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Original Research Article

Assessment of satisfaction level among postnatal women delivered in a government hospital in urban Bengaluru: a cross-sectional study

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ABSTRACT

Background: Postnatal care (PNC) satisfaction has been defined as the level at which mothers' immediate postnatal health care needs are met, in regard to their expectations, giving them a sense of happiness and it is considered one of the desired outcomes of health care. To assess the level of satisfaction among postnatal women delivered in a Government Hospital in Urban Bengaluru by using a semi-structured interview-based questionnaire.

Method: It was an analytical cross-sectional study which was done among postnatal mothers who delivered in Government health facilities. The sample size estimated was 178.

Results: The mean age of the postnatal mothers was 27.75 (SD=4.4). Nearly 40% belong to the age category of 25-29 years. More than a third, had graduate degree whereas, only 14% were employed. Only 42% were satisfied overall in all the four domains of healthcare. The level of satisfaction was poor in informative aspects of healthcare (10.6%). The antenatal features like birth weight and early initiation of breastfeeding practices were significantly associated with level of satisfaction.

Conclusion: The level of satisfaction was higher in interpersonal and technical aspects of care than in informative aspects and health facility-related statements. The higher the education level, the lower the level of maternal satisfaction, and multiparous are more likely to be satisfied with delivery service than primiparous.

Keywords: Birth Satisfaction, Maternal health, Maternal care, Postnatal satisfaction, Healthcare facility satisfaction

INTRODUCTION

Quality of care is the degree to which maternal health services for individuals and populations increase the likelihood of timely and appropriate treatment for the purpose of achieving desired outcomes. The use of services and outcomes are the result not only of the provision of care but also of women's experience of that care. The quality of care received by mothers and babies in developing countries is often reported as poor. Client satisfaction is an important indicator for assessment of the quality of care provided.

Studies show that women who are satisfied with childbirth services tend to have better self-esteem and confidence, are faster in establishing a maternal—neonatal bond, and are more likely to breastfeed compared with women who are

dissatisfied.³ Women who are dissatisfied with their childbirth experiences are more prone to develop a fear of childbirth and postnatal depressive symptoms, and to face difficulties in breastfeeding and in performing baby and self-care.^{4,5}

Despite being a physiological response, labor pain adversely affects the psychological well-being of labouring mothers, often leading to negative maternal satisfaction. A positive experience in childbirth is important to the woman, infant's health and well-being, and mother-infant relationship. Furthermore, it is useful for the care providers to guarantee the best preparation, health service, and sup- port to childbearing women. It is essential to ensure that the healthcare institutions do their best to create the optimal delivery conditions and ensure the mother and her child's safety. Strategies need to

improve the quality of maternity services to meet patients' expectations. Regular consulting with patients in maternity wards allows health professionals to access the information regarding matters which satisfy patients, what causes their dissatisfaction, and what they expect from the institution. ¹⁰

Women's satisfaction is a concept that is of particular importance in today's health care. This satisfaction is an essential aspect and depends on the care received by the mother. It has been observed that satisfied clients compared to unsatisfied clients have different responses to the care services received. Satisfied clients adapt to the recommendations and follow them, and often invite other people to use these services. 11,12 Therefore, understanding mothers' level of satisfaction with their childbirth experience is relevant to health care providers, administrators, and policymakers as an indicator of the quality of maternity care

Objectives

General objective

To assess the level of satisfaction among postnatal women delivered in a Government Hospital in Urban Bengaluru by using a semi-structured interview-based questionnaire

Specific objectives

Among postnatal women delivered in a Government Hospital in Urban Bengaluru, to determine the sociodemographic characteristics. To determine the factors associated with the level of satisfaction.

METHODS

Study design

This study was descriptive study.

Study place

This study was conducted in a selected urban area in Bengaluru.

Study population

This study was conducted among postnatal women delivered in a government hospital.

Study type

This was a cross-sectional study.

