

# Maternal Satisfaction with Delivery Services: Mothers' Perspectives on Delivery Care Quality

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## ABSTRACT

**Introduction:** Satisfaction is defined as the extent to which the patient seeking treatment, experiences a positive perception of care provided by the care givers. Understanding women satisfaction with child birth services during the intra partum and postpartum period as well as a proper assessment of the same is necessary to improve the quality and effectiveness of health care. **Objective:** To assess the maternal satisfaction on delivery services among post-natal mothers in Kakopathar block of Tinsukia district, Assam.

**Materials and Methods:** A community based cross-sectional study was conducted in Kakopathar block of Tinsukia district, where a total of 85 mothers were interviewed with a predesigned pretested proforma, to assess maternal satisfaction on delivery services. Data was presented in percentages and Chi-square test was applied to test significance.

**Results:** The mean age of the study participants was (24.15±3.08) years. Majority of the mothers were satisfied with the delivery services, (96.5%). Satisfaction was highest in interpersonal aspects,

(96.5%) followed by informative and technical aspects, (92.9%) for both and finally health institutional aspects, (89.4%). Education of the study participants had significant association with maternal satisfaction on delivery services ( $p=0.03$ ; OR: 20; C.I: 1.24-322.53). No significant association was found between obstetric characteristics with maternal satisfaction.

**Conclusion:** The current study shows that although most of the women were satisfied with the delivery services, there were certain gaps mostly in the institutional aspects. So, it is necessary to understand and assess women satisfaction with delivery services until the desired gaps are eliminated.

**Keywords:** Delivery, Services, Quality, Care, Mothers, Postnatal.

## INTRODUCTION

Pregnancy is the most precious phase of a woman's life although surrounded by various physiological and emotional challenges. A positive childbirth experience is essential for the health and well-being of both the mother and the infant. It not only contributes to favorable physical outcomes

but also promotes maternal psychological well-being, strengthens mother–infant bonding, and enhances overall satisfaction with the birthing process. Quality of care refers to how well health services improve the chances that patients receive appropriate treatment to achieve the intended health outcomes.<sup>[1]</sup> The quality of maternal and neonatal healthcare services in many developing countries has frequently been reported to be suboptimal.<sup>[2]</sup> Use of maternal health services by mothers, and their satisfaction with those services, plays a key role in lowering maternal and infant mortality and morbidity. Patient satisfaction is a complicated, multidimensional term that serves as a significant indication for evaluating the efficacy of the healthcare delivery system.<sup>[3]</sup> The satisfaction of patients reveals the magnitude with which the healthcare needs are met and helps in assessing and planning health interventions. The patients who are satisfied with the health care services are more likely to utilize these services in future. Delivering high-quality maternity care means providing mothers with the optimal care throughout the antenatal, intranatal, and postnatal periods to achieve the best possible outcomes.<sup>[4]</sup> When seeking obstetric care, many patients are deterred from using maternal health services by interpersonal, informational, and technical factors.<sup>[5]</sup> According to the World Health Organization, in developing countries about one in six women die from pregnancy-related causes, compared with approximately one in 30,000 in high-income countries.<sup>[6]</sup> Institutional delivery alone is insufficient to improve maternal and child health outcomes without high quality intrapartum care.<sup>[7]</sup>

Understanding women's satisfaction with childbirth services during the intrapartum and postpartum periods is essential for evaluating and improving the quality and effectiveness of maternal healthcare. Maternal satisfaction serves as an important indicator of healthcare performance, reflecting the extent to which care meets the

expectations and needs of mothers. A comprehensive assessment of women's experiences can provide valuable insights into areas requiring improvement and guide the development of strategies to enhance service delivery. Therefore, the present study was undertaken to assess maternal satisfaction with delivery practices and to evaluate the quality of care experienced by mothers in the Kakopathar Block of Tinsukia District, Assam.

### Objectives:

1. To assess maternal satisfaction on delivery services among post natal mothers in Kakopathar Block of Tinsukia District, Assam.
2. To determine the factors associated with satisfaction of mothers on delivery services among post natal mothers in Kakopathar Block of Tinsukia District, Assam.

