant women and the number of home visits by midwives were scored low (M = 2.05, SD ± .61, and M = 2.03, SD ± .54 respectively). A significant association was found between gestational age at booking and interpersonal care and information provided ($x^2 = 12.09$, $P < 0.05$).

Conclusion: The study identified some gaps in the quality of antenatal services provided in KGH. Therefore, proper, and regular evaluation of the quality of antenatal care may be productive in improving services at the KGH.

Keywords: antenatal care, pregnant women, quality of care, perception, the Gambia

Volume 15 Issue 6 - 2024

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Received: November 26, 2024 | **Published:** December 12, 2024

Introduction

The quality of antenatal care (ANC) is determined by the degree to which antenatal clinic services are provided to pregnant women, which contributes to a good antenatal outcome. The World Health Organization (WHO), reports women`s experience of the quality of ANC is negative if the quality is poor, and evidence shows that such women will not attend ANC.[1] WHO states that every day, about 830 women died from pregnancy and childbirth-related complications; out of these, 550 occurred in Sub-Saharan Africa and 180 in Southern Asia, compared to 5 in developing countries.[2] Almost 95% of all maternal deaths occurred in low resource settings countries in 2020.[3] Although the quality of health care during pregnancy and childbirth can prevent many of these deaths, only 64% of women worldwide receive ANC, which means they attend ANC four or more times during their pregnancy.[1]

Clients' perceptions of the quality of services are widely recognized as an important tool for improving health care services in many developed countries, and such perceptions are considered one of the best ways to measure quality in healthcare.[4] Whereas in developing countries, the client`s perception of healthcare services seems to have been largely ignored by healthcare providers.[5] Meanwhile, because perceived quality invariably affects a mother's behaviour, the mother may choose not to return for antenatal care services, which in turn may result in adverse outcomes for the woman and her baby.[4]

A study by Centre for Innovation Against Malaria [CIAM] reports that, pregnant women in the Gambia who come for antenatal care often do so late in pregnancy.[6] Similarly, another study on antenatal care in the Gambia concluded that information, education, and communication during antenatal care in the largest health division are poor.[7] Pregnant women are ill-equipped with regards to making appropriate choices, especially when they are in danger, which contributes to the persistence of high maternal mortality ratios in the Gambia.[7] Thus, it is important to determine maternal perceptions of the quality of antenatal care services through pregnant women since the women are the users of such services.

It is the mistaken belief that expanding access to reproductive health services will improve the poor reproductive health indices. Quality of care was not given consideration in developing countries.[5,8] A study from Nigeria revealed that about 10% of the patients did not receive information about the danger signs of pregnancy, breast self-examination, family planning, or prevention of sexually transmitted infections, suggesting that measures for improving elements of the quality of antenatal care are imperative.[8]

According to CIAM a preliminary analysis of data from an antenatal survey in the Gambia found that 22% of participants disliked some aspects of their antenatal care in terms of satisfaction with the services, 67% of those polled disliked having providers who were uncaring and lacked character in their work.[6] These may prevent or hinder a woman from attending her antenatal visits on time because of the negative experience she had with antenatal care services. Consequently, a woman may develop pregnancy-related health problems such as pre-eclampsia, which may not be detected early because she may not report for ANC regularly, and which may end up having a negative impact on the maternal outcome.

A study in Zambia on the quality of antenatal care a national assessment found that only 29% of mothers in Zambia received good quality ANC, and out of these, only 8% attended the first trimester.[9] The same study concluded that the quality gap indicated that there were still many missed opportunities at the ANC for delivering effective interventions to improve maternal and new-born health. Evaluating the level of ANC provided at health facilities is an efficient way of detecting system deficiencies and could be used as a monitoring tool to assess country progress.[9]

Therefore, the aim of this study was to assess pregnant women`s perceptions of the quality of antenatal services provided at Kanifing General Hospital. Results of this study can be used to improve the quality of ANC and to help policymakers develop policies that would improve the quality of ANC services, thereby reducing the maternal mortality rate.

Methodology

Study design and Setting

A descriptive cross-sectional design was used. The study was conducted at Kanifing General Hospital (KGH), formerly known as Serrekunda General Hospital. The hospital is located in Kanifing Municipality, which has a population of 382,096 inhabitants.[10] Both public and private health facilities refer patients to KGH. Pregnant women are normally given monthly appointments until 28 weeks of gestation, two weekly intervals from 28–36 weeks, and a weekly interval after 36 weeks. The activities carried out in these appointments include assessment of pregnant women through history taking, examinations, health education, provision of tetanus toxoid immunization, folate, and iron supplementation. The ANC clinic, which also houses the gynaecology clinic, is primarily staffed by two midwives. However, only one doctor reviews women with high-risk pregnancies. ANC visits and bookings are offered once a week in the ANC clinic. Bookings are every Wednesday, and ANC visits are every Thursday. Except for women who have problems and need medical review, they can be seen on the other days for follow-up and review by the medical officer.

