Janaki Medical College Journal of Medical Sciences (2014) Vol. 2 (1):4-9

JMCJMS

Research article

Health seeking behavior during pregnancy and delivery in Morang District of Nepal

Sah RB[1], Subedi L[2], Shah U[3], Jha N[4]

Department of community medicine, BPKIHS Dharan, Nepal

[1]Associate Professor, [2]Senior Instructor, [4]Professor, School of Public Health and Community Medicine, BPKIHS, Dharan, Nepal
[3]MSc student, Dept. of Microbiology, Sunsari Technical College Pvt. Ltd. Dharan

ABSTRACT

Background and objectives: Importance of maternal health has been recognized over the last decade, however information about the perception of illness and health care behavior of obstetric complication is lacking. So, this study was conducted to find out the prevalence of taking care during pregnancy and delivery, and to find out the association between sociodemographic characteristics and taking care during pregnancy and delivery.

Material and Methods: The study is a cross-sectional study conducted among the residents of Rangeli VDC of Morang District in Eastern Nepal where 300 households were taken as subjects. Semi-structured questionnaire was used and face to face interview was conducted. Chi-square test was applied to find out the association between sociodemographic characteristics and taking care during pregnancy and delivery.

Results: Almost forty percent of pregnant women have taken care during pregnancy and delivery i.e. delivery conducted in Health Care Center (HCC). Only 21.8% of women were applied antiseptics after cutting cord and sixty three percent of women have fed colostrums to their babies. All of the women with Brahmin/ Chhetri have conducted delivery in Health Care Center. The women with SLC and higher education have conducted delivery at HCC more (91.1%) than below SLC (51%) and illiterate (12.5%). The women with service have conducted delivery at HCC more than other occupational groups.

Conclusion: The problem of taking care during pregnancy and delivery is common and has become a key public health concern for all. Lack of education and poor occupation of wife and husband led some of the respondents not taking care during pregnancy and delivery.

Key words: Health seeking, Pregnancy, Delivery, Home delivery; Institutional delivery

INRODUCTION

A report published by UN agency had mentioned an estimated 358,000 maternal deaths occurred worldwide in 2008 [1], this figure showed 34% decline from the level of 1990 [2]. Despite this decline low income countries continue to account for 99% of

maternal deaths primarily in Africa and South Asia [3]. The place of delivery is a crucial factor which affects the health and well-being of mother and newborn [4]. The percentage of birth attended by skilled health workers remains lower in South Asia i.e. 45% as compared to other Asian regions [5]. The percentage of institutional delivery was 20% in Nepal whereas 97% in Sri Lanka, and 39% in India [6].

In Nepal, MMR reported as 281 deaths per 100,000 live births [7]. Ministry of Health and Population has estimated that nearly 4500 women die every year from pregnancy related complications [8], mostly because of lack of skilled birth attendants and the absence of emergency services and equipments in rural health centers [9]. The vast majority (73%) of birth takes place at home in rural area of Nepal among them 55% of women are assisted by traditional birth attendants and relatives [10]. Some 40% deaths occur at home, 14% in transit to health facilities and 41% in health facilities [11].

Nepal had made an effort to achieve the Millennium Development Goal (MDG-5) targeted for reducing MMR by three quarter to 134 per 100,000 live births by 2015 [12]. Therefore, this study was conducted to find out the prevalence of taking care during pregnancy and delivery, and to find out the association between sociodemographic characteristics and taking care during pregnancy and delivery in Rangeli VDC of Morang District.

MATERIALS AND METHODS

The cross-sectional study was conducted from 1st March to 14th March, 2014 among the residents of Rangeli VDC of Morang District in Eastern Nepal. To represent the prevalence of women conducted delivery in Health Care Center (HCC) in Nepal for 58.3%, sample size was calculated at 95% CI & 90% powers then it become 300 women [13]. All the participants aged 15 to 45 years from the selected households were included in the study. There are 9 wards in Rangeli VDC. Among 9 wards, the ward number 1, 2, 3 and 4 was randomly selected by lottery method. The list of households of these 4 wards was prepared and equal number of households (75) from each ward was selected on the basis of simple random sampling.

Semi structured questionnaire was administered to the study subjects in the presence of investigator and face to face interview was conducted. A written permission was taken from concerned authority and an informed verbal consent was taken from the participants of the study. Those families which were available after three visits and willing to give verbal consent were included in the study.

