

Assessment of Level of Satisfaction towards Institutional Delivery among Postnatal Women in Dilla Health Institutions, Southern Ethiopia

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ABSTRACT

Background: Maternal satisfaction is a complex term which consists of a multiple scope of satisfaction, as patients may be satisfied with one aspect of care but not with another, and experience may change across various care providers' components and it is one of the most frequently reported outcome measures for quality of care. Very few studies concerned with maternal satisfaction on institutional delivery among postnatal mothers were documented; even those documented studies did not use appropriate design and use small sample size, and were not on SNNPR, Ethiopia, so this study intended to assess the level of maternal' satisfaction towards institutional delivery services among postnatal mothers in Dilla town, SNNPR, Ethiopia.

Objectives: To assess level of satisfaction and associated factors towards institutional delivery among postnatal women in Dilla health institutions, 2019 GC.

Methods: Institutional based cross sectional descriptive study was conducted from February 01 to March 30, 2020 G.C at Dilla health institutions. After pre-testing a structured quantitative tool, it was applied on 181 study subjects using interviewer administered questionnaire enrolled by a simple random sampling technique to get the necessary data. Data was checked, coded and entered to SPSS for analysis. Descriptive statistic was presented using text, figures and tables. The association between variables was analyzed with bivariate and multi variable logistic regression. A statistical significance was declared at p value <0.05, with 95% confidence interval.

Result: A total number of 181 study participants participated in the present study yielding a response rate of 96.3%. The mean age of the participants was 30 years (SD=8 years). 69.6% of mothers were satisfied by institutional delivery service given at the health facility whereas 30.4% of the respondents dissatisfied by institutional delivery service given at the health facility.

Conclusion and recommendation: Maternal satisfaction towards institutional delivery among postnatal women in Dilla health institution was found to be 69.6%. Maternal age, educational status of the mother, waiting time to get the service, status of pregnancy and maternal condition after delivery were the factor that are significantly associated with maternal satisfaction towards institutional delivery. Zonal health bureau in collaboration with the zonal educational bureau should motivate and deliver formal education for all women who have not attended formal education.

Keywords: Satisfaction; Postnatal; Institutional delivery; Dilla

INTRODUCTION

Maternal satisfaction is the most frequently reported outcome measures for quality of care, and it needs to be addressed to improve the quality and efficiency of health care during pregnancy, childbirth, and puerperium to provide quality maternal-friendly services [1].

Assessment of satisfaction with maternity services is crucial and helps in future utilization of service [2,3]. Understanding a woman's perspective and her needs during childbirth and addressing them as part of quality-improvement program can make delivery care safe, affordable, and respectful [4].

Comprehensive knowledge about women's satisfaction by labour and delivery care in local context is vital to increase delivery service

utilization, to develop new intervention strategies and strengthen the existing intervention programs to reduce maternal morbidity and mortality [5].

The Ethiopian government and international organizations are working for making hospital delivery services accessible and usable for all pregnant women but still the proportion of births attended by a skilled birth attendant is about 18.4% in 2009 which was much lower than the average level in developing countries in general (59%), Sub-Saharan regions (44%), and very far from MDG target of 90% coverage [2,6].

Maternal morbidity and mortality highly decrease by safe delivery and skilled birth attendant at every birth thus women's satisfaction with the service was crucial [6,7].

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Very few studies concerned with maternal satisfaction on institutional delivery among postnatal mothers were documented; even those documented studies did not use appropriate design and use small sample size, and were not on SNNPR, Ethiopia. As a result of this it is not an easy task for policy makers to develop prevention strategies for the problem.

Thus this study will be intended to assess 'the level of maternal satisfaction and factors associated with it on delivery care services among postnatal mothers in Dilla town, SNNPR, Ethiopia.

The objective of this study was to assess level of satisfaction and associated factors towards institutional delivery among postnatal women in Dilla health institutions.