### MATERIALS & METHODS

This cross-sectional study was conducted over a period of one year among postnatal mothers residing in the Kakopathar Block of Tinsukia District, Assam. The sample size was estimated using the formula ( $n = Z^2pq/d^2$ ), considering a prevalence of 68.7%,<sup>[8]</sup> an absolute precision of 10%, and a 95% confidence level ( $Z = 1.96$ ), where ( $p$ ) represents the prevalence, ( $q = 1-p$ ), and ( $d$ ) denotes the absolute error. The calculated sample size was 83, which was rounded up to 85 participants. Postnatal mothers who provided informed consent were included in the study, whereas mothers with acute illnesses and mothers of sick babies were excluded.

A multistage sampling technique was employed for participant selection. Tinsukia District comprises five administrative blocks, of which Kakopathar Block was selected through simple random sampling. The estimated number of postnatal women (within 42 days of delivery at any given point in time) in Kakopathar Block for the year 2025–2026 was obtained. The block consists of 56 subcentres, from which six

subcentres were selected by simple random sampling. A list of postnatal women within 42 days of delivery in each selected subcentre was prepared, and the required number of participants from each subcentre was determined using proportional allocation. Subsequently, the villages under each selected subcentre were identified, and the number of eligible postnatal women in each village was obtained from the respective Accredited Social Health Activists (ASHAs). The first village from each selected subcentre was chosen randomly. Within each village, the first household was selected at random, following which consecutive households were visited until the required number of study participants from that subcentre was achieved. This procedure was repeated across all selected subcentres until the target sample size was attained.

**Data collection:** Data were collected through house-to-house visits, during which all eligible study participants were interviewed using a predesigned and pretested structured proforma. The questionnaire was administered through face-to-face interviews to obtain information relevant to the study objectives, ensuring uniformity and reliability in data collection.

**Ethical considerations:** Ethical clearance was obtained from the Institutional Ethics Committee (H). Written informed consent was obtained from the study subjects prior to the onset of the study after explaining the full purpose and details of the study.

### Statistical Analysis

Data was presented using frequencies, percentage. Tables and bar diagram were used wherever applicable. Chi-square test

was applied to test significance. Odds ratio with 95% CI was also done to analyze the data. A p-value of less than 0.05 was considered as statistically significant. Data collected was entered in Microsoft Office Excel and analyses using Graph Pad Instat.

**Study tool:** A predesigned and pre-tested proforma consisting of the following parts.

Part 1: Socio-demographic characteristics of the study participants.

Part 2: Obstetrics characteristics of the study participants.

Part 3: Maternal satisfaction with delivery services was assessed using a structured five-point Likert scale questionnaire encompassing four domains of care. These domains included institutional aspects (5 statements), interpersonal aspects (6 statements), informative aspects (6 statements), and technical aspects (5 statements). The instrument was designed to evaluate mothers' perceptions and experiences regarding various components of care received during childbirth, thereby providing a comprehensive assessment of overall maternal satisfaction.

Scoring- Very satisfied-5

Satisfied-4

Neither satisfied nor dissatisfied-3

Dissatisfied-2

Very dissatisfied-1

For the assessment of maternal satisfaction, a mean score of  $\leq 3$  was categorized as dissatisfaction, whereas a mean score of  $> 3$  was categorized as satisfaction. Accordingly, participants with a total score of  $\leq 66$  were considered dissatisfied with the childbirth services received, while those with a total score exceeding 66 were classified as satisfied.

Cut off-  $\leq 66$  (not satisfied) <sup>[1]</sup>

$> 66$  (satisfied) <sup>[1]</sup>

## RESULT

**Table 1: Socio demographic status of postnatal mothers.**

Variables		Number	(%)
1.Age group (in years)	<20	7	8.2
	20-24	44	51.8
	25-29	27	31.8
	≥30	7	8.2
2.Education:	Illiterate	3	3.5
	Primary	9	10.6
	Middle	31	36.5
	Secondary	26	30.6
	Higher secondary	9	10.6
	Bachelor and above	7	8.2
3.Occupation:	Agriculture	17	20.0
	Homemaker	57	67.1
	Business	11	12.9
4.Religion:	Hindu	75	88.2
	Others	10	11.8
5.Type of family:	Nuclear	42	49.4
	Joint	43	50.6

Table 1 presents the socio demographic status of postnatal mothers. The mean age of the study participants was (24.15±3.08) years. Majority of the study participants were of the age group of (20-24) years i.e.

