

Quality of Labor and Delivery Services: Maternal Satisfaction Study from a Tertiary Hospital

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ABSTRACT

Introduction: Maternal satisfaction is an important indicator for any hospital to measure the quality of labor and delivery services. Satisfaction with the care received during labor and childbirth process influences the decision of institutional delivery for future utilisation. This study aims to identify the satisfaction of postnatal mothers towards labor and delivery service in a selected hospital.

Methods: It is a descriptive cross-sectional study. Non-probabilistic purposive sampling technique was used to select a sample. A total of 54 postnatal mothers were interviewed using a semi-structured interview schedule. It was adapted from Donabedian Model and Respectful Maternity Care (RMC) Scale focusing on four aspects i.e. health institution related aspect, interpersonal aspects of care, abuse free care and informative aspects of care in five-point Likert scales. Data were coded, entered and analyzed using Statistical Package for Social Science (SPSS) version 16 for windows.

Results: In this study, 79.6% of the postnatal mothers were satisfied with the overall aspects of the labor and delivery services. The component wise results show that 94.4% were satisfied in health institution related aspects while in the interpersonal aspect, 92.6% were satisfied. Similarly, all sampled mothers were satisfied with the abuse-free care system of the health institution. In informative aspects of care, 87% were satisfied and the rest (13%) were dissatisfied.

Conclusions: Although the majority of mothers were satisfied, there were dissatisfaction in regards to availability of drinking water, the behaviour of staffs and the health education provided to them. By improving these aspects, quality of service will improve and thus increase women's satisfaction with care received.

Key words: Donabedian Model; institutional delivery; labor and delivery service; postnatal mothers; quality of care

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INTRODUCTION

Childbirth experience is a very special and significant moment in women's life. Perception of care, the respect received during labor and childbirth process influence decision of institutional delivery for future pregnancies, follow up care and further recommendation for others for use of the service. Negative encounters of women with health workers during delivery can result in long-lasting emotional trauma. Maternity care provided should be women and family - centred, taking into account about their views and their rights to choice, control and continuing care, which increase the likelihood of service utilisation and decrease in maternal mortality.¹⁻³

Many studies identified that women's previous experience of poor staff attitude and behaviour may discourage women from seeking care in the same institute in future. Lack of human resources, unclean hospital surrounding, lack of supplies, costly care and low-quality services are major influencing factors affecting quality and responsiveness of maternal health service and its utilisation. A good interpersonal relationship is crucial for increasing use of maternal health services and improving the service quality. Adequate communication, as well as treating all clients with dignity and respect equally, is pivotal to providing quality care. Therefore, consideration should be made in providing friendly care, emotional support, privacy maintenance, showing concern and timely care to improve client satisfaction.^{4,5}

When clients are satisfied, they are more likely to utilise health services, comply with service, follow up and continue with health care. Understanding women's point of view and experience will assist to identify strengths and weaknesses in the maternal services and improvement in quality services, making it more responsiveness and client-oriented.⁶ Hence, this study aims to identify the postnatal mother's satisfaction towards labor and delivery services in a respective health facility.

METHODS

The descriptive cross-sectional research design was used to identify postnatal mother's satisfaction towards labor and delivery services. The study had

been conducted at the maternity ward and postnatal ward of Shree Birendra Hospital (SBH), Chhauni, Kathmandu, Nepal in September 2016. The study sample were the postnatal mothers who had given birth to her baby by spontaneous vaginal delivery, emergency or elective Lower Segment Caesarean Section (LSCS), and vacuum delivery at SBH. Non-probability purposive sampling technique was used to select the study setting and study sample.

