Available online at www.medicinescience.org

ORIGINAL RESEARCH

Medicine Science 2017;6(3):471-75

Medicine Science International Medical Journal

Maternal satisfaction regarding perinatal care and ınfluencing factors in tertiary hospitals of western, Nepal

Sadiksha Regmi[1], Hari Prasad Kaphle[1], Neena Gupta[2]

[1]School of Health and Allied Sciences, Pokhara University, Lekhnath-12, Kaski, Nepal
[2]Sam Higginbottom Institute of Agriculture Technologty and Sciences, Allahabad, India

Received 12 December 2016; Accepted 13 February 2017
Available online 28.02.2017 with doi: 10.5455/medscience.2017.06.8595

Abstract
Satisfaction has been widely recognized as an important indicator to evaluate health care quality and to provide patient centered care. The study was carried out to assess satisfaction level from a hospital based perinatal care. A descriptive cross sectional study was carried out among 428 postnatal women in two tertiary hospitals of western Nepal via structured interview schedule. Maternal satisfaction was measured by 25 item scale. Overall 45.1% of mothers were satisfied with the perinatal care. The level of satisfaction in public hospital (mean 3.44±0.65 out of 5) was greater as compared to private hospital (mean 3.27±0.59 out of 5). The satisfaction score was lower in the physical environment (mean 3.01±0.87 out of 5) and highest in privacy maintained (mean 4.37±0.92 out of 5). Determinants of satisfaction were type of hospital, religion, education, parity, number of living children, mode of delivery, gestational age at birth, maternal condition after delivery, newborn health condition, and duration of stay at the hospital and the gender of the provider ($p<0.05$). Majority of the respondents were unsatisfied from the services. Satisfaction score in a public hospital was higher as compared to private hospitals.

Keywords: Maternal satisfaction, perinatal care, tertiary hospitals

Introduction

Perinatal period refers to the period starting at 28 completed weeks of gestation and lasting through seven days after birth [1]. The health care services that a woman receives during this period are important for the survival and well being of both the mother and child. Assessing satisfaction with maternity services is a crucial aspect to inform health practice [2]. It has been widely recognized as an important indicator to evaluate health care quality and to provide patient centered care. The extent to which health care users are satisfied with their providers can be useful to predict the utilization pattern of service [3]. Satisfied woman is more likely to follow the health provider's suggestion so; WHO emphasized ensuring patient satisfaction as a means of secondary prevention of maternal mortality [4]. The purpose of appraising patient satisfaction is two-fold: first is to understand patient experiences and response to health care; second is to measure the quality of care received and identifies problem areas [5].

Government of Nepal is promoting institutional delivery with the expectation that if a complication arises during delivery in a health facility, a skilled attendant can manage the complication or refer the mother to next level of care [6]. Giving birth in a health facility does not necessarily equate with high-quality care or fewer maternal deaths [7]. The aim of this study was to assess maternal satisfaction level regarding perinatal care and influencing factors in tertiary care hospitals of western, Nepal.

***Coresponding Author:** Hari Prasad Kaphle, School of Health and Allied Sciences, Pokhara University, Lekhnath-12, Kaski, Nepal
E-mail: harikafle07@gmail.com

Methodology

An analytical cross-sectional study was carried out on tertiary hospitals of western Nepal in between July to December 2014. A sample size of 428 was determined based on the 50% prevalence rate at 95% confidence interval with 10% non response rate. Two hospitals one public and one private (Western Regional Hospital and Manipal Medical College Teaching Hospital) were selected for the study. A woman with any mode of delivery (normal, Normal with episiotomy, instrumental and Cesarean Section) with minimum 24 hour stay in hospital was determined as a sample for study. Required number of respondents from each hospital was determined proportionately based on the average number of deliveries per month of last fiscal year preceding survey. The interview was conducted at the bed side of postnatal ward. To obtain probability sampling, systematic random sampling method was applied by interviewing every alternative woman in the ward. Pre-tested interview schedule was used to gather information. Satisfaction was measured by a 25-item instrument, which reported a high internal consistency (Cronbach's $\alpha = 0.910$) during

