Original Research Article

WOMEN'S SATISFACTION AND ITS' ASSOCIATED FACTORS ON INSTITUTIONAL DELIVERY SERVICES PROVIDED BY PUBLIC HEALTH FACILITIES OF TANAHUN DISTRICT, NEPAL

Abstract

Background: Institutional Delivery is one of the important strategy to reduce the maternal related risk during delivery. Satisfaction of women on labor and delivery care services has good influence on her health and results in subsequent utilization of health services. This study was focused to assess women's satisfaction and its' associated factors with institution delivery services in public health institutions.

Methods: Cross- sectional study was conducted among 169 participants from June 2018 to November 2018 among women (having under one year children) residing in Tanahun district. Simple random sampling, face to face interview and semi structured interview schedule was used for the collection of data. Data were entered in Epi-Data and analyzed by SPSS. Ethical approval was obtained from Institutional Review Committee at Pokhara University and maintained during the process of research.

Results: The age of the participants were between 16 to 40 years with median age 25 years (IQR= 7 Years). Most (93.5%) of the participants were Hindu. Majority of the participants (57.4%) and their husbands (60.4%) had secondary level education. Almost all pregnancies (99.4%) are planned and normal delivery was most common (77.5%). The study shows that 55% of the women performed delivery in public health facilities. The study states high satisfaction score in health status of women after delivery (4.8) and lowest in availability of visitor's bed (2.99). Women's satisfaction and religion was seen to be significantly associated.

Conclusions: Majority of the participants were satisfied with the services provided by public health facilities. Although, number of birthing centers were increasing, facilities in the health institution is not sufficient as required. Different factors such as cleanliness of delivery room, availability of staffs, medicine, visitor's bed and behavior of staff are some issues to be improved.

Keywords: Women's satisfaction, Institutional delivery services, public health facilities, Nepal

INTRODUCTION

Satisfaction of women is a subjective and dynamic perception of the extent to which health care facility you expect to receive. It is not important whether the women are right or wrong, but what is important is how the women feel [1, 2]. Satisfaction among pregnant women who were attending in health institution delivery is important measures to measure the quality of health care. The World Health Organization (WHO) emphasizes ensuring patient satisfaction as a means of secondary prevention of maternal mortality since satisfied women may be more likely to adhere to health providers' recommendations[3].

Satisfaction on maternity care is a multidimensional construct embracing satisfaction with self and with the physical environment of delivery room and quality of care [4]. Quality of care is an important but often neglected issue in safe motherhood program. Quality of care can be considered from the provider or user's perspective, and is differentiated into observed and perceived quality. Lack of quality health services results in the negligence on health services. The mother's assessment of quality is central because emotional, cultural and respectful supports are needed during labor and the delivery process [5]. Women's satisfaction is one of the most frequently reported outcome measures of quality of care [2] Satisfaction of women on labor and delivery care services has good influence on her health and results in subsequent utilization of health services. Thus knowledge about women satisfaction on labor and delivery care can increase the utilization of services.[6]

Several barriers are seen for the utilizing of institutional delivery services. The major factors are socio-demographic factors, maternal health factors, household factors and service related factors [7-10]. Some studies states that strategies like user-fee exemption for delivery and associated to enhance access, barriers still exist as universal coverage remains elusive. In some studies household headship, education, maternal age, and socioeconomic status were also significantly associated with place of delivery [11]. Major three types of delay are seen for receiving institutional delivery services. They are delay in seeking care, delay in reaching care and delay in receiving care. Poor birth preparedness knowledge on institution delivery, family influence on decision, geographical inaccessibility, unmet needs of care in CEONC and fear of hospital setting [12] are common factors related to first delay. Late and poor-quality referral, transport unavailability and inadequate decisions by husband/relatives have been associated with the

second type of delay. Lack of supplies and staff, poor quality of care and multiple delays due to second referrals have been reported as part of the third type of delay.[13-15]

