

Maternal Satisfaction with the Delivery Services in Assela Hospital, Arsi Zone, Oromia Region

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Abstract

Background: A woman's satisfaction with the delivery service may have immediate and long term effects on her health and subsequent utilization of the services. Providing satisfying delivery care increases service utilization. Women play a principal role in the rearing of children and the management of family affairs, and their loss from maternity-related causes is a significant social and personal tragedy.

Objective: To assess maternal satisfaction with the delivery service in Assela hospital, Arsi zone, Oromia region.

Methods: A cross sectional study was conducted in February 2013 on a sample of 398 delivering mothers in Assela Hospital using convenient sampling technique. Data was collected using structured questionnaire and analyzed by SPSS version 17. Statistical tests were employed and significance level was taken at p-value<0.05.

Results: A total of 398 delivering mothers were interviewed, of which 64.6% of the respondents were between the age group of 20-34 and 48% were house wives. The findings of the study showed that the overall maternal satisfaction level with the delivery services rendered at the hospital was 80.7%. Dissatisfaction was reported to be highest (42.3%) by cleanliness and access of toilet. Furthermore, satisfaction with the delivery service was found to have a significant association with the age of the respondents 20-34 [AOR=4.65(2.35, 9.20)] and educational level of the respondents [AOR = 2.42, 95%CI: 1.17, 5.00].

Conclusion: Although the majority of participants satisfied by the delivery service given to them during delivery, lack of satisfaction by a minority group resulted in a limited ability to engage in health facility delivery which farther contribute to maternal mortality. Thus, mechanisms should be devised to increase maternal satisfaction in this health institution.

Keywords: Maternal satisfaction; Delivery service; Assela hospital; Ethiopia

Introduction

Since the early 1990s, because complaints about health care have increased, professionals have begun to measure patient satisfaction. Patient satisfaction has become an integral part of hospital/clinic management strategies across the globe [1]. Asking patients what they think about the care and treatment they have received is an important step towards improving the quality of care, and ensure local health services are meeting patients' needs. It is an established fact that satisfaction influences whether a person seeks medical advice, complies with treatment and maintains a continuing relationship with practitioners. Patient satisfaction is considered to be an outcome of the delivery of health care services as well as a measure of its quality [1,2].

WHO estimates that 580,000 women of reproductive age die each year from complications arising from pregnancy, and a high proportion of these deaths occur in SSA. The ratio of maternal mortality in the region is one of the highest in the world, reaching levels of 686 per 100,000 live births. Women play a principal role in the rearing of children and the management of family affairs, and their loss from maternity-related causes is a significant social and personal tragedy [2].

Ethiopia has one of the highest maternal mortality rate (MMR) in the world. According to the Ethiopian demographic and health survey (EDHS), the MMR in Ethiopia is estimated to be 673/100,000 live births [3]. Part of this mortality is attributed to poor delivery care. This includes poor quality of clinical care, gender sensitivity, preservation of dignity and cultural sensitivity. These factors together with the community level factors explain the extremely low utilization of health services for delivery. A woman's satisfaction with the delivery service may have immediate

and long-term effects on her health and subsequent utilization of the services. Providing satisfying delivery care increases service utilization [3-6]. Thus this study was intended to assess 'the level of maternal' satisfaction on delivery care services, identify the factors affecting the maternal satisfaction, and provide recommendation on an improved health service delivery that would be helpful to fill research knowledge gaps which ultimately contributes to enhance quality of patient Services in the hospital and improve the level of maternal' satisfaction in Assela hospital, Arsi zone, Oromia Region which could further contribute to reduce maternal mortality rate in Ethiopia.

Methodology

Study area and period

The study was conducted at Assela Hospital which is in Assela town, Arsi Zone, Oromia Region in February 1-30/ 2013. The town is located at 175 kilometers to the east of Addis Ababa, the capital city of Ethiopia.

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Received December 05, 2014; Accepted December 22, 2014; Published December 24, 2014

Citation: Amdemichael R, Tafa M, Fekadu H (2014) Maternal Satisfaction with the Delivery Services in Assela Hospital, Arsi Zone, Oromia Region. Gynecol Obstet (Sunnyvale) 4: 257. doi:10.4172/2161-0932.1000257

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Assela is the capital town of Arsi zone with total population of 74,268 in 2010. The town has one zonal referral Hospital and two Health center of which Assela hospital is the one which gives different health services among which delivery service is the one (28).

