

# A Comparative Study to Assess the Knowledge Regarding Partograph Among Gnm 3<sup>rd</sup> Year Students and B.Sc. Nursing 4<sup>th</sup> Year Students in Selected Nursing Colleges, Haridwar

**Mrs. Indu**

Nursing Tutor, GNC, Saharanpur (U.P)

## ABSTRACT

A comparative study to assess the knowledge regarding partograph among GNM 3<sup>rd</sup> year students and B.Sc. nursing 4<sup>th</sup> year students in selected nursing colleges, Haridwar, towards the partial fulfillment of the requirement degree of masters in nursing, at Shri Swami Bhumanand College Of Nursing, Hemwati Nandan Bahuguna Uttarakhand Medical University, Dehradun, during the year 2019-2021. Under the objectives of the study to assess the knowledge regarding partograph among GNM 3<sup>rd</sup> year students and B.Sc. nursing 4<sup>th</sup> year students in selected nursing colleges, Haridwar. Non-experimental descriptive research was conducted to assess the knowledge regarding partograph among GNM 3<sup>rd</sup> year students and B.Sc. nursing 4<sup>th</sup> year students in selected nursing colleges, Haridwar.

The target number of people for study was student of nursing college from among GNM 3<sup>rd</sup> year students and B.Sc. nursing 4<sup>th</sup> students in in Shri Swami Bhumanand College of Nursing, Haridwar. The sample size of the study was 60 and for gathering the data questionnaire was prepared and the sampling technique used in this study was purposive sampling technique. The data were analyzed by using descriptive and inferential statistic to computed information, master data sheets were prepared. Result of the study shows that B.Sc. nursing 4<sup>th</sup> year students have good knowledge as compared to GNM 3<sup>rd</sup> year students as their mean score of B.Sc. nursing 4<sup>th</sup> year students is 16.7 which is higher from the mean score of GNM 3<sup>rd</sup> year and all demographic variable is associated between B.Sc. nursing 4<sup>th</sup> year and of GNM 3<sup>rd</sup> year students. It is concluded that there is significant difference between knowledge regarding partograph among GNM 3<sup>rd</sup> year students and B.Sc. 4<sup>th</sup> year students.

**Keywords:** Partograph and Knowledge

## INTRODUCTION

The partograph provides a pictorial presentation of labor and gives a good overview of labor progression. Besides an assessment of the cervical dilatation, it includes observations on effacement, descent of the presenting part and strengths and duration of uterine contractions. Additionally, fetal and maternal conditions are being documented on the partograph. Fetal observations include the fetal heart rate, position of the baby and presenting part.<sup>1</sup>

The aim of the use of the partograph was to identify abnormal progress of labor. Apart from the monitoring of cervical dilatation, the partograph included observations of necessary intrapartum details.<sup>2</sup>

The partograph could then work as an early warning screening tool. This was partly because onset of labor was complicated to define. The alert line was found to be most useful if applied at a cervical dilatation of at least 3cm. The World Health Organization (WHO) states that the main tasks for the caregivers during labor are; supporting the woman, her partner and family during labor, observing the laboring woman, detecting risk factors and problems, performing minor interventions such as amniotomy and episiotomy and referral to a higher level of care if risk factors or complications develop.<sup>3</sup>

A partogram or partograph is a composite graphical record of key data (maternal and fetal) during labor entered against time on a single sheet of paper. Relevant measurements might include statistics such as cervical dilation, fetal heart rate, duration of labor and vital signs.<sup>4</sup>

### **NEED OF THE STUDY**

The world health organization (2007) reported that eight out of ten births are delivered outside a health facility in the country. Midwives deliver largest percentage of delivery care postpartum hemorrhage; hypertensive disorders of pregnancy and obstructed labor is among the leading direct causes of maternal morbidity. Complications related to labor could be reduced or even prevent it significantly with the use of partograph in monitoring labour.<sup>17</sup>

### **PROBLEM STATEMENT**

A comparative study to assess the knowledge regarding partograph among GNM 3<sup>RD</sup> year students and B.Sc. nursing 4<sup>th</sup> year students in selected nursing colleges, Haridwar.