Many of the women get suffer from the maternal related health issue during pregnancy and childbirth. In 2015, about 3, 03,000 women died due to maternal related cause. Among them 99% of the death are occurred in low and middle and low income country. More than 90% of all births benefitted from the presence of a trained midwife, doctor or nurse in middle and high income countries but, only less than half of all births in several low-income and lower-middle-income countries were assisted by such skilled health personnel.[16] The South East Asia Region alone accounts for approximately one-third of the global maternal and child deaths annually.[17] Nepal government has introduced institutional delivery services as demand sided intervention. There has been increased in number of birthing center in the different district of the country. Nepal has committed to achieve 70% of all deliveries at institution by 2020 for achieving SDG target in 2030. Institutional delivery has been increased in all Provinnce expect Madesh Province**.**[18]

Maternal morbidity and mortality highly decreases by safe delivery and skilled birth attendant at every birth. Improving maternal health and decreasing maternal mortality is the strategies for increasing emphasis on women's satisfaction with a care in order to improve women's adherence to the service.[6] Women's satisfaction is an element representative of quality of care. Therefore the most powerful prediction for measuring women's satisfaction on governmental health services was provider's behavior towards the patients, particularly respect and politeness.[19] Maternal morbidity and mortality is highly decreased by safe delivery and skilled birth attendant at every birth which indicates women satisfaction with the services was the major factor for improving maternal health. One on the three strategies for reducing maternal mortality is taken as a maternal satisfaction.[6] A satisfied women will recommend center's services expressing their satisfaction to four or five peoples, while a dissatisfied women on the other hand will complain to twenty or more.[20]

Different factors are associated with the satisfaction of mother at institution delivery services.[21] It is also essential to identify the factors involved in dissatisfaction, if a good health care system is sought.[20] Most of the women were satisfied with receiving health care facility,

providers skill, politeness of the staff waiting involvement in decision making, cleanliness and information received by them.[21] More waiting time and less consultation time are seen as the problem in the satisfaction among women.[19] Almost all the study related to maternal satisfaction were based on hospital that have create a fear to women to tell about bad side of the services.[22]

Patient satisfaction has been increasing as the important outcome for health care delivery and increasing studies in the developing countries. Most studies are focused on low and middle income countries. Among them Nepal is one of the developing countries which has low institution delivery rate. So it becomes an important issue in the public health. Mainly women are not satisfied on health related services. Since Nepal is mountainous country so topographical variation can be seen as the barriers for receiving health services. Most of the people have low income. So government has provided these services free of cost. Instead of free institution delivery services the status of the institutional delivery is very low in the district. The study also attempts to describe the socio economic condition and its impact on institutional delivery services. The study mainly aims to find out the level of satisfaction among women who have taken institutional delivery services in public health facilities. So, it would be relevant to explore the women's satisfaction and its' associated factors at institution delivery services provided by public health institutions of Tanahun district.

METHODS

Community based cross- sectional analytical study was conducted among women having under one children residing in Tanahun district Nepal between June to November 2018. A sample size of 169 was determined on the base of sampling formula $n = [z^2pqN/d^2 (N+1) + z^2pq]$ with 95% Confidence Interval, 5% margins of error The estimated live births of the Tanahun district is 1890 [18] and prevalence of 86%[4]. Simple random sampling technique was used in this study. Among 10 local assembly (4 municipality and 6 rural municipality) 2 municipality and 3 rural municipality were taken randomly. Among the local level two wards were taken in rural municipality while three wards in municipality. Sample size were distributed proportionally on the basis of target population.

The data collection tools was prepared in English and translated into Nepali language. Face to face interview was the data collection technique. Semi structured interview schedule was used as a tool for assessing satisfaction on institutional delivery services. Mothers who had gone to public health facilities for delivery in last twelve months were included in this study. Temporary residence and refused participants were excluded in this study. To reduce the bias, every participant was informed with the purpose of the study and maintain privacy of the participant. Proposal was made with extensive literature review and consultation with supervisor to maintain validity of the tools. Pre-testing was conducted among 10% of population in similar settings of Kathekhola rural municipality of Baglung district to measure the reliability of the tools. Necessary modification was made in questionnaire after pretesting. Data editing was done at evening on the same day of data collection by rechecking every information before data entry to minimize the error. Data were entered in Epi-Data (Version 3.1) to reduce the human error. Data were extracted into SPSS (Version 20) for further analysis. The data was analyzed in terms of frequency (percentage), mean (S.D) or median (IQR) as per necessary. Chi-square test was done to find the association between dependent and independent variable. Data was created and interpreted as per the need. Ethical approval was obtained from Institutional Review Committee, Pokhara University and maintained during the process of research.