The sample size was 54, calculated at 95% confidence interval, taking 9% allowable error. It was based on the total numbers of deliveries at SBH within one fiscal year i.e., 738 and the 86% prevalence of maternal satisfaction from the study "Women's satisfaction of maternity care in Nepal and its correlation with intended future utilisation" which was a nationally representative facility-based survey across 13 districts in Nepal.⁷

The semi-structured interview schedule was used for the study. The schedule consisted of two parts. Part I included socio-demographic and obstetric information and part II included questions related to the mother's satisfaction towards labor and delivery services. This was developed from Donabedian Model of quality of care and Respectful Maternity Care (RMC) Scale focusing on four aspects i.e. health institution related aspect, interpersonal aspects of care, abuse free care and informative aspects of care.⁸⁻¹¹ Satisfaction was measured in five point Likert scales of 5 to 1 conforming to very satisfied, satisfied, neither satisfied nor dissatisfied, dissatisfied and very dissatisfied respectively. Initially, the interview schedule was developed in simple English language then it was translated into understandable local Nepali language. It was pre-tested among 10% (i.e., 6) of the study sample from Tribhuvan University Teaching Hospital. There were no modifications required in the instrument as the mothers understood it easily and given their responses.

Data collection was initiated after getting approval from the Nepalese Army Institute of Health Sciences Institutional Review Committee (NAIHS-IRC). Permission for the study was also obtained from the study site. Informed verbal consent was taken from each postnatal mother before collection of data after explaining the objectives of the study. Privacy was maintained by taking the interview

separately in the corner of the ward. They were allowed to discontinue from participation if they wished to. The researcher took face to face interview with each postnatal mother. It was taken about 30 minutes to complete the interview.

Data analysis was done using the SPSS version 16 for windows. The data were summarised in tabular form using relevant descriptive statistics (i.e., mean, frequency, percentage and standard deviation). Results from very satisfied and satisfied were described as satisfied and very dissatisfied and dissatisfied were described as dissatisfied in study findings. A Chi-square test was applied to find the association of satisfaction level with selected variables at 5% significance.

RESULTS

The mean age of the respondents was 27.06 (SD \pm 4.02) years. Based on ethnicity, 57.4% were Brahmin / Chhetri. Concerning the type of family, 55.6% belonged to the nuclear family. Similarly, the highest proportion of mothers (44.4%) had completed higher secondary level education and 59.3% were house managers.

In this study, 64.8% of mothers had given birth to two babies and all of them were alive. Almost all mothers (94.59%) had institutional delivery in previous births and only 5.41% had home delivery.

Among 54 mothers, 88.9% had a spontaneous vaginal delivery and 11.1% had emergency LSCS (Table 1).

In the level of satisfaction towards health institution related aspects, 85% (mean 4.39, SD \pm 0.85)

Table 1. Mode of Delivery in Recent Birth (n = 54)

Variables	Frequency	Percentage
Spontaneous vaginal delivery	48	88.9
Assisted delivery	-	-
Emergency LSCS	6	11.1

mothers were satisfied with prompt service provided by health professionals, provision of necessary medication and supplies (92.6%, mean 4.63, SD \pm 0.76), and provision of ventilation in the ward (75.9%, mean 3.93, SD \pm 0.96). More than half (55.5%, mean 2.31, SD \pm 1.24) mothers were dissatisfied with the availability of drinking water in the ward (Table 2).

While identifying the level of satisfaction towards interpersonal aspects of care, more than four-fifth mothers were satisfied with the politeness of the health personnel (87%, mean 4.31, SD \pm 0.96); respect given to them (85.2%, mean 4.24, SD \pm 1.02); the helpful attitude of the staff (85.1%, mean 4.22, SD \pm 0.9); involvement in decision making (83.3%, mean 4.04, SD \pm 0.91); welcoming them during admission (81.5%, mean 4.2, SD \pm 0.91), and maintenance of their privacy (81.5%, mean 4.28, SD \pm 0.76). Similarly, more than one third (37%, mean 2.93, SD \pm 1.61) were dissatisfied with an orientation provided by staff during admission (Table 3).

In the level of satisfaction towards abuse-free care, the majority (87.1%, mean 4.31, SD \pm 1.02) of mothers were satisfied with verbal abuse-free care; cent per cent with physical abuse-free care (mean 4.96, SD \pm 0.19); discrimination-free care

Table 2. Level of Satisfaction towards Health Institution Related Aspects (n = 54)