Source and study population

All reproductive age group women who were visited Assela referral Hospital for the delivery service was the source of population. And all mothers who gave birth in the referral Hospital and full fill the selection criteria were study population.

Inclusion criteria: Mothers who attended delivery services in the study Hospital, willing to participate in the study with minor complication.

Exclusion criteria: Mothers who were mentally or critically ill and not willing to participate in the study.

Sample size calculation

Sample size (n) required for this study was calculated by using single population proportion (p) formula as follows;

$$n = \frac{(z \alpha / 2)^2 p (1 - p)}{d^2}$$

With assumption of Desired precision (d)=0.05

Expected proportion (p)=0.62 which is maternal satisfaction rate from Amhara region of Ethiopia [7-11].

Z $\alpha/2$ at 95% confidence interval=1.96

Based on the assumption, the calculated sample size (n₀) was

$$n = \frac{(1.96)^2 \times 0.62(0.38)}{0.05^2} = 362$$

And, adding 10% for non response rate during the actual study then the sample size was 398.

Sampling procedures

Convenience sampling technique was used by using exit interview, the study units were selected from Assela Hospital until the required sample size was obtained.

Variables of the Study

Dependent variable

Maternal satisfaction with delivery service.

Independent variables

-Socio-demographic variables; age, ethnic group, religion, marital status, occupation, Educational status, Geographic distance, waiting time, cost of services, referral coordination between facilities

-Obstetric History; no of deliveries (parity), mode of delivery, maternal outcome and fetal outcome.

Data collection tool

A structured questionnaire which was translated from English to Afaan Oromo and then back to English by another person for cross check was used. Before the actual data collection time, the questionnaire

was pre-tested on 20 of the study subjects (5% of the sample) in Adama Hospital. The collected data were checked for completeness, accuracy, clarity and consistency by a supervisor and the principal investigator on daily basis. If there was any error or ambiguity and incompleteness correction measure were taken in the questionnaire.

Data collection methods

A structured questionnaire was used for data collection. The calculated sample size was used to take the study subjects from the post natal unit. Mothers that are ready for the discharge service would have an exit interview whenever legible as per the criteria. Two Diploma holder Nurses were selected to collect the data; and one BSC holder Nurse was selected as a supervisor from other ward. The selected data collectors and supervisor were trained on the objective; benefit of the study, individual's right, informed consent and techniques of the interview for one day.

Data quality control

The quality of data was controlled starting from the time of questionnaires preparations. The questionnaire was developed by reviewing relevant literatures on the subject to ensure reliability. First the questionnaire which was prepared in English was translated into Afaan Oromo. To insure the consistency of the tool it was translated back to English. Training was conducted for supervisor and data collectors on the purpose of study and procedures of data collection for one day prior to the study. After completing the training, trainees conducted a pre-test at non-study health facility. During data collection, the supervisor was received questionnaires from data collectors and review for completeness, accuracy, and consistency on daily bases.

Data analysis and management

The collected data was entered into computer for analysis by using Statistical packages: Epi-info version 3.5.1 after the entrance and completeness of all data, cleaning was done. Finally, the data was exported to SPSS version 17 for further analysis. During analysis the responses of 'very satisfied' and 'satisfied' were classified as satisfied and responses of 'very dissatisfied', 'dissatisfied' and 'neutral' as unsatisfied.

Both descriptive and Bivariate /multivariate logistic regression analysis were performed. Descriptive analyses were done by using frequency, mean, median, standard deviation, and percentages. Crude odds ratio was used to see relationship between one independent variable with outcome variable (dependent variable) at time and adjusted odds ratio was used to see relationship between many independent variables with outcome variable after controlling confounding factors. Significance level and association of variables were tested by using 95% confidence interval (C.I) and odd ratio-value less than 0.05 was taken as statistically significant.

Operational Definition

Maternal satisfaction: mothers need or desire.

Satisfaction: Attaining one's need or desire.

Very satisfactory: Above one's expectation.

Satisfactory: Just one's expectation.

Dissatisfactory: Below one's expectation.

Very dissatisfactory: Fail to meet one's expectation usually leading to disappointment.

Assessment: Is the process by which the characteristics and needs

of clients, groups or Situations are evaluated or determined so that they can be addressed.

Service: any activity undertaken to meet the social needs.