Sample size and sampling procedure

An excel template known as The Research Advisors (2006) was used to calculate the sample size. A population of 214 registered pregnant women at the ANC clinic (from January to April 2017) was set at a confidence level of 95% and a margin error (degree of accuracy) of 5%, yielding a required sample size of 138 participants. Systematic random sampling was used to select pregnant women who meet the inclusion criteria. During the data collection days, every second pregnant woman was chosen and interviewed until the required sample size was obtained.

Research tool

The questionnaire used in this study was adapted from a study on Maternal Perceptions of Quality of Antenatal Care Services in Sri Lanka: Development and Validation of a Multi-dimensional Instrument.[4] The questionnaire has 26 items, which have four subscales. The first subscale was named "technical expertise and medication," the second was "resources and accessibility," the third was "interpersonal care and information," and the last was "communication, clinics, and home visits." The first subscale consisted of 6 items, and the other 3 subscales consisted of 4, 8, and 8 items, respectively. For each item, the participants were asked to rate it on a 5-point Likert scale ranging from 1 = very unfavourable, 2 = unfavourable, 3 = neutral, 4 = favourable, and 5 = very favourable. The possible total score ranged from 26 to 130. The instrument was pretested on 10% of the sample size (14 pregnant women) and yielded a Cronbach's alpha of.744.

Data collection

A questionnaire was used to collect data in the ANC clinic at KGH. The questionnaire was self-administered to the educated pregnant women who consented to participate in the study, while the illiterate were interviewed face-to-face by the researcher, who was able to speak four major local languages, namely Mandinka, Wollof, Fula, and Sarahule, as all of the participants were able to understand and speak one of these languages. Each interview lasted for about 20 minutes. The data collection period lasted for 12 weeks. This was conducted every Thursday of the week. Women who came for ANC visits and those who met the inclusion criteria were consented to and interviewed.

Data analysis

The data was analysed using the Statistical Package for Social Science (SPSS) version 23. Frequencies, percentages, means, and standard deviation were used for descriptive statistics, while Chi-square was used to assess the association between categorical variables.

Ethical approval

Ethical approval was sought from the Gambia Government/ Medical Research Council Joint Ethics Committee ref: R017027v2.1. The Management Board of KGH also granted permission to carry out the study. Consent to participate in the study was sought from participants, and the researcher assured them of confidentiality of the information provided.

Results

Socio-demographic characteristics of participants

A total of 138 pregnant women took part in the study, the mean age was 29.7 years (SD±5.48) ranging from 20 – 46 years. The mean gestational age at booking was 18.3 weeks (SD ±5.77) ranging from 8 – 34 weeks. About half of the participants (n=69, 50%) were multiparous with a mean parity of 2.9 (SD =± 1.93). Majority of the participants (n=95, 68.8%) registered for antenatal care in their second trimester. The mean number of antenatal visits was 3.4 (SD = ±1.55) and (n=51, 37%) of the participants had two visits at the time of the interview with a range of 2 – 11. The Mandinkas formed the largest ethnicity (n= 37, 26.8%) almost all were Muslims (n=127, 92%), and all the participants were married (n= 138, 100%). Majority (n=38, 27.5) had junior secondary education and (n=107, 77.5%) were unemployed. Refer to table 1for further details.

Technical expertise and medication

The highest item ranked under the Technical Expertise and Medication subscale was the way the health staff in the antenatal clinic examined the pregnant women (M = 4.02, SD ± .26) ranging from 2 – 5, followed by the way the health staff monitor pregnant women recovering from illness (M = 3.99, SD ± .36) with a range of 1 – 5. The least was the ability to obtain drugs from the clinic every month (M = 3.14, SD ± 1.09) with a range of 1 – 5. The total mean score of the technical expertise and medication subscale was (M = 3.79, SD ± .28). See table 2 for details.