pretesting. The responses were recorded using a 5-point Likert scale: 5-fully satisfied, 4-somewhat satisfied, 3-neither satisfied nor dissatisfied, 2-somewhat dissatisfied and 1-fully dissatisfied. The score of 4 and 5 was categorized as satisfied and a score of 1, 2 and 3 was categorized as unsatisfied for the determination of satisfied and unsatisfied proportion. Descriptive statistics were reported as percentage and frequencies. In addition, the mean satisfaction score for each and every component of perinatal care as well as overall satisfaction score were reported out of 5. Chi square test was applied to find out the association between dependent and independent variables and odd ratio was reported to show the strength of association. The study was carried out after receiving approval from Public Health Program, School of Health and Allied Sciences, Pokhara University. Written approval for conducting the study was taken from administration of selected hospitals. Informed written consent was taken from each respondent and the confidentiality of the received information was maintained.

Results

Socio-demographic characteristics: Out of 428 women, about two-third of these women (65.4%) were within the age group 20-29 with mean age 24.36 ±4.75 years. Near about half of these women (48.8%) were from upper caste. Nearly all of these women (96.5%) were Hindus. Very few of them (3.7%) were illiterate. Majority of these women (58.4%) were from rural areas. Most of them (86.0%) were involved in household activates. (Table 1)

Table 1. Socio-demographic characteristics (n=428)

Variables	Frequency (n)	Percentage (%)
Age in group		
< 20 yrs	98	22.9
20-29 yrs	280	65.4
≥30 yrs	50	11.7
Mean age 24.36±4.75		
Ethnicity		
Dalit	80	18.7
Religious minorities	4	0.9
Disadvantage Janajati	14	3.3
Disadvantage Terai caste	4	0.9
Advantage Janajati	117	27.3
Upper caste	209	48.8
Religion		
Hindus	413	96.5
Buddhist	8	1.9
Christian	5	1.2
Muslim	2	0.5
Educational status		
Illiterate	16	3.7
Primary	56	13.1
Secondary	195	45.6
Higher secondary	98	23.1
Undergraduate & above	60	14.1
Residence		
Rural	250	58.4
Urban	178	41.6
Employment status		
Work at home	368	86.0
Business/ job all types	60	14.0

Obstetric characteristics: out of 428 women, more than half of these women (55.4%) were primiparous with single child (58.6%) and male baby (55.4%). Most of them (95.6%) were reported that their most recent pregnancy as planned. Nearly all of them (97%) had completed four times ANC check up as national protocol. About two-third of the deliveries were normal. Eight-in every-ten women (80.8%) delivered full term baby. Out of 418 live delivered babies; most of them were (91.1%) in normal health condition. Four-out of -ten (43.7%) of these women were stayed 24-48 hours at the hospital. Three-fourth of the delivery service providers (76.9%) for these women were females. (Table 2)

Table 2. Obstetric characteristics (n=428)

Variables	Frequency (n)	Percentage (%)
Parity		
Primiparous	237	55.4
Multiparous	191	44.6
Number of children		
1 living child	251	58.6
≥2 living child	177	41.4
Gender of new born baby		
Male	237	55.4
Female	191	44.6
Pregnancy status		
Planned	409	95.6
Unplanned	19	4.4
Completed 4 times ANC		
Yes	415	97.0
No	13	3.0
Mode of delivery		
Normal delivery	45	10.5
Normal with episiotomy	240	56.1
Vacuum delivery	2	0.5
Cesarean Section	141	32.9
Gestational age at birth		
Pre-term	18	4.2
Full term	365	85.3
Post-term	45	10.5
Maternal condition after delivery		
Normal	399	93.2
Complicated	29	6.8
Fetal outcome		
Live birth	418	97.7
Stillbirth	10	2.3
Newborn condition (n= 418)		
Normal	381	91.1
Complicated	37	8.85
Duration of labor pain		
<12 hours	324	75.7%
≥ hours	104	25.3%
Duration of stay in hospital		
24-48 hrs	187	43.7
48-72 hrs	60	14.0
>72 hrs	181	42.3
Gender of delivery provider		
Male	99	23.1
Female	329	76.9

Comparison of Maternal satisfaction between public and private hospital: Among the eight components of satisfaction; mean satisfaction score was higher in six components in public hospital (pain relief-3.50 out of 5, privacy-4.40 out of 5, participation and decision making-

3.84 out of 5, the time given by a health care provider-3.72 out of 5, outcomes of care-4.05 out of 5 and financial aspect -4.02 out of 5) and in only one components in private hospital (physical environment -3.11 out of 5. On the whole, more satisfaction was reported in public hospital (3.44 out of 5) as compared to private hospital (3.27 out of 5). (Table 3)

Association of different variables with maternal satisfaction: Out twenty four selected variables; eleven variables were observed significantly associated with maternal satisfaction regarding perinatal care ($p<0.05$) (Table 4).