### **OBJECTIVES**

- To assess the knowledge regarding partograph among GNM 3<sup>rd</sup> year students and B.Sc. nursing 4<sup>th</sup> year students in selected nursing colleges, Haridwar.
- To compare knowledge regarding partograph among GNM 3<sup>rd</sup> year students and B.Sc. 4<sup>th</sup> year students in selected nursing colleges, Haridwar.
- To find out the association between socio-demographic variable and knowledge regarding partograph.

### **HYPOTHESIS**

**H<sub>1</sub>** – There will be significant difference between knowledge regarding partograph among GNM 3<sup>rd</sup> year students and B.Sc. 4<sup>th</sup> year students.

**H<sub>2</sub>** – There will be significant association between the level of knowledge regarding partograph among GNM 3<sup>rd</sup> year students with selected demographic variables.

**H<sub>3</sub>** – There will be significant association between the level of knowledge regarding partograph among B.Sc. 4<sup>th</sup> year students with selected demographic variables.

### **METHODOLOGY**

**RESEARCH APPROACH** : QUANTITATIVE RESEARCH APPROACH

**RESEARCH DESIGN**: DESCRIPTIVE RESEARCH DESIGN

**SETTING OF THE STUDY**: SHRI SWAMI BHUMANAND COLLEGE OF NURSING

**SAMPLE AND SAMPLE SIZE** :BSC NURSING 4<sup>TH</sup> YEAR STUDENTS & GNM 3<sup>RD</sup> YEAR STUDENTS & 30 BSC NURSING 4<sup>TH</sup> YEAR STUDENTS AND 30 GNM 3<sup>RD</sup> YEAR STUDENTS.

**SAMPLING TECHNIQUE**: PURPOSIVE SAMPLING TECHNIQUE

**SAMPLING CRITERIA**

The researcher selected sample on the basis of inclusion and exclusion criteria.

**Inclusion criteria**

The study included the students who were-

- Nursing students who are studying in B.sc 4<sup>th</sup> year and GNM 3<sup>rd</sup> year.
- Nursing students who are available at the time of data collection.
- Students who are willing to participate in the study.

**Exclusive criteria**

The study excluded the students who were-

- Nursing students who are not present at the time of data collection.
- Nursing students who are not willing to participate in the study.

**DESCRIPTION OF TOOLS**

- The tool consists of two parts.
- **TOOL 1-** Demographic variable containing name, qualification of the GNM 3<sup>rd</sup> year students and B.Sc. nursing 4<sup>th</sup> year students.
- **TOOL 2-** Planned structured multiple choice questionnaire schedule regarding knowledge of partograph.

**ORGANIZATION OF ANALYSIS**

- The analysis of data was organized according to the objectives and presented under the following section.
- **Section 1:** Description of the Socio-demographic characteristics of the sample.
- **Section 2:** Assess the knowledge regarding partograph among GNM 3<sup>rd</sup> Year students
- **Section 3:** Assess the knowledge regarding partograph among B.Sc. Nursing 4<sup>th</sup> year students.
- **Section 4:** To compare knowledge regarding partograph among GNM 3<sup>rd</sup> year and B.Sc. nursing 4<sup>th</sup> year students.
- **Section 5:** To find out the association between the level of knowledge regarding partograph among GNM 3<sup>rd</sup> year students with selected demographic.
- **Section 6:** To find out the association between the level of knowledge regarding partograph among B.Sc. Nursing 4<sup>th</sup> year students with selected demographic.

**Table 1- Description of the Socio-demographic characteristics of the sample (n=30+30)**

SOCIO-DEMOGRAPHIC	G.N.M 3 YEAR		B.Sc (N) 4 YEAR	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
<b>Age</b>				
a) 20-21	0	0%	0	0%
b) 22-23	25	83%	0	0%
c) 24-25	5	16%	20	66%

