

Client Satisfaction on Antenatal Care Service by Pregnant Women in Public and Private Hospitals in Addis Ababa, Ethiopia: A Cross-sectional Comparative Descriptive Study

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Abstract

Background: Antenatal care (ANC) is an important health care service which is intended to potentially reduce maternal morbidity and mortality particularly in areas where the general health status of women is presumed poor, choice of facilities is limited and the service delivery compromised by geography (terrain, transport), socio-demographic factors, financial capability and awareness. Though improving the quality of health care is one of the targeted strategies in the Health Sector Development Program IV (HSDP IV) of Ethiopia, little is known about the quality of antenatal care service and client satisfaction at the different hospitals in Addis Ababa, the capital city of Ethiopia.

Objective: To determine satisfaction of ANC services among pregnant women at the public teaching and private hospitals in Addis Ababa, Ethiopia.

Methods: Health institution-based comparative cross-sectional study was conducted from February to June, 2019 in public and private hospitals, in Addis Ababa, using sample size determination for comparisons of proportion between the two populations. All participants who fulfilled the inclusion criteria were enrolled based on the flow of pregnant women to the ANC clinics at the selected hospitals. Data were entered and cleaned using EPI-info version 3.5.1 and analysis was performed by SPSS version 21. Association of independent variables with the client satisfaction was done using binary and multivariate logistic regression. Significant association of variables with outcome was determined using adjusted odds ratio (AOR) together with 95 % confidence interval. Level of significance was set at P-value of ≤ 0.05 .

Results: Five hundred seventy one pregnant women attending Antenatal Care at private (281) and public (290) hospitals were included with response rates of 94.1 and 91.2% for public and private hospitals, respectively. The age distribution of the participants was between 17 and 43 years with a mean age of 27.3 ± 5.1 years. Most of the clients, 249 (88.7%) at private and 276 (95.2%) at public hospitals were between the ages of 20 and 34 years. One hundred fourteen (39.3%) of the clients at public and 113 (40.2%) at private hospitals were nulliparous. The clients overall satisfaction with antenatal care was mostly positive both at the private and public hospitals and two hundred twenty eight (81.1%) of the private and 174 (60%) of the public hospitals were satisfied with the services provided. Having ANC follow up at the private hospitals had statistically significant difference in client satisfaction compared to those in public hospitals with P value of 0.019, (AOR 2.97, 95% CI: 1.19 -7.74). Clients' satisfaction with the cleanliness of the environment was 11.1 times more likely to be satisfied with the general ANC service, $P < 0.05$, (AOR 12.18 95% CI: 7.45-19.91). Having more than 4 ANC visits was positively associated with client overall satisfaction, $P = 0.021$, (AOR 2.41, 95% CI: 1.12-5.24,) while long waiting time is negatively associated with client satisfaction.

Conclusions: The study showed significant difference in client satisfaction rate between the selected private and public facilities. Private facilities outperformed public facilities with regards to structural features (privacy, waiting time, space, and neatness). We recommend concerted effort to improve ANC visits and pay due attention to the privacy, waiting time, and the neatness of the facilities in public hospitals.

Keywords: Antenatal Care, Client Satisfaction, Public Teaching and Private Hospitals, Addis Ababa, Ethiopia

Introduction

Antenatal care is the care that a woman receives during pregnancy,

which helps to ensure healthy outcomes of women and newborns. Antenatal care (ANC) offers important safe motherhood interventions that may significantly reduce maternal and prenatal morbidity and mortality. The antenatal period presents opportunities to reach out to pregnant women with interventions for pre-existing or emerging

clinical conditions during the pregnancy that may be vital to them and their infants in order to timely and rationally intervene when there is an urge to do so. Hence, antenatal care involves screening for health and socioeconomic conditions likely to increase the possibility of specific adverse pregnancy outcomes, providing therapeutic interventions known to be effective and educating pregnant women about planning for safe birth. Of the targeted strategies, promoting optimal quality of health care and in particular antenatal care has been the cornerstone of the Health Sector Development Program IV (HSDP IV) by investing in the physical environment, human resource and logistics [1-4]. In a nutshell it is often quoted that the main aim of antenatal care is to give a healthy baby to a healthy and happy mother through the appropriate utilization of antenatal care processes.