Citation: Bah R, Sey-Sawo J, Anyanwu M. Pregnant women's perceptions of quality of antenatal care services at Kanifing General Hospital. *Obstet Gynecol Int J.* 2024;15(6):294–299. DOI: 10.15406/ogij.2024.15.00774

Table 1 Socio-demographic characteristics of participants (n=138)

Variables	Frequency (n)	Percentage (%)	M (±SD)	Range
Age years			29.7 (5.48)	20 – 46
20-29	73	52.9		
30-39	58	42		
40-49	7	5.1		
Gestational age at booking (weeks)			18.3 (5.77)	8 – 34
1st trimester (0-13)	32	23.2		
2nd trimester (14-27)	95	68.8		
3rd trimester (28+)	11	8		
Number of ANC visits			3.4 (1.55)	2 – 11
2nd visit	51	37		
3rd visit	41	29.7		
4th and above	46	33.3		
Parity			2.9 (1.93)	1 – 9
First parity	43	31.2		
Multiparous	69	50		
Grand multiparous	26	18.8		
Ethnicity				
Mandinka	37	26.8		
Fula	33	23.9		
Wollof	17	12.3		
Jola	16	11.6		
Others	35	25.4		
Religion				
Islam	127	92		
Christianity	11	8		
Marital status				
Married	138	100		
Educational level				
No formal education	37	26.8		
Primary education	26	18.8		
Junior secondary	38	27.5		
Senior secondary	22	15.9		
Tertiary education	15	10.9		
Employment status				
Employed	31	22.5		
Unemployed	107	77.5		

Table 2 Technical expertise and medication (n=138)

Variable	M (±SD)	Range	Ranks
The way the health staff in your antenatal clinic examine you	4.02 (.26)	2 – 5	1
The way mothers are referred to hospital from the clinic for identified illness	3.93 (.40)	1-5	3
The quality of drugs given from your antenatal clinic	3.83 (.64)	2 – 5	5
The ability to obtain drugs from the clinic in every month	3.14 (1.09)	1 – 5	6
The ways drugs prescribed from your antenatal clinic	3.85 (.59)	1 – 5	4
The way the health staff monitor recovering from illness in your antenatal clinic	3.99 (.36)	1 – 5	2
Total mean scale	3.79 (.28)		

Note: scale 1 = very unfavourable 2 = unfavourable 3 = neutral 4 = favourable and 5 = very favourable

Resources and accessibility

The cost pregnant women bear coming to antenatal clinic had a highest score in terms of resources and accessibility (M = 3.11, SD ± 1.23) ranging from 1- 5 followed by the adequacy of public health midwives (M = 2.67, SD ± 1.15) and the least score was the distance to the antenatal clinic from pregnant women`s home (M = 2.55, SD ± 1.24). The total mean score for the resources and accessibility subscale was (M = 2.75, SD ± .85) See table 3 for details.

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Table 3 Resources and accessibility (n=138)

Variable	M (±SD)	Range	Ranks
The adequacy of doctors in your antenatal clinic	2.66 (1.14)	1 – 5	3
The adequacy of public health midwives in your antenatal clinic	2.67 (1.15)	1 – 5	2
The cost you bear coming to your antenatal clinic	3.11 (1.23)	1 – 5	1
The distance to this clinic from your home	2.55 (1.24)	1 – 5	4
Total mean scale	2.75 (.85)		

Interpersonal care and information

In terms of interpersonal care and information, the honesty of health staff in the antenatal clinic was scored the highest (M = 4.00, SD ± .30) and the least two scores were the general information provided to mothers in their antenatal clinic (M = 3.3, SD ± 1.05) and the information provided about specific health problems in the antenatal (M = 3.23, SD ± 1.08) respectively. The total mean, for this subscale (M = 3.76, SD ± .40), (table 4).

Table 4 Interpersonal care and information (n=138)

Variable	M (±SD)	Range	Ranks
The compassion shown by the health staff to mothers in your antenatal clinic	3.86 (.61)	1 – 5	6
The support shown by health staff to mothers in your antenatal clinic	3.91 (.57)	1 – 5	4
The respect shown by health staff to mothers in your antenatal clinic	3.88 (.66)	1 – 5	5
The reception of mothers in your antenatal clinic	3.93 (.46)	1 – 5	3
The honesty of health staff in your antenatal clinic	4.00 (.30)	2 – 5	1
The follow up of mothers by the health staff in your antenatal clinic	3.99 (.34)	2 – 5	2
The general information provided to mothers in your antenatal clinic	3.31 (1.05)	1 – 5	7
The information provided about specific health problems in your antenatal clinic	3.23 (1.08)	1 – 5	8
Total mean scale	3.76 (.40)		

Communication, clinic and home visits

For this subscale, the highest scored item was the politeness of the health staff in the antenatal clinic (M = 3.86, SD ± .59) followed by the way pregnant women`s privacy was respected by the health staff in the antenatal clinic (M = 3.83, SD ± .68). The least four scored items were the waiting time in the clinic till a health staff attends to a pregnant woman (M = 2.26, SD ± 1.22), the adequacy and hygiene of toilet facilities in the antenatal clinic (M = 2.12, SD ± 1.10), the time the midwives spend with pregnant women (M = 2.05, SD ± .61) and the number of home visits by the midwives (M = 2.03, SD ± .54) respectively. The total mean for this scale was (M = 2.91, SD ± .41) See table 5 for details.

