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Women's perception of antenatal care services in public and private clinics in the Gambia

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Abstract

Objective. The main objective of this study was to assess women's preferences and perception of antenatal healthcare services in public and private healthcare facilities.

Design. Descriptive cross-sectional study using a face-to-face interview based on the standardized World Health Organization questionnaire.

Setting. Six public and six private health facilities in the Gambia.

Participants. Five hundred and two pregnant women.

Intervention. Not applicable.

Main Outcome Measures. Patient's perception of antenatal services received was main outcome variables and measured in three aspects: willingness to come back, willingness to recommend to others and level of satisfaction.

Results. The satisfaction rate with antenatal services was 79.9% for public facilities and 97.9% for private facilities. Pregnant women's poor perception with public facilities (after adjustment) included their unhappiness, with the following dimensions of antenatal care (ANC): inadequate privacy, inadequate space and neatness and inadequate communication with care providers.

Conclusion. We found that although women tended to be highly satisfied with both private and public ANC facilities, those attending public clinics were significantly less satisfied than those attending private clinics. The main complaints were related to the physical environment, technical process and provision of information or reassurance. Because public facilities constitute the main care providers for the general population and particularly for disadvantaged women, better management of public clinics and better training in communication skills for public care providers may help to retain women patients and improve the quality of ANC in the public sector.

Keywords: antenatal care, patient satisfaction, public and private health care, The Gambia

Introduction

Antenatal care (ANC) offers important safe motherhood interventions that may reduce maternal and prenatal morbidity and mortality significantly [1]. The antenatal period presents opportunities to reach out to pregnant women with interventions that may be vital to them and their infants. A better understanding of users' experiences, including their perceptions, preferences and satisfaction levels, can substantially improve the degree to which women accept such intervention and continue to use the services provided. Sustained utilization and increased compliance can ultimately lead to better outcomes [2]. Thus, recent ANC recommendations have strongly emphasized both the psychological and medical needs of pregnant women [1].

However, most research to date has been limited to developed countries. Because women's views of and satisfaction with health care are heavily influenced by local culture and specific healthcare systems, it is necessary to extend this research to developing countries. A particular need exists in

the Sub-Saharan African region, with its high risk of maternal and infant mortality [3, 4]. In addition, in most developing countries, public hospitals and clinics exist alongside an extensive but largely unregulated private system [5]. Many have expressed concern regarding the quality of care provided by the private sector [6] because of the lack of information on these private providers. It remains unclear whether a high level of private medical care is beneficial or detrimental to a population's overall health [7]. Few studies have assessed patient's perception of public and private providers in developing countries. Research from Tanzania, Kenya, South Africa, south-central India and Bangkok has found private health care to be associated with a better quality of care and higher patient satisfaction, compared with public health care [6, 8–10]. However, in the field of ANC, comparative data between public and private providers on subjective dimensions of quality (including preferences, perceptions of physical environment, provision of information and communication) remain limited.

Maternal health is a key issue in the Gambia. The exceedingly high maternal mortality ratio (690 women die per 100 000 live births) is commonly cited, and has caused great concern on the quality of maternal health services. Patients' experiences of such services provide a critical means of assessing quality [11]. Poor satisfaction or unpleasant interaction with providers during pregnancy may compromise women's access to vital services, thus jeopardizing the health of women and their infants. One study revealed the poor provision of information, education and communication in public ANC care in the Gambia [12]. However, that study did not measure patient satisfaction, and was limited to public facilities. Because private clinics becoming increasingly important providers of ANC, it is critical to systematically assess women's preferences, perceptions and satisfaction with public and private ANC facilities in the Gambia.

Methods

Study design and setting

This descriptive study was conducted in the western health region of the Gambia. It is among the largest of the six health regions in the Gambia, accommodating 55% of the national population. It includes 12 major and minor health centers, and hosts between 80 and 90% of the nation's private health facilities.