Parity: no of deliveries.

Ethical considerations

Ethical clearance letter was obtained from Institutional Review Board (IRB) of the College of Health Science, Addis Ababa University. Permission was obtained from Assela Referral Hospital. Additionally an informed verbal consent was obtained from each respondent after providing sufficient information on the purpose of study. Anyone who was not willing to participate in the study had full right to do so. To ensure the confidentiality of respondents their names were not written on the questionnaire.

Dissemination of results

The result of this study was disseminated or communicated to Addis Ababa University, School of Allied Health Sciences, College of Health Sciences, department of Nursing and Midwifery, Ministry of health, Regional health bureaus, Assela town administrative bureau, Assela Hospital, local institutions and other concerned bodies through reports and publication on an appropriate journal.

Results

Socio-demographic characteristics

A total of 398 delivering mothers were included in the study. Majority (65%) were within the age of 20-34 and were married. The mean age of the mothers was 27.3 SD ± 6.45 years. One hundred ninety one (48%) were house wives while 73 were government employees. Two hundred and forty mothers came from urban areas while 159 were from rural areas. Two hundred and sixty (65.3%) were Oromo by ethnicity followed by Amhara 91(22.9%). About one hundred and eighty six (46.7%) of the delivering mothers were Orthodox Christians while 173(43.5%) mothers were Muslim by religion. The median household income of the delivering mothers was 1000 ETB (Table 1).

Obstetrics characteristics of delivering mothers

More than half (50.8%) of women had 2-5 deliveries, while 39.7% women were their first delivery. Two hundred and ninety seven of the delivering mothers planned for delivery while 101(25.3%) of the mothers referred for delivery services. Fifty Two percent of the delivering mothers' did not have previous health facility delivery experience. The majority (84.2%) had ANC visits. Only 7.3% of the maternal outcome was with complication while 92.9% of maternal outcome was without complication.

Normal vaginal delivery was the commonest mode of delivery. The majority of deliveries were SVD (53.8%) followed by assisted delivery (24.6%) and caesarean section (21.6%) (Table 2).

Health facility related respondent's satisfaction

Majority (95.7%) of the respondents traveled 1-100 Kms distance for delivery service. Three hundred forty one (85.7%) of the respondents' mode of transportation was car. Among the delivering mothers 64.8% of were satisfied with the facility distance but the remaining 35.2% were not satisfied. Two hundred and eighty seven of the delivering mothers were satisfied with information of service while 111 (27.8%) were not satisfied with information of service. Two hundred twenty two of the respondents were not referred from health institution where as the

remaining 176 of the mothers were referred from health institution. From the referred mothers around 52.3% were satisfied with the referral link while 47.7% were not satisfied with the referral link. Around three fourth (75.6%) of the respondents were satisfied with the waiting time to get the delivery service. Most of the respondents (88.2%) were paid to be served while the rest were served as free. The ratio of mothers who satisfied with cost of service were 61.3% and 38.7% were unsatisfied. Two hundred ninety eight (74.9%) of the delivering mothers were satisfied with the overall hospital compound where as 100 (25%) of them were not satisfied with overall compound of the hospital (Table 3).

Care provider related respondents' satisfaction

The overall satisfaction level of mothers who were satisfied with delivery service in this study was 80.7%. Among all the respondents 294 (74%) of mothers waiting time to see a doctor was less than one hour, 54 was 1-2 hours and 50 were greater than two hours. Seventy eight point one percent of the delivering mothers were satisfied with the waiting time to see a doctor while the rest were not satisfied. The proportion

Variable	Frequency	percent (%)
Age		
<20	68	17.1
20-34	257	64.6
35-49	73	18.3
Marital status		
Single	45	11.3
Married	332	83.4
Divorced	17	4.3
Widowed	4	1
Ethnicity		
Oromo	260	65.3
Amhara	91	22.9
Tigre	11	2.8
Gurage	32	8
Other	4	1
Religion		
Orthodox	186	46.7
Muslim	173	43.5
Protestant	38	9.5
Other	1	0.3
Educational status		
No formal education	71	17.8
Grade 1-6	94	23.6
Grade 7-12	151	37.9
Diploma and above	82	20.6
Occupation		
Governmental employee	73	18.3
Merchant	48	12.1
Farmer	39	9.8
House wife	191	48
Student	38	9.5
Other	9	2.3
Economic status		
<500	139	34.9
500-1000	84	21.1
>1000	175	44.0
Residence		
Urban	240	60.3
Rural	158	39.7