Data collection

Data was collected through face-to-face interview technique and the Permission was taken from the hospital

authority with the submission of request letter. Each respondent was briefed with the research objectives and informed written consent was obtained from the participants to ensure the right of the participant. Confidentiality was maintained throughout the study. Participants were given liberty to discontinue participating in the study if they wish. The participants were assured that the names will not be disclosed in the report and the information will be used for the study only. Precaution was taken throughout the study in every step to safeguard the right and welfare of all mothers in the study.

Study period

This study was conducted from 15th June 2024 to 16th August 2024 for a period of 3 months

Sample size

A study conducted from a nationally representative facility-based survey across 13 districts in Nepal entitled "Women's Satisfaction of Maternity Care in Nepal and Its Correlation with Intended Future Utilization" showed prevalence of maternal satisfaction as 77%. ¹³ The sample size was calculated by using Cochran's formula. ¹⁴

$$n_o = (Z^2 pq)/l^2$$

W ith the desired precision of 5% (95% confidence limits at an allowable error of 5%), where no= desired sample size; Z =the standard normal deviate (set for a 95% CI) = 1.96;p = theprevalence of maternal satisfaction = 0.77; q = 1 - p = 1 - 0.77 = 0.23; level of significance (α) = 5%; absolute allowable error (1) = 0.05; and no = (1.96)2*(0.77)*0.23/(0.05)2 = 270.65 = 271. For finite population, the sample size can be adjusted by using the following formula (N=450 (record of hospital)): n=no/(1+(no-1)/N)=169.37. To reduce nonresponse rate, additional 5% was taken, so 169.37 + 5% of 169.37 = 8.47. The final sample size was 177.82 = 178.

Mode of sample selection

The nonprobability purposive sampling technique was used.

Pre-testing and validation of the questionnaire by the supervisor

The content validity of the test instrument was established by extensive literature review, consulting with advisors, subject matter experts, and nursing research faculty, as well as by peer review.

First of all, the instrument was developed in English language then will be translated into Kannada language and retranslated into English version to retain the same meaning. Opinion from the language expert was obtained for comprehensibility and simplicity of language during translation and back translation.

Cronbach's alpha was used for reliability analysis for satisfaction level. Result of Cronbach's alpha was 0.825 for overall satisfaction taking all statements.

Pretesting of the instrument was done in 10% of mothers admitted in maternity unit of a tertiary hospital for clarity and comprehensibility of the tool. Those pretested mothers were excluded from the study. On the basis of pretesting, the instrument was revised and finalized for use in data collection.

Data tools

The research instrument included the following parts.

Part 1 consists of questionnaires related to sociodemographic characteristics of mothers. Part 2 consists of obstetric characteristics of mothers. Part 3 consists of five-point Likert scale to access maternal satisfaction on delivery. There will be four domains of care, that is, health facility-related statements (6 statements), interpersonal aspects of care (11 statements), informative aspects of care (10 statements), and technical aspects of care (9 statements).

Score 5 was given for very satisfied, 4 for satisfied, 3 for neither satisfied nor dissatisfied, 2 for dissatisfied, 1 for very dissatisfied. Likewise, mean score less than or equal to 3 was considered as dissatisfied, whereas mean score greater than 3 will be considered as satisfied. In other words, total score less than or equal to 108 was considered dissatisfied and above 108 was considered satisfied. Part 4 consists of questionnaires related to mother's acceptance of service.

Data analysis

Data was analyzed on the basis of research objectives and research questions. After collecting data, data will be checked for accuracy, completeness, and consistency. The collected information was edited, coded, and entered in excel and afterwards transferred to SPSS version 23 for further analysis. Analysis and interpretation of the findings was done with the help of descriptive statistics (frequency, percentage, mean, range, and standard deviation). In inferential statistics as Pearson's chi-square, Fisher's exact tests were used to test the association between the dependent and independent variables, and values ≤ 0.05 was taken for statistical significance at 95% confidence interval. Odds ratio computed to find out the strength of association.

