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### Full Length Research Article

## KNOWLEDGE AND PRACTICES REGARDING ANTENATAL ASSESSMENT AMONG OBSTETRIC NURSES

Manveet Kaur,\*Nidhi Sagar and Mamta

Department of Obstetric & Gynaecological Nursing, DMCH College of Nursing, Ludhiana

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Antenatal assessment,  
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#### ABSTRACT

**Aim:** To assess the knowledge and practices regarding antenatal assessment among nurses working in obstetric units.

**Method:** A descriptive research was done and data was collected from 60 nurses working in obstetric units of selected hospitals. Structured questionnaire and checklist was used to assess the knowledge and practices regarding antenatal assessment of nurses.

**Results:** Majority of nurses were in age group of 20-30 years, less than half of nurses were G.N.M working in private hospitals with experience of 1-5 years in labour room on regular basis and less than half of nurses had never attended any in service programme on antenatal assessment. Majority of nurses (44%) had average knowledge level, followed by (38%) with good knowledge and (15%) had below average knowledge level and only (3%) nurses had excellent level of knowledge and Maximum number of nurses (70%) had average practices, (26.7%) nurses had good practices while (3.3%) nurses had below average practices regarding antenatal assessment. The association of knowledge and practices was statistically tested and found to be highly significant ( $p < 0.001$ ).

**Conclusion:** The study concluded there is average knowledge and practices among nurses regarding antenatal assessment of pregnant women. There is significant association between knowledge and practice at  $p = 0.000$ .

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#### INTRODUCTION

Pregnancy is a special event in the life of a woman, a family and the society at large, so family and community should treat a pregnant woman with particular care (Amosu M. Ademola, 2011). Antenatal assessment being an important component of antenatal care involves the systematic examination of a woman during pregnancy. Antenatal mothers should be examined for danger signs or complications during antenatal period through antenatal assessment which is the clinical assessment of mother and fetus during pregnancy for the purpose of obtaining the best possible outcome for the mother and child. It comprises of careful history taking (general history, obstetrical history), investigations and physical examination (general and abdominal). The traditional approach to antenatal care, based on European models being developed in the early 1900's, assumed that multiple visits were better in the care for pregnant women.

\*Corresponding author: Nidhi Sagar

Department of Obstetric & Gynaecological Nursing, DMCH College of Nursing, Ludhiana.

The World Health Organization (WHO) report, 2005 calls for "Realizing the Potential of Antenatal Care" and initiated focused antenatal care in order to improve the care given to pregnant women (Amosu M. Ademola, 2011). Early monitoring and ongoing care during pregnancy is associated with more favourable birth outcomes. Compared with no antenatal surveillance, some antenatal care has a beneficial effect on adverse factors such as preterm delivery, low birth weight, maternal and perinatal mortality. Maternal mortality is unacceptably high because of risks attributable to pregnancy and child birth as well as from poor availability and quality of health services (<http://www.who.int/mediacentre/factsheets/fs348/en/>). Nurses are the vital component to provide care to the antenatal woman and antenatal assessment helps the nurses to observe and record major antenatal events so as to maintain maternal physical wellbeing, prevent preterm delivery, to anticipate difficulties and complications at delivery, ensuring the birth of a live healthy infant and assisting the couple in preparation for parenting. All nursing activities in antenatal clinics can promote the mother's physical and physiological well being that may make her and her baby to be healthy and safe (Amosu M. Ademola, 2011). Overall, the antenatal

assessment by nurses is done to assess the overall physical and physiological health status of the pregnant lady which includes the personal information of the woman, previous obstetrical history, menstrual history, antenatal visits and tests during pregnancy, medications taken and the developmental status of the fetus in the womb.

### Need of study

Good care during pregnancy is important for the health of the mother and the development of the unborn baby. Pregnancy is a crucial time to promote healthy behaviour and parenting skills. Good antenatal care increases the chance of using a skilled attendant at birth and contributes to good health through the life cycle (Eijk, 2006). Antenatal assessment as a part of focused antenatal care helps in the provision of accurate information to women to identify warning signs, and encourage preventive behaviour. As antenatal assessment as component of antenatal care has been found to have positive effect on the health outcomes for both mother and baby. So, the need has been felt to assess the knowledge and practice regarding antenatal assessment of pregnant woman among nurses to avoid the further related complications which would ultimately enhance the productive and qualitative nursing care.