RESULTS

Demographic Characteristics of Participants

The demographic characteristics of the participants was shown in Table 1. The median age of the participant was 25 years old (IQR 7 Years). The minimum and maximum age of the participant was 16 years and 40 years respectively. Most of them 57.4% (97) had secondary level education and only 3.6% [39] were illiterate. Similarly, 60.4% (102) of participants' husband had secondary level education and very few 1.8% (3) were illiterate. Most of the women, 85.2% (144) were housewife while remaining 14.8% (25) have some kind of work such as business job and daily wages. Similarly, most of the participant's husbands were foreign labor 26.6% (45) followed by job 40 (23.7%) and business 15.4% (26). Out of total participant's only 11(6.5%) are involved in occupation. In case of participant's husband 141(83.43%0 are involved in occupation. Among them most of them most 21.3% (36) them were from second quintile followed by fourth quintile 20.1(34), lowest quintile 28(16.6%), fourth quintile 22(13%) and 12.4% (21).

Table 1: Socio-demographic characteristic of participants.

Characteristics	Frequency(f)	Percentage (%)
Age (n=169)		
<20	12	7.1
20 – 29	121	71.6
≥ 30	36	21.3
Religion (n=169)		
Hindu	158	93.5
Buddhist	6	3.6
Christian	3	1.8
Muslim	2	1.2
Family type (n=169)		
Joint	103	60.9
Nuclear	63	37.3
Extended	3	1.8
Women's education (n=169)		
Graduate and above	2	1.2
Under graduate	16	9.5
Secondary	97	57.4
Basic	48	28.4
Illiterate	6	3.6
Women's occupation (n=169)		

Housewife	144	85.2
Business	9	5.3
Agriculture	7	4.1
Job	6	3.6
Daily wages	2	1.2
Others	1	.6
Women's education (n=169)		
Graduate and above	2	1.2
Under graduate	16	9.5
Secondary	97	57.4
Basic	48	28.4
Illiterate	6	3.6
Women's occupation (n=169)		
Housewife	144	85.2
Business	9	5.3
Agriculture	7	4.1
Job	6	3.6
Daily wages	2	1.2
Others	1	.6

Reproductive Health related Characteristics of Participants

Majority of the women, 62.1% (105) were above 20 years during marriage while remaining were below 20 years old. The median age of marriage was 20 years old with IQR 4 years, minimum age 16 years and maximum age 32 years. Similarly, most of the women, 62.7% are between 20-

26 years during first pregnancy. While 26.6 %(45) are below 20 years old and remaining 10.7% (18) are above 26 years old. Most of the participant 79 (56.83%) were primiparous while remaining 43.16% (60) were multiparous. Among primiparous, most of them 67.1% (53) have less than 14 hours labor time while 32.9 % (26) have more than 14 hours labor time. In case of multiparous 63.3% (38) have less than 8 hours while remaining 36.7% (22) have labor time more than 8 hours. Regarding the decision on service delivery point mostly husband 50.3% (85) and wife/self 77(45.6%) were involved which is followed by mother –in-law 22.5% (38) and father-in-law 15.4% (26). Almost all the pregnancy 99.4% (168) were planned.

Health Services Related Characteristics of Participants

All the participants had done delivery in public health facilities. In case of delivery, more than three –fourth 77.5% (131) had normal vaginal delivery followed by Caesarean section 21.9% (37) and normal delivery with episiotomy1(0.6). Almost all 99.4% (168) mother health was normal after delivery. More than nine-tenth 95.3% (161) babies were normal after delivery. Nearly two third of participant 62.7% (106) participant stay in hospital for less than two days. The median stay in hospital is 2 days with IQR 4, minimum a day and maximum 9 days. Similarly two-third 66.9% (113) of the participant had to travel less than one hour to reach the hospital, followed by 2-3 hours 32%(54) and more than three hours 1.2%(2). Regarding the availability of incentive, nearly nine-tenth 89.9% (152) had received the incentive provided by Nepal government. The amount of incentive varies among women due to the increment of incentive in this fiscal year. The median cost of the participant is NRs 13000 with IQR NRs 21500, minimum NRs 100 and Maximum NRs 100000.