Table 1: Socio demographic characteristics of delivering mothers in Arsi zone, Assela Hospital, 2013

Variable	Frequency	percent (%)
Parity		
1	158	39.7
5-Feb	202	50.8
>5	38	9.5
Reason for visit		
Planned delivery	297	74.6
Referral for delivery	101	25.4
Wanted status of pregnancy		
Wanted	306	76.9
Unwanted	92	23.1
Mode of delivery		
Spontaneous vaginal delivery	214	53.8
Assisted delivery	98	24.6
Caesarian section	86	21.6
Maternal outcome		
Normal	369	92.7
With complication	29	7.3
Fetal outcome		
Lived	353	88.7
Died	45	11.3
ANC follow up		
Yes	335	84.2
No	63	15.8
Previous facility delivery		
Yes	191	48
No	207	52

Table 2: Obstetric history of delivering mothers in Arsi Zone, Assela Hospital 2013.

of mothers who reported privacy during physical examination were 80.2% where as those who perceived absence of privacy were 19.8%. Among mothers who reported privacy, majority (80.9%) of them were satisfied with the measure taken to assure privacy while 19.1% of the mothers were dissatisfied with the measures taken to assure privacy. Almost 2/3 (82.9% and 83.7%) of the delivering mothers recommend the hospital for themselves as well as for their families or friends respectively. Three hundred and fourteen (78.9%) of the delivering mothers were satisfied with respect and courtesy given from the caregivers (Table 4).

Overall satisfaction levels of mothers by different variables

Figure 1 shows that Of all satisfaction levels, level of privacy during delivery (80.9%), followed by courtesy and respect of the staffs (78.9%) confidentiality and trust in care provider (78.4%) were among the first three commonest factors that delivering mothers were more satisfied where as access and cleanliness of toilet (42.3%), cost paid to service (37.7%) and waiting area cleanliness and comfort (35.6%) were the first three major factors that makes mothers dissatisfied.

Association of selected variables with maternal satisfaction in bivariate and multivariate analysis

As shown in Table 5 in bivariate analysis many variables were found to be significantly associated with satisfaction with delivery service. Maternal age, educational status, monthly income, having 1-5 parity, planned hospital for delivery, pregnancy being wanted, normal maternal outcome, alive fetal outcome, having ANC follow up, charge for service payment, waiting time less than 2 hrs and measures taken to assure privacy were among factors significantly and positively associated with maternal satisfaction ($p < 0.05$) where as having previous health facility delivery, referred from health institution and future hospital use recommendation for their families or friends as well as for

Variable	Frequency	percent (%)
Distance traveled for service		
1-100	381	95.7
>100	17	4.3
Mode of transportation		
Car	341	85.7
On foot/animal /human shoulder	57	14.3
Satisfaction with facility distance		
Satisfied	258	64.8
Unsatisfied	140	35.2
Satisfaction with information of service		
Satisfied	287	72.1
Unsatisfied	111	27.9
Referred from health institution		
Yes	176	44.2
No	222	55.8
Satisfaction with referral link		
Satisfied	92	52.3
Unsatisfied	84	47.7
Satisfaction with toilet access		
Satisfied	239	60.1
Unsatisfied	159	39.9
Satisfaction with toilet cleanliness		
Satisfied	220	55.3
Unsatisfied	178	44.7
Satisfaction with waiting time		
Satisfied	301	75.6
Unsatisfied	97	24.4
Payment status		
Paid	351	88.2
Free	47	11.8
Cost of service		
1-100	204	58.1
>100	147	41.9
Satisfaction with cost of service		
Satisfied	215	61.3
Unsatisfied	136	38.7
Ordered drugs and supplies		
Yes	348	87.4
No	50	12.6
Satisfaction with drugs availability		
Satisfied	238	68.4
Unsatisfied	110	31.6
Presence of waiting area		
Yes	253	63.6
No	145	36.4
Satisfaction with cleanliness of waiting area		
Satisfied	163	64.4
Unsatisfied	90	35.6
Satisfaction with cleanliness of exam room		
Satisfied	285	71.6
Unsatisfied	113	28.4
Satisfaction with overall hospital compound		
Satisfied	298	74.9
Unsatisfied	100	25.1