Table 3. Mean satisfaction score between public and private hospitals (n=428)

Components	Mean satisfaction score (SD) out of 5			Mean difference
	Public	Private	Total	
Physical environment	2.98 (0.89)	3.11 (0.79)	3.01 (0.87)	-0.13
Pain relief procedure	3.50 (0.90)	3.38 (0.77)	3.46 (0.87)	0.12
Interpersonal aspects of care	3.78 (0.95)	3.78 (0.87)	3.78 (0.93)	0.0
Privacy maintained	4.40 (0.93)	4.30 (0.87)	4.37 (0.92)	0.1
Participation and decision making	3.84 (0.92)	3.69 (0.73)	3.80 (0.88)	0.15
Time provided by provider	3.72 (1.11)	3.63 (0.81)	3.70 (1.03)	0.09
Outcome of care	4.05 (0.92)	3.68 (0.92)	3.95 (0.94)	0.37
Financial aspect of care	4.02 (0.90)	3.44 (0.87)	3.86 (0.93)	0.58
Total mean score	3.44 (0.65)	3.27 (0.59)	3.39 (0.64)	0.17

Table 4. Association of socio-demographic variables with maternal satisfaction (n=428)

Variables	Satisfied 193 (45.1%)	Unsatisfied 235(54.9%)	$\chi 2$	p- value	OR	95% CI
Type of hospital						
Public	154 (49.7)	156 (50.3)	9.543	0.002*	2.000	(1.283-3.116)
Private	39 (33.1)	79 (66.9)				
Religion						
Others	11 (73.3)	4 (26.7)	5.007	0.025*	3.490	(1.093-11.142)
Hindu	182 (44.1)	231 (55.9)				
Education						
Up to SLC	136 (50.9)	131 (49.1)	9.62	0.002*	1.891	(1.262-2.834)
Above SLC	56 (35.4)	102 (64.6)				
Parity						
Multiparous	98 (51.3)	93 (48.7)	5.382	0.020*	1.575	(1.072-2.314)
Primiparous	95 (40.1)	142 (59.9)				
No of living child						
≥2	93 (52.5)	84 (47.5)	6.764	0.009*	1.672	(1.134 -2.465)
1 child	100 (39.8)	151 (60.2)				
Mode of delivery						
Normal	141 (49.5)	144 (50.5)	6.610	0.010*	1.714	(1.151-2.588)
Cesarean section	52 (36.4)	91 (63.6)				
Gestational age at birth						
Preterm	9 (50.0)	9 (50.0)	10.662	0.005*	3.500	(1.096-11.174)
Full term	174 (47.7)	191 (52.3)			3.188	(1.533-6.631)
Post term	10 (22.2)	35 (77.8)			1	
Maternal condition after delivery						
Normal	186 (46.6)	213 (53.4)	5.517	0.019*	2.744	(1.146-6.570)
Complicated	7 (24.1)	22 (75.9)				
Condition of newborn						
Normal	182 (47.9)	198 (52.1)	14.388	<0.001*	4.902	(2.003-11.996)
Complicated	6 (15.8)	32 (84.2)				
Stay at hospital						
24-48 hrs	94 (50.3)	93 (49.7)	13.917	<0.001*	1.848	(1.216-2.808)
48-72 hrs	35 (58.3)	25 (41.7)			2.559	(1.409-4.649)
>72 hrs	64 (35.4)	117 (64.6)			1	
Gender of provider						
Female	161 (48.9)	168 (51.1)	8.483	0.004*	2.007	(1.250-.3.221)
Male	32 (32.3)	67 (67.7)				

*Statistically significant Figure in parentheses shows percentage

Discussion

The overall mean satisfaction score in this study in tertiary hospitals of Western Nepal was found 3.39 out of 5 which is lower than the study conducted at PHC of Saudi, Arabia (3.74) [8]. This variation might be because of differences in the type of health facilities and person's expectation at different countries.