<b>d) Above 25</b>	<b>0</b>	<b>0 %</b>	<b>10</b>	<b>33%</b>
<b>Gender</b>				
<b>a) Male</b>	<b>10</b>	<b>33%</b>	<b>12</b>	<b>40%</b>
<b>b) Female</b>	<b>20</b>	<b>66%</b>	<b>18</b>	<b>60%</b>
<b>Do you ever post in labor room previously?</b>				
<b>a) Yes</b>	<b>22</b>	<b>73%</b>	<b>22</b>	<b>73%</b>
<b>b) No</b>	<b>8</b>	<b>26%</b>	<b>8</b>	<b>26%</b>
<b>Do you have previous knowledge regarding partograph?</b>				
<b>a) Yes</b>	<b>14</b>	<b>46%</b>	<b>16</b>	<b>53%</b>
<b>b) No</b>	<b>16</b>	<b>53%</b>	<b>14</b>	<b>46%</b>
<b>Source of information</b>				
<b>a) Theory class</b>	<b>20</b>	<b>66%</b>	<b>20</b>	<b>66%</b>
<b>b) Clinical posting</b>	<b>10</b>	<b>33%</b>	<b>10</b>	<b>33%</b>
<b>c) Internet</b>	<b>0</b>	<b>0%</b>	<b>0</b>	<b>0%</b>
<b>d) Journals</b>	<b>0</b>	<b>0%</b>	<b>0</b>	<b>0%</b>

**Table 1 revealed that the majority of the sample**

Majority of samples of GNM 3<sup>rd</sup> year students belongs to 22-23 age category that is 25(83%) and in BSc nursing 4<sup>th</sup> year majority of Samples belongs to 24-25 age category 20(66%), most of the samples are females that is GNM 3<sup>rd</sup> year 20 (66%) and BSc nursing 4<sup>th</sup> years 18(60%), majority of samples have experience of labour room posting that is GNM 3<sup>rd</sup> year 22(73%) and BSc nursing 4<sup>th</sup> year 22(73%),most of the samples from GNM 3<sup>rd</sup> year have no previous knowledge regarding partograph 16(53%) but in BSc nursing 4<sup>th</sup> year majority of samples have previous knowledge regarding partograph 16(53%).majority of samples source of information is theory classes that is 20(66%) in both GNM 3<sup>rd</sup> and BSc nursing 4<sup>th</sup> year.

**Table 2: Frequency & percentage distribution of knowledge regarding partograph among GNM 3<sup>rd</sup> Year students. (n=30)**

KNOWLEDGE LEVEL	FREQUENCY	PERCENTAGE	Mean	SD
Good knowledge	8	26%	15.5	37.7
Average knowledge	14	46%		
Poor knowledge	8	26%		

**Data represented in the above table 2 shows that:**

- Majority of GNM 3<sup>rd</sup> Year students have average knowledge i.e., 14(46%) and 8(26%) have good & poor knowledge regarding partograph.
- Mean score is 15.5 & standard deviation is 37.7 of GNM 3<sup>rd</sup> Year students' group.

**Table 3: Frequency & Percentage distribution of knowledge regarding partograph among B.Sc. Nursing 4<sup>th</sup> Year students.**

(n=30)

KNOWLEDGE LEVEL	FREQUENCY f	PERCENTAGE %	Mean	SD
Good knowledge	15	50%	16.7	9.3
Average knowledge	4	13%		
Poor knowledge	11	36%		

Data represented in the above table 3 shows that:

- Majority of B.Sc. Nursing 4<sup>th</sup> Year students have good knowledge i.e., 15(50%) and 11(36%) have poor knowledge & 4(13%) average knowledge regarding partograph.
- Mean score is 16.7 & standard deviation is 9.3 of GNM 3<sup>rd</sup> Year students' group.

**Table 4: compare knowledge regarding partograph among GNM 3<sup>rd</sup> year and B.Sc. nursing 4<sup>th</sup> year students.**

(n=30+30)

CLASS	MEAN	MEAN DIFFERENCE	SD	t-value
GNM 3 <sup>rd</sup> year	15.5	1.2	37.7	0.12
B.Sc. Nursing 4 <sup>th</sup> year	16.7		9.3	

df (58) =2.0at 0.05 level of significance

Data presented in table 4 shows that:

- The mean score of B.Sc. nursing 4<sup>th</sup> year students is 16.7 which is higher from the mean score of GNM 3<sup>rd</sup> year.
- The calculated “t” value is 0.12 which is lower than the table value at 0.05 level of significance at df (58).
- Hence, the null hypothesis H<sub>01</sub> was rejected and research hypothesis was accepted. It is concluded that there is significant difference between knowledge regarding partograph among GNM 3<sup>rd</sup> year students and B.Sc. 4<sup>th</sup> year students.

