Original Article

Knowledge, Attitude and Practice on Birth Preparedness and Complication Readiness among Pregnant Women Attending in an Antenatal Clinic

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ABSTRACT

Introduction: Birth preparedness and complication readiness is the process planning for normal birth and anticipating the action needed in case of an emergency. Promoting birth and emergency planning helps to improve preventive behaviour, increase awareness of mothers about danger signs and improvement in care seeking behaviour in the case of obstetric complication.

Methods: Cross- sectional descriptive study was conducted to find out knowledge, attitude and practice on birth preparedness and complication readiness among pregnant women attending in antenatal clinic of institution based family planning clinic at Koshi Zonal Hospital, Biratnagar. Data were collected from 116 pregnant women of second ANC visit and above using structured interview schedule in four weeks.

Results: The findings of the study revealed that majority of respondents (69%) were between ages 21- 30 years with the mean age of 23.7±3.2 years. This study depicts that 28.4% of the respondents had inadequate knowledge, 50% of the respondents had moderately adequate knowledge and 21% of the respondents had adequate knowledge. All of the respondents had favorable attitude and 43.1% had inadequate practice, 37.1% of respondents had moderate adequate practice and only 19.8% of respondents had adequate practice. The results revealed that only (9.5%) of respondents were well prepared. Analysis using kruskal Wallis identified statistically significant association between knowledge and practice (p=0.006).

Conclusion: This study identified inadequate knowledge and practices on birth preparedness and complication readiness. Thus, antenatal care clinics should give due emphasis to preparation for birth and its complication and provide information and education to all pregnant women.

Keywords: Attitude, Birth Preparedness and Complication Readiness, Knowledge, Practice

INTRODUCTION

Pregnancy is the physical condition and joyful events of a woman carrying off spring inside her uterus and child birth is the physiological process of giving birth of baby. Unfortunately, many women are dying due to pregnancy and childbirth related complication in developing countries. And maternal mortality is the major health issue of the health system. Global maternal mortality rate of 210/100000 has become a major challenge for safe maternal health (WHO, 2011).Comparatively maternal mortality rate is less in developed countries which is 16, however, this rate is significantly higher in developing nations (240) and the same for South Asia is 220 (WHO, 2012).

Birth and emergency preparedness is an integral component of focused antenatal care, which involves planning for a normal birth and anticipating the action needed in the event of an obstetric emergency (Kinzie & Gomez, 2006). To reduce the risks associated with pregnancy and childbirth and address delays, three

major strategies have been adopted in Nepal such as "promoting birth preparedness and complication readiness including awareness raising and improving the availability of funds, transport and blood supplies", "encouraging for institutional delivery" and "expansion of 24-hour emergency obstetric care services (basic and comprehensive) at public health facilities in every district" (DoHS, 2010).

A Nepal study showed that only 32 % have birth preparedness plan (Nawal & Goli, 2011), which indicates birth preparedness practice and knowledge is low despite of implementation of birth preparedness package by the government which are influenced by numerous variables such as general perception of individual and the community towards pregnancy, knowledge of women and her husband regarding possible danger signs of pregnancy, the attitude towards seeking care in difficulties, decision making environment in the household, possible cost of receiving care and transportation facility etc. The role of pregnant women has a great influence in case of BP/CR (Dahal, 2013). Therefore, knowledge on pregnancy complications, their attitude and practice towards maternal care may be a matter of serious concern. Thus, this study aims to find out the knowledge, attitude and practice about birth preparedness and complication readiness among the pregnant women.

METHODS

A cross-sectional descriptive institution based study was conducted in antenatal clinic of Koshi Zonal Hospital, Biratnagar. The study population were pregnant women, who have attended second ANC visit and above. Sample size was 120 and ethical approval was obtained from Institutional Review Board of Tribhuvan University Institute of Medicine, reference no 191(6-11-E)070/071. Informed consent was obtained from each respondent to ensure the right of the subject before interviewing them. During the data collection period of 4 weeks (6th April to 3rd May 2014) total of 116 mothers were interviewed. Collected data were checked for completeness and entered and analyzed by using Statistical Package for Social Science (SPSS) version 20.In descriptive analysis mean and standard deviations were calculated and Kruskal wallisH Test was used to identify association with accepted level of statistical significance set at p value < 0.05. Inter-quartile range was used to identify the level of knowledge and practice. Likert scale measurement was adopted to assess the attitude. Birth preparedness was measured by five indicators: identification of delivery place, identification of transport, identification of blood donor, money saving, and antenatal care check-up.