Table 3: Health facility related respondents' satisfaction in Arsi Zone, Assela Hospital

Variable	Frequency	percent (%)
Waiting time to see Doctor		
<1 hr	294	73.8
1-2 hr	54	13.6
>2 hr	50	12.6
Satisfaction with waiting time		
Satisfied	311	78.1
Unsatisfied	87	21.9
Satisfaction with courtesy and respect		
Satisfied	314	78.9
Unsatisfied	84	21.1
Satisfaction with the way of examination		
Satisfied	312	78.4
Unsatisfied	86	21.6
Delivery attended professional		
Doctor	104	26.1
Midwife	294	73.9
Delivery attended professional sex		
Male	176	44.2
Female	222	55.8
Satisfaction with the professional sex		
Satisfied	282	70.9
Unsatisfied	116	29.1
Measures taken to assure privacy		
Yes	319	80.2
No	79	19.8
Satisfaction with the measures taken		
Satisfied	258	80.9
Unsatisfied	61	19.1
Satisfaction with completeness of information		
Satisfied	300	75.4
Unsatisfied	98	24.6
Satisfaction with assurance of confidentiality		
Satisfied	312	78.4
Unsatisfied	86	21.6
Hospital use recommended for you		
Yes	330	82.9
No	68	17.1
Hospital use recommended for family/friends		
Yes	333	83.7
No	65	16.3
Satisfaction level with care of delivery service		
Satisfied	321	80.7
Unsatisfied	77	19.3

Table 4: Care provider related respondents' satisfaction in Arsi zone, Assela Hospital, 2013

themselves were negatively associated with maternal satisfaction.

Women whose age less than 20 [COR=3.22; 95% CI: (1.45, 7.17)] and 20-34 [COR=3.58; 95% CI: (2.00, 6.43)] were three times satisfied with delivery care than those whose age was 35-49. Regarding economic status of delivering mothers, mothers whose monthly income were less than 500ETB [COR=2.79; 95% CI: (1.52, 5.11)] and 500-1000ETB [COR=2.58; 95%CI: (1.26, 5.27)] were more satisfied than mothers whose income were greater than 1000ETB. Participants who had diploma and above were less likely satisfied with the service given than grade 1-12.

Concerning waiting time, shorter waiting time <1 hr [COR=83.3; 95% CI: (34.4, 201.8)] and 1-2 hr [COR= 3.81; 95% CI: (1.62, 8.98)]

to see a doctor were more satisfied than longer waiting time (>2 hr). Delivering mothers who were referred from health institution were three times more satisfied than their counterparts [COR=2.6; 95% CI: (1.59, 4.48)].

The odds of maternal satisfaction who were attended by male professionals were almost two times higher than [COR=2.49 95% CI: 1.44, 4.30] those attended by female professionals. Participants who recommended the hospital for themselves and for families/friends were more satisfied than those participants who do not recommend. Mothers who reported privacy during physical examination were more satisfied than those who perceived absence of privacy [COR=4.15; 95% CI : (2.4, 7.17)].

To control confounding effect of one variable over the other variable multiple logistic regression model was used. In multivariate analysis, socio-demographic characteristics (age, educational status and monthly income), obstetric history(having ANC follow up and not having previous health facility delivery experience) and care provider related factors(shorter waiting time to see a doctor and care givers measure taken to assure privacy) were important predictors of the overall maternal satisfaction (p value<0.05).

Those respondents who had ANC follow up were found to have two fold increased odds of maternal satisfaction compared to those who had no ANC follow up [AOR = 2.31; 95% CI: (1.19, 5.98)]. Concerning respondents age, mothers whose age 20-34 were more likely satisfied compared to those whose age were 35-49[AOR=4.65; 95% CI: (2.35, 9.20)]. Educational status of the respondents was also a significant predictor of maternal satisfaction that respondents who had no higher education were more satisfied than those who had diploma and above [AOR=2.42; 95%CI: (1.17, 5.00)]. Regarding monthly income, mothers whose monthly income were less than 500ETB and 500-1000ETB were two times more satisfied than those greater than 1000ETB[AOR=2.4; 95%CI: (1.25,4.78)]and [AOR=2.32; 95% CI: (1.07,5.02)] respectively.