Quality and customer service have been identified as critical strategic issues for both public and private sector organizations. In private sector, customer satisfaction and loyalty are secured through modern physical environment that are staffed with highly qualified personnel capable of providing high tech gadget-oriented competitive medical services for exorbitant payment obligations based on the principle of fee-for-service. Public sector organizations with larger population catchment based on the premise of equality in distribution, nominal fee for service and handling all free patients incapable of covering their hospital costs are under constant pressure to improve customer service on a continuous basis despite low resource allocations, human resource retention, logistic shortages and policy related meddling's [5]. Patient satisfaction has traditionally been linked to the quality of services given, and the extent to which specific needs are met [6]. 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 by the obstetricians, medical practitioners, nurses, midwives and traditional birth attendants. The pregnant woman and the unborn child are the beneficiaries of this service [2,7].

Almost all maternal deaths (99%) occurring in developing countries are due to complications arising during antenatal, intra-partum and immediate postnatal period. Of the deaths more than half of them occur in sub-Saharan Africa (SSA) and one third occur in South East Asia. Most causes of these deaths are easily preventable through antenatal care in pregnancy, skilled care during childbirth, and care and support in the weeks after childbirth. The coverage alone does not provide information on quality of care, and poor quality in ANC clinics, correlated with poor service utilization, is common in Africa. This is often related to an insufficient number of skilled providers, particularly in rural and remote areas, lack of standards of care and protocols, few logistic supplies and drugs, and poor attitudes of the health care providers. These are all supposed to be in place in an attempt to address the perceived client care and satisfaction in public healthcare facilities. There is still presumed unsatisfactory services rendered by the staff of public hospitals including areas of care and treatment, relationship between patients and care givers, patients consent and confidentiality, sanitation of working environment, access to basic information about their rights, consent and confidentiality of patients [1,3].

The World Health Organization (WHO) envisions a world where every pregnant woman and newborn receives quality care throughout the pregnancy, childbirth and the postnatal period. Within the

continuum of reproductive health care, antenatal care (ANC) provides a platform for important health-care functions, including health promotion, screening and diagnosis, disease prevention and treatment. It has been established that by implementing timely and appropriate evidence-based practices, ANC can save lives. Crucially, ANC also provides the opportunity to communicate with and support women, families and communities at a critical time in the course of a woman's life. Thus, recent ANC recommendations have strongly emphasized both the psychological and medical needs of pregnant women [3].

The 2016 Ethiopian Demographic Health Survey (EDHS) results show that 62 percent of women who gave birth in the five years preceding the survey received antenatal care from a skilled provider at least once for their last birth. Urban women were more likely than rural women to have received ANC from a skilled provider (90 percent and 58 percent, respectively) and to have had four or more ANC visits (63 percent and 27 percent, respectively). The percentage of women who used a skilled provider for ANC services and who had four or more ANC visits for their most recent birth in the five years preceding the survey increases greatly with women's education. Among women with no education, 53 percent obtained ANC services from a skilled provider and 24 percent received four or more ANC visits compared with 98 percent and 73 percent, respectively, of women with more than a secondary education. The use of ANC services by a skilled provider and proper number of ANC visits also increases steadily with household wealth. Improved antenatal attendance due to free maternal care and widely available antenatal care facilities in developing countries should be complemented with high quality of care and increased clients' satisfaction [8].

The current perceived quality of antenatal care service, client satisfaction and factors influencing health services at public and private hospitals in the capital city of Ethiopia has not been addressed. The sporadic studies that are thus far undertaken were invariably at health center and regional hospitals levels outside the capital city which is more affluent, modern and urbanized in its structure [1,9-12]. We are cognizant of the fact that women's views of and satisfaction with health care are heavily influenced by local culture and specific healthcare systems, which will affect the quality of the provided quality of antenatal care service at the facilities. Thus, the study will help to provide information on perceptions and satisfaction of pregnant women about quality of antenatal care at public and private health facilities in Addis Ababa. The study findings will also be taken as baseline and stimulate the interest to conduct further studies in different areas of the country.

Methods and Materials

The study was done in Addis Ababa, the largest and the capital city of Ethiopia. There are more than 12 public and 25 private hospitals in the city. For the purpose of the study, 3 from public and 3 from private hospitals with daily client visits of >50 subjects were included in the study. The study sites from the public hospitals were Tikur Anbesa Specialized Hospital (TASH) which is a university hospital while Zewditu Memorial Hospital (ZMH), and Gandhi Memorial Hospital (GMH) are primarily affiliated to the Department of Obstetrics and Gynecology of the Addis Ababa University. The private hospitals included were Hemen MCH, Betsega MCH and Addis Hiwot General Hospitals. Data was collected from February 1, 2019 to June 30, 2019.