In the Gambia's public health system, ANC is mainly provided by the minor and major health centers. Public antenatal clinics are open from 8.00 a.m. to 2.00 p.m. throughout the week, mostly led by trained midwives. Registration for ANC at a public health facility depends generally on place of residence. Women are provided with monthly appointments until 28 weeks of gestation, then biweekly appointments until 36 weeks, followed by weekly appointments until birth. The cost of ANC services at public health facilities is relatively low, with a one-time standard fee of 5 dalasis (US$ 1 was equivalent to D27 in September 2009). The fee is payable on the first visit.

As an alternative, pregnant women can use private ANC facilities. Both private for-profit and private non-profit facilities offer ANC, and there is no restriction on women's registration for ANC at the private facilities. However, the cost of ANC at the private clinics is higher than that at the public clinics, with fees varying widely from one clinic to another.

Sample and data collection

We randomly selected 6 of the 12 public facilities and 6 of the 26 private facilities in the western health region to include in the study. Simple random sampling was applied. Each site was assigned a unique identification number, and a lottery procedure was conducted to select the sites for inclusion.

We adopted a validated questionnaire used by the World Health Organization (WHO) to evaluate women's perception of the quality of ANC in developing countries. A pretest was conducted by the principal investigator and one assistant interviewer 2 weeks prior to the commencement of the study, with 15 pregnant women attending one of the selected facilities. These pretest participants were not included in our final sample. After the pretest, two questions were added to the questionnaire: (i) 'Were you happy about the facility space and neatness?' and (ii) 'Did you have adequate privacy while you were seen by the healthcare provider?' These questions were added because space and neatness, and adequate privacy were unanimously identified as important quality issues by women in the pretest.

Based on an estimated number of 30 000 maternities per year in the western health region, a minimum sample size of 379 was required to achieve a 95% confidence level at a power of 80%. We aimed to interview 45 women at each clinic; where there were fewer than 45 women, all those who met the inclusion criteria were interviewed. In line with previous literature [2] and common antenatal practices in the Gambia, only women who had visited their respective clinics at least two times during that pregnancy were included. Women on their first visit were excluded, because a woman is generally unlikely to undergo important examinations or a substantial number of essential procedures during her first visit to an ANC facility. Hence, they may not yet have formed an opinion about the quality of ANC they received. Some women may seek care from more than one ANC provider concurrently. According to previous literature [2] and to avoid potential bias, we excluded women who attended more than one ANC site concurrently during the pregnancy.

A total of 502 women agreed to participate (264 in the public clinics and 238 in the private clinics). The response rate was 98.4%. Individual informed consent was obtained from each participant, and the interviews were held in a private environment. The study was approved by the Department of State for Health and Social Welfare and the Gambia government's joint MRC (Medical Research Council) ethics committee. The interviews took place between July and September 2009.

The questionnaire was divided into five sections, namely socio-demographic characteristics; patients' preferences; their assessment of services, information and communication; worries about problems that might happen during pregnancy and whether there was reassurance by the healthcare

providers and finally the overall perception of the ANC service. Assessment included waiting time; time spent with the provider and some structural features such as privacy, neatness and space at the facility. With regard to information, women were asked to rate the amount of information they received about danger signs during pregnancy and some maternal conditions. Two questions were used to assess communication, namely whether the patient had asked questions, and if so, whether she had understood the answers.

Patient's perception of ANC facility was the main outcome variable and three questions were used to assess this dimension. First, women were asked whether (should they become pregnant again) they would want to come back to the health facility or not; secondly, whether they would recommend the facility to others and finally, their level of satisfaction.

Statistical analysis

The data were analyzed using SPSS version 17.0. Chi-square tests, Fisher's exact tests and Student's *t*-tests were performed to explore statistical differences between women's ratings of public and private clinics. We conducted generalized estimating equation (GEE) analysis to identify factors associated with patient's experience with public facilities. Willingness to recommend was used as a main measure of patient's experience. The sample of private facility attendees was not analyzed because only very few private clinic attendees ($n = 5$, 2.1% of the 238 private facility attendees) answered 'no' to the question whether they would recommend the facility to others. Among the analyses of public facility attendees, in line with previous literature, the 'don't know' response for being willing to recommend it to others, was treated as a missing value and excluded from the analysis. Sensitivity analyses using different classifying schemes were conducted, and the results remained robust.