The other predictor of maternal satisfaction was delivering mothers waiting time to seen by health care provider. Participants who wait shorter time than longer time to be seen by a care provider were more satisfied by delivery service [AOR=26.7(5.56, 128)]. Concerning Privacy measures ,participants who reported privacy were 7 times more satisfied than their counter parts [AOR=7 .05; 95% CI: (1.9, 25.7)] (Table 5).

Discussion

This study showed that most of the patients interviewed were

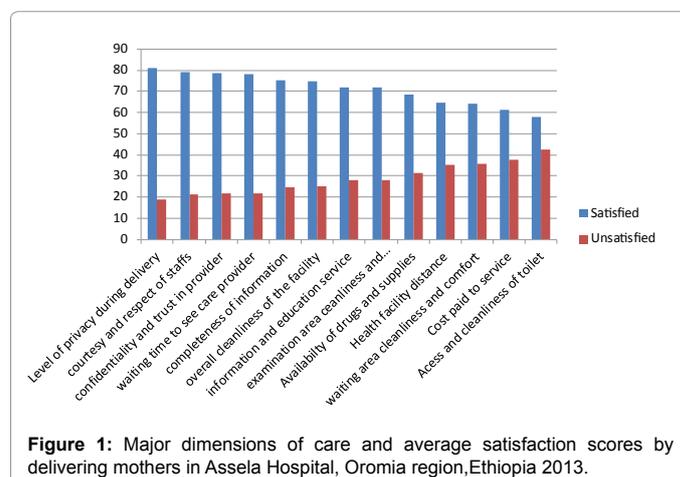


Figure 1: Major dimensions of care and average satisfaction scores by delivering mothers in Assela Hospital, Oromia region, Ethiopia 2013.

Variables	Satisfied	Un satisfied	COR (95% CI)	AOR(95%CI)
Age				
<20	57(83.8%)	11(16.2%)	3.22(1.45, 7.17)*	2.76(1.14, 6.68)**
20-34	219(85.2%)	38(14.8%)	3.58(2.00, 6.43)*	4.65(2.35, 9.20)**
35-49	45(61.6%)	28(38.4%)	1.0	
Educational status				
No formal education	55(77.5%)	16(22.5%)	1.59(.77, 3.29)	2.20(1.00, 5.40)
Grade 1-6	80(85.1%)	14(14.9%)	2.65(1.27, 5.52)*	1.94(.84, 4.49)
Grade 7-12	130(86.1%)	21(13.9%)	2.87(1.49, 5.53)*	2.42(1.17, 5.00)**
Diploma and above	56(68.3%)	26(31.7%)	1.0	
Monthly income in ETB				
<500	122(87.8%)	17(12.2%)	2.79(1.52, 5.11)*	2.40(1.25, 4.78)**
500-1000	73(86.9%)	11(13.1%)	2.58(1.26, 5.27)*	2.32(1.07, 5.02)**
>1000	126(72.0%)	49(28.0%)	1.0	
Parity				
One	141(89.2%)	17(10.8%)	5.40(2.37, 12.31)*	2.57(.99, 6.67)
Two to five	157(77.7%)	45(22.3%)	2.27(1.09, 4.72)*	1.54(.69, 3.41)
Greater than five	23(60.5%)	15(39.5%)	1.0	
Reason for visit				
Planned delivery	248(83.5%)	49(16.5%)	1.94(1.14, 3.30)*	1.44(.75, 2.73)
Referral for delivery	73(72.3%)	28(27.7%)	1.0	
Status of pregnancy				
Wanted	258(84.3%)	48(15.7%)	2.47(1.45, 4.23)*	1.86(.99, 3.51)
Unwanted	63(68.5%)	29(31.5%)	1.0	
Maternal outcome				
Normal	305(82.7%)	64(17.3%)	3.87(1.77, 8.44)*	2.34(.93, 5.85)
With complication	16(55.2%)	13(44.8%)	1.0	
Fetal outcome				
Lived	290(82.2%)	63(17.8%)	2.08(1.04, 4.13)*	1.05(.46, 2.43)
Died	31(68.9%)	14(31.1%)	1.0	
ANC follow up				
Yes	278(83.0%)	57(17.0%)	2.35(1.24, 4.14)*	2.31(1.19, 5.98)**
No	43(68.3%)	20(31.7%)	1.0	
Previous health facility delivery				
Yes	141(73.8%)	50(26.2%)	.42(.25, .71)*	.35(.17, .68)**
No	180(87.0%)	27(13.0)	1.0	
Referred from health institution				
Yes	127(72.7%)	49(27.8%)	.32(.23, .62)*	.38(.11, 1.29)
No	194(87.4%)	28(12.6%)	1.0	
Service payment status				
Paid	298(84.9%)	53(15.1%)	4.7(2.49, 8.99)*	.00(.00,-)
Free	32(68.1%)	15(31.9%)	1.0	
Cost of service				
1-100	160(78.4%)	44(21.6%)	0.29(.15, .59)*	.47(.14, 1.54)
>100	136(92.5%)	11(7.5%)	1.0	
Waiting time to see Doctor				
<1 hr	282(95.9%)	12(4.1%)	83.3(34.4, 201.8)*	26.7(5.56, 128)**
1-2 hr	28(51.9%)	26(48.1%)	3.81(1.62, 8.98)*	7.3(1.26, 42.13)**
>2 hr	11(22.0%)	39(78.0%)	1.0	
Delivery attended professional sex				
Male	155(88.1%)	21(11.9%)	2.49(1.44, 4.30)*	1.72(.51, 5.82)
Female	166(74.8%)	56(25.2%)	1.0	
Measures taken to assure privacy				
Yes	274(85.9%)	45(14.1%)	4.15(2.4, 7.17)*	7.05(1.9, 25.7)**
No	47(59.5%)	32(40.5%)	1.0	
Hospital use recommended for you				
Yes	305(92.4%)	25(7.6%)	1.0	.00(.00,-)
No	16(23.5%)	52(76.5%)	.025(.013, .050)*	
Hospital use recommended for family/ friends				
Yes	315(94.6%)	18(5.4%)	1.0	1.15(.00,-)
No	6(9.2%)	59(90.8%)	.006(.002, .015)*	