Health institution related aspects	VS (%)	S (%)	NSND (%)	D (%)	VD (%)	Mean	SD
Prompt service	57.4	27.8	13.0	-	1.9	4.39	0.85
Cleanliness of ward	31.5	24.1	27.8	11.1	5.6	3.65	1.30
Ventilation of ward	27.8	48.1	16.7	3.7	3.7	3.93	0.96
Availability of drinking water	3.7	16.7	24.1	18.5	37.0	2.31	1.24
Accessibility of toilet	20.4	24.1	27.8	13.0	3.7	3.33	1.16
Provision of necessary medicines and supplies	74.1	18.5	5.6	-	1.9	4.63	0.76

Note: VS = Very Satisfied, S = Satisfied, NSND = Neither Satisfied nor Dissatisfied, D = Dissatisfied, VD = Very Dissatisfied

Table 3. Level of Satisfaction towards Interpersonal Aspects of Care (N = 54)

Interpersonal aspects of care	VS (%)	S (%)	NSND (%)	D (%)	VD (%)	Mean	SD
Welcoming during admission	50.0	31.5	9.3	7.4	1.9	4.20	1.01
Orientation provided with ward	27.8	7.4	27.8	3.7	33.3	2.93	1.61
Maintenance of privacy	46.3	35.2	18.5	-	4.28	0.76	
Emotional support provided	40.7	37.0	14.8	3.7	3.7	4.07	1.02
Respect given	50.0	35.2	9.3	-	5.6	4.24	1.02
Politeness of health personnel during communication	53.7	33.3	7.4	1.9	3.7	4.31	0.96
The helpful attitude of health personnel	44.4	40.7	9.3	3.7	1.9	4.22	0.90
Involvement in decision making	29.6	53.7	11.1	1.9	3.7	4.04	0.91
Consent was taken by health personnel	53.7	22.2	20.4	3.7	-	4.26	0.91
The behavior of health personnel	11.1	38.9	24.1	27.8	5.6	3.7	3.89

Note: VS = Very Satisfied, S = Satisfied, NSND = Neither Satisfied nor Dissatisfied, D = Dissatisfied, VD = Very Dissatisfied

regardless of socioeconomic condition (mean 4.94, SD \pm 0.23), and discrimination-free care regardless of caste and religion (mean 4.94, SD \pm 0.23) (Table 4).

In the level of satisfaction towards informative aspects of care, more than four-fifth mothers were satisfied with the information received about treatment procedure (94.5%, mean 4.43, SD \pm 0.66); state of foetal and maternal condition (92.6%, mean 4.37, SD \pm 0.97); and pain relief measures (83.2%, mean 4.3%, SD \pm 0.98). However, 50% (mean 2.59, SD \pm 1.49) mothers were dissatisfied with the information provided on the identification of danger signs; immunisation (38.9%, mean 3.2, SD \pm 1.48); breastfeeding (24.1%, mean 3.63, SD \pm 1.53), and personal and perineal hygiene (20.4%, mean 3.63, SD \pm 1.33) (Table 5).

In overall, cent per cent mothers were satisfied with abuse-free care; 94.4% with health institution related aspects; 92.6% with interpersonal aspects of care, and 87% with informative aspects of care. In this study, 13% of mothers were dissatisfied with an informative aspect of care, 7.4% in the interpersonal aspect of care, and 5.3% in health institution related aspects (Table 6).

In this study, around four-fifth (79.6%) mothers were satisfied and the rest (20.4%) were dissatisfied with the labor and delivery service (Table 7).

It was identified that 92.6% of mothers were willing to receive delivery service next time from this hospital and would like to recommend to friends and relatives also.

Table 4. Level of Satisfaction towards Abuse Free Care (N = 54)

Abuse free care	VS (%)	S (%)	NSND (%)	D (%)	VD (%)	Mean	SD
Verbal abuse- free care	55.6	31.5	-	-	5.6	4.31	1.02
Physical abuse- fee care	96.3	3.7	-	-	-	4.96	0.19
Discrimination free care regardless of socio-economic condition	94.4	5.6	-	-	-	4.94	0.23
Discrimination free care regardless of caste and religion	94.4	5.6	-	-	-	4.94	0.23

Note: VS = Very Satisfied, S = Satisfied, NSND = Neither Satisfied Nor Dissatisfied, D = Dissatisfied, VD = Very Dissatisfied

Table 5. Level of Satisfaction towards Informative Aspects of Care (n=54)

