

Knowledge and Attitude of Antenatal Women regarding Birth Preparedness: A Cross-Sectional Study

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Abstract

A cross-sectional descriptive study was conducted to assess the knowledge and attitude of antenatal women regarding birth preparedness at an antenatal OPD of tertiary care hospital. The study sample of 200 antenatal women was selected purposively after meeting the inclusion and exclusion criteria. The structured knowledge questionnaire and attitude rating scale was used to assess knowledge and attitude of antenatal women regarding birth preparedness. The result of the study shows that 49.5 percent of antenatal women had good knowledge and 99 percent had positive attitude regarding birth preparedness. Demographic variables like age and religion had significant influence on the knowledge but parity had significant influence on attitude of antenatal women ($p < 0.05$) regarding birth preparedness. Type of family had no significant effect on the knowledge and attitude of antenatal women regarding birth preparedness.

Birth-preparedness and complication-readiness is a comprehensive package aimed at promoting timely access to skilled maternal and neonatal services. The birth-preparedness package promotes active preparation and decision-making for delivery by pregnant women and their families (Kakaire et al, 2011). A birth and complications preparedness plan contains the following elements: the desired place of birth; the preferred birth attendant; the location of the closest facility for birth and in case of a complication expenses related to birth and complications, if any; supplies and materials necessary to bring to the facility; an identified labour and birth companion; an identified support to look after the home and other children while the woman is away; transport to a facility for birth or in the case of a complication; and the identification of compatible blood donors in case of emergency. To have birth preparedness and complication readiness at the provider level, nurses, midwives, and doctors must have the knowledge and skills necessary to treat or stabilise and refer women with complications, and they must employ sound normal birth practices that reduce the likelihood of preventable complications (Kuganab-Lem et al, 2013).

The World Health Organization (WHO) has a vision of universal coverage of health care; however, there is persistent inequality in access to maternal health services and an estimated 800 women still die every day from preventable causes linked to preg-

nancy and childbirth, with 99 percent of those deaths occurring in developing countries (Braxton, 2014). WHO estimates that, of 536,000 maternal deaths occurring globally each year, 117,000 take place in India (WHO, 2007). Unfortunately, there is little evidence that maternity has become significantly safer in India over the last 20 years despite the safe motherhood policies and programmatic initiatives at the national level. Birth and emergency preparedness is considered by WHO and other agencies to be a useful and practical intervention with several advantages. Keeping this view a study was conducted to assess knowledge and attitude of antenatal women regarding birth preparedness.

Objectives

The objectives of the study were:

1. To assess the knowledge of antenatal women regarding birth preparedness.
2. To assess the attitude of antenatal women regarding birth preparedness.
3. To find out the association of knowledge and attitude with variables (age, parity, religion and type of family).

Review of Literature

Henok A (2015) conducted a cross sectional study on 350 women of reproductive age from Mizan-Aman General Hospital of South West Ethiopia. Majority of respondents ($n=231$, 66%) mentioned at least one key danger sign during pregnancy and 67 (19%) men-

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tioned at least two danger signs; 263 (75%) of the respondents had heard about birth preparedness and complication readiness. Among respondents 97 (37%), 78 (30%), 56 (21%), and 18 (7%) mentioned birth place & assistance plan, arranging material necessary for safe delivery, identify pregnancy danger signs, and potential blood donor as elements birth preparedness and complication readiness, respectively.

In a descriptive cross-sectional study by Nawzia Y et al (2009) on 211 married women to assess knowledge, attitude and practices regarding hospital delivery in Bangladesh, 70.1 percent said that ANC is important; 29.9 percent were found to be informed of child birth complications, 16.1 percent knew the duration of pregnancy, 8.1 percent knew the danger signs of pregnancy, 4.7 percent about emergency obstetric care (EOC), 4.3 percent about expected date of delivery (EDD), 2.4 percent about safe motherhood and 28.4 percent about the access of health facilities in the village; 85.3 percent respondents showed a positive attitude towards hospital delivery while 14.7 percent had a negative attitude. Most strikingly, only 6 percent had autonomy in health care seeking behaviour. Very few opined that hospital delivery is a sin or shameful practice (Yasmin et al, 2009).