Proportion of clients' satisfied

There were twenty four items to measure the opinion of the respondents. The lowest score (2.99) was obtained for availability of visitors bed and highest score (4.80) was obtained by condition of women after delivery. Most of the variables value was more than four but food services (3.91) was followed by the lowest value. The range of 4.2 to 4.8 was obtained to the services provided by staff in public health centers. Infrastructure of the health institution obtained the value range from 4.1 to 4.6. Similarly, accessibility of the services had the score range value from .4.0 to 4.6.

Satisfaction on institution delivery services

According to the data obtained 55% (93) respondents were satisfied with institutional delivery services while 45% (76) respondents were not satisfied. Almost all the participant 99.4% (168) wanted to visit to hospital for next delivery and suggested others for institute delivery.

Association of socio-demographic factors with clients' satisfaction during delivery period

Table 2: Association of socio-demographic factor with women's satisfaction.

Variables	**Client satisfaction**		**Total**	**Chi-square**	**p-value**
	Satisfaction	**Dissatisfaction**			
	93(55%)	**76(45%)**			
Age (n=169)					
<25	42(63.6%)	24(36.4%)	66	χ^2=3.432	0.082
25+	51(49.5%)	52(50.5%)	103		
Religion (n=169)					
Hindu	83(52.5%)	75(47.5%)	158	χ^2=6.084*	0.024**
Non-Hindu	10(90.9%)	1(9.1%)	11		
Caste/Ethnicity (n=169)					
Upper Caste	38(59.4%)	26(40.6%)	64	χ^2=1.180	0.554
Janajati	40(50.6%)	39(49.4%)	79		
Dalit and others	15(57.7%)	11(42.3%)	26		
Family type (n=169)					
Single	39(61.9%)	24(38.1%)	63	χ^2= 0.166	0.201
Non-single	54(50.9%)	52(49.1%)	106		
Women's education (n=169)					

Below basic	33(61.1%)	21(38.9%)	54	χ^2= 1.186	0.321
Secondary and above	60(52.2%)	55(47.8%)	115		
Husbands Education (n=169)					
Below basic	34{63%)	20(37%)	54	χ^2=0.155	0.104
Secondary and above	59(51.3%)	56(48.7%)	115		
Women's Occupation (n=169)					
Unemployed	81(56.2%)	63(43.8%)	144	χ^2= 0.586	0.516
Employed	12(48%)	13(52%)	25		
Husband's Occupation (n=169)					
Unemployed	9(64.3%)	5(37.5%)	14	χ^2= 0.528	0.580
Employed	84(54.2%)	71(45.8%)	155		

***Fisher Exact test, **p value significant at <0.05,**

Table 2 represents the association between the socio-demographic variable and women's satisfaction in institution delivery services. Religion (χ^2=6.084, df=1, p= 0.0024) was seen to be significantly associated with women's satisfaction.

Association of Reproductive Health related Characteristics with Client satisfaction during delivery period

Table 3: Association of reproductive health related characteristics with women's satisfaction

Variables	**Women's satisfaction**		**Total**	**Chi-square**	**p-value**
	Satisfaction	**Dissatisfaction**			
	93(55%)	**76(45%)**			
Age of Marriage (n=169)					

<20 years	48(62.3%)	29(37.7%)	77	χ^2=3.052	0.09
≥20 years	45(48.9%)	47(51.1%)	92		
Complete age during first pregnancy (n=169)					
<20	30(66.66%)	15(33.33%)	45	χ^2=3.548	0.170
20-26	53(50%)	53(50%)	106		
≥26	10(55.6%)	8(44.4%)	18		
Total Live birth (n=169)					
Primiparous	54(55.1%)	44(44.9%)	99	χ^2=0.00	1
Multiparous	39(54.9%)	32(45.1%)	71		
Labor time(Primiparous) (n=79)					
<14 hours	28(52.8%)	25(47.2%)	53	χ^2= 0.007	1
≥14 hours	14(53.8%)	12(46.2%)	26		
Labor time(Multiparous) (n=60)					
< 8 hours	20(52.6%)	18(47.4%)	38	χ^2= 0.021	1
≥ 8 hours	12(54.5%)	10(45.5%)	22		

Table 3 shows the association between reproductive health related characteristics with women's satisfaction. None of the variables were found statistically significant.