Furthermore, we constructed two summary indexes. First, the level of information received was calculated from the number of 'yes' and 'as much as you wanted' responses received for items pertaining to information: five danger signs during pregnancy (fever, rupture of membrane, hemorrhage, premature contractions and dizziness and fainting); mother's own health; treatment; tests; labor; family planning; breastfeeding and diet and nutrition. An individual's summary score for the information index could range from 0 to 12. The second index summed the number of 'yes' answers to the two communication questions asked.

Results

The distribution of the study sample is presented in Table 1. Women attending public and private clinics differed significantly with regard to the mean number of antenatal visits, gestational age at first visit and education level. Women attending private clinics made their first antenatal visit a little earlier, and had more visits, compared with those attending public clinics. Education about pregnancy was inadequate in both public and private clinics. Over 50% of the women in both settings felt that they had been given inadequate information on pregnancy issues. Roughly 80% of the women reported that they had not been told how to recognize or manage certain danger signs during pregnancy (data not shown).

Table I Socio-demographic characteristics of the study participants according to facility type ($n = 502$)

	Public ($n = 264$)	Private ($n = 238$)	*P*-value
Weeks of pregnancy, mean (SD)	29.3 (5.9)	29.8 (6.1)	0.38
Number of visits at interview, mean (SD)	2.9 (1.2)	4.0 (2.1)	<0.01
Gestational age at first visit, mean (SD)	21.5 (5.9)	19.3 (5.9)	<0.01
Age distribution (%)			0.30
<20 years	10.6	9.2	
20–34 years	79.2	76.1	
35+ years	10.2	14.7	
Marital status (%)			0.56
Married	94.7	95.8	
Single	5.3	4.2	
Number of children (%)			0.45
≤1	48.5	52.1	
2	16.3	14.3	
3	14.8	17.7	
≥4	20.5	16.0	
Ethnic group (%)			0.13
Mandinka	37.9	29.8	
Fula	16.3	14.3	
Wollof	12.5	13.0	
Others	33.3	42.9	
Educational level (%)			<0.01
≤Primary	67.0	45.4	
Secondary	30.3	47.1	
Tertiary	2.7	7.6	

Table 2 presents the patterns of reassurance women received from providers about common pregnancy-related concerns. Overall, among women who attended either a public or a private facility, >87% worried about the position of their babies, the size of the baby, having a premature baby, having an abnormal baby or their own health and weight (data not shown). However, very few women had received information related to these worries. Less than half of our total sample had received such information and felt reassured. Significantly more women attending private clinics felt reassured compared with their public-facility counterparts.

Table 3 shows women's preferences and perception of ANC services offered at the public and private clinics. More than 70% of women attending either public or private clinics were satisfied with the number of antenatal check-ups they received and >80% of women were satisfied with the time between check-ups (data not shown). Women attending public clinics received significantly lower levels of provider attention than women attending private clinics. The mean

Table 2 Proportion of women who were reassured about common pregnancy-related concerns by their providers

	Women who felt reassured		
	Public ($n = 264$)	Private ($n = 238$)	*P*-value
Position of baby (%)			<0.01
Yes	10.2	46.2	
No	3.8	5.5	
No information received	86.0	48.3	
Size of the baby (%)			<0.01
Yes	7.6	44.1	
No	4.2	5.5	
No information received	88.3	50.4	
Premature baby (%)			<0.01
Yes	4.6	37.4	
No	3.8	7.1	
No information received	91.7	55.5	
Fetal abnormality (%)			<0.01
Yes	3.4	19.3	
No	4.2	9.2	
No information received	92.4	71.4	
Mother's own health (%)			0.10
Yes	11.4	16.4	
No	4.9	7.6	
No information received	83.7	76.1	
Mother's own weight (%)			0.56
Yes	13.6	12.6	
No	4.9	7.1	
No information received	81.4	80.3	

Table 3 Women's preference and perception of ANC services offered at the public and private clinics