Compliance with ethical standards

Ethical clearance was taken from the Institute and participants were informed about the research. Informed consent form was filled and signed for participants. No potential conflicts of interest. IEC Reference number is No.532/L/11/12 Ethics/ESICMC&PGIMSR/Estt.Vol IV/147-B/2024. Date 30.11.2024

RESULTS

The mean age of the postnatal mothers was 27.5 years, with nearly 40% belong to the age group between 25-29 years. Nearly 90% belongs to Hindu religion. Almost 33% of the mothers were graduate, whereas only 1.7% had no formal education. Majority (86%) were homemakers during the time of interview with more than half belong to upper middle-class family. The mean per capita income of the family was Rs.9783.

Table 2 shows the antental and intranatal characteristics of the study participants. More than half of the mothers were multiparous and nearly 97% had 4 or more ANC visits during the previous pregnancy. Only 3.3% experienced maternal complication during the pregnancy and most common complication was anemia, oligohydramnios and postpartum haemorrhage. Nearly half of the participants had normal vaginal delivery and 86.7% of the baby weighed more than 2.5 kg.

Almost half of the participants responded positively towards the health institution facilities. The median score was 14. Among the disagreement, the common problem was in providing transport facilities followed by offering service free of cost (Table 4, supplementary). Statements regarding the inter-personal care in the health facility. Most of the participants responded "agree" to the statements. The median score was 22. Nearly 7% felt they didn't receive warm welcome on admission. Statements related to providing informative aspects of care. Nearly two-thirds of the participants responded "agree" to the statements. The most common agreement was found in providing as much as information as desired. However, only 33% agreed to the advice about danger signs and information regarding postnatal follow-up. Similarly, 5% had strong disagreement over providing critical information about breastfeeding, immunization, danger signs and postnatal follow-up.

Statements related to technical aspects of care. The median score was 16.5. Nearly two-thirds to half of the participants responded "agree" to the statements. Nearly half agreed with the hospital providing non-pharmacological methods of pain relief. Almost 4% felt that fetal heart rate and blood pressure were not monitored regularly during the time in antenatal ward and in labour. Table 3 shows the sociodemographic characteristics like age, socio-economic class and religion were significantly associated with the level of satisfaction.

The antenatal features like birth weight and early initiation of breastfeeding practices were significantly associated with level of satisfaction. Table 4 shows that, on applying multivariate analysis of those factors which were significantly associated with satisfaction level in univariate analysis, age <30 years, Hindu religion and mothers who have initiated breastfeeding within 30 minutes were found as most important significant predictor of good satisfaction level.

Table 1: Socio-demographic characteristics of the postnatal mothers.

Variable	Frequency, N	%		
Age (in years)	Mean=27.52 SD=4.4			
< 20	6	3.3		
21-24	40	22.2		
25-29	76	42.2		
30-34	46	25.6		
> 35	12	6.7		
Religion				
Hindu	161	89.4		
Muslim	16	8.9		
Christian	2	1.1		
Others	1	0.6		
Education				
Primary (Class 1-V)	2	1.1		
Upper primary (Class VI-VIII)	14	7.8		
Secondary (Class IX-X)	59	32.8		
Higher secondary (Class XI-XII	42	23.3		
Graduate	60	33.3		
No formal education	3	1.7		
Occupation				
Homemaker	155	86.1		
Working	25	13.9		
Socio-economic status (Modified BG Prasad Scale, 2024)				
Upper class	38	21.1		
Upper middle	105	58.3		
Middle	26	14.4		
Lower middle	10	5.6		
Lower	1	0.6		

Table 2: Antenatal characteristics of the study participants.

Variable	Frequency, N	%		
Antenatal and natal characteristics				
Living child				
One child	76	42.2		
> 2 children	104	57.8		
ANC visits				
4 visits	176	97.8		
< 4 visits	4	2.2		
Maternal complication during pregnancy				
Yes	6	3.3		
No	174	96.7		
If yes, specify maternal complication (n= 6)				
Anemia	2	33.3		
Oligohydramnios	2	33.3		
PPH	2	33.3		
Surgical site infections	1	16.6		
Place of delivery	Place of delivery			
Government hospital	145	80.6		
Private hospital	35	19.4		
Mode of delivery				
Vaginal delivery	97	53.9		
LSCS	83	46.1		
Characteristics of newborn	Characteristics of newborn			

Continued.