RESULTS

Table 1 : Socio-demographic characteristics and obstetric characteristics of respondents n=116

Characteristic	Number	Percentage
Age (in years)		
<20	35	30.2
21-25	43	37.1
26-30	37	31.9
>30	1	0.9
Mean age±SD: 23.7±3.2		
Religion		
Hindu	102	87.9
Buddhist	4	3.4
Muslim	10	8.6
Education level		
No education	24	20.7
Can read and write	8	6.9
Primary and Secondary	54	46.6
High secondary and above	30	25.9
Obstetric Characteristics		
Gravid		
1st	58	50
2nd -3rd	56	48.3
>4th	2	1.7
Week of gestation		
24-28	42	36.2
29-32	32	27.6
33-36	35	30.2
37-40	7	6.0

The table shows that the women were on the average 23.7±3.2 years of age. Majority (87.9%) were Hindu. Similarly, (46.6%) respondents had completed primary and secondary school and almostall (93.1%) were home makers(table 1).Half (50%) of the

respondents were primigravida and 48.3% were 2nd -3rdgravida. Regarding to the gestational age, majority (63.8%) were at between 24-32 weeks of gestation and (36.2%) were between 33-40 weeks.

Table 2: Knowledge of Respondents on Birth Preparedness and Complication Readiness

n=116

Components of Birth Prepared and Complication Readiness*	Number	Percent
Attending antenatal clinic at least four times	111	95.7
Preparation of food and clothes (for mother and baby)	106	91.4
Saving money	103	88.8
Identification of place of delivery	87	75.0
Being aware of danger signs	66	56.9
Designating the person who accompanies you in the hospital	57	49.1
Arranging blood donor	57	49.1
Identify a mode of transportation	56	48.3
Identification of skill provider	45	38.8
Decision maker during the emergency	30	25.9

**Multiple response*

Almost all respondents (95.7%) had knowledge on attending antenatal clinic at least four times and only one forth (25.9%) had knowledge on designating the decision maker during the emergency.

Table 3: Respondent's Attitude on Birth Preparedness and Complication Readiness

n=116

Statements	SD N (%)	D N (%)	A N (%)	SA N (%)
Pregnant woman should plan ahead of time the place she will give birth to her baby.	-	-	15 (12.9%)	101 (87.1%)
Giving birth is normal phenomena; therefore skill provider is not needed. **	104 (89.7%)	6 (5.2%)	5 (4.3%)	1 (0.9%)
Antenatal visit is essential for good maternal and fetal outcome.	-	-	9 (7.8%)	107 (92.2%)
Arranging essential items for delivery may invite misfortune. **	70 (60.3%)	7 (6.0%)	39 (33.6%)	-
Every pregnant woman needs to be aware about danger signs to prevent complication.	-	-	12 (10.3%)	104 (89.7%)
Giving birth is mostly a women's matter, husband has little to contribute. **	95 (81.9%)	13 (11.2%)	8 (6.9%)	-
Mother should have autonomy in decision making to seek treatment.	-	-	46 (39.7%)	70 (60.3%)
Preparation for transportation /blood can be arranged when complication arise. **	73 (62.9%)	5 (4.3%)	38 (32.8%)	-
The person should be designated in advance who will accompany the pregnant women during hospital while giving birth should be designated.	2 (1.7%)	1 (0.9%)	42 (36.2%)	71 (61.2%)
Giving birth is normal phenomena; therefore special allotment of money is not needed. **	116 (100%)	-	-	-

** *Negative statement*

Majority of the respondents (92.2%) had strongly agreed that pregnant woman should plan ahead of time the place she will give birth to her baby and 7.8% had agreed that statement, majority 89.7% had strongly agreed that every pregnant woman needs to be aware about danger signs to prevent complication, and 60.3 % had strongly agreed that mother should have autonomy in decision making. Conversely, in term of negative statement,100% respondents strongly disagreed on the statement that "Giving birth is normal phenomena; therefore special allotment of money is not needed", majority (89.7%) of the respondents had strongly disagreed on giving birth is normal phenomena; therefore skill provider is not needed while 4.3% of the respondents had agreed that statement and 60.3% of the respondents had strongly disagree on arranging essential items for delivery may invite misfortune while 33.6% agreed that statement.

Table 4 : Practices of respondents on Birth Preparedness and Complication Readiness

n=116

Birth plan	Number	Percent
Identified place of delivery	116	100
Family member accompanied in antenatal check up	115	99.1
Designated decision maker	105	90.5
Designated birth companion	102	87.9
Saving money for delivery	93	80.2
Prepared clothes for baby	75	64.7
Prepared essential item for delivery	60	51.7
Prepared clothes for mother	58	50
Arranged for means of transportation	39	33.6
Prepared blood donors	12	10.3

Regarding practice of identifying place of delivery, most of them (94%) had planned to deliver at hospital and who had planned to deliver her baby at home; they had not identified skill attendance at birth and only (10.3%) prepared blood donors.