METHODOLOGY

The study was conducted at 3 health institutions found in Dilla, Ethiopia (namely-Dilla University referral hospital, Haroresa health center and Waleme health center) from February 01 to March 30, 2021 GC. An institutional based cross-sectional study design was conducted.

The source population includes all postnatal women's in Dilla health institutions.

The sample size for this study was 188, which was determined using single population proportion formula.

Simple random sampling technique was used to select the study participants.

There are one referral hospital and two health centers in Dilla town; from this the number of women to be selected from each health institution was calculated using their respective load ratio. The required number of samples from each health institution was determined by multiplying the ratio of total postnatal women in each health institution to total number of postnatal women in the town with the calculated final sample size.

Following this simple random sampling technique was used to select the study participants in each health institution.

Operational definition

Satisfied: individuals scored 75% and more from questions used to assess patient satisfaction in the questionnaire, are categorized under satisfied.

Unsatisfied: individuals scored below 75% from questions used to assess patient satisfaction in the questionnaire, are categorized under unsatisfied.

The data collection tool used in this study was adopted from previous studies and prepared in English [8-10]. It was translated to Amharic local language and then back to English in order to ensure that the translated version gives proper meaning.

The data was collected by two BSC midwife and one supervisor (MSC midwife) for each health institutions found in Dilla town through self-administered structured written questionnaire.

The completeness of the questionnaire was checked before data entry and the data was coded, entered and analyzed using SPSS software version 20. Descriptive statistics was carried out using text, table and figure.

The association of independent variables with the outcome variable was investigated using binary logistic regression analysis (Figure 1).

The variables that showed an association with the outcome variable at the bivariate analysis with p value <0.25 were entered into the final multivariate analysis to control for potential confounders. Adjusted Odds Ratio (AOR) along with 95 % confidence interval were estimated to assess the strength of association and a P value <0.05 was considered to declare the statistical significance in the multivariate analysis - value>0.05).

RESULTS

Socio-demographic characteristics of the respondent

A total number of 181 study participants participated in the present study yielding a response rate of 96.3%. The mean age of the participants was 30 years (SD=8 years).

Most of the study participants 121 (66.9%) were married, followed by 31 (17.1%) 18 (9.9%) single and widowed respectively. Majority of the study participants 135 (74.6%) were urban residents whereas only 46 (25.4%) of them were rural residents (Table 1).

Obstetric characteristics of the respondent

Majority of the respondents 135 (74.6%) visited the institution planned for delivery whereas 46 (25.4%) were referred for delivery. One hundred twenty eight (70.7%) of the study participants delivered through SVD while only 34 (18.8%), 19 (10.5%) of the respondents were assisted and cesarean delivery respectively (Table 2).