The collected data was entered and analysis was done by using statistical software SPSS (Statistical Package for Social Science) version 17.0. Chi-square test was applied to find out the association between sociodemographic characteristics and taking care during pregnancy and delivery. The probability of occurrence by chance is significant if $P< 0.05$ with 95% Confidence Interval.

RESULTS

Table 1 shows that 40% of pregnant women have care taken during pregnancy and delivery i.e. delivery conducted in Health Care Center. Almost 60% of women have conducted delivery in home and among home delivery 76.7% delivery conducted by Trained Birth Attendant (TBA). Only 21.8% of

women were applied antiseptics after cutting cord and sixty three percent of women have fed colostrums to their babies.

Table 1: Distribution of study population by health seeking behavior during pregnancy and delivery

Characteristics	Number	Percent
Where delivery conducted		
Home	180	60.0
Health care center (Care taken)	120	40.0
Purpose of health care center (n=120)		
Safe from complication Money granted by	106	88.3
Government	14	11.7
At home, reason for not going to HCC (n=180)		
Distant health care center	14	7.8
Lack of money	10	5.6
Lack of knowledge	150	83.3
No support from family	6	3.3
At home TBA present (n=180)		
Yes	138	76.7
No	42	23.3
At home sutkeri samagri used (n=180)		
Yes	71	39.4
N0	109	60.6
If sutkeri samagri not used, what was used for cutting cord (n=109)		
Sterilized blade	67	61.5
Unsterilized metal object	42	38.5
Anything applied to cut cord (n=180)		
Yes	55	30.6
No	125	69.4
What was applied to cut cord (n=55)		
Antiseptics	12	21.8
Others (Cow dung, mud, oil, ash)	43	78.2
Baby bathed after birth		
Yes	156	52.0
No	144	48.0
Colostrum fed		
Yes	189	63.0
No	111	37.0
If colostrums not feed why (n=111)		
Due to traditional practices	104	93.7
Harmful to baby	7	6.3
Breast feed started		
Within ½ hour	128	42.7
From ½ hour to 3 days	172	57.3
Total	**300**	**100.00**

Table 2 shows that all of the women with Brahmin/ Chhetri have conducted delivery in Health Care Center. The women with SLC and higher education have conducted delivery at HCC more (91.1%) than below SLC (51%) and illiterate (12.5%) and the difference was highly significant. Regarding occupation, the women with service have conducted delivery at HCC more than other occupational groups and the difference was also significant.

Table 2: Association between socio-demographic variables and health seeking behavior during pregnancy and delivery

Characteristics	Care taken during pregnancy and delivery		Total	P- value
	Yes	No		
Religion				
Hindu	118 (40.3)	175 (59.7)	293	0.532
Others (Muslim, Christian)	2 (28.6)	5 (71.4)	7	
Ethnicity Brahmin/ Chhetri	35 (100.0)	0 (0.0)	35	
Kirati	1 (50.0)	1 (50.0)	2	< 0.001
Janajati	43 (29.3)	104 (70.7)	147	
Dalit	1 (9.1)	10 (90.9)	11	
Terai caste	40 (38.1)	65 (61.9)	105	
Education of wife				
Illiterate	18 (12.5)	126 (87.5)	144	< 0.001
Below SLC	51 (51.0)	49 (49.0)	100	
SLC and above	51 (91.1)	5 (8.9)	56	
Education of husband				
Illiterate	2 (2.8)	70 (97.2)	72	< 0.001
Below SLC	32 (23.7)	103 (76.3)	135	
SLC and above	86 (92.5)	7 (7.5)	93	
Occupation of wife				
Service	10 (90.9%)	1 (9.1)	11	0.002
Business	6 (50.0)	6 (50.0)	12	
Farmer	1 (14.3)	6 (85.7)	7	
Housewife	103 (38.1)	167 (61.9)	270	
Occupation of husband				
Service	30 (75.0)	10 (25.0)	40	
Business	52 (40.0)	78 (60.0)	130	
Farmer	12 (20.7)	46 (79.3)	58	< 0.001
Others (Abroad, labor, unemployed)	26 (36.1)	46 (63.9)	72	
Total	**120 (40.0)**	**180 (60.0)**	**300**	

DISCUSSION

This study shows that forty percent of pregnant women have taking care during pregnancy and delivery i.e. delivery conducted in Health Care Center. The prevalence of delivery at hospital among Indian women (38.7%), followed by Nepal (45.3%), Pakistan (34.6%) and Bangladesh (24.9%) [13]. A study conducted in Bangladesh according to which the ratio of women being delivered in hospital is rising

from 13% in 2004 to 96.6% in 2009 [14, 15]. It was observed that 60.6% of study participant preferred hospital birth [16]. This might be due to the various programs along with safe motherhood and free services for institutional delivery. Safe Delivery Incentive Program (SDIP) and establishment of birthing centers in rural areas play a vital role to increase institutional delivery.