Table 5: Respondents' Level of Knowledge and Practice on Birth Preparedness and Complication Readiness

n=116

	Knowledge		Practice	
Level	Number	Percent	Number	Percent
Inadequate	33	28.4 1	50	43.1
Moderately Adequate	58	50	43	37.1
Adequate	25	21.6	23	19.8

Table 6: Association between Level of Knowledge and Level of Practice

n=116

Level of Knowledge	Level of Practice Inadequate N (%)	Moderately Adequate N (%)	Adequate N (%)	*p*-value
Inadequate	18(54.5)	14(42.4)	1(3.1)	0.006*
Moderately Adequate	26(44.8)	21(36.2)	11(19.0)	
Adequate	6(24.0)	8(32.0)	11(44.0%)	

*p Significant at ≤ 0.05 level of significance

Kruskal-Wallis test

Table 6 stated that there is statistically significant association between level of knowledge and level of practice on birth preparedness and complication readiness (p-value 0.006).

DISCUSSION

The findings of this study showed that half of respondents (50%) had moderately adequate knowledge, 28.4% had inadequate knowledge and 21.6% had adequate knowledge on the birth preparedness and complication readiness. This finding is in consistent with the study conducted by Silwal (2006) in Gorkha. However, the study conducted by Devi (2011) found that 51% had moderately adequate knowledge, 45% had inadequate knowledge and 4% had adequate knowledge. In regards to components of BPCR, most of the respondents (95.7%) had knowledge on attending antenatal clinic at least four times, 91.4% had knowledge on preparation of food and clothes (for mother and baby), 88.8% had knowledge on saving money, 75% of respondents had knowledge on identification of place of delivery, 49.1% had knowledge on arranging blood donor, 48.3% had knowledge on identify mode of transportation and only 38.8% had knowledge on identification of skill provider. Study done by Hiluf and Fantahun (2008) in Ethiopia found that the respondents had lesser percentage of knowledge on components of BP/CR.

The study findings depicts that all of the respondents had favorable attitude. In contradiction to the findings of Devi, (2009), which showed majority (64%) had moderately favorable attitude, 34% had favorable attitude and 2% had unfavorable attitude.

Regarding the practice, less than half (43.1%) of the respondents had inadequate practice, 37.1% had moderate practice and 19.8% had adequate practice. Even though they had moderate knowledge and favorable attitude, they had low level of practice. It might be what people say may not necessarily be what they practice. All of the respondents had identified place of delivery. However, the study (Karkee et al; 2013) found similar results that around eighty five percent had identified place of delivery. Majority (94%) of respondents had planned for delivery in hospital which was similar to the study conducted by Njelita (2011) was 93%. This might be because of the attraction towards monetary incentives for institutional deliveries in government health facilities. Even though majority (88.8%) of respondents had knowledge on skill birth attendance is the person for management of delivery but none of them had identified skill birth attendance at birth.

The saving money is important especially for women belonging to poor household economic status. In this study, 80.2% had saved money for childbirth which was supported the study conducted by Mutiso et al; (2008), and Karkee et al; (2013). However, study conducted by Nawal & Goli (2013), revealed lower percentage of preparation for money 30%. In this study, 33.6 % arranged means of transportation ahead of childbirth which is higher as compared to a study conducted by Nawal and Goli (2013) and lower than the study conducted by Karkee et al; (2013). The reason could be that this study was conducted in the center of the city where better access of transportation was available.

Regarding the preparation of blood donor, only 10.3% had prepared blood donors similar findings of Karkee et al. (2013). However, Nawal and Goli (2013) found that the respondents were less prepared for blood donors which were less than 5%. On the other hand this less preparation of blood donors before delivery might be due to the fact that most pregnant women do not want to anticipate undesirable events in pregnancy, delivery. Regarding the level of birth preparedness and complication readiness, this study shows majority 69% were not prepared, and 31.5 % were well prepared.

The study depicts that there was statistically significant association between knowledge and practice on birth preparedness and complication readiness.

CONCLUSION

Based on the result, it is concluded that level of knowledge affects the level of practice on birth preparedness and complication readiness. So education programme on birth preparedness and complication readiness is an important factor. It is also concluded that majority of the respondents relay on their husband decision in an emergency situation, targeting the men in the preparation of birth and its

complication is necessary to mitigate complication during pregnancy.

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