Variable	Frequency, N	%			
Gender					
Male	108	60			
Female	72	40			
Birth weight					
< 2.5 kg	24	13.3			
> 2.5 kg	156	86.7			
Initiation of breastfeeding (in hours)	Initiation of breastfeeding (in hours)				
< 0.5	88	48.9			
0.5- 2	71	39.4			
> 2	21	11.7			
NICU admission					
Yes	21	11.7			
No	159	88.3			

Table 3: Association between socio-demographic, obstetric characteristics of postnatal mothers and maternal satisfaction.

20	Variable	Satisfied (Score 70-180)	Not satisfied (Score <70)	P value	
20	Socio-demographic chara	acteristics			
21-24 9 (22.5) 31 (77.5) 25-29 26 (34.2) 50 (65.8) 0.001 30-34 29 (63.0) 17 (37.0) ≥ 35 8 (66.7) 4 (33.3) Education Primary 1 (50.0) 1 (50.0) Upper primary 3 (21.4) 11 (78.6) Secondary 28 (47.5) 31 (52.5) Senior secondary 18 (42.9) 24 (57.1) Graduate 23 (38.3) 37 (61.7) No formal education 3 (100.0) 0 Occupation Homemaker 63 (40.6) 92 (59.4) 0.286 Working women 13 (52.0) 12 (48.0) Upper class 9 (23.7) 29 (76.3) Upper middle 47 (44.8) 58 (55.2) Upper middle 8 (80.0) 2 (20.0) Lower middle 8 (80.0) 2 (20.0) Lower middle 8 (80.0) 3 (20.0) Religion Hindu 74 (46.0) 87 (54.0) Muslim 2 (12.5) 14 (87.5) 0.011 Christian and others 0 (0.0) 3 (100.0) Antenatal and natal characteristics Living child One child 30 (39.5) 46 (60.5) 2 2 children 46 (44.2) 58 (55.8) ANC visits (4 visits 0 (0.0) 4 (100.0) 24 visits 76 (43.2) 100 (56.8) Place of delivery Government hospital 65 (44.8) 80 (55.2) 0.15	Age (in years)				
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Lower 0 1 (100.0) Religion Hindu 74 (46.0) 87 (54.0) Muslim 2 (12.5) 14 (87.5) 0.011 Christian and others 0 (0.0) 3 (100.0) Antenatal and natal characteristics Living child One child 30 (39.5) 46 (60.5) 0.523 ANC visits 46×100.0 4×100.0 $2 $	Middle class	12 (46.2)	14 (53.8)	0.006	
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Antenatal and natal characteristics Living child One child $30 (39.5)$ $46 (60.5)$ 0.523 2 children $46 (44.2)$ $58 (55.8)$ ANC visits 4 visits $0 (0.0)$ $4 (100.0)$ 0.084 Place of delivery Government hospital $65 (44.8)$ $80 (55.2)$	Muslim	2 (12.5)	14 (87.5)	0.011	
Living child 30 (39.5) 46 (60.5) 0.523 ≥ 2 children 46 (44.2) 58 (55.8) 0.523 ANC visits 4 (100.0) 4 (100.0) 0.084 ≥ 4 visits 76 (43.2) 100 (56.8) 0.084 Place of delivery Government hospital 65 (44.8) 80 (55.2) 0.15	Christian and others	0 (0.0)	3 (100.0)		
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$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	One child			0.523	
$< 4 \text{ visits}$ 0 (0.0) 4 (100.0) $\geq 4 \text{ visits}$ 76 (43.2) 100 (56.8) Place of delivery Government hospital 65 (44.8) 80 (55.2)	≥ 2 children	46 (44.2)	58 (55.8)		
\geq 4 visits 76 (43.2) 100 (56.8) 0.084 Place of delivery Government hospital 65 (44.8) 80 (55.2) 0.15	ANC visits				
\geq 4 visits 76 (43.2) 100 (56.8) Place of delivery Government hospital 65 (44.8) 80 (55.2)	< 4 visits	` '		0.084	
Government hospital 65 (44.8) 80 (55.2)	≥ 4 visits	76 (43.2)	100 (56.8)		
	Place of delivery				
Private hospital 11 (31.4) 24 (68.6)	Government hospital	65 (44.8)	80 (55.2)	0.15	
	Private hospital	11 (31.4)	24 (68.6)		

Continued.