Association of Health Service related Characteristics with Women's Satisfaction during delivery period

Table 4 Association of health services related characteristics with women's satisfaction.

Variables	**Women's satisfaction**		**Total**	**Chi-square**	**p-value**
	Satisfaction	**Dissatisfaction**			

	93(55%)	**76(45%)**			
Type of delivery (n=169)					
Normal	71(54.2%)	60(45.8%)	131	χ^2=0.163	0.715
Abnormal	22(57.9%)	16(42.1%)	38		
Health status of mother (n=169)					
Normal	92(54.8%)	76(45.2%)	168	χ^2= 0.817*	1
Abnormal	1(100%)	0(0%)	1		
Health status of child (n=169)					
Normal	89(55.3%)	72(44.7%)	161	χ^2= 0.085*	1
Abnormal	4(50%)	4(50%)	8		
Duration of stay in hospital(Days) (n=169)					
<2 days	60(56.6%)	46(42.4%)	106	χ^2= 0.285	0.633
≥ 2 days	33(52.4%)	30(47.6%)	63		
Cost of health services (n=153)					
<13000	48(62.3%)	29(37.7%)	77	χ^2= 2.888	0.105
≥ 13000	37(48.7%)	39(51.3%)	76		
Distance of health facilities (n=169)					
< 1 hour	63(55.8%)	50(44.2%)	113	χ^2= 0.072	0.87
≥ 1 hour	30(53.6%)	26(46.4%)	56		
Receive incentive (n=169)					
Yes	86(56.6%)	66(43.4%)	152	χ^2= 1.466	0.305
No	7(41.2%)	10(58.8%)	17		

***Fisher exact test**

Table 4 expresses association between health service related characteristics with women's satisfaction. None of the variables were found statistically significant.

DISCUSSION

Satisfaction on Institution Delivery Services

According to survey (55%) of the participant were satisfied with institutional delivery services provided by public health centers. The level of satisfaction was 56% in Sri-Lanka, 51.9% in South Africa and 54.5% Kenya which were said to be similar studies of this research. In the similar case, the studies conducted in South Australia and Bangladesh, 86.1% and 92.3% women were satisfied respectively.[23] A study in Ethiopia states that 90.26% women were satisfied with institution delivery services. Similarly some other studies on Ethiopia state that 82.9% and 61.9% women were satisfied.[6] A study conducted in Nepal states that the overall satisfaction on institution delivery services was 45.1% while it was 58.1% in Kaski District.[24] According to STS Survey in 2012 the level of satisfaction among Nepalese women was 90%. But STS survey stated 86% satisfaction on their survey in 2013.[4] There is difference in level of satisfaction among other countries and ours because of study setting difference, more availability of health service facilities in different countries and could also because of methodological difference in which researcher used factor analysis to set the cutoff point for satisfaction.

Satisfaction was seen to be strongly correlated with the politeness and experience of staff as well as the health facilities that they received. A study in Nepal showed that clients were satisfied with care received at the facility (86%), provider's skills (85%), politeness of staff (83%), waiting time (80%), involvement in decision making (77%), cleanliness (70%), information received (69%), and assured confidentiality (67%).[21] The proportion of mothers who were satisfied with delivery care was nearly four-fifth (79,1 %). satisfaction levels for cleanliness was (35%), presence of relatives or family to support women during child birth was (65.3%) the client and emotional support during child birth.[25] A study of Southwest Ethiopia revealed that support for institutional delivery by mother-in-law and husband was associated with institutional delivery. [26]Another study of Nepal states that that two-third of the clients were satisfied or very satisfied with privacy in the facilities.[21] Women who were treated with respect, courtesy and dignity and had trusting relationship with their care providers were more likely to be satisfied.[4]