A health institution based cross-sectional comparative study was conducted to assess perceptions and satisfaction of pregnant women about antenatal care service at public and private health facilities in Addis Ababa, Ethiopia. All women who had ANC follow-up at the selected health facilities and whose gestational age was above 28 weeks or had more than 3 antenatal visits or were either referred to or started ANC at the selected institutions were recruited and consented served as a pool of the source of the study population. All those who declined to participate and were with a gestational age of less than 28 completed weeks were excluded from the study.

The sample size required for this study was calculated using sample size determination formula for comparisons of proportion between the two populations with the consideration of an overall client satisfaction prevalence (p) rate of 24.5% from previous study conducted in Northern Ethiopia [1]. Thus, the minimum required number of participants to be included in each group was 280, making total sample size 560 and including 10% for non-respondent; the assumed total sample size was 616. In to, data for 571 subjects was collected. From this, 290 were from public hospitals, while 281 were from the three private hospitals with a 91.8% response rate.

The study variables considered included socio-demographic factors (age, education, occupation and parity), waiting time, attitude of care providers, parity, advice on nutrition and danger signs, willingness to recommend facility, willingness to comply with treatment and return for follow ups with an outcome variable of client satisfaction.

Data was collected using semi structured questionnaire on the aforementioned variables in English and translated into Amharic. The wording and sequence of questions was designed in such a way that the logical flow of ideas from general to specific and from easy to difficult questions was maintained. The questionnaire was pretested and modifications were made when deemed necessary. Data collectors were experienced midwives from the selected health facilities in the study. They were trained and supervised by the principal investigator. Each participant was given information on the study and verbal consent was taken from those willing to participate on the study.

After data collection, each questionnaire was checked for completeness based on the code given during data collection. Data were entered and cleaned using EPI-info version 3.5.1 and analysis was performed by SPSS version 20. Coding of individual questionnaires was checked before data entry in to the software. Further, data cleaning was performed to check for outliers, missed values and any inconsistencies before the data were analyzed using the software. If outliers and missed values were found during exploration, causes were determined and if not, variables with missing value (s) and outliers were dropped out from the analysis. Descriptive statistics like frequency tables, graphs and descriptive summaries were used to describe the independent variables. Bivariate and multivariate analyses were employed using logistic regression analysis. Odds Ratio with their 95% Confidence Interval was determined to see the association between the dependent and independent variables. Level of significance was set at $P < 0.05$ and was considered as statistically significant association.

Ethical clearance was obtained from the Research and Publication Committee of the Department of Ob-Gyn of the College of Health Sciences, Addis Ababa University; and communication to the

medical directors of each of the hospitals was made through the formal letters obtained from the Department and permission was obtained from medical directors of each hospitals to cascade the study. In order to keep confidentiality of any information provided by study subjects, the data collection procedure was anonymous. Participation was on voluntary basis and they could withdraw from the study at any time.

Results

Five hundred seventy one (91.8%) pregnant women meeting the inclusion criteria were included in the final analysis and according to the breakdown, 290 (94.2%) were from the three teaching public hospitals and 281 (91.2%) from the three private hospitals.

As shown in Table 1, the age distribution of the study participants was between 17 and 43 years with a mean age of 27.3 ± 5.1 years, with no significant difference between public and private health facilities. Most of the clients, 249 (88.7%) at private hospitals and 276 (95.2%) at public hospitals were between the ages of 20 and 34 years. Two hundred sixty six (94.8%) of those from the private and 282 (97.2%) from the public hospitals were married. The majority of the clients at private hospitals, 235 (83.6%), completed high school and above, while only 154 (53.1%) of clients at the public hospitals achieved the same degree of educational level. Of the respondents in private hospitals, 180 (64.1%), were employed compared to 136 (47.6%) in public hospitals. The majority of the private clients, 232 (82.3%), had a monthly income of more than 10,000 ETB and tend to follow their antenatal care at private hospitals. The monthly income of a substantial number of the clients, 140 (48.3%), at public hospitals was in the range of 2,000-5,000 ETB and only 11 (3.7%) had a family income of more than 10,000 ETB (Table 1).