	Public ($n = 264$)	Private ($n = 238$)	*P*-value
Waiting time (minutes), mean (SD)	90.3	71.9	<0.01
Happy with waiting time (%)	47.7	66.8	<0.01
Time spent with provider (min), mean (SD)	3.7	6.6	<0.01
Would you prefer to have (%)			<0.01
A lot more time	14.4	5.0	
A little more time	37.1	25.6	
Time is about right	48.5	69.3	
Happy with facility space and neatness (%)	76.5	95.8	<0.01
Adequate privacy (%)	90.2	98.3	<0.01
Preferred gender of provider (%)			
Male	14.0	18.9	0.18
Female	49.6	42.4	
No preference	36.4	38.7	
Preferred type of provider (%)			
Doctor	17.1	37.4	<0.01
Nurse	4.9	4.6	
Midwife	52.3	18.1	
A combination	12.5	24.4	
No preference	13.3	15.6	
Would you come back to this facility (%)			<0.01
Yes	73.5	79.0	
No	18.9	1.7	
Don't know	7.6	19.3	
Will you recommend this facility to others (%)			<0.01
Yes	78.0	92.9	
No	15.2	2.1	
Don't know	6.8	5.0	
Level of satisfaction (%)			<0.01
Very satisfied	28.8	52.1	
Satisfied	51.1	45.8	
Not satisfied	20.1	2.1	

waiting time in the public clinics per visit (90.3 min) was significantly higher than that in the private clinics (71.9 min). As expected, significantly more women (52.3%) were unhappy about the waiting time at the public clinics compared with private clinics (33.2%).

The mean time spent with healthcare providers at the public clinics (3.7 min) was significantly shorter than the time spent with providers at the private clinics (6.6 min). Of those attending public clinics, 51.5% said they wanted a little more or a lot more time with providers. In contrast, at the private clinics 30.6% of women said they wanted a little more or a lot more time. Furthermore, whereas 23.5% of the women attending public clinics reported that they were unhappy with the facility's space and neatness, only 4.2% of those attending private facilities reported the same thing. Privacy was also perceived more favorably at the private clinics relative to public clinics (98.3 and 90.2%, respectively).

Women attending either public or private clinics differed significantly in their preferred type of provider or qualification of the provider. While all participants generally showed a high level of satisfaction in this regard, more women (20.1%) in the public clinics were dissatisfied than their counterparts in the private clinics (2.1%). More women at the private clinics reported that they would return to the same facility, or would recommend it to others, compared with women attending public clinics. Overall, 92.9% of private clinic patients would recommend their ANC facility to others, with only five women (2.1%) responding negatively. In contrast, only 78.0% of public clinic patients would recommend it to others. Therefore, we further analyzed the determinants of willingness to recommend among public facility attendees.

Table 4 illustrates the results of factors associated with willingness to recommend the facility to others among respondents attending public clinics. After adjustment, education level was the only socio-demographic characteristic significantly associated with whether women would recommend the facility to others. Women with a tertiary level of

Table 4 Summary of variables associated with recommending the ANC facility to others (public facility attendees only)

	Willing to recommend to others ($n = 246$)	
	GEE adjusted	
	OR	95% CI
Patient characteristics		
Age		
<20 years	1.00	
20–34 years	0.86	0.24–3.17
>35 years	0.63	0.09–4.37
Marital status: single	0.98	0.19–5.16
Number of children		
≤1 child	1.00	
2 children	2.31	0.68–7.88
3 children	1.57	0.48–5.21
4 or more children	3.84	0.97–15.12
Ethnic group		
Mandinka	1.00	
Fula	1.02	0.30–3.47
Wollof	0.83	0.22–3.07
Others	0.69	0.26–1.81
Educational level		
≤Primary	1.00	
Secondary education	1.11	0.47–2.59
Tertiary education	0.11*	0.01–0.86
Four or fewer antenatal visits	0.91	0.28–2.98
Facility characteristics		
Not happy about waiting time	0.71	0.31–1.67
Not happy about neatness and space	0.40*	0.17–0.93
Not happy about adequate privacy	0.17***	0.06–0.48
Not happy about adequate information	1.14	0.39–3.33
Not happy about adequate communication	0.29*	0.08–0.99

GEE-adjusted variables included patient characteristics (age, marital status, number of children, ethnic group, education level and number of antenatal visits) and patient's perception of facility characteristics (happy about waiting time, happy about neatness and space, adequate privacy, adequate information and adequate communication).
*$P \leq 0.05$, ***$P \leq 0.001$.

education were least likely to recommend the facility to others (odds ratio: 0.11; 95% CI: 0.01, 0.86).