Variable	Satisfied (Score 70-180)	Not satisfied (Score <70)	P value	
Mode of delivery				
Vaginal delivery	40 (41.2)	57 (58.8)	0.772	
LSCS	36 (43.4)	47 (56.6)	0.112	
Maternal complications duri	ng pregnancy			
Yes	4 (66.7)	2 (33.3)	0.403	
No	72 (41.4)	102 (58.6)	0.403	
Characteristics of newborn				
Gender				
Male	43 (39.8)	65 (60.2)	0.423	
Female	33 (45.8)	39 (54.2)		
Birth weight				
< 2.5 kg	16 (66.7)	8 (33.3)	0.009	
\geq 2.5 kg	60 (38.5)	96 (61.5)		
Initiation of breastfeeding (in	n hours)			
< 0.5 hours	27 (30.7)	61 (69.3)	0.003	
0.5- 2 hours	35 (49.3)	36 (50.7)		
> 2 hours	14 (66.7)	7 (33.3)	•	
NICU admission				
Yes	6 (28.6)	15 (71.4)	0.178	
No	70 (44.0)	89 (56.0)		

Table 4: Regression analysis for factors associated with level of satisfaction.

Variables	P value	Odd's Ratio	95% Confidence Interval	
variables		Ouu s Kano	Lower	Upper
Age <30 years	0.001	3.350	1.634	6.869
Upper social class	0.136	1.854	0.824	4.173
Hindu	0.001	0.070	0.014	0.343
Birth weight $\geq 2.5 \text{ kg}$	0.027	3.194	1.140	8.968
Breastfeeding < 30 minutes	0.001	0.920	1.597	6.386

DISCUSSION

Regarding statements related to health institution, only 32% were satisfied by the services offered at the health facility and transport facilities available in the Government health facility. Also, mean satisfaction score was lowest for cleanliness of the toilet. This was inconsistent with the study conducted at Paropakar Maternity Hospital of Nepal showed that almost all (98.5%) of the respondents were satisfied with the free-of-cost service and transportation allowance (99.3%) and 78.2% were satisfied with general cleanliness of the facility. About 72.46% of the respondents were satisfied with the drug availability. Higher percentages were not satisfied with hospital environment (sanitation).¹⁵ The study highlighted the significant association between age, socio-economic class and level of satisfaction. This was consistent with the observation made in the study in Kolkata, India.¹⁶

Interpersonal behavior has been identified as a very important determinant of maternal satisfaction. If the nurse midwives or staff in the public health facilities speaks politely to the mothers and greets them, they are more

comfortable at the facilities. This is similar to other studies which showed the three components including the structure, process and outcome had an impact on the maternal satisfaction.¹⁷ Nearly 40% were found to be satisfied overall which is comparable to the studies reported in Kenya (54%) and Ethiopia (45%). When compared to the four domains, satisfaction related to healthcare institution were comparatively higher. Additionally, the findings of the present study revealed that study participants encountered challenges such as unprofessional conduct of skilled staff, poor facilities, and an inadequate number of skilled staff. These challenges could explain the reason why some of the study participants (20.2%) were not satisfied with the quality of childbirth services they received at the facility. The conduct of healthcare professionals has been found to maternal influence satisfaction with childbirth services. 19,20

In this study, there is statistically significant association between certain socio-demographic characteristics like age of the mother, socio-economic class, religion and maternal satisfaction. Also, there is statistically significant association between birth weight, breastfeeding initiation and maternal satisfaction. In contrast to this study, the study done in Oromia showed that there is positive and significant association between ANC follow-up, wanted (planned status of pregnancy), maternal and fetal outcome, and maternal satisfaction.²¹ Although insignificant, those postnatal mothers who were multiparous were more likely to be satisfied with delivery service than primiparous. This finding is consistent with the study done in Lebanon that showed multiparous women were slightly more satisfied than primiparous.²²