Out of eight aspects of care; the highest score was observed in privacy aspect which was 4.37 out of 5 which is quite higher as compared to Saudi Arabia (2.36), Sri Lanka (3.49), and Ethiopia (3.70) [8-10]. The possible cause for a varying score in aspect of privacy between these studies might be due to cultural difference in different countries.

This study showed lowest satisfaction in component of physical environment which was in accordance with the result of Sri Lanka [9] and Serbia [11]. Environmental factors of hospitals are significant predictors of maternal satisfactions; good physical environment of the institution may attract the clients whereas weakness in this aspect may act as a negative driver of the client to seek care.

Significant association was observed in type of hospital, religion, educational status, parity, number of living children, mode of delivery, gestational age at birth, maternal condition after delivery, condition of newborn, duration of stay in hospital, and gender of the care provider in this study.

The level of satisfaction seemed to vary according to the type of hospital in this study. Women delivered in public hospitals were two times more satisfied as compared to women who delivered at private hospitals (p- value: 0.002; OR: 2.000; 95% CI: 1.283-3.116). The finding was in contrast with the finding from a Jordanian study [12]. Study from Tabriz highlighted that "Low expectation of patient in public hospitals can cause high comfortable satisfaction" [13].

Women with up to school leaving certificate (SLC) level of education were more satisfied than with the above SLC level of education (p-value: 0.002; OR: 1.891; 95% CI: 1.262-2.834). The finding coincides with the study done in Pakistan and Southern Ethiopia [14, 15]. As it might be due to higher demand of the more educated group or there may be underestimation of safe delivery by higher educated groups.

Multiparous women were more than one and a half times (p-value: 0.020; OR: 1.672; 95% CI: 1.072-2.314) more satisfied than primiparous. This finding is consistent to Sri Lanka and Serbia [9, 11]. As, multiparous women may reflect their more realistic expectation based on previous experiences.

It is documented that women who are giving birth for the first time might be more satisfied than those women who are delivering second and more time [16]. Conversely the finding from a current study revealed that women having two or more children were more than one and half times satisfied as compared to women having a single living child (OR: 1.672; 95% CI: 1.134-2.465).

Women delivered by normal vaginal delivery were more satisfied (p-value: 0.010; OR: 1.714; 95% CI: 1.15-2.588) than those who delivered by cesarean section which is similar to the finding from Saudi Arabia [8], but contradicts with the findings of Jordanian study [12]. Longer duration of hospital stay, untimely recovery and scared with future pregnancies can take a mental toll on mother with cesarean section.

Similarly, the current finding revealed that women who delivered at full term (37-42 completed weeks of gestation) were three fold times more satisfied and women who delivered at preterm (before 37 completed weeks of gestation) were three and half time more satisfied as compared to post term deliveries (after 42 weeks of gestation).

Mothers without obstetric complication were more satisfied than mothers with obstetric complication (p-value: 0.019; OR: 2.744; 95% CI: 1.146-6.570) which is in line with the findings from Pakistan [17] as it might be due to higher stress among women who had complicated situation. Similarly, women whose newborn had a normal health condition were about five times more satisfied than those whose newborn had complicated situation (p-value: <0.001; OR: 4.902; 95% CI: 2.003-11.996). Duration of stay in hospital was as a very significant predictor of maternal satisfaction with perinatal care. Those women who stayed 48-72 hours were two and half times more satisfied (OR: 2.559; CI:1.409-4.649) than those who stayed greater than seventy two hours. Similarly, those who stayed 24-48 hours were about two times (OR: 1.848; C.I:1.216-2.808) more satisfied than those staying greater than seventy two hours as this finding is somehow similar with the findings from Ethiopia [10].

Regarding the gender of delivery provider they were more satisfied with the care provided by female providers than with the care provided by male providers (p-value: 0.004; OR: 2.007; CI: 1.250-3.221) which is opposed to finding from United States [16] as there was no statistical difference in patient satisfaction based on physician sex though, a small percentage of survey respondents did indicate a gender preference.