It was found out that a tangible figure of the participants were nulliparous both at private and public hospitals accounting for 114 (39.3%) and 113 (40.2%), respectively. Grossly, there was no significant difference in parity considering primiparous and multiparous women both at private and public hospitals, respectively. Twenty five (8.6%) of the women who had ANC service at private hospitals had history of abortion, while only 17 (5.8%) women at public hospitals had similar history. The grand multiparous women with a parity of >5 , though few in number, were invariably seen at the public hospitals instead of any of the private setups (Table 1).

The frequency of ANC visits of 3, 4 and more than four at the time of interview in public hospitals was 22.9%, 39.4% and 37.7% while it was 12.1%, 38.1% and 49.8% in private hospitals, respectively (Figure 1a and 1b). Nearly half of the subjects, 124 (44.1%), at private hospitals started ANC follow up relatively earlier i.e. before 3 months of pregnancy than those at the public hospitals 42 (14.5%). It was realized that 154 (53.1%) and 241 (85.8% from public and private hospitals started their antenatal follow ups perceptibly by the time they completed 4 months of the pregnancy duration, respectively. Interestingly, only 10.4% at private and 35.4% at public hospitals have had their ANC visits between 4 to 5 months of pregnancy. As shown in Figure 2, a total of 33 (11.5%) women from public hospitals started their ANC sessions after 5 months of gestational age compared to only 11 (3.8%) from private hospitals.

About 206 (73.3%) of the clients who had ANC follow up at private hospitals were satisfied with the contact time spent with the service provider while only 75 (36.6%) of the clients at public hospitals

had enough time with them, $P < 0.001$, (AOR 4.98, 95%CI: 4.57-5.39). As presented in Table 2, most of the client's 76 (36.6%) spent between 10 minutes to 20 minutes with the doctor at public hospitals in contrast to 206(74%) of the clients at private hospitals; and the difference was statistically significant, $P < 0.001$, (AOR 1.59, 95% CI: 1.14-2.22).

Most of the study subjects at public hospitals as seen from Table 2, 159 (54.2%) waited for more than 60 minutes before being seen by a nurse to check their vital signs, take height and weight measurements whereas in the private hospitals, only 80 (28.4%) of the clients had to wait for more than 60 minutes. The majority of the client's 220 (75.9%) waited for more than 60 minutes before being seen by a doctor at public hospitals. Similarly, in private hospitals the majority of the clients, 170 (60.5%), waited for more than one hour before being seen by a provider. When satisfaction was computed against waiting time, clients at the public hospitals were more dissatisfied than those in private hospitals, $P < 0.006$.

Generally, about 169 (60.1%) of the clients were satisfied with the waiting time at private hospitals while 141 (48.6%) did experience the same at public hospitals. There was significant association between waiting time of clients and level of satisfaction both at private and public hospitals, P -value 0.006, (AOR 3.87, 95% CI: 3.33-19.45). Furthermore, when contact time with the service provider was computed for the two groups it was clear that the difference was statistically significant, AOR 5.31, 95% CI: 3.69-7.65 (Table 2).

Clients overall satisfaction with antenatal care was mostly positive both at private and public hospitals. Two hundred twenty eight (81.1%) of the respondents were satisfied with the antenatal care service they received at private hospitals compared to 174 (60%) of the respondents who experienced the same degree of satisfaction at the teaching public hospitals, and the difference was statistically significant (AOR 2.84, 95% CI: 1.77-4.57). The result of the study showed that 65 (22.4%) of the clients at public hospitals were dissatisfied with the ANC service they received contrary to only 31 (10.7%) that were actually dissatisfied with the care at a private setup. In between the two extremes, the indifferent attitude is expressed at 23 (8.2%) for private and 51 (17.6%) for public hospitals, respectively (AOR 11.71, 95% CI: 5.63-17.70) as depicted in Figure 3. Clients satisfied with the cleanliness of the environment is approximately 11-times more likely to be satisfied with the overall ANC services, $P < 0.025$, (AOR 12.18, 95% CI: 7.45-19.91). Overall, 266 (94.6%) of private hospital patients would recommend their preferred ANC facility to others, with only 15 (5.4%) responding negatively, (AOR 8.91, 95% CI: 5.02-15.83). In contrast, only 193 (66.5%) of the pregnant women at public hospitals would persuasively recommend it to others. In general, as elucidated in Table 3, the degree to which clients recommend the service to others, willing to return for the service in the next pregnancy, and willingness to take the prescribed medicine was positively correlated with the level of satisfaction.