Informative aspects of care information provided on:	VS (%)	S (%)	NSND (%)	D (%)	VD (%)	Mean	SD
Pain relief measures	55.6	27.6	9.3	5.6	1.9	4.30	0.98
State of foetal and maternal condition	55.6	37.0	1.9	-	5.6	4.37	0.97
Treatment procedures	50.0	44.4	3.7	1.9	-	4.43	0.66
Status of a newborn after examination	44.4	31.5	18.5	5.6	-	4.15	0.92
Breastfeeding	42.6	20.4	13.0	5.6	18.5	3.63	1.53
Identification of danger signs	18.5	7.4	24.1	14.8	35.2	2.59	1.49
Personal and perineal hygiene	33.3	27.8	18.5	9.3	11.1	3.63	1.33
Immunization	24.1	29.6	7.4	20.4	18.5	3.20	1.48

Note: VS = Very Satisfied, S = Satisfied, NSND = Neither Satisfied Nor Dissatisfied, D = Dissatisfied, VD = Very Dissatisfied

The researcher tried to collect mother's suggestions for improving labor and delivery services in this hospital. They had given following responses: maintain the cleanliness of the toilet (68.5%), continuous water supply in the toilet (66.7), accessibility of safe drinking water (42.6%), and provision of adequate information by a health professional (40.7%) (Table 8).

The researcher could not find any association of level of satisfaction with the selected variables (i.e., age, type of family, education level and a number of deliveries) ($p > 0.05$) (Table 9).

DISCUSSION

Shree Birendra Hospital is the tertiary care centre of Nepal Army which provides service to the service personnels and their dependents. It is the centrally located 700 bedded hospital which has been providing obstetric services from the year 2013. Nepal Army caters to their service holders

and their dependents with all the available facilities free of charge.

In this study, 55.6% of mothers were at the age group of 25 - 29 years; 57.4% were Brahmin/Chhetri; all followed the Hindu religion; 55.6% were from nuclear family; 44.4% had completed higher secondary level education and 59.3% were house managers. The majority (64.8%) of mothers had given birth to two babies and all were alive. Similarly, 94.6% had institutional delivery in the last birth. Likewise 88.9% had normal vaginal delivery in the recent birth.

This study tried to identify the mother's satisfaction towards labor and delivery services in four aspects i.e., health institution, interpersonal, abuse free, and informative related aspects. Regarding satisfaction in health institution related aspects, 92.6% of mothers were satisfied with the provision of free medicines and supplies; 85.2% with prompt services, 55.6% with cleanliness, and 44.5% with the accessibility of toilet. Studies conducted in Paropakar Maternity and Women's Hospital, Bheri

Table 6. Level of Satisfaction on Four Dimensions of Labor and Delivery Service (n = 54)

Level of satisfaction	Health institution related aspects f (%)	Interpersonal aspects of care f (%)	Abuse free care f (%)	Informative aspects of care f (%)
Satisfied	51 (94.4)	50 (92.6)	54 (100.0)	47 (87.0)
Dissatisfied	3 (5.6)	4 (7.4)	-	7 (13.0)

Table 7. Overall Satisfaction Level with Labor and Delivery Service (n = 54)

Level of satisfaction	Frequency	Percentage
Satisfied (≥ 3.74 mean score)	43	79.6
Dissatisfied (< 3.74 mean score)	11	20.4

Note: minimum-1, maximum- 4

Table 8. Suggestions for improving Labor and Delivery Services (n = 54)

Suggestions*	Frequency	Percentage (%)
Maintain cleanliness of the toilet	37	68.5
Provide continuous water supply in the toilet	36	66.5
Provide access to safe drinking water	23	42.6
Provide adequate information by health professionals	22	40.7
Provide a spacious place	13	24.1

*Multiple responses

Hospital Nepalgunj, and various health facilities of 13 districts of Nepal also identified similar findings on this aspect.^{7,12,13} In the present study, more than half the percentage of mothers were dissatisfied with the availability of safe drinking water. A similar study conducted in India also documented that mothers were less satisfied with water supply.¹⁴