Takahashi (2015) conducted a cross sectional study to assess knowledge, attitudes and practices of birth preparedness and complication readiness in relation to skilled birth attendant among 250 delivered women in Cambodia; 94.8 percent of women knew saving money for delivery and in case of emergency was an important birth preparation. On the other hand, only 2.0 percent mentioned the need to iden-

tify blood donor; 66.8 percent women thought they needed to identify the place of birth, 64.4 percent for identifying means of transportation for facility when contraction started, and 20.0 percent for identifying skilled birth attendant to assist her birth. 70.4 percent of respondents were classified into neutral attitudes towards birth preparedness and complication readiness. Safety was more important than expensive payment (69.2%), difficulty to access health facility (distance, road condition) (73.2%) and health staffs' bad behaviour (66.8%).

Material and Methods

The cross-sectional descriptive study was conducted to assess knowledge and attitude of 200 antenatal women regarding birth preparedness in antenatal OPD of tertiary hospital of Ludhiana (Punjab). Non-randomised (purposive sampling) technique was adopted to select the antenatal women. Antenatal women with associated disorders or diseases were excluded from the study. Ethical committee permission was obtained before conducting the study. Consent was taken prior to data collection. Confidentiality of subject and data was ensured. The structured knowledge questionnaire and attitude rating scale was used to assess knowledge and attitude of antenatal women regarding birth preparedness. Content validity of the tool was obtained by 7 experts in the field of obstetric and gynaecological nursing. Reliability of tool was computed. Pilot study was conducted by taking 20 subjects.

Data was analysed using SPSS. The descriptive and inferential statistics such as percentage, mean, mean percentage, standard deviation (SD) and ANOVA test was used to identify significant relationship of knowledge and attitude of antenatal women regarding birth preparedness. The level of significance chosen was $p < 0.05$.

Results

Maximum number (49.5%) of antenatal women obtained good knowledge score followed by average (36%), excellent (10.5%) and below average (4%) knowledge score respectively regarding birth preparedness (Table 1). Thus, the maximum number of antenatal women had good knowledge regarding birth preparedness. Maximum (99%) antenatal women had positive attitude regarding birth preparedness (Table 2).

Antenatal women who belonged to age group of 30-35 years scored maximum mean knowledge and attitude score (21.06 and 56.0) followed by 24-29 years (20.60 and 54.66) and 18-23 years (19.19 and 53.8) respectively regarding birth preparedness (Table 3).

Antenatal women who were primi para had higher

Table 1: Frequency and percentage distribution of antenatal women regarding birth preparedness according to level of knowledge (N=200)

Level of knowledge	Knowledge Score		
	Score	n	%
Excellent (>80%)	>24	21	10.5
Good (65- 80%)	20-24	99	49.5
Average (50-65%)	15-20	72	36
Below average (<50%)	< 15	8	4

Maximum Score: 30; Minimum Score: 0

Table 2 : Frequency and percentage distribution of antenatal women regarding birth preparedness according to level of attitude (N=200)

Level of knowledge	Knowledge Score		
	Score	n	%
Positive (>67%)	> 40	198	99
Negative (≤67%)	<= 40	2	1

Maximum Score: 60; Minimum Score: 20

Table 3: Association of demographic variables with knowledge and attitude score of antenatal women regarding birth preparedness (N=200)

Age (in years)	n	Knowledge score		Attitude score	
		Mean	SD	Mean	SD
18-23	52	19.19	3.43	53.8	4.55
24-29	133	20.60	3.43	54.66	4.05
30-35	15	21.06	3.45	56.0	3.72
		'df'2/197		'F'=3.58*	
				'F'=1.78 ^{NS}	
Parity					
Primi	119	20.47	3.47	54.98	4.13
2 nd	63	20.23	3.38	54.47	3.94
3 rd or above	18	19.05	3.73	51.88	4.60
		'df'2/197		'F'= 1.30 ^{NS}	
				'F'=4.42*	
Religion					
Hindu	136	20.13	3.44	54.58	4.30
Sikh	54	20.62	3.25	54.50	4.17
Muslim	02	13.50	4.94	52.50	0.70
Christian	08	21.87	3.72	54.62	2.92
		'df'3/196		'F'=3.48*	
				'F'=0.164 ^{NS}	
Type of Family					
Joint	151	20.13	3.42	54.72	4.07
Nuclear	36	21.16	3.62	54.00	4.93
Extended	13	19.30	3.19	54.00	3.29
		'df'2/197		'F'=1.81 ^{NS}	
				'F'=0.547 ^{NS}	
Knowledge score		Attitude score		NS: Non-significant	
Max. score: 30		Max score:60		*Significant at (p<0.05)	
Min. score: 0		Min score: 20			