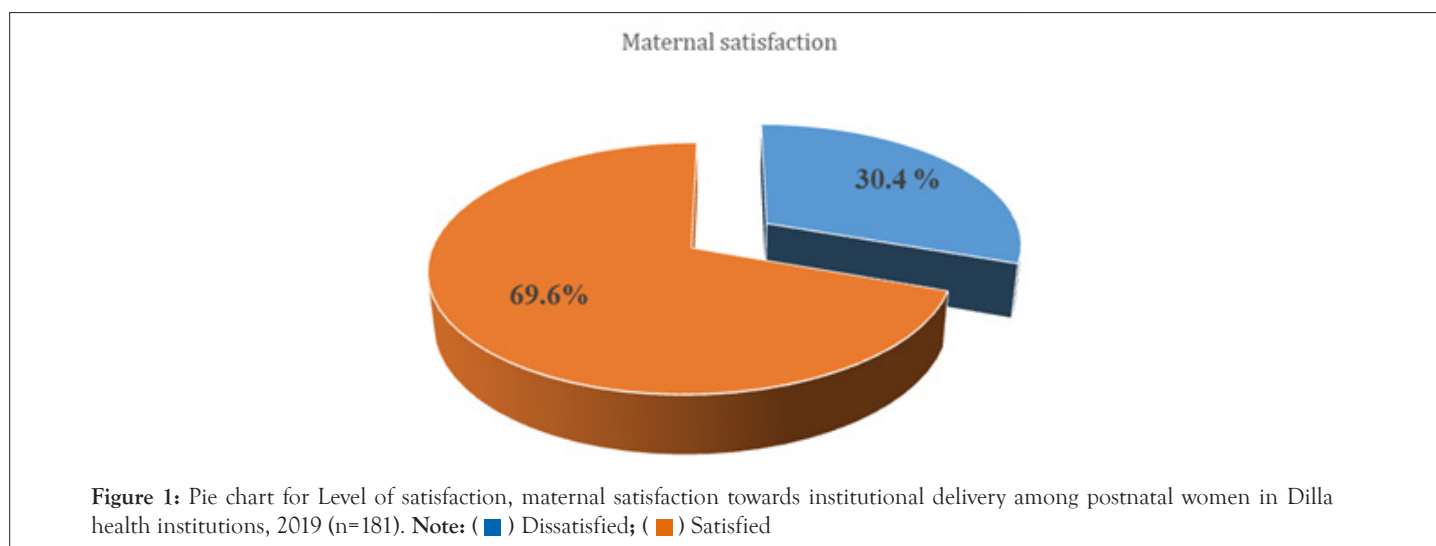


Table 1: Socio-demographic characteristics for maternal satisfaction towards institutional delivery among postnatal women in Dilla health institutions, 2019 (n=181).

Variables	Frequency (%)
Age in years	
16-25	53 (29.3)
26-35	75 (41.4)
36-45	53 (29.3)
Marital status	
GCA	
Single	31 (17.1)
Married	121 (66.9)
Divorced	11 (6.1)
Widowed	18 (9.9)
Residence	
Urban	135 (74.6)
Rural	46 (25.4)
Educational status	
Illiterate	34 (18.8)
Read and write only	18 (9.9)
Primary education	35 (19.3)
Secondary education	52 (28.7)
Higher education	42 (23.2)
Occupational status	
Housewife	68 (37.6)
Government employee	46 (25.4)
Private employee	32 (17.7)
Merchant	35 (19.3)
Household income	
0-1500 ETB	11 (6.1)
1501-3000 ETB	61 (33.7)
3001-4500 ETB	67 (37.0)
Above 4501 ETB	42 (23.2)

Table 2: Obstetrics characteristics for maternal satisfaction towards institutional delivery among postnatal women in Dilla health institutions, 2019 (n=181).

Variables	Frequency (%)
Parity	
One	47 (26.0)
5-Feb	114 (63.0)
>5	20 (11.0)
Reason for visit	
Planned for delivery	135 (74.6)
Referred for delivery	46 (25.4)
Status of pregnancy	
Wanted	117 (64.6)
Unwanted	64 (35.4)
Mode of delivery	
SVD	128 (70.7)
Assisted delivery	34 (18.8)
Cesarean delivery	19 (10.5)
Maternal outcome	
Normal	166 (91.7)
With complication	15 (8.3)
Fetal outcome	
Lived	154 (85.1)
Died	27 (14.9)
ANC follow up	
Yes	138 (76.2)
No	43 (23.8)
Previous facility delivery	
Yes	130 (71.8)
No	51 (28.2)

Facility and healthcare provider characteristics of the respondent

Majority 147 (81.2%) of the respondents mode of transport to the health institution were by car followed by 23 (12.7%), 11 (6.1%) foot and animal or human shoulder respectively. More than half 124 (68.5%) of the study participants waited for less than one hour before seen by the health care provider while 10 (5.5%) of the respondents waited for more than two hour before seen by the healthcare provider. One hundred fifty nine (87.8%) of the respondents had ordered drugs and supplies whereas only twenty two (12.2%) of the study participants did not had ordered drugs and supplies (Table 3).