Analysing satisfaction related to interpersonal aspects of care in this study, 81.5% mothers were satisfied with the politeness of the health personnel; 83.3% with involvement in decision making; 81.5% with the maintenance of privacy; 77.7% with encouragement and support provided, and 63% with the behaviour of health personnel. All these findings are supported with studies conducted in Nepal and Ethiopia.^{7,12,13,15} The present study revealed that only 35.2% mothers were satisfied with the orientation given about the ward which is supported by the study conducted in India where the least satisfaction was found in the area related to orientation.¹⁶

In the present study, 87.1% of mothers were satisfied with verbal abuse-free care and 100% were satisfied with physically abuse-free care. Likewise, all mothers (100%) were satisfied with discrimination - free care in regards to socio-economic conditions, caste and religion. In this study, mothers were very much satisfied with the abuse-free care aspect. In contrast to these findings, a study conducted in Tanzania and Mozambique among postnatal mothers revealed that they had a negative experience of verbal abuse and discriminatory treatment.^{17,18} Similarly a study conducted in India showed that abusive behaviour

Table 9. Association of Level of Satisfaction with Selected Variables

Variables	Satisfied (≥ 3.74 mean score)	Dissatisfied (< 3.74 mean score)	p-value
Age			1.000
• Up to 30	34	9	
• 30 and above	9	2	
Type of family			0.510
• Nuclear	25	5	
• Joint / Extended	18	6	
Education level			0.470
• Upto secondary level	15	2	
• Higher secondary level and above	28	9	
Number of deliveries			0.726
• One	13	4	
• Two or more	30	7	

was one of the common challenge experienced by postnatal mothers and their caregiver.¹⁴

Regarding informative aspects of care, 94.4% of mothers were satisfied with the information provided on treatment procedures; 92.6% on state of fetal and maternal condition; 83.2% on pain relief measures, and 76% on the status of newborn after examination. These findings are somehow consistent with various studies conducted in Nepal¹³ and various parts of the world.¹⁹⁻²¹ In the present study, 50% mothers were dissatisfied on the information given about identification of danger signs during postpartum and newborn; 38.9% on immunisation; 24% on breastfeeding, and 20.4% on personal and perineal hygiene which all are very important areas to be known by postnatal mothers for her and babies wellbeing. A study conducted in Bheri Hospital Nepalgunj also identified that the lowest percentage of postnatal mothers were satisfied with the information provided about danger signs relating to mother and baby during the postnatal period.¹⁴ Other studies conducted in Iran and Ethiopia also revealed mothers' dissatisfaction in information related aspects.^{22,23}

Overall, around four-fifth mothers were satisfied with labor and delivery services at Shree Birendra Hospital. According to each dimension, all mothers were satisfied in abuse-free care; 94.4% in health institution related aspects; 92.6% in interpersonal

aspect, and 87% in informative aspects of care. It is also important to note that 13% of mothers were dissatisfied with informative aspects of care. The finding on overall satisfaction is comparable with the study conducted in Nepal and Oromia but found low in Ethiopia.^{7,24,25}

The present study showed that almost all mothers (92.6%) were willing to receive a delivery service in the future and would like to recommend this hospital to friends and family. These findings are consistent with the studies conducted in Nepal.^{12,13} In this study, no statistically significant association was found between socio-demographic and obstetric characteristics with maternal satisfaction. But the study conducted in Lebanon and Italy identified different result where older and educated women were more satisfied with childbirth care.^{26,27}

The interview had been taken in the hospital before discharge; therefore, mothers might have been reluctant to express their true labor and delivery

experience and dissatisfaction towards the service. This might have affected the findings.

CONCLUSIONS

In this study, the overall satisfaction with labor and delivery service is found to be good. They are more satisfied with abuse-free care, health institution related aspects, and interpersonal aspects of care. In comparison to these, they are less satisfied in the informative aspect of care especially in getting information regarding the identification of danger signs, breastfeeding, immunisation, and personal and perineal hygiene which should be well known by postnatal mothers for the well-being of self and their babies. Their dissatisfaction is also significant in the availability of safe drinking water in the hospital. Therefore hospital should take initiative for improving in these areas to improve maternal satisfaction towards labor and delivery service. It is recommended that regular monitoring and evaluation of maternal satisfaction should be done in the hospital to improve the quality and effectiveness of services.

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