The present analysis did not find any significant association between status of pregnancy, income of the respondents, place of residence, ethnicity, age of the client and duration of labor pain with maternal satisfaction. However, several studies have highlighted the positive association of these variables with maternal satisfactions [4, 14-18].

Conclusion

In conclusion, majority of the respondents were unsatisfied from perinatal care provided by tertiary hospitals. The satisfaction score in a public hospital was higher as compared to private hospitals. Study showed that apart from the hospital services other personal factors can play a significant role in assuring quality of perinatal care.

References

1. Manandhar DS. Perinatal death audit. Kathmandu Univ Med J. 2004;2(4):375-83.
2. Sawyer A, Ayers S, Abbott J, Gyte G, Rabe H, Duley L. Measures of satisfaction with care during labor and birth: a comparative review. BMC pregnancy and childbirth. 2013;13(1):108.
3. Nketiah-Amponsah E, Hiemenz U. Determinants of consumer satisfaction of health care in Ghana: does choice of health care provider matter? GJHS. 2009;1(2):50-61.
4. Bazant ES, Koenig MA. Women's satisfaction with delivery care in Nairobi's informal settlements. IJQH. 2009;21(2):79-86.
5. Rudman A1, El-Khouri B, Waldenström U. Women's satisfaction with intrapartum care - a pattern approach. J Adv Nurs. 2007;59(5):474-87.
6. Nepal Demographic and Health Survey 2011. Population Division Ministry of Health and Population Government of Nepal Kathmandu, Nepal. ICF International Calverton, Maryland, USA, 2012. http://dhsprogram.com/pubs/pdf/fr257/fr257%5B13april2012%5D.pdf access date 20.11.2016
7. Karlsen S, Say L, Souza J-P, Hogue CJ, Calles DL, Gulmezoglu AM, Raine R. The relationship between maternal education and mortality among women giving birth in health care institutions: Analysis of the cross sectional WHO global survey on maternal and perinatal health. BMC Public Health. 2011;11(1):606.
8. Moawed AA, Gemeay M, Alshami N. Identification of factors associated with maternal satisfaction with primary health care centers in Riyadh city. TMJ. 2009;37:759-68.
9. Senarath U, Fernando DN, Rodrigo I. Factors determining client satisfaction with hospital-based perinatal care in Sri Lanka. Trop Med Int Health. 2006;11(9):1442-51.
10. Melese T, Gebrehiwot Y, Bisetegne D, Habte D. Assessment of client satisfaction in labor and delivery services at a maternity referral hospital in Ethiopia. Pan Afr Med J. 2014;17:76.
11. Mateji B, Vasi V, Djikanovi B. Maternal satisfaction with organized perinatal care in Serbian public hospitals. BMC Pregnancy Childbirth. 2014;14(1):14.
12. Mohammad K SI, Homer C, Creedy D. Women's satisfication with hospital-based intrapartum Care: A Jordanian Study. Int J Nurs Midwifery. 2014;6(3):32-9.
13. Azari S, Sehaty F, Ebrahimi H. Satisfaction of women from cesarean section care services in public and private hospitals of Tabriz. Iranian J Nursing Midwifery Res. 2013;18(6):435-8.
14. Ashraf M, Ashraf F, Rahman A, Khan R. Assessing women's satisfaction level with maternity services: Evidence from Pakistan. IJCRIMPH. 2012;4(11):1841-51.
15. Yohannes B, Tarekegn M, Paulos W. Mother's utilization of antenatal care and their satisfaction with delivery services in selected public health facilities of Wolaita Zone, Southern Ethiopia. IJSTR. 2013;2(2):74-85.
16. Teijlingen ER, Hundley V, Rennie AM, Graham W, Fitzmaurice A. Maternity satisfaction studies and their limitations: what is must still be best. Birth. 2003;30(2);75-82.
17. Tayelgn A, Zegeye DT, Kebede Y. Mother's satisfaction with referral hospital delivery service in Amhara Region, Ethiopia. BMC pregnancy and childbirth. 2011;11(1):78.
18. Misra S, Macwana J. client's perspective on obstetric care received at 24x7 primary health centers of a district located in western India. IJMHS. 2013;3(3):136-9.