Socio-demographic variables with Satisfaction

In this study, religion is considered as one of the variables associated with satisfaction in delivery services. But the studies of Egypt states there was association between age group and education with overall satisfaction which was statistically significant.[27] This study states that women who were 25 years and above, were more satisfied but the case was not found same to women whose age ranging from 20 to 34 years. This is to say, they were less satisfied with the care they received compared to women whose age from 35 to 49 years.[28] A study in Chitwan shows Age[29], parity and education were associated with the institution delivery services while this study didn't show any association.[30] The difference in Socio-demographic characters of the participants in other studies and our studies could be due to the change in geographical status, standard of living, level of education, religion and status of family.

Reproductive health variables with satisfaction.

A study in Nepal states that one-third of Nepali women got married before 16 while 57% become pregnant at their adolescent but this study expresses that around two-third women get married after age twenty and more than seventh-tenth planned first baby after 20 years.[31] With changing time period, increase in health education, restriction by government law and provision of education to girls could be reason for delay marriage which can further increases in decision making ability of female which ultimately reduces the pregnancy before the age of 20 years. A study conducted in public health facilities of Kenya states that more than half (51.7%) were multiparous where as in this study 35% were multiparous. A tri-nation study states that decision regarding utilization of birthing facilities was often made by the husband or his family members rather than by the parturient woman[12] where as another study of eastern Nepal showed that slightly more than half of the of decision for delivery point were made by mother and her spouse which was also considered as supporting details to this study.[32] Because of the patriarch nature of society, the reason behind the final decision to be made by the husbands or elder persons of the household regarding delivery point. A study conducted in eastern Nepal showed that almost all (92.5%) pregnancies were planned which supports our study.[32] Increase in participants (female) and theirs husbands might be the reason for planned pregnancy.

Health services related variable with satisfaction

Generally, more than eight-tenth (82.9%) participants travelled for an hour according to the study conducted in Ethiopia while in this study around seventh-tenth (66.9%) had travelled less than an hour to reach to health institution.[25] This could be because of the topographical variation, transportation facilities, social beliefs and practices on delivering on urban health facilities rather than rural health facilities. A study in Pakistan states that public sector hospitals were more efficient in providing assurance to women which was consistent to our study.[33] This could be because the increasing number of birthing center and provide free delivery service with travelling cost by the government. So, believe towards the government health centers was increasing day by day. Discipline of staff, cleanliness and regular visits of doctors were the factors for visiting public sector hospital which increased the satisfaction of women.[33] This could be due to the commitment of health staffs during the recruitment to provide quality services and also could be due to the individual nature of health service providers. A study in Northern Ethiopia states that having plan to deliver at health institution and laboring time of less than six hours were significantly and positively associated with maternal satisfaction on delivery service but there was no any association seen in our study among characteristics. Only 40% of mothers were satisfied with the quality of the services as a study conducted in Nairobi.[3] A study states that women who received advice from health workers on danger signs for mothers had higher satisfaction which was similar to our study.[4] Female Community Health Volunteer (FCHV) was working in ground level to ensure the safety for the pregnant women. They promote safe motherhood, child health and other community based health issues and service delivery and also refer serious cases to health institution and motivate local people on healthy behavior. Women who had an opportunity to ask questions related to reproductive health to the health providers had higher satisfaction which shows consistency in our study.[4] This could be because of the provision of four ANC checkup for pregnant women in which they can ask maternal health related questionnaire in four visit in health institution. Female staff were recruited in health institution so that every female can share their problem without hesitation. Another study of Nepal states that incentives was not only for the utilization of institutional delivery services. It also states that incentives scheme increased the awareness in the community.[34] The limitation of the study was recall bias; women might forget about their labor time, cost of health services and duration of stay in hospital. For this visitors of family member were asked to reduce recall bias.