One hundred twenty six (69.6%) of the respondents satisfied by the health facility whereas 55 (30.4%) of the respondents dissatisfied by the health facility.

After adjustment for possible confounders on multivariate analysis age, educational status of the respondent, status of pregnancy, waiting time

to get the service and maternal outcome or condition after delivery have significant association with the outcome variable in multivariate analysis at 95% CI ($p < 0.05$).

Mother's whose ages are between 26-35 years were 1.77 times more likely to be satisfied with institutional delivery than those mothers whose ages are greater than 36 years. Uneducated mothers were 1.36 times more likely to be satisfied with institutional delivery than mothers with higher educational status. Women's with a wanted status of pregnancy were 2.06 times more likely to be satisfied with institutional delivery than women's with unwanted status of pregnancy. Women's who had a normal condition after delivery were 1.85 times more likely to be satisfied with institutional delivery than women's who had complication after delivery. Women's who had waited for less than one hour to get the service were 3.03 times more likely to be satisfied with institutional delivery than those women who had waited for greater than two hour to get the service (Table 4).

Table 3: Facility and healthcare provider related characteristics for maternal satisfaction towards institutional delivery among postnatal women in Dilla health institutions, 2019 (n=181).

Variables	Frequency (%)
Distance traveled	
≤ 25 Km	135 (74.6)
>25 Km	46 (25.4)
Mode of transport	
Car	147 (81.2)
Foot	23 (12.7)
Animal or human shoulder	11 (6.1)
Payment status	
Paid	32 (17.7)
Free	149 (82.3)
Waiting time	
<1 hour	124 (68.5)
1-2 hour	47 (26.0)
>2 hour	10 (5.5)
Sex of examiner	
Male	85 (47.0)
Female	96 (53.0)
Privacy assured	
Yes	148 (81.8)
No	33 (18.2)
Ordered drug	
Yes	159 (87.8)
No	22 (12.2)
Come back again for service	
Yes	158 (87.3)
No	23 (12.7)

Table 4: Multivariate analysis for maternal satisfaction towards institutional delivery among postnatal women in Dilla health institutions, 2019 (n=181).

Variables	Maternal satisfaction frequency (%)		COR (95% CI)	AOR (95% CI)	Female
	Satisfied	Unsatisfied			
Age					
16-25 years	39 (31.0)	14 (25.5)		0.73 (0.23-0.91)	0.96 (0.58-6.47)
26-35 years	45 (35.7)	30 (54.5)		0.39 (0.22-1.37)	1.77 (1.08-5.33)*
36-45 years	42 (33.3)	11 (20.0)		1	1
Marital status					
Single	23 (18.3)	8 (14.5)		4.51 (0.68-6.22)	9.22 (0.92-12.73)
Married	88 (69.8)	33 (60.0)		4.19 (2.71-9.42)	3.38 (0.57-3.04)
Divorced	8 (6.3)	3 (5.5)		4.19 (0.79-5.49)	11.11 (0.80-20.99)
Widowed	7 (5.6)	11 (20.0)		1	1