Table 1: Socio-demographic characteristics of the study participants in Addis Ababa health facilities, (Feb. 2019 - June 2019)

Variable	Private (%)	Public (%)	$\chi^2(P$ value)
Age(years)			
15-19	6(2.1%)	5(1.7%)	46.792(<0.001)
20-24	63(22.4%)	78(28.9%)	
25-29	97(34.5%)	142(49%)	
30-34	89(31.8%)	56(19.3%)	
Marital status			
Single	14(4.9%)	4(1.4%)	49.913(<0.001)
Married	266(94.8%)	282(97.2%)	
Widowed	1(0.3%)	41(1.4%)	
Religion			
Orthodox	192(68.5%)	143(49.3%)	50.927(<0.001)
Muslim	34(12.1%)	92(31.7%)	
Protestant	50(17.7%)	54(18.7%)	
Others	5(1.7%)	1(0.3%)	
Obstetrics characteristics			
Nulliparous	113(40.2%)	114(39.3%)	50.927(<0.001)
Primiparous	95(33.9%)	104(35.9%)	
Multiparous	72(25.9%)	70(24.1%)	
Grand multiparous	----	2(0.7%)	
Family Income**			
Less than 2000	-----	53(18.3%)	$P < 0.001$
2000-5000	1 (0.3%)	140(48.3%)	
5000-10000	49(17.4%)	86(29.7%)	
More than 10,000	231(82.3%)	11(3.7%)	

Education				
No formal education	10(3.6%)	39(13.4%)		P<0.001
Primary	36(12.8%)	97(33.5%)		
High school	98(34.9%)	68(23.4%)		
Collage	137(48.7%)	86(29.7%)		
Occupation				
Employed	180(64.1%)	138(47.6%)		P<0.001
Unemployed (housewife)	101(35.9%)	152(52.4%)		

**Bank conversion rate: 1 USD=29.37 Ethiopian Birr (ETB)

Table 2: Waiting and contact time with provider at private and public hospital in Addis Ababa health facilities, (Feb. 2019 to June 2019)

Waiting time		Public	Private	AOR	P value
Before seen by nurse	More than 60 min	159(54.8%)	80(28.4%)	0.33 (0.23-0.46)	<0.001
	Less than 60 min	131(45.2%)	201(71.6%)		
Waiting time before seen by doctor	More than 60 min	220(75.9%)	170(60.5%)	0.49 (0.34-0.69)	
	Less than 60 min	70(24.1%)	111(39.5%)		
Happy with waiting time	Yes	141(48.6%)	169(60.1%)	1.59 (1.14-2.22)	<0.007
	No	149(51.4)	112(39.9%)		
Time spent with provider	More than 20 min	1(0.3%)	7(2.5%)	5.31 (3.68-7.66)	<0.001
	10-20 min	106(36.6%)	206(73.3%)		
	Less than 10 min	183(63.1%)	67(23.3%)		
Spent enough time with provider	Yes	106(36.6%)	206(73.3%)	4.77 (3.34-6.81)	<0.001
	No	184(46.9%)	75(26.7%)		

Table 3: Clients' level of satisfaction with indicators of satisfaction at antenatal care in Addis Ababa health facilities, (Feb. 2019 to June 2019)

Willingness to Recommend to Others				
Variable	Private		Public hospital	
	willing%	Not willing%	Willing%	Not willing%
Satisfied with ANC service	79.3%	0	59.2%	2.3%
Okay with ANC service	8.2%	1.1%	3.1%	11.2%
Dissatisfied with ANC service	7.1%	4.3%	4.3%	20%
Total	94.6%	5.4%	66.5%	33.5%
Willing to Return for Next Pregnancy				
Satisfied with ANC service	80.9%	0.7%	55.5%	4.1%
Okay with ANC service	1.1%	3.6%	5.1%	12.3%
Dissatisfied with ANC service	8.2%	5.5%	4.8%	18.2%
Total	90.2	9.8%	65.4%	34.6%
Willingness to Take Medication				
Satisfied with ANC service	77.6%	0	61.7%	1.5%
Okay with ANC service	9.9%	0.7%	9.7%	4.5%
Dissatisfied with ANC service	7.9%	3.9%	13.1%	9.5%
Total	95.4%	4.6%	84.5%	15.5%