Regarding facility characteristics of public clinics, the following dimensions were significant determinants of women's overall perceptions about ANC: facility space and neatness (odds ratio: 0.40; 95% CI: 0.17, 0.93), adequacy of privacy (odds ratio: 0.17; 95% CI: 0.06, 0.48) and communication with the healthcare provider (odds ratio: 0.29; 95% CI: 0.08, 0.99). Those who were unhappy with these three aspects tended to be less willing to recommend it to others. Similar results were found for the other two measures of patient's perception about ANC.

Discussion

Overall, women attending either public or private facilities were satisfied with the ANC care they received. A high satisfaction level with private facilities was evident, and this finding casts some light on the growing market share of private healthcare providers. Regardless of the type of clinic, most women were happy with the number of ANC visits they made and the spacing of their visits. Women attending private clinics received more provider attention, experienced shorter waiting times and spent more time with their providers than women attending public clinics.

However, and consistent with previous findings [12], we found that the majority of women at both public and private facilities did not receive sufficient information and education about pregnancy. They also felt they had inadequate communication with their healthcare providers. Even in private facilities, the majority of women did not receive sufficient information and less than half of the women who had pregnancy-related worries felt reassured by their providers. Thus, insufficient information and ineffective communication were not unique to public health facilities; these issues permeated the entire healthcare system. Time constraints are a plausible reason for insufficient information and inadequate reassurance by service providers. Most women in our sample were given only few minutes to spend with their providers at each visit. Under such pressured circumstances, effective communication may not be possible. Langer *et al.* [3] have suggested a new antenatal model which would allow at least 30–40 min at the first visit and at least 20 min for subsequent visits, so that the provider could communicate effectively with patients.

Concerning facility characteristics, consistent with previous findings [2, 13, 14], we found that inadequate privacy, poor space layout and neatness, and poor communication were all associated with women's poor perception of ANC services. In the public sector, common problems such as staff shortage and inefficiency could be major contributing factors to long waiting times. Relatively poor working conditions and environment may also contribute to the lack of adequate space, neatness and privacy at the public clinics.

Our study had several limitations. First, the results showed that overall, women were highly satisfied with the ANC they received; however, this finding should be interpreted with caution as research participants tend to respond favorably to questions about patient's perception. The literature systematically shows that pregnant women tend to be relatively uncritical, and to accept as appropriate whatever care they receive [15]. Secondly, the timing of our interviews may have led to an overestimation of patient satisfaction. Studies have shown that questionnaires completed before the patient leaves the clinic reflect a higher level of satisfaction compared with responses submitted

later. Thirdly, our exclusion criteria (exclusion of first-time ANC attendees and/or women attending more than one ANC facility concurrently) may have led to a potential selection bias; in turn, such bias may have resulted in an overestimation of satisfaction. Fourthly, the quantitative nature of the methodology was potentially limiting, as patients may hold complex sets of important beliefs that could not be tapped using a survey format. Fifthly, the most recent visit might not represent a typical visit or the patient's cumulative experience across all visits. Sixthly, although we made an effort to ensure construct validity, our adding two questions to the standardized WHO questionnaire may have affected the instrument's measurement validity. Finally, the results cannot necessarily be generalized to other regions of the Gambia.

Despite these limitations, to our knowledge, this study was the first study to assess patient's perception of ANC in public and private health facilities in the Gambia. The results have provided a better understanding of the needs of women attending antenatal clinics. These findings may also help ease any concerns which people may hold regarding the quality of care provided by private facilities. In conclusion, we found that, even though women's perception of ANC was good for both public and private facilities, the problems of insufficient information and ineffective communication were pervasive. Overall, women were more satisfied with private providers than public ones, and private clinics outperformed public clinics with regard to structural features (privacy, waiting time, space and neatness). Because public facilities are the main providers for the general population, and particularly for disadvantaged women, to improve the quality of ANC at these facilities is critical. The focus of such interventions should include the physical environment, technical processes, the provision of information and the enhancing of healthcare providers' communication skills.

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