**Table 5: Association between the level of knowledge regarding partograph among GNM 3<sup>rd</sup> year students with selected demographic.**

(n=30)

Demographic Variable	Good Knowledge	Adequate Knowledge	Poor Knowledge	Chi-Square Value	P-Value & df
<b>Age</b>					
a. 20-21	0	0	0	61.3	df=6 p=12.59
b. 22-23	4	8	3		
c. 24-25	4	6	5		

<b>d. Above 25</b>	0	0	0		
<b>Gender</b>					
<b>a. Male</b>	2	4	2	12.17	df=2 p=5.99
<b>b. Female</b>	6	10	6		
<b>Do you ever post in labor room previously?</b>					
<b>a. Yes</b>	6	11	6	34.6	df=2 p=5.99
<b>b. No</b>	2	3	2		
<b>Do you have previous knowledge regarding partograph?</b>					
<b>a. Yes</b>				35.9	df=2 p=5.99
<b>b. No</b>	2 6	6 8	2 6		
<b>Source of information</b>					
<b>a. Theory</b>	6	10	6	0.46	df=6 p=12.59
<b>b. Clinical</b>	2	4	2		
<b>c. Internet</b>	0	0	0		
<b>d. Journals</b>	0	0	0		

**Data represented in table 5 shows that:**

The data presented in table shows that chi square test value obtained to find out the association between the level of knowledge regarding partograph among GNM 3<sup>rd</sup> year students with selected demographic variables. On computation it was found that all demographic variable are associated. Hence, null hypotheses is rejected and research hypothesis is accepted.

In present study it was attempted to test whether there was association between the level of knowledge regarding partograph among GNM 3<sup>rd</sup> year students with selected demographic variable. Scores were obtain through statistical analysis required for rating out chi-square and degree of freedom. which can depict the association of variable at the level of  $P \leq 0.05$

**Table 6: Association between the level of knowledge regarding partograph among B.Sc. Nursing 4<sup>th</sup> year students with selected demographic (n-30)**

Demographic Variable	Good Knowledge	Adequate Knowledge	Poor Knowledge	Chi-Square Value	P-Value & df
<b>Age</b>					
<b>a. 20-21</b>	0	0	0		df=6

b. 22-23	0	0	0	18.27	p=12.59
c. 24-25	10	3	7		
d. Above 25	4	2	4		
<b>Gender</b>					
a. Male	7	1	6	1.51	df=2 p=5.99
b. Female	8	3	5		
<b>Do you ever post in labor room previously?</b>					
b. Yes	10	3	9	3.72	df=2 p=5.99
b. No	5	1	2		
<b>Do you have previous knowledge regarding partograph?</b>					
b. Yes	9	3	8	14.86	df=2 p=5.99
b. No	4	3	3		
<b>Source of information</b>					
e. Theory	11	2	7	9.65	df=6 p=12.59
f. Clinical	4	2	4		
g. Internet	0	0	0		
h. Journals	0	0	0		

**Data represented in table 6 shows that:**

The data presented in table shows that chi square test value obtained to find out the association between the level of knowledge regarding partograph among B.Sc. Nursing 4<sup>th</sup> year students with selected demographic variables. On computation it was found that all demographic variable is associated. Hence, null hypotheses is rejected and research hypothesis is accepted.

**CONCLUSION**

The study revealed a significant association between the knowledge of partograph and socio-demographic variables among both GNM 3rd year and B.Sc. Nursing 4th year students. The findings suggest that B.Sc. Nursing students generally have a higher level of knowledge compared to GNM students. This indicates the need for enhanced training and education on partograph usage, especially for GNM students.

**RECOMMENDATION**

Based on the findings of the study the following recommendation were made:

- The study can be replicated using a large sample to validate the finding on generalization.
- This study can be conducted among staff nurses working in labour room.
- This study can also be done to assess the practice & attitude of the staff nurses.



- Planned teaching program can be added into the study.

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