**Adjusted Odds Ratios; *Significantly associated factors (p<0.05)

Table 5: Association of selected variables with maternal satisfaction in bivariate and multivariate analysis in Arsi Zone, Assella Hospital, 2013.

satisfied with the services they received at Assela teaching and referral Hospital. The overall proportion of mothers who were satisfied with delivery care in this study was 80.7%. This percentage is low compared to other studies in developing countries - 95.9% in Dares Salaam, Tanzania [12-16] but it is comparable to a study in Jimma, Ethiopia-77.0% [12] and greater than a study in Irbid, North Jordan - 64% [8]. This variation may be because of a real difference in quality of services provided, expectation of mothers or the type of health facilities. This level of satisfaction is also higher when compared to studies conducted in the hospitals of the Amhara region which showed satisfaction level of 61.9% [7]. The difference might be attributed to the fact that this study was conducted in a referral teaching hospital where there are relatively adequate number of health professionals and better diagnostic facilities. In addition, study time and design might have also contributed.

The low proportion of patients expressed dissatisfaction with various aspects of the services, especially with what they perceived as measures not taken to assure their privacy during physical examination as well as during the delivery time and long waiting time to seen by the health care provider. Similarly, studies conducted in Ghana [10], North West of Ethiopia [7] and Dare's salaam [16] suggest that services dealing with measures not taken to assure privacy and longer waiting time to seen by care provider yield less satisfaction.

In this study delivering mothers satisfactions was predicted by age, educational status, monthly income, wanted status of the pregnancy, having ANC follow up, shorter waiting time before seen by a health worker, health professionals' measure taken to assure privacy during maternal examinations, and not having previous health facility delivery experience. This finding is consistent with other studies in Africa [10,16-22]

Concerning participant's age, different studies indicated that older patients are generally more satisfied than younger patients. In this study, age group of 20 to 34 years old (85.2%) were more satisfied compared to participants with age group of 35-49 years who were satisfied. This indicates younger delivering mothers were more satisfied than the older one. This was consistent with other studies, for instance, in Jimma University study (12), there was statistically significant association between client's satisfaction and their age ($p=0.034$).

Regarding participants' educational status, less educated mothers have higher satisfaction than the educated one. Eighty six point one percent of the respondents who were grade 7-12 were more satisfied compared to 68.3% who had diploma and above; this is similar with the Bangladesh Ashrafun and Uddin [22-28] study in which less educated patients tended to have high satisfaction. One study has also found that those attaining higher educational level were not satisfied with their care [12]. The reason could be due to high expectation by those who are more educated than the illiterate.