mean knowledge and attitude score (20.47 and 54.98) followed by secondary (20.23 and 54.47) and 3rd and above (19.05 and 51.88) respectively regarding birth preparedness (Table 3). Christian antenatal women scored maximum mean knowledge score (21.87), followed by Sikh (20.62), Hindu (20.13) and Muslim (13.50). The maximum attitude score was obtained by antenatal women who were Christian (54.62), followed by Hindu (54.58), Sikh (54.50) and Muslim (52.50).

Antenatal women who belonged to nuclear family scored maximum mean knowledge score (21.16), followed by joint family (20.13) and extended family (19.30). Mean attitude score obtained by the antenatal women who belonged to joint family was (54.72) followed by nuclear and extended family (54) regarding Birth preparedness.

Thus age and religion had significant influence on the knowledge but parity had significant influence on attitude of antenatal women ($p<0.05$) regarding birth preparedness. Type of family had no significant effect on the knowledge and attitude of antenatal

women regarding birth preparedness.

Discussion

Our findings revealed that maximum number of antenatal women obtained good knowledge score regarding birth preparedness. Another study conducted in Nigeria also found that awareness of the concept of birth preparedness was high among the women (Ekabua et al, 2011).

Findings of present study indicate that 99 percent of antenatal women had positive attitude regarding birth preparedness, these are consistent with the study conducted in Padukka which concluded that that 75 percent pregnant women had favourable attitude regarding birth preparedness and complication readiness (Rodrigo & Kumarapeli, 2011).

According to demographic variable maximum mean knowledge and attitude score was obtained by the higher age group 30-35 years. These findings are supported by the study conducted in Rural Tanzania on women's awareness of danger signs of obstetric complications, which concluded that awareness increased with increasing age of women. According to religion, Christian and Sikh had more knowledge and attitude regarding birth preparedness as compared to Hindu and Muslim. These findings show that Hindu and Muslim women are almost alike in poorly availing the health care services. On the other hand, Christian and Sikh women maximally utilised the existing maternal health services (Pembe et al, 2009).

Our findings regarding parity revealed that knowledge and attitude regarding birth preparedness was higher in primi para as compared to multipara. Further, parity had significant effect on the attitude of antenatal women ($p<0.05$) regarding birth preparedness. Similar to these are the findings of other study conducted to assess status of birth preparedness & complication readiness in Madhya Pradesh which stated that birth preparedness/complication readiness were significantly higher in primi-para as compared to multipara (Kushwah et al, 2015). Nuclear family has more knowledge regarding birth preparedness as compared to joint and extended family. These findings are associated with the research conducted in West Bengal, which concluded that antenatal care of mother is high in nuclear family (Prabir et al, 2016).

Implications

The findings of the present study have several implications.

Nursing education: Continuing education and instructional programmes for antenatal women and for their

child welfare should be organised at hospital level and community level by nursing students.

Nursing practice: Nurses working in antenatal OPD, wards and community area can educate the mother regarding birth preparedness and enhance their knowledge and good knowledge promote better practices.

Nursing administration: Nursing Administration need to take initiative in developing birth preparedness programme (workshop, community-based programme) for providing education to the patients during OPD visit and hospital stay.

Nursing research: Nursing personnel should take initiative not only in conducting the research but also discussing the findings of research study among nurses and encourage them to implement the findings.

Recommendations

1. Quasi experimental study can be conducted to assess the effectiveness of self-structured health education on antenatal women/ health workers regarding birth preparedness.
2. A comparative study between urban and rural community can be done to assess the knowledge and attitude regarding birth preparedness.
3. The tool used for assessing birth preparedness can further be developed and field-tested for standardising it.

Conclusion

As maximum number of antenatal women had good knowledge and positive attitude regarding birth preparedness but still there is a need that knowledge should be provided to those women who lack knowledge regarding birth preparedness so that they can make an advance planning for childbirth and postnatal/ newborn period. The government officials and partners working in areas of maternal health should come up with strategies to improve birth preparedness at individual and community level.