### Objectives

- To assess the knowledge and practices regarding antenatal assessment of pregnant women among nurses.
- To determine the association of the knowledge and practices regarding antenatal assessment of pregnant women among nurses.
- To ascertain the association of the knowledge and practices regarding antenatal assessment of pregnant women among nurses with selected socio-demographic characteristics.
- To plan and implement in-service education for nurses regarding antenatal assessment of pregnant women.

## MATERIAL AND METHODS

### Sample and Sampling Technique

**Sample size:** The sample size was 60.

**Sampling Technique:** The sample was collected using convenience sampling.

### Inclusion and exclusion criteria

#### Inclusion Criteria

- The nurses working in obstetric units of selected hospitals of district Ludhiana.
- The nurses who were willing to participate in the study.

#### Exclusion Criteria

- Nurses who were on leave during the time of data collection.

### Description of Tool(s)

The tool was divided into 3 parts

### Part A- Socio-demographic profile of the nurses

This section includes socio demographic profile and professional profile. It includes age, marital status, professional qualification, experience, working sector, type of employment, working unit and in service education programme attended.

### Part B- Structured Questionnaire to assess the knowledge regarding antenatal assessment of pregnant women among nurses

This part consists of 32 items of knowledge to assess various aspects of antenatal assessment in relation to various physiological changes such as changes in breast, abdomen, uterus, and vagina.

### Part C- Checklist to assess practices regarding antenatal assessment of pregnant women among nurses

This part consists of 18 items related to practices of antenatal assessment of pregnant women.

## RESULTS

The distribution of nurses as per socio- demographic characteristics. It shows that majority of the nurses (78.3%) were in age group of 20-30 years, followed by (13.3 %) in age group of 30-40 years and (8.4% ) nurses in age group of >40 years and least number of nurses (1.7 %) were in age group of 50-60 years. Regarding marital status, most of nurses (65%) were unmarried and (35%) were married.

**Table 1. shows distribution of nurses according to sociodemographic variables**

Variables	N=60	
	f	(%)
Age ( in years) #		
20-29	47	(78.3)
30-39	08	(13.3)
≥40	05	(8.4)
Marital status		
Married	21	(35.0)
Unmarried	39	(65.0)
Educational status		
G.N.M	27	(45.0)
B.Sc (N)	17	(28.3)
Post basic B.Sc(N)	04	(6.7)
A.N.M	12	(20.0)
Working sector		
Govt.	09	(15.0)
Private	51	(85.0)
Experience		
1 year	21	(35.0)
1-5 years	24	(40.0)
≥5 years	15	(25.0)
Type of job		
Regular	41	(68.3)
Under training	05	(8.4)
Contract basis	14	(23.3)
Working unit		
Antenatal OPD	01	(1.7)
Labour room	59	(98.3)
In-service education		
Never	27	(45.0)
Once	18	(30.0)
≥2 times	15	(25.0)

#Mean age =27.68±6.256 year

As per educational status less than half of nurses (45%) were G.N.M, slightly more than one fourth (28.3%) were B.Sc, followed by (20%) nurses in other category i.e. A.N.M and least number of nurses (6.7%) were post basic b.sc nursing. In case of type of hospital currently working, it was observed that maximum numbers of nurses (91.7%) were working in private hospital followed by (8.3%) in government hospital. Regarding the experience in labour ward, about (40%) of nurses had 1-5 years of experience, (35%) and (25%) nurses had 0-1 year and more than 5 years experience respectively. As per type of job, most of nurses (68.3%) were working on regular basis, followed by slightly more than one fifth of nurses (23.3 %) on contract basis and (8.3 %) were under training. Maximum of nurses (98.3 %) were working in labour room and 1.7 % were working in antenatal OPD. Regarding attending in-service education , less than half of nurses (45 %) had never attended any in-service education programme, followed by (30%) had attended once, (25 %) had attended in-service programme two or more than 2 times (Table 1). The distribution of nurses as per their level of knowledge regarding antenatal assessment of pregnant women showed that. It shows that majority of nurses (44%) had average knowledge level, followed by (38%) with good knowledge and (15%) had below average knowledge level and only (3%) nurses had excellent level of knowledge regarding antenatal assessment of pregnant women. That maximum no. of nurses had average level of knowledge regarding antenatal assessment of pregnant women (Fig.1).