On comparing the satisfaction between vaginal delivery and caesarean delivery, the satisfaction was slightly higher in the latter. This may be due to the episiotomy wound, poor perineal care, postpartum haemorrhage. This finding is consistent with the finding observed in other studies. ²³⁻²⁵

Strength of the study

This study was done at the community by visiting the home of the postnatal mothers. The satisfaction scale was measured by using likert scale. This study specifically included mothers who delivered in a Government health facility, to understand the level of quality being offered in providing maternal and child healthcare services. The questionnaire included various domains in assessing the level of satisfaction like health institution, inter-personal care, informative aspects and technical aspects of healthcare.

Limitations

Since this is a cross-sectional study, the causal relationship cannot be ascertained. There may be chance of social desirability bias which may be responsible for majority of the participants answered "agree" to most of the questions. Moreover, as the study participants consisted of mothers delivering at a government hospital in Bengaluru, generalizing the findings to other mothers at large presents a challenge. Therefore, future research endeavours should incorporate more meticulous designs, considering factors such as participants' residency and hospital characteristics, to facilitate profound analysis.

CONCLUSION

On the basis of study findings, it is concluded that majority of the postnatal mothers are satisfied with the delivery service. The level of satisfaction was higher in interpersonal and technical aspects of care than in informative aspects and health facility-related statements.

The higher the education level, the lower the level of maternal satisfaction, and multiparous are more likely to be satisfied with delivery service than primiparous. Most of the postnatal mothers would like to receive delivery service next time in the same hospital. More than two-thirds of the postnatal mothers chose the hospital due to convenience. Although the majority of postnatal mothers

are satisfied by the delivery service, lack of satisfaction by a minority of postnatal mothers may result in a limited ability to engage in health facility, which further contributes to maternal mortality.

Recommendations

Quality and respectful maternal healthcare is critical in making health services more responsive to the mothers's need. There is need for more research into maternal satisfaction in developing countries, where safe deliveries remain a major problem and barriers to utilization of institutional deliveries pose a major challenge for healthcare programs. Further research into maternal satisfaction could be made more policy-relevant by assessing the relative strength of various determinants in influencing maternal satisfaction; this could help in prioritizing appropriate corrective interventions for improved quality of care. Given the complex web of factors that influence maternal satisfaction, it is clear that a multifaceted mother-centered strategy is essential for healthcare organizations seeking to improve the quality of their services.

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REFERENCES

- 1. Van Den Broek NR, Graham WJ. Quality of care for maternal and newborn health: the neglected agenda. BJOG. 2009;116(1):18–21.
- 2. Ahmar E Al, Tarraf S, Ahmar E Al, Tarraf S. Assessment of the socio-demographic factors associated with the satisfaction related to the childbirth experience. Open J Obstet Gynecol. 2014;4(10):585–611.
- 3. Leap N, Sandall J, Buckland S, Huber U. Journey to confidence: women's experiences of pain in labour and relational continuity of care. J Midwifery Womens Health. 2024;55(3):234–42.
- 4. Mohammad KI, Alafi KK, Mohammad AI, Gamble J, Creedy D. Jordanian women's dissatisfaction with childbirth care. Int Nurs Rev. 2014;61(2):278–84.
- Gebregziabher NK, Netsereab TB, Fessaha YG, Alaza FA, Ghebrehiwet NK, Sium AH. Prevalence and associated factors of postpartum depression among postpartum mothers in central region, Eritrea: a health facility-based survey. BMC Public Health. 2020;20(1):90801
- 6. Leap N, Hunter B. Supporting women for labour and birth: a thoughtful guide. Routledge. 2022.
- 7. Parratt J. Feeling like a Genius: Enhancing Women's Changing Embodied Self during First Childbearing. University of Newcastle. 2010.
- 8. Logsdon K, Smith-Morris C. An ethnography on perceptions of pain in Dutch "Natural" childbirth. Midwifery. 2017;55:67–74.