Sixty percent of women conducted delivery at home. The reasons being lack of knowledge (83.3%), distant health care center (7.8%), lack of money (5.6%) and no support from family (3.3%). A study conducted by Amna A et al in 2013 showed 39.4% of women have conducted delivery at home which is lower than our study [16]. Distance between home and health center, difficult geographical territory, lack of transportation, financial constraints, household dominance of mothers-in-law are the main reasons behind home delivery [17]. Likewise, distance and transport was found to be one of the most important determinants in the decision of not seeking modern health care [18]. Another study showed that many pregnant women do not even attempt to reach a facility for delivery by walking many kilometers. It is difficult in labor and impossible if labor starts at night, and transport means are also often unavailable. Those trying to reach a far-off facility often fail, and women with serious complications may die in route [19].

A nationwide qualitative study in Ethiopia revealed that distance, cost and lack of support for the cultural practices around birth were major barriers for seeking maternal care. Seeking care for complications was considered only after traditional options, like local or herbal remedies and prayer were tried and proved unsuccessful [20]. A qualitative study conducted in Nepal also mentioned that women have little or no power in their marital home and are almost entirely at the mercy of their mother in law's perception of their pregnancy and delivery care needs [21].

Current study showed that 76.7% of delivery conducted in presence of Trained Birth attendant (TBA). A study done in Nepal revealed that skilled birth assistant during delivery plays a major role in the reduction of maternal mortality and morbidity [22]. But another study conducted by Shrestha SK et al in Nepal which showed almost 50% of women were assisted by skilled persons which is lower than our study [17]. Our study showed only 38.5% of women used unsterilized metal object for cutting cord. Women still delivered their babies in unhygienic condition and still practicing harmful instruments for cutting cord [17]. This might be because of the rural disadvantage characterized with poor or no education, harsher geographic conditions and unavailability of the maternal services.

All of the women with Brahmin/ Chhetri have conducted delivery in Health Care Center.

A study conducted by Shrestha SK et al in Nepal in 2012 and Dhakal S et al in Nepal in 2007 also showed there are high institutional delivery practices among Bramhin/Chhetri than other ethnic groups [17, 23].

The women with SLC and higher education have conducted delivery at HCC more (91.1%) than below SLC (51%) and illiterate (12.5%) and the difference was highly significant. A study done in Nepal showed that poor maternal education was important independent factors in determining choice of home delivery [24]. DHS 2006 also indicated that there is a strong association between institutional delivery and mother's education [7]. Studies from Bangladesh and Sri Lanka have also reported poor maternal education

was important risk factors for home delivery [15, 25]. Studies from Nepal and Nigeria have also shown a significant relationship between the socioeconomic condition of a family and the place of delivery [26, 27].

CONCLUSION

We conclude that the problem of taking care during pregnancy and delivery is common and has become a key public health concern for all. The pregnant women from rural area were practicing less institutional delivery. Majority of them do not used sutkeri samagri and harmful instruments were frequently used as cord cutting. Lack of education and poor occupation of wife and husband led some of the respondents not taking care during pregnancy and delivery. Thus, there is a need to educate women regarding care during pregnancy and delivery. Health education can be provided through mass media regarding prevention of complications in pregnancy. Also health personnel should counseling to pregnant women to attend antenatal checkups and how to care during pregnancy and delivery.

ACKNOWLEDGEMENT

We would like to thank to School of Public Health and Community Medicine for approval of our research work. We would like to acknowledge the 6th semester students of MBBS Batch of 2011 who helped us during the study period and participants of Rangeli VDC.