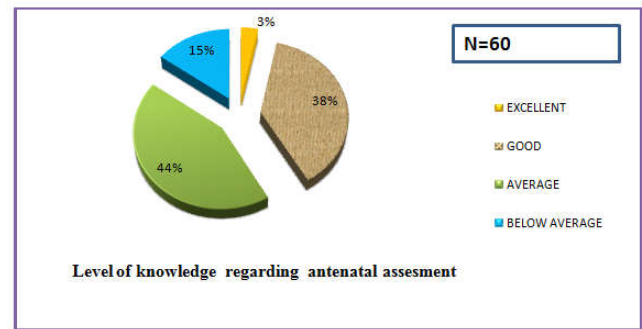


Fig. 1. Percentage distribution of nurses as per their level of knowledge regarding antenatal assessment of pregnant women

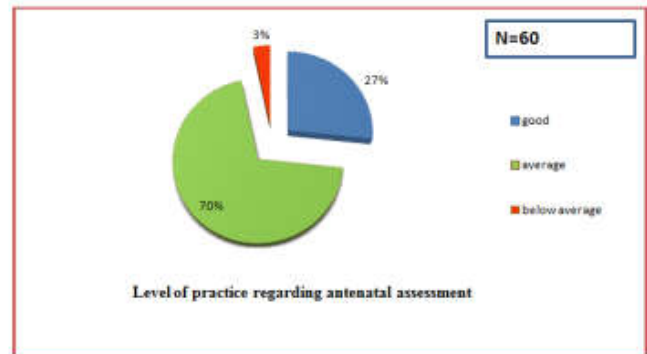


Fig. 2. Percentage distribution of nurses as per level of practices regarding antenatal assessment of pregnant women

Table 2. Association of knowledge and practice regarding antenatal assessment of pregnant women among nurses

Variables	Mean ±SD	Mean %	t value	N=60
				p value
Knowledge	17.80±4.864	55.6	12.798	0.000**
Practice	9.20±1.848	51.11		

Table 3. Association of knowledge and practices of antenatal assessment of pregnant women among nurses with selected sociodemographic variables

Variables	n	N=60			
		Knowledge scores		Practice scores	
		Mean ±SD	F /t p value	Mean ±SD	F/t p value
Age (in years)					
20-29	47	17.85±4.694	0.259	9.40±1.837	2.829
30-39	08	18.37±5.040	0.773 <sup>NS</sup>	9.12±1.885	0.067 <sup>NS</sup>
≥40	05	16.40±6.913		7.40±0.894	
Marital status:					
Married	21	18.33±4.029	0.620	8.62±1.431	1.821
Unmarried	39	17.51±5.286	0.538 <sup>NS</sup>	9.51±1.985	0.074 <sup>NS</sup>
Professional qualification					
GNM	27	18.26±3.789	0.421	9.00±1.819	1.849
BSc (N)	17	17.53±5.938	0.739 <sup>NS</sup>	9.12±1.364	0.149 <sup>NS</sup>
Post basic BSc (N)	04	19.25±2.500		8.00±.816	
A.N.M	12	16.67±6.095		10.17±2.443	
Working sector :					
Government	09	19.44±4.63	1.102	7.80±.837	1.963
Private	51	17.50±4.88	0.275 <sup>NS</sup>	9.33±1.866	0.054 <sup>NS</sup>
Total experience in obstetric units:					
< 1 year	21	18.52±4.643	0.350	9.14±1.621	0.323
1-5 years	24	17.42±4.587	0.706 <sup>NS</sup>	9.42±2.020	0.725 <sup>NS</sup>
≥ 5 years	15	17.40±5.755		8.93±1.944	
Type of employment:					
Regular	41	17.37±4.625		9.32±2.018	
Under training	05	14.20±6.261	3.797	8.80±1.643	0.274
Contract basis	14	20.36±4.106	0.028*	9.00±1.414	0.761 <sup>NS</sup>
Working unit					
Antenatal OPD	1	12.00±0.000	1.207	10.00±0.000	0.433
Labour room	59	17.90±4.845	0.232 <sup>NS</sup>	9.19±1.861	0.666 <sup>NS</sup>
In-service education					
Never	27	18.19±5.506	0.368	9.40±1.647	1.621
Once	18	18.00±4.419	0.694 <sup>NS</sup>	9.50±2.176	0.207 <sup>NS</sup>
≥2 times	15	16.86±4.290		8.46±1.684	