- 9. Nilvér H, Begley C, Berg M. Measuring women's childbirth experiences: a systematic review for identification and analysis of validated instruments. BMC Pregnancy Childbirth. 2017;17(1):49270.
- Yigzaw T, Abebe F, Belay L, Assaye Y, Misganaw E, Kidane A, et al. Quality of Midwife-provided Intrapartum Care in Amhara Regional State, Ethiopia. BMC Pregnancy Childbirth. 2017;17(1):67.
- 11. Changee F, Irajpour A, Simbar M, Akbari S. Client satisfaction of maternity care in Lorestan province Iran. Iran J Nurs Midwifery Res. 2015;20(3):398.
- 12. Alsaqri S. Patient Satisfaction with Quality of Nursing Care at Governmental Hospitals, Ha'il City, Saudi Arabia. J Biol Agric Healthc. 2016;6(10):128–42.
- 13. Paudel YR, Mehata S, Paudel D, Dariang M, Aryal KK, Poudel P, et al. Women's satisfaction of maternity care in Nepal and its correlation with intended future utilization. Int J Reprod Med. 2015;2:1–9.
- 14. Cochrane WG. Sampling Techniques. USA: John Wiley & Sons, Ltd. 2007.
- 15. Shrestha B, Paneru DP, Shrestha N, Dhimal B. Client's Satisfaction on Maternity Services at Paropakar Maternity and Women's Hospital, Kathmandu. J Heal Allied Sci. 2010;1(1):56–9.
- 16. Koppad SR, Walvekar RP, Mallapur DM. A study on satisfaction of pregnant mothers with antenatal care services and associated socio-demographic determinants in a tertiary care hospital, Kolkata, West Bengal. Natl J Community Med. 2020;11(01):41–4.
- 17. Pricilla R, David K, Siva R, Vimala TC, Rahman SPF, Sankarapandian V. Satisfaction of antenatal mothers with the care provided by nurse-midwives in an urban secondary care unit. J Fam Med Prim care. 2016;5(2):420.
- 18. Bulto GA, Demissie DB, Tasu TL, Demisse GA. Mother's satisfaction with the existing labor and delivery care services at public health facilities in West Shewa zone, Oromia region, Ethiopia. BMC Pregnancy Childbirth. 2024;20(1):6095.

- 19. Bellows B, Kyobutungi C, Mutua MK, Warren C, Ezeh A. Increase in facility-based deliveries associated with a maternal health voucher programme in informal settlements in Nairobi, Kenya. Health Policy Plan. 2013;28(2):134–42.
- 20. Amu H, Nyarko SH. Satisfaction with Maternal Healthcare Services in the Ketu South Municipality, Ghana: A Qualitative Case Study. Biomed Res Int. 2019;6:3496.
- 21. Amdemichael R, Tafa M, Fekadu H. Maternal Satisfaction with the Delivery Services in Assela Hospital, Arsi Zone, Oromia Region. Gynecol Obs. 2014:2:57-9.
- 22. Ahmar E Al, Tarraf S, Ahmar E Al, Tarraf S. Assessment of the socio-demographic factors associated with the satisfaction related to the childbirth experience. Open J Obstet Gynecol. 2014;4(10):585–611.
- 23. Rosenthal GE, Shannon SE. The use of patient perceptions in the evaluation of health-care delivery systems. Med Care. 2024;35(11):87.
- 24. Jha P, Larsson M, Christensson K, Svanberg AS. Satisfaction with childbirth services provided in public health facilities: results from a cross-sectional survey among postnatal women in Chhattisgarh, India. Glob Health Action. 2017;10(1):1659.
- 25. Jha P, Larsson M, Christensson K, Svanberg AS. Fear of childbirth and depressive symptoms among postnatal women: A cross-sectional survey from Chhattisgarh, India. Women Birth. 2018;31(2):122–33.

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