REFERENCES

1. UN: The millennium development goal report 2010, addendusn 2, goal 5, improve maternal health 2010. Available at: http://www.mdgs.un.org/unsd/mds/ resou rce /static/products/ progress.
2. WHO, UNICEF, UNFPA and World Bank: Trends in Maternal Mortality. Zeneva: World Health Organization; 2010.
3. WHO: World Health Statistics 2009. Switzerland: World Health organization, WHO Press, 20 Avenue Appia, 1211 Geneva 27.
4. Dasgupta A, Deb S. Intranatal care practices in a backward village of West Bengal**.** J Obstet Gynecol India 2009; 59:312-316.
5. WHO: Millennium development goals: progress towards the health-related millennium development goals; improved maternal health (mdg 5), fact sheet. 2011. N 290: Available at: http://www.who.int/mediacenter/ factsheet/ fs290/en.
6. WHO: World Health Report, Geneva. 27th edition. Geneva: World Health Organization 1211; 2003.
7. DHS: Nepal Demographic and Health Survey 2006. Maryland Calverton: Population Division, Ministry of Health and Population, Government of Nepal, Kathmandu, Nepal and Macro International; 2007.
8. DHS: Nepal Demographic and Health Survey 2001. Government of Nepal: New ERA ORC Macro, Ministry of Health and Population; 2001.
9. Shakya G. Abortion Law in Nepal - Women's Right to Life and Health. Reproductive Health Matters 2004; 12:75-84.
10. NFHP: A mid-term survey for NFHP II: Family Planning, Maternal, Newborn and Child Health situation in rural Nepal. Kathmandu, Nepal: Nepal Family Health Program II and New ERA, 2010, Family Planning; p-17.
11. MMMS: Summery of Preliminary Key Findings of 2008/2009. Kathmandu, Nepal: Nepal Maternal Mortality and Morbidity Study, Government of Nepal, Ministry of Health and Population, Department of Health Services, Family Health Division.
12. DHS: Annual Report 2008–2009. The Key Indicators for the Goals. Government of Nepal, Ministry of Health and Population, Department of Health Services; 88.
13. Geneva Health Forum. The Effect of Unintended Pregnancy on Maternal Health Care Service Utilization in South Asia. Global Health: Interconnected challenges integrated solutions. April 15-17, 2014.
14. Nisar N, Sohoo N, Memon A. Knowledge, attitude and Preference of pregnant women towards mode of delivery. JLUMHS 2009; 8:228-33.
15. Islam MA, Chowduray RI, Akhter HH. Complications during pregnancy, delivery, and postnatal stages and place of delivery in Rural Bangladesh. Health care women Int 2006; 27:807-21.
16. Amna A, Nadeem F, Zehra N. Women's preferences for place of delivery: A study at Tertiary Care Hospital. Isra Medical Journal 2013; 5: 31-34.
17. Shrestha SK**,** Banu B**,** Khanom K, Ali L, Thapa N, Stray-Pedersen B et al. Changing trends on the place of delivery:

why do Nepali women give birth at home? Reproductive Health 2012; 9:25 doi:10.1186/1742-4755-9-25

18. Kulmala T. Maternal Health and Pregnancy Outcomes in Rural Malawi. Accademic Dissertation, University of Tempere. Medical School, Acta Electronica Universitatis Temperenasis 76; 2000. Available at: http://acta.uta.fi/pdf/951-44-4976-2.pdf.
19. Thaddeus S, Maine D. Too far to walk: maternal mortality in context. Soc Sci Med 1994; 38(8):1091-1110.
20. Warren C. Care seeking for maternal health: challenges remain for poor women. Ethiop J Health Dev 2010; 24: 100–104. doi:10.4314/ejhd.v24i1. 62 950
21. Simkhada B, Maureen AP, Teijlingen ER. The role of mothers-in-law in antenatal care decision-making in Nepal: a qualitative study. BMC Pregnancy and Childbirth 2010; 10:34.
22. Matsumura M, Gubhaju B. Women's status, household structure and the utilization of maternal health services in Nepal. Asia Pac J Population 2001; 1:23-44.
23. Dhakal S, Chapman GN, Simkhada PP, Van TER, Stephens J, Raja AE. Utilization of postnatal care among rural women in Nepal. BMC Pregnancy and Childbirth 2007; 7:19.
24. Bolam A, Manandhar DS, Shrestha P, Ellis M, Malla K, Costello AM. Centre for International Child Health, Institute of Child Health, London: Factors affecting home delivery in the Kathmandu Valley, Nepal. Health Pol Plan 1998; 13(2):152-158.
25. Lukumar P, Pathmeswaran A. Factors associated with home deliveries in Thampalakamam, Trincmalee. Ceylon Med J 2006; 51: 59-62.
26. Wagle RR, Sabroe S, Neilson BB. Socioeconomic and physical distance to the maternity hospital as predictors for place of delivery: an observation study from Nepal. BMC Pregnancy Childbirth 2004; 4: 8.
27. Obi SN, Ozumba BC, Okaro JM. Emergency obstetric referrals at a university teaching hospital, Nigeria. East Afr Med J 2001; 78: 262-4.