References

1. Kakaire O, Kaye DK, Osinde MO. Male involvement in birth preparedness and complication readiness for emergency obstetric referrals in rural Uganda. *Reprod Health J* 2011 May; 8: 12 (doi:10.1186/1742-4755-8-12)
2. Counselling for Maternal and Newborn Health Care: A Handbook for Building Skills. Geneva: World Health Organization; 2013 (Available from: http://apps.who.int/iris/bitstream/10665/144016/1/9789241547628_eng.pdf?ua=1)
3. Kuganab-Lem, Robert B, Razak Dogudugu, Ladi Kanton. Birth preparedness and complication readiness: A study of postpartum women in a rural district of Ghana. *Public Health Research* 2014; 4(6): 225-33 (doi: 10.5923/j.phr.2014.0406.02)
4. Braxton K. For Maternal Health, What Role will Universal

Health Coverage Play in a Post-MDG World? 2014 April 3 [cited 2016 March 11] In: New Security Beat: Environmental Change and Security Program [Internet] China: Woodrow Wilson International Center for Scholars. 2014 (Available from: <https://www.newsecuritybeat.org/2014/.../maternal-health-role-universal-health-cover>)

5. World Health Organization. Maternal mortality in 2005: Estimates Developed by UNICEF and UNFPA. Geneva: World Health Organization; 2007. 4:16 (Available from: http://www.who.int/whosis/mme_2005.pdf)
6. Vora Kranti S, Mavalankar Dileep V, Ramani KV, Upadhyaya Mudita, Sharma Bharati, Iyengar Sharad, et al. Maternal health situation in India: A case study. *J Health Popul Nutr* 2009 Apr; 27: 184-201
7. World Health Organization. Birth and Emergency Preparedness in Antenatal Care Integrated Management of Pregnancy and Childbirth. Geneva: World Health Organization; 2006. Available from: www.who.int/entity/emergency_preparedness_antenatal_care.pdf
8. Henok A. Knowledge towards birth preparedness and complication readiness among mothers who attend antenatal care at Mizan-Aman General Hospital, South West Ethiopia. *Journal of Health, Medicine and Nursing* 2015; 15: 51-57
9. Yasmin N, Alam K, Lahiry S, Faruquee MH, Ahmad T. Knowledge, attitude and practice regarding hospital delivery among rural married women in Northern Bangladesh. *Ibrahim Med Coll J* 2009; 3(1): 17-20
10. Takahashi Y. Knowledge, attitudes and practices of birth preparedness and complication readiness in relation to skilled birth attendant among delivered women in Svay Rieng province Cambodia [MSc thesis]. Svay Rieng province, Cambodia: Chulalongkorn University; 2015
11. Ekabua E, Ekabua KJ, Odusolu P, Agan TU, Iklaki CU, Etokidem AJ. Awareness of birth preparedness and complication readiness in South-eastern Nigeria. *ISRN Obstet Gynecol* 2011; 560641 (doi: 10.5402/2011/560641.PMCID: PMC3144713)
12. Chithramali H Rodrigo, Vindya Kumarapeli. Birth preparedness, complication readiness and associated factors among pregnant women attending antenatal clinics at medical officer of health (MOH) area Padukka. *BMJ open* 2015 August; 5(1) [doi:10.1136/bmjopen-2015-forum2015-abstracts.39]
13. Pembe AB, Urassa DP, Carlstedt A, Lindmark G, Nyström L, Darj E. Rural Tanzanian women's awareness of danger signs of obstetric complications. *BMC Pregnancy and Childbirth* 2009 March; 9:12 (Available from: <http://www.biomedcentral.com/1471-2393/9/12> 2009) [Accessed on 10th Feb 2016]
14. Salam Abdul, Siddiqui AS. Socio-economic inequalities in use of delivery care services in India. *J Obstet Gynecol India* 2006 March; 56(2): 123-27
15. Kushwah SS, Dubey D, Singh G, Shivdasani JP, Adhish V, Nandan D. Status of birth preparedness & complication readiness in Rewa District of Madhya Pradesh. *Indian J Public Health* 2009 Jul-Sep; 53(3): 128-32
16. Prabir MK, De D, Ghosh D. Knowledge attitude and practices for antenatal care and delivery of the mothers of tea garden in Jalpaiguri and Darjeeling districts, West Bengal. *Natl J Community Med* 2011; 2(1): 4-8