Table 5 Communication, clinic and home visits

Variable	M (±SD)	Range	Ranks
The willingness of the health staff in the clinic to discuss any question you have	3.80 (.59)	1-5	3
The way the health staff explained the purpose of the diagnostic tests in your clinic	3.32 (1.09)	1-5	4
The adequacy and hygiene of toilet facilities in your antenatal clinic	2.12 (1.10)	1-4	6
The number of home visits by the midwives in your area	2.03 (.54)	1-4	8
The time the midwives spent with you	2.05 (.61)	1-5	7
The politeness of the health staff in your antenatal clinic	3.86 (.59)	1-5	1
The waiting time of the clinic till a health staff sees you	2.26 (1.22)	1-5	5
The way your privacy was respected by the health staff in your antenatal clinic	3.83 (.68)	1-5	2
Total mean scale	2.91 (.41)		

Associations between variables

A statistically significant association were found between age and resources and accessibility subscale ($\chi2 = 10.21$, $P < 0.05$), gestational age at booking and interpersonal care and information ($\chi2 = 12.09$, $P < 0.05$). Furthermore, religion ($\chi2 = 19.25$, $P < 0.001$), education ($\chi2 = 29.02$, $P < 0.001$), and employment ($\chi2 = 10.34$, $P < 0.001$) were significantly related to the total quality of ANC on all the subscales. Refer to table 6 for details.

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Table 6 Associations between variables

Variables	Variables	χ2 (p-value)
Age	Resources and Accessibility	10.21 (.037*)
Gestational Age at booking	Interpersonal Care and Information	12.09 (.017*)
Religion	Quality of ANC	19.25 (.001**)
Education	Quality of ANC	29.02 (.001**)
Employment	Quality of ANC	10.34 (.006**)

* Significant at P < 0.05, **significant at P <0 .001

In this study, it is observed that most of the study participants (68.8%) had their pregnancy booked in the second trimester and the mean gestational age at booking was 18.3 weeks. This finding supported the CIAM and Gambia Bureau of Statistics study.[6,11] Late booking for antenatal care decreases pregnant women`s contact with their healthcare providers, which is a missed opportunity for early detection and intervention and may influence the pregnancy outcome. Similar reports have been published in Nigeria on the quality of antenatal care, where the mean gestational age at booking was 18.5 weeks.[8] These showed that non-initiation of care within the first trimester is a common cultural practice in this subregion which has a clinical implication since it represents a missed opportunity for early intervention.[8]

This study revealed that the highest educational level attained by pregnant women was junior secondary education, and most of them were unemployed. This could be due to the fact that men are given more educational priority in most Gambian families than women.Secondly, some women are married before they complete their educational careers. A similar study in Vietnam showed that a low level of education and self-employment were risk factors for at least one indication of inadequate ANC.[12] Women with low levels of education normally have less knowledge of ANC and more difficulty accessing it.[13–15]

Technical expertise with medication is integral to ANC. The way health staff in the antenatal clinic examined and monitored pregnant women recovering from illness was rated the highest in this study, while the ability to obtain drugs from the clinic every month was rated the lowest. The absence or presence of drugs and supplies has an effect on the quality of services delivered.[6] In addition, this may have a negative impact on pregnancy despite the technical expertise being provided to pregnant women because some pregnant women may not be able to afford to buy prescribed drugs from outside if they are not available in the clinic. A similar study in rural Tanzania revealed that out of the 31 government health facilities, none of the facilities had all the equipment and medications needed for the provision of ANC.[16]

Inadequate resources and accessibility may impede the utilization of ANC services by pregnant women, thereby having an influence on the quality of ANC. In this study, the distance to the antenatal clinic from pregnant women`s homes was the least scored item. This may be because KGH is one of the referral hospitals in Western 1 of the Gambia; pregnant women from Western 2, which is about 26 km away, are sometimes referred to this hospital for the management of conditions like high-risk pregnancies.[6] Similarly, Kyei, Campell, and Gabrysch studied the influence of distance and level of service provision on antenatal care in rural Zambia; there was a strong influence of both distance to a facility and level of provision at the closest ANC facility on the quality of ANC received.[9] The two areas with the lowest scores were the general information provided to mothers in their antenatal clinic and the information provided about specific health problems related to antenatal. Pregnant women need to be well informed about specific health problems related to pregnancy, such as danger signs of pregnancy, pre-eclampsia, and malaria prevention during pregnancy. Consequently, these promote a good pregnancy outcome, and create a positive pregnancy experience.