\*significant ( $p < 0.05$ ) NS-non significant

The distribution of nurses as per their practice regarding antenatal assessment showed that. Maximum number of nurses (70%) had average practices, (26.7%) nurses had good practices while (3.3%) nurses had below average practices regarding antenatal assessment of pregnant women. Majority of nurses had average level of practices regarding antenatal assessment of pregnant women (Fig. 2). In the association of knowledge and practices regarding antenatal assessment of pregnant women among nurses, mean knowledge score regarding antenatal assessment of pregnant women among nurses was  $17.80 \pm 4.864$  and mean practice score regarding antenatal assessment of pregnant women among nurses was  $9.20 \pm 1.848$ . The association was statistically tested and found to be highly significant as  $p=0.000$ . If the knowledge regarding antenatal assessment of pregnant women among nurses is good then their practice also gets improved (Table 2). The association of mean knowledge score and mean practices score was non significant with all the selected sociodemographical variables except type of employment which was found to have significant association with mean knowledge score (Table 3).

## DISCUSSION

The analysis of the study revealed that out of 60 nurses working in obstetric units antenatal women, majority of nurses 78.3% were between ages of 20-29 years. More than half of the nurses (65%) were unmarried. Less than half of nurses (45%) were having educational status of G.N.M. followed by 28.3% B.Sc, one fifth of nurses (20%) were A.N.M. Majority (91.7%) were working in private sector, two fifth of nurses (40%) were having 1-5 years experience, followed by 35% have one year or less than one year experience. Most of the nurses (68.3%) were working on regular basis, followed by (23.3%) were on contract basis and few (8.4%) were under training. Maximum of the nurses were working in labour room (98.3%) and less than half (45%) had never attended any in-service education programme, more than one fourth (30%) had once attended and one fourth (25%) had attended in service two or more than two times. The present study revealed that less than half of nurses (44%) were having average knowledge level regarding antenatal assessment of pregnant women. Three -fourth of nurses (70%) had average practice while (3.3%) staff nurses had below average practice regarding antenatal assessment of pregnant women. Findings of the study were supported by study conducted by Ayiasi Mangwi Richard *et al.* (2013) in Masindi; Uganda. 183 health workers were interviewed to assess knowledge regarding prenatal assessment among them 46.5% of midwives had adequate knowledge in prenatal assessment (Ayiasi Mangwi Richard, 2014). In present study, the association of the knowledge ( $17.80 \pm 4.864$ ) with practice ( $9.20 \pm 1.848$ ) was statistically tested and found to be highly significant ( $p < 0.001$ ). The similar study conducted by Zuhaeri muhamad, Dasuki Djaswadi evaluated the village midwives' knowledge on clinical assessment and clinical practice on skills assessment in antenatal care as well as the factors that influenced the village midwives' clinical assessment practice of antenatal care. The results showed that there was a significant association between the village midwife's knowledge on clinical assessment and clinical assessment practice in antenatal care ( $p < 0.05$ ) (Zuhaeri Muhamad, 2010).

In present study, association of knowledge and practices regarding antenatal assessment of pregnant women among nurses with any socio-demographic characteristics was found to be non significant except he type of employment which was found to be statistically significant ( $p < 0.05$ ) with mean knowledge score. On the contrary, Chirmade M. Vaishali Shelke Madhuri explored that Knowledge and practices of the midwives regarding antenatal care were found to have strong positive correlation. Age, Education, Work experience and Designation were found to have significant association with their knowledge and practices (Chirmade M. Vaishali, 2014).

## Conclusion

Approximately less than half of nurses (44%) had average knowledge level, followed by (38%) with good knowledge, only (3%) nurses had excellent level of knowledge regarding antenatal assessment of pregnant women. Maximum number of nurses (70%) had average practices, slightly more than one fourth of nurses (26.7%) had good practices while (3.3%) nurses had below average practices regarding antenatal assessment of pregnant women. The association of knowledge and practices was statistically tested and found to be highly significant ( $p < 0.001$ ). The knowledge of nurses is influenced by the type of employment (regular, under training, contract basis) they were doing.

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