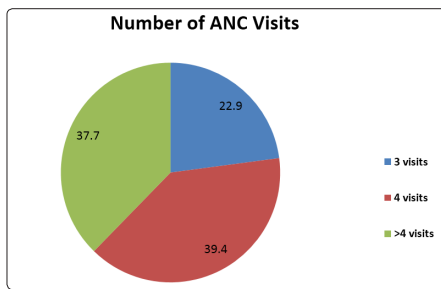


Figure 1a: Distribution of study participants according to their number of ANC visit at the time of interview in public hospitals in Addis Ababa health facilities, (Feb. 2019 to June 2019)

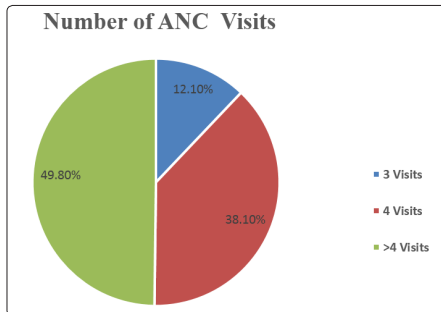


Figure 1b: Distribution of study participant according to their number of ANC visit at the time of interview in private hospitals, (Feb. 2019 to June 2019)

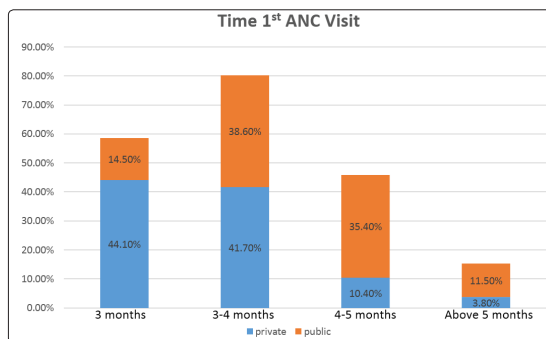


Figure 2: Distribution of study participants according to their time of 1st ANC visit in private and public hospitals in Addis Ababa health facilities, (Feb.2019 to June 2019)



Figure 3: Overall client's satisfaction with antenatal care service at private and public hospitals in Addis Ababa health facilities, (February 2019 to June 2019)

Discussion

Clients' satisfaction for the purposes of this study is defined as the extent to which subjects are content with the quality of antenatal care that is available, provided and received. Clients satisfied with the quality of antenatal care are willing to recommend the facility, willing to return for follow ups and willing to take medications as per prescription by the health care provider. Interestingly enough, today's clients are educated, critical, legal and sexual and reproductive health rights-oriented, more informed, part of the task force, economically and politically empowered and also sensitive to poor services which makes them unwilling to return for services when they perceive quality is compromised and not up to a standard with regard to the physical structure, qualifications of service providers, logistics and reciprocally the incurred cost [2].

In general, women attending either public or private hospital facilities were satisfied with the ANC care they received although a well-marked high level satisfaction with private facilities was more evident. More than 81.1% of the clients were satisfied with the antenatal care service at private hospitals and 60% of patients were satisfied at public teaching hospitals which were quite similar to the study conducted in Ghana that showed more than 60% of the clients being content with the antenatal care at Korle-Bu public teaching hospital. In contrast, the Gambian study showed a satisfaction rate of 79.9% for public facilities and 97.9% for private facilities, which is significantly higher than that of our study. This may be attributed to the difference in the studied population and the quality of care at public hospitals is also presumed to be better rated as supported by other studies too [2,13].

In accordance with a cross-sectional study that was conducted at the antenatal clinic in Ibadan, the services were regarded as good by most of the respondents and it was the only significant association that promoted the intent to register in the same facility in a subsequent pregnancy [14]. Another study from Dares Salaam showed that the results from both public and private providers were reasonably good with regard to the structural and interpersonal aspects of quality of care. However, both were poor when it came to technical aspects of quality. It was highlighted that the guidelines for dispensing prophylactic drugs against anemia or malaria were not respected, and diagnostic examinations for the assessment of gestation, anemia, and malaria or urine infection were frequently not performed. Similar to our undertaking, almost in all aspects, the private providers were significantly better rated than public ones [15].