		Occupational status	
Housewife	53 (42.1)	15 (27.3)	0.88 (0.17-0.97)
Government employee	29 (23.0)	17 (30.9)	0.42 (0.23-0.73)
Private employee	16 (12.7)	16 (29.1)	0.25 (0.11-1.28)
Merchant	28 (22.2)	7 (12.7)	1
		Educational status	
Illiterate	27 (21.4)	7 (12.7)	1.72 (0.55-2.61)
Read and write	13 (10.3)	5 (9.1)	1.16 (0.34-3.76)
Primary education	29 (23.0)	6 (10.9)	2.16 (1.22-4.99)
Secondary education	28 (22.2)	24 (43.6)	0.52 (0.34-1.03)
Higher education	29 (23.0)	13 (23.6)	1
		Pregnancy status	
Wanted	80 (63.5)	37 (67.3)	0.84 (0.38-0.92)
Unwanted	46 (36.5)	18 (32.7)	1
		Maternal outcome	
Normal	114 (90.5)	52 (94.5)	0.54 (0.04-0.81)
With complication	12 (9.5)	3 (5.5)	1
		Fetal outcome	
Lived	110 (87.3)	44 (80.0)	1.71 (1.35-5.11)
Died	16 (12.7)	11 (20.0)	1
		ANC follow up	
Yes	97 (77.0)	41 (74.5)	1.14 (1.09-3.30)
No	29 (23.0)	14 (25.5)	1
		Waiting time	
< 1 Hour	84 (66.7)	40 (72.7)	0.52 (0.97-8.44)
1-2 Hour	34 (27.0)	13 (23.6)	0.65 (3.70-11.36)
>2 Hour	8 (6.3)	2 (3.6)	1
		Sex of examiner	
Male	58 (46.0)	27 (49.1)	0.88 (0.14-0.91)
Female	68 (54.0)	28 (50.9)	1
		Ordered drugs	
Yes	110 (87.3)	49 (89.1)	0.84 (0.32-0.89)
No	16 (12.7)	6 (10.9)	1
		Privacy assured	
Lived	107 (84.9)	41 (74.5)	1.92 (1.06-12.57)
Died	19 (15.1)	14 (25.5)	1

Note: P<0.05 =*; P<0.01 =**; P<0.001 =***.

DISCUSSION

The overall proportion of mothers who were satisfied with institutional delivery care in this study was 69.6%, which was comparable to the study conducted in Adama town 74.6% [11]. This finding was higher than a study conducted in Sri Lanka 48%, Amhara Referral Hospitals (61.9%), Kenya (58.7%) [12-14]. However, it was lower than a study conducted in Debre-markos town (81.7%) and Assela Hospital (80.7%) [15,16]. This differences might be related to the quality of services delivered at various health institutions and differing expectations. Further-more, differences might be related to the study settings, study period or type of health institution.

Maternal age was one of the significant variables which showed association with institutional delivery, this is supported by research conducted in Jimma zone and Oromia region [17]. This finding is opposite to a report from a study conducted in Bahirdar, which showed that women aged 20 to 34 years were less likely to satisfy with institutional delivery compared to women aged 35 to 45 years [18].

Maternal educational status was significantly and inversely associated with their level of satisfaction with delivery services, this finding was similar with a study conducted in Western Arsi, Ethiopia which revealed that illiterate women's were more likely to be satisfied with institutional delivery than those women who had a college and above

educational status [9]. This similarity might be due to the expectation of services may be related to levels of knowledge.

Waiting time to get the service was also another significant variable which had a strong association with the outcome variable; similar finding was also observed in study conducted at Adama, Ethiopia and Debre-markos, Ethiopia.

Women's with a wanted status of pregnancy were 2.06 times more likely to be satisfied with institutional delivery than women's with unwanted status of pregnancy. Similar finding was also observed in a study conducted at Amhara, Ethiopia which showed that women with a wanted status of pregnancy were 2.2 times more likely to be satisfied with institutional delivery than those women who did not have a wanted status of pregnancy [13].

CONCLUSION

The overall maternal satisfaction towards institutional delivery among postnatal women in Dilla health institution was found to be 69.6%. Even though the result was slightly higher than some of the previous studies conducted in Ethiopia, there are still unmet needs and expectations of mothers during labor and delivery that the hospital should focus on as delivery service quality improvement area. The identified associated factors with maternal satisfaction towards institutional delivery among postnatal women in Dilla health institutions were maternal age,

educational status of the mother, waiting time to get the service, status of pregnancy and maternal condition after delivery.

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CONFLICT OF INTEREST

Submitting authors are responsible for coauthors declaring their interests.

DATA AVAILABILITY

All data underlying the findings are fully available without restriction. All relevant data are within the manuscript.

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