Conclusion

According to the overall study majority of delivery service users were satisfied with institutional delivery services provided by public health facilities (centers). The level of satisfaction was seen higher in services for mother delivering in health centers and lower in availability of well managed visitor's bed in health facilities. Women using delivery services were more satisfied with infrastructure and health services. Majority of the participant were satisfied with time provided by health worker, their response towards the participant, co-operation during delivery period along with politeness of health staff. Respondents were dissatisfied with cleanliness of toilets, labor room, and availability of well managed visitor bed as well as with food services at hospitals. The study shows that religion was significantly associated with women's satisfaction where as other socio-demographic factors were not associated with women's satisfaction towards delivery services at public health facilities.

Quality of service is directly associated with environment around the health institution so hygienic environment should be maintained to ensure clean and safe delivery services that will ultimately increase the satisfaction of clients. Satisfaction with services is also associated with how visitors are managed in health institution so based on the findings of this study it is recommended that adequate number of visitor's bed along with their maintenance should be considered as an important factor in every health institution. Promoting free and quality delivery services through public health facilities is today's concern. So concerned authorities are recommended for considering need of people in community and are requested to address those with new service delivery equipment's and infrastructure which may further increase their satisfaction towards services and institution.

Acknowledgement

I would like to express my sincere gratitude to all of those who provided their valuable assistance to accomplish this task successfully. I am grateful to the participants for graciously answering the question. I would like to extend my immense gratefulness to my friend Binayak Banstola for his support, guidance, good co-operation and encouragement during my dissertation. I would

also like to thank Mr. Upendra Ghimire for his guidance and support during the preparation of the article. Most importantly, my sincere gratitude goes to all the participants who directly and indirectly participate in the research study. So, I would like to cheer for all supporting hearts during the research project

Competing Interests: No any competing interest

Funding: Self-funded by the researcher.

Authors Contributions

Literature search and review: ARP, DKY and DD

Data analysis and Interpretation: ARP & DD

Manuscript preparation and review: ARP. DKY and DD

All the authors had approved final manuscript

Ethical approval and consent

Ethical approval was obtained from Institute Review Committee, Pokhara University for the conduction of the research. This study was approved by Public Health Faculty of School of Health and Allied Science, Pokhara University. Written approval was obtained from local authorities (Rural Municipality and Municipality Executive Office). Informed written consent was obtained from every participant and maintain confidentiality during every step of research.

Disclaimer

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Table 5: Proportion of clients' satisfied with twenty four items of delivery services and mean satisfaction scores

Items	Mean satisfaction score (SD)	Percent of clients who were strongly satisfied or satisfied
Easy access to hospital	4.45(0.944)	89.9(152)
Good registration system	4.09(0.914)	82.2(139)
Proper waiting time to receive delivery services	4.02(1.142)	76.9(130))
Sufficient human resources	4.51(0.933)	89.9(152)
Good privacy maintaining during delivery	4.17(0.836)	89.3(151)
Good bed used in delivery room	4.25(1.005)	87.6(148)
Cleanliness of delivery room	4.25(0.920)	88.2(149)
Light Ventilation of labor room is good	4.45(0.816)	92.9(157)
Air Ventilation of labor room is good	4.22(0.997)	84.6(143)
Proper information Shared about delivery	4.20(1.232)	80.5(136)
Adequate time by doctor during delivery	4.71(0.693)	95.3(161)
Adequate time by nurse during delivery	4.73(0.632)	96.4(163)
Good listening skills of doctor	4.56(0.714)	94.1(159)
Good listening skills of nurse	4.53(0.764)	93.5(158)
Good response on client request	4.42(0.678)	95.3(161)
Good co-operation during delivery	4.64(0.649)	97(164)
Politeness of doctor	4.40(0.758)	95.3(161)
Politeness of nurse	4.27(0.905)	90.5(153)

Condition of women after delivery	4.80(0.483)	99.4(168)
Condition of child after delivery	4.66(0.739)	95.3(161)
Good food services	3.91(0.983)	77.5(131)
Availability of visitor's bed	2.99(1.635)	43.2(73)
Cost of health services is affordable	4.21(1.09)	81.7(138)
Available incentives	4.34(1.046)	79.9(135)