The proportion of participants, who had not had a history of previous hospital delivery(87.0%) were more satisfied compared to 73.8% of those who were delivered previously at least once to hospital. On this line we can conclude that previous hospital delivery has got some effect on satisfaction.

The current study revealed that Mothers who wanted their pregnancy were more likely to be satisfied than mothers who did not. Similar finding was reported in Nairobi by Evas. Bazant and Michael A. Koenig [6]. The study also showed that mothers without complication were more likely to be satisfied than mothers with complication. Women who experience no complications may be happy that they survived and this may results in satisfaction with care.

In studies conducted in Amhara and Oromia Regions of Ethiopia, mothers were complaining inadequate privacy and longer waiting time [7,12]. Long waiting time for doctor as factor contributing to patient dissatisfaction in Bangladesh. Similarly, in this study the researchers found inadequate privacy and longer waiting time were associated with mothers' dissatisfaction. Mothers who reported privacy during physical examination were more satisfied than those who perceived absence of privacy and also mothers who wait shorter time to seen by care provider were more satisfied than those who wait longer time. This higher dissatisfaction rate with waiting time could be attributed to the increased number of clients. The dissatisfaction rate with waiting time to receive the services in this study area is higher (78%) compared to the waiting time in Jimma University hospital where 20.4% dissatisfaction rate was reported [12].

The mothers' level of satisfaction was also related to having ANC follow up as mothers who had ANC follow up were more satisfied than those who had no ANC follow up. On this line we can conclude that having ANC follow up has got some effect on satisfaction. This finding was consistent with the study which was done in Amhara region of Ethiopia [7]. Mothers whose monthly income was less than or equal to 1000 ETB were more satisfied than those whose income was greater than 1000 ETB. This might be due to the difference in economic status that delivering mothers whose monthly income was greater than 1000ETB had a potential to be served in where ever they want like private clinics or hospitals but those delivering mothers whose income was less than 1000 ETB couldn't have a potential.

The result of this study also showed that most of the delivering mothers were very likely to recommend the facility to friends and family and also for themselves (99.4% and 97.5%) respectively. This suggests that the hospital has skilled professionals and providing an acceptable quality of care.

This study was an institution-based one in which the study population may not be representative. Data are restricted to delivery experience to referral hospital thereby limiting generalization to the overall health facility experience of childbirth by women. Like other cross sectional studies this study also shares the drawbacks of the design.

Conclusions

Now-a-days most patients in our country complain about hospital services, among the services delivery services is the one. To identify specifically which factor causes dissatisfaction requires investigation. This study help to evaluate health care services from the patient's point of view, facilitate the identification of problem areas, and help generate ideas towards resolving these problems.

The overall proportion of mothers who were satisfied with delivery care was suboptimal. The study strongly suggested that more could be done to assure that service provided is more patient centered Maternal satisfaction during this period is predicted by age, educational status, monthly income, wanted status of the pregnancy, having ANC follow up, shorter waiting time before seen by a health worker and health professional's measure taken to assure privacy during maternal examinations.

Access and cleanliness of toilet, cost paid to service and waiting area cleanliness and comfort were found to be the major causes of dissatisfaction. This leads to non-usage of the hospital in future or using the hospital only as a last resort.

Recommendations

From this finding, it is recommended that:

-The issue should also need to be assessed from different community group's perspectives i.e. care providers, policy makers, community leaders understand the situation in a better way and design interventional activities accordingly.

-Staffs of the hospital have frequent continuing education on communication and Interpersonal relationship.

-Caregivers need to fully understand the expectations that patient have for their care, and provide care that is consistent with those expectations.

-The care givers of the facility should avoid staying longer waiting time to see the delivering mothers.

-Further studies should be conducted in the hospital and outside the hospital setup and in.

Different parts of the country to come up with more representative findings.

Acknowledgements

We would like to extend our deepest gratitude to Addis Ababa University, Medical Faculty, for financial support for this project.

Our appreciations and great thanks go to the supervisor and the data collectors for their commitment in carrying out the study. Last but not the least, our gratitude goes to all the study participants for their volunteer participation during the study period.

Author's Contributions

RA wrote the proposal, participated in data collection, analyzed the data and Drafted the paper. MT and HF approved the proposal with some revisions, Participated in data analysis and revised subsequent drafts of the paper. All Authors read and approved the final manuscript.

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