44 (51.8%), majority 31 (36.5%) were educated up to middle school level, majority were home-makers 57(67.1%), majority belonged to Hindu religion 75(88.2%) and majority were of joint family 43(50.6%).

**Table 2: Obstetric characteristics of postnatal mothers**

Variables		Number	(%)
1.Parity:	Primiparous	50	58.8
	Multiparous	35	41.2
2.No. of living children:	1	43	50.6
	≥2	42	49.4
3.Sex of recent baby:	Male	41	48.2
	Female	44	51.8
4.No. of ANC:	<4	5	5.9
	≥4	80	94.1
5.Delivery:	Vaginal birth (episiotomy)	57	67.1
	Vaginal birth (without episiotomy)	2	2.4
	Cesarean section	26	30.6

Table 2 presents the obstetric characteristics of postnatal mothers, where majority 50 (58.8%) of the study participants were primiparous, majority 43(50.6%) of the post-natal mothers had one child. Regarding sex of the child majority were females 44

(51.8%) and 41(48.2%) were males. Majority 80 (94.1%) had four or more ante-natal check-ups and majority 57(67.1%) of the study participants had normal vaginal delivery with episiotomy.

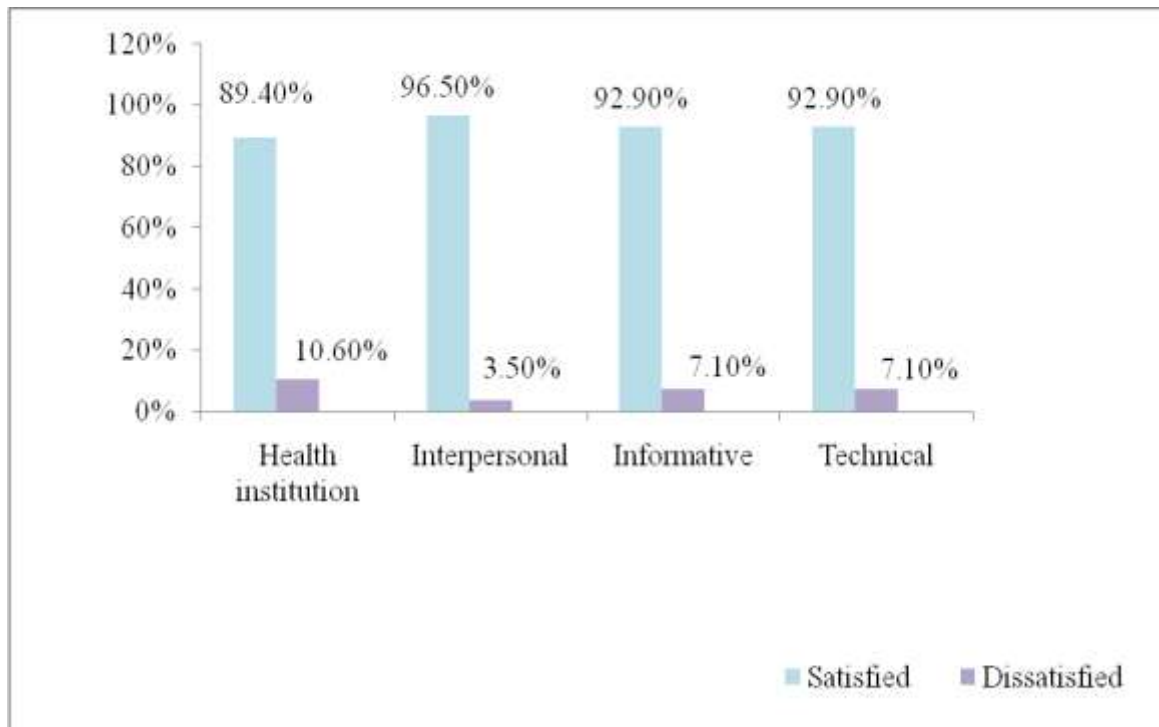


Figure 1: Bar diagram showing maternal satisfaction on all four dimensions

Figure 1 presents the maternal satisfaction on all the four dimensions. 89.40% of the study participants were satisfied on health institutional aspects, 96.50% were satisfied

on interpersonal aspects, 92.90% were satisfied on informative aspects and 92.90% were satisfied on technical aspects.