The study found the four least-rated items were the waiting time in the clinic until a member of the health staff attended to a pregnant woman, the adequacy and hygiene of toilet facilities in the antenatal clinic, the time the midwives spent with pregnant women during their assessment, and the number of home visits by midwives, respectively. The ANC clinic's long waiting time may be due to the healthcare provider/client ratio; only two midwives run the ANC clinic, which includes the gynaecology clinic, and these midwives also provide other gynaecological services. The finding in this study is consistent with the one conducted in Tanzania, where during community group meetings and focus group discussions, frequent issues such as long waiting times, unavailability of staff, lack of essential medicine, poor equipment, and poor attitudes of health workers towards women and their partners were highlighted.[16]

Home visits during the ANC period are part of the continuity of care and allow for counselling on a healthy lifestyle and birth planning. Home visits by healthcare providers may allow pregnant women to have more time to discuss their psychosocial issues, facilitate more room for assessments, and gain confidence in the health visitor. Unfortunately, findings in this study revealed that the time midwives spent with pregnant women and the number of home visits by midwives were rated low. Most pregnant women spent 3 minutes or less with their antenatal healthcare providers.[7] Furthermore, this could be attributed to the shortage of manpower and workload in the Gambian health sector. The effectiveness of home visits in pregnancy as a public measure to improve birth outcomes was studied in Japan; the study added to the evidence of the efficacy of population-based home-visits programs as a public healthcare measure.[17] A significant association was found between age, resources, and accessibility. This may be due to older pregnant women having more experience with the ANC services compared to the younger ones, who may have just started them. Furthermore, a significant association was found between gestational age at booking and interpersonal care and information regarding the quality of ANC. This might be attributed to pregnant women who booked early having more contacts with their health care providers, so there will be better interpersonal care with the health care providers and more information regarding pregnancy provided by the staff in the ANC clinic.

Conclusion

Pregnant women's perceptions of the quality of ANC services provide potential information that can be used to improve ANC service quality. The findings of late booking for ANC by pregnant women in this study conform to previous studies on ANC in the Gambia, which is a missed opportunity for early detection and intervention, thus contributing to the factors influencing the low quality of ANC in the Gambia. Therefore, strategies must be devised to avert this practice, which might have a negative impact on maternal health outcomes especially, at-risk pregnant women. In addition, the number of home visits and the time midwives spent with pregnant women was rated low in this study. There is a need to strengthen the home visits conducted by health care providers during the antenatal period.

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Study limitations

Some pregnant women who were qualified for this study might have been missed out because of miss appointment date.

Recommendations

There is a need to train more community health nurse midwives to conduct home visits that may help in identifying all pregnant women, provide counselling and stress the importance of early booking for ANC. There should be a proper and regular evaluation of the quality of ANC services provided in all health facilities. Efforts should be made to improve resources and accessibility of ANC services, for example providing the technical expertise, resources, and accessibility in other health facilities of the Gambia instead of referring some pregnant women to KGH. This will also reduce the distance pregnant women will cover when coming to the ANC clinic. In the recent years, there is special skills allowance being created by the government for nurses and midwives in an effort to avert the attrition of nurses due to poor salary, inadequate equipment, and workload. The increment of these allowances may help in motivating nursing and midwifery staff.

Acknowledgments

We wish to express our sincere appreciation to the management and staff of Kanifing General Hospital, Department of Nursing and Reproductive Health of the University of the Gambia and Edward Francis Small Teaching Hospital for their support.

Ethics approval and consent to participate

The research was approved by The Gambia Government/MRC Joint Research Ethics Committee. Written informed consent was obtained from all participants.

Availability of data and materials

The datasets used and/or analyzed during the current study are available from the corresponding author upon request.

Authors' contributions

RB conceptualized the study, designed and collected data. RB conducted the literature search and wrote the first draft of the manuscript. JS supervised drafting of the protocol and data collection. JS and RB analyzed the data. TO took part in the data analysed and interpreted data. MA revised the manuscript for intellectual content. JS critically reviewed manuscript for intellectual content and gave final approval for publication. All the authors have read and approved the final manuscript.

Funding

The authors received no financial support for the research, authorship and publication of this article.

Conflicts of interest

The authors declare that they have no competing interests.

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