Women attending private hospitals experienced shorter waiting times and spent more time with their providers than women attending public hospitals. The majority of the clients (75.9%) waited for more than 60 minutes before being seen by an attendant at public hospitals. In the private hospitals, the bulk of clients (60.5%) waited for more than one hour before being seen by doctors. About 60.1% of the clients were satisfied with the waiting time at private hospitals while 48.6% were satisfied with the waiting time at public hospitals. This is consistent with the study done in Ghana Kolre Bu public teaching hospital in which about 57.1% of clients were satisfied with the waiting time while 43.0% were not satisfied with the long waiting time in public hospitals [13,16].

The outcome of the study was significantly associated with cleanliness of the environment, educational level, number of ANC visit, waiting time, and contact time with provider. Clients satisfied

with the cleanliness of the environment were 11.1 times likely to be satisfied with overall client satisfaction with P-value of 0.025. Regarding education, those who had completed high school and above were likely to be satisfied with the service they got which was statistically significant (AOR 4.98). Waiting time was also associated with client satisfaction, significantly, both at private and public hospitals with AOR 2.382. The participants who have had enough time with the provider were likely to be satisfied with the overall ANC service (AOR 2.638). Having four or more ANC visit is also associated with client satisfaction at private and public services in contrast to the study done in Nigeria [17].

About 73.3 % of the clients were satisfied with the time spent with the doctor for those who had ANC service at private hospital, while only 36.6% of the participants at public hospitals had enough time with the health care service providers. This is consistent with the study which was conducted in western Gambia attending public clinics (51.5%). In contrast, at the private hospitals 30.6% of women wanted more time [2]. This is due to high patient overload at teaching hospitals in our facilities. In the study conducted in northern Ethiopia, both in private and public hospitals, the study participants (89.8%) felt they had enough time to discuss health issues with the service providers [1]. This is explained on the basis of the different population characters that were enrolled in this study as all the women were from urban population and attended by general practitioners, resident doctors and under special conditions by consultants.

It is worthy to note that the public facilities were preferred to private setups as illustrated by a comparative study done between antenatal care quality in public and private sectors in rural Hebei, China. The study revealed that the quality of ANC was poorer than required by China's national and World Health Organization norms. Although the public sector performed better than the private sector, the utilization and quality of care of ANC services in this sector varied and women generally visited county or higher-level health facilities [5]. An observational comparative study done for three months using convenient sampling technique from different hospitals in Karachi, Pakistan, showed that public hospitals were more preferred but maintaining a better overall satisfaction status quo [7,18]. Hence, the relative comparative preferential treatment of the public versus private at all levels should not preclude the services that both institutions render to their clients. It should not be a point of strong stance of denouncing the services but rather uphold a fair and balanced judgment [19-24].

It is commonly understood that the public facilities are the main health care service providers in the Ethiopian context for the general population and particularly for disadvantaged and pregnant women alike. This is a wakeup call for the need to improve on the client satisfaction on quality of ANC services in public facilities. The satisfaction levels, can substantially improve the degree to which women accept such interventions, persuade others to utilize the institutions and continue to use the services provided. This study shows significantly low level of women's satisfaction at public hospitals with a long waiting time expressed with marked dissatisfaction. There is a need to improve on public facilities and encourage private facilities to further promote maternal health in order to attain the highest possible level of standard [25-27].

This was a cross-sectional study and the encountered limitations that warrant further consideration include the fact that the most recent

visit might not be a representative of a typical visit or reflective of the patient's cumulative experience across all the visits; and there may be a recall or selection bias. Thus, further detailed and broader research involving all the hospitals and health centers is needed to assess the satisfaction of pregnant women about antenatal care service, and to identify factors associated with satisfaction of antenatal care service at both public and private health facilities in Addis Ababa, Ethiopia.

Nevertheless, the study shows that the general satisfaction with regard to ANC service delivery was in the affirmative, both for the private and public facilities, with a frequency of 81.1% and 60%, respectively. Overall, women were more satisfied with private providers than public ones, and private antenatal clinics outperformed public clinics with regard to structural features. Having ANC follow up at private hospital, cleanliness of the environment, educational level, more time with provider and having more than 4 ANC visits positively were strongly associated with client satisfaction, while long waiting time is negatively associated with client satisfaction.

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Declaration

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