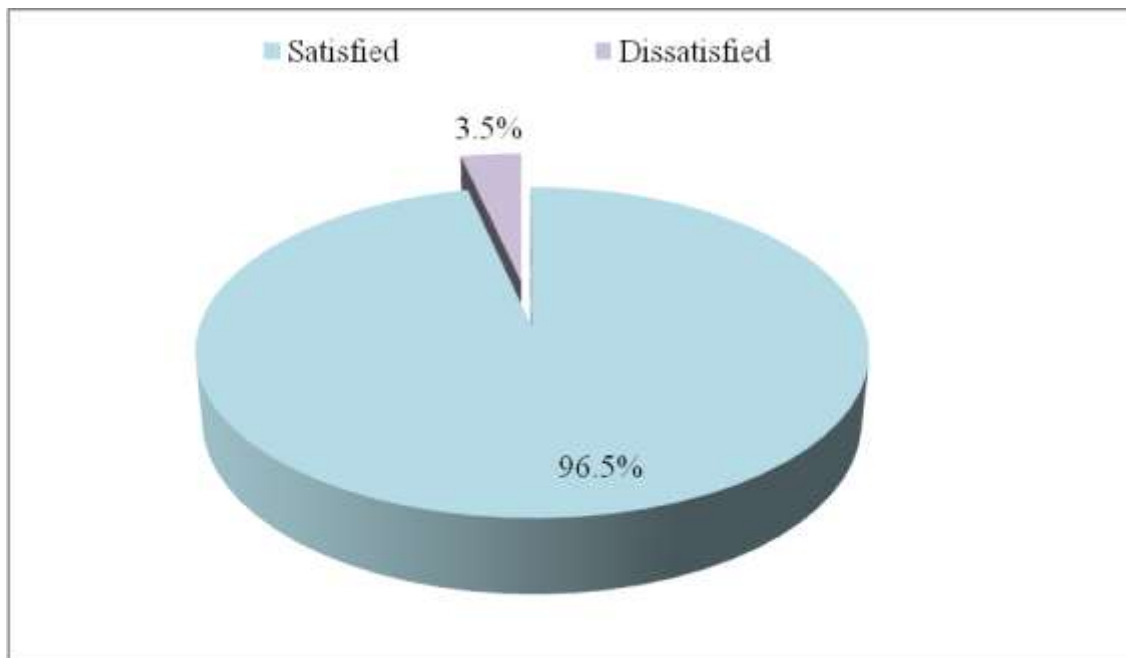


Figure 2: Pie diagram showing overall satisfaction.

Table 3: Association of socio demographic characteristics with maternal satisfaction.

Variables		Satisfied (%)	Dissatisfied (%)	Odds ratio and 95% C.I	P-value
1. Age group	<25	48(96)	2(4)	0.70(0.06-8.10)	0.77
	≥25	34(97.14)	1(2.85)		

2.Education	Literate	80(97.56)	2(2.43)	20(1.24-322.53)	0.03
	Illiterate	2(66.66)	1(33.33)		
3.Occupation	Homemaker	55(96.49)	2(3.50)	1.01(0.08-11.73)	0.98
	Others	27(96.42)	1(3.57)		
4.Religion	Hindu	73(97.33)	2(2.66)	4.05(0.33-49.32)	0.27
	Others	9(90)	1(10)		
5.Family	Nuclear	40(95.23)	2(4.76)	0.47(0.04-5.45)	0.55
	Joint	42(97.67)	1(2.32)		

Table 3 shows the association of socio-demographic characteristics with maternal satisfaction. Education of the study

participants had significant association with maternal satisfaction on delivery services ( $p=0.03$ ; OR: 20; C.I: 1.24-322.53).

**Table 4: Association of obstetric characteristics with maternal satisfaction.**

Variables		Satisfied (%)	Dissatisfied (%)	Odds ratio and 95% C. I	P-value
1.Parity:	Primi	49(98)	1(2)	2.96(0.25-34.09)	0.38
	Multi	33(94.28)	2(5.71)		
2.No. of ante-natal checkups	<4	4(80)	1(20)	0.10(0.007-1.38)	0.08
	$\geq 4$	78(97.50)	2(2.5)		
3.Delivery:	Vaginal	57(96.61)	2(3.38)	1.14(0.09-13.15)	0.91
	Caesarean	25(96.15)	1(3.84)		

Table 4 presents the association of obstetric characteristics with maternal satisfaction. No significant association was found between parity, number of ante-natal checkups, and mode of delivery with maternal satisfaction.

## DISCUSSION

Mothers' overall satisfaction with delivery services was reported to be 96.5% in this survey. However, a research conducted in Debre Markos Town, Northwest Ethiopia, by Bitew K et al. revealed that 81.7% of respondents were satisfied with the delivery service overall.<sup>[9]</sup> Panth A., Kafle P. M reported that 89.88% of mothers in mid-western Nepal were satisfied with the delivery services.<sup>[1]</sup> Shiferaw Z, Mahad A, Haile S. conducted a study in the Somali region of eastern Ethiopia and reported an overall maternal satisfaction rate of 76.60%.<sup>[10]</sup> Marimuthu J, Murugan AA. reported an overall maternal satisfaction rate of 85.5% for delivery services in Tamil Nadu.<sup>[11]</sup>

The study showed that 89.40% of the study participants were satisfied on health institutional aspects, 96.50% were satisfied on interpersonal aspects, 92.90% were satisfied on informative aspects and 92.90%

were satisfied on technical aspects. Misra S, Macwana J. in a community-based cross-sectional study of mothers who delivered at 24x7 PHCs in a district of western India, found that 89% of mothers were satisfied with staff behavior (interpersonal aspects) and 92% were satisfied with PHC cleanliness (institutional aspects).<sup>[12]</sup> Panth A , Kafle P. M. in mid-western Nepal found that satisfaction was highest for interpersonal and technical aspects of care (93.82%), compared with informative aspects (91.57%) and facility-related items (91.01%)<sup>[1]</sup> Tolesa F et al., in a study from South West Shewa Zone, Ethiopia, reported that 61% of mothers were satisfied with information about their examination results; 78.2% were satisfied with information on labor progress, and 64.6% were satisfied with information on personal hygiene<sup>[13]</sup> The study showed that education of the study participants had significant association with maternal satisfaction on delivery services ( $p=0.03$ ; OR: 20; C.I: 1.24-322.53). But no significant association was found between age, occupation, religion and type of family of the study participants with maternal satisfaction on delivery services. No significant association was found between parity, number of ante-natal

checkups, and mode of delivery with maternal satisfaction. However, Panth A., Kafle P. M in mid-western Nepal reported no statistically significant associations between socio-demographic or obstetrics characteristics and maternal satisfaction. Although not significant, illiterate post-natal mothers had higher odds of being satisfied compared with literate mothers (OR=2.71;95% C.I:0.34-21.40; p=0.475).<sup>[1]</sup>

## CONCLUSION

The study has provided useful insights on the satisfaction of mothers on delivery services.

Although most of the women were satisfied with the delivery services, there were certain gaps mostly in the institutional aspects. These findings highlight that clinical competence alone does not ensure positive client experience. To improve overall satisfaction and maternal outcomes, health systems should prioritize respectful maternity care and strengthen staff training. So, it is necessary to understand and assess women satisfaction with delivery services to bridge the gaps identified by the mothers which will support more woman-centered, acceptable, and equitable delivery services.

## Declaration by Authors

**Ethical Approval:** Approved

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**Conflict of Interest:** Nil

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