



## A QUASI-EXPERIMENTAL STUDY TO ASSESS EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE REGARDING PARTOGRAPH AMONG NURSING STUDENTS IN SELECTED NURSING COLLEGES OF HIMACHAL PRADESH.

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**ABSTRACT** **Objectives** To evaluate the effectiveness of structured teaching programme on knowledge regarding partograph among nursing students in experimental group and to find out the association of post-test knowledge score of partograph with their selected socio-demographic variables in both experimental group and control group. **Design** quasi-experimental nonrandomized control group design Setting Murari Lal memorial school and colleges of nursing, Solan (H.P.) and Shivalik institute of nursing, Shimla, Himachal Pradesh. Population Students of B.Sc. nursing 4th year of selected settings **Methods** In the present study for an experimental group, a structured knowledge questionnaire was administered before and after intervention for data collection, where as in control group only pre-test and post-test administration were done without any interventions. **Results** The study results showed that in experimental group, after administration of structured teaching programme the mean percentage knowledge score had improved to 82.51% from 45.03% where as in control group it was only 51.89% from 48.91%. The statistical parameters of result revealed a significant difference in pre-test and post-test knowledge (p-value <0.001) of experimental group, and that is due to the exposure of the student nurses to structured teaching programme on partograph. Hence, conclusion was drawn that to address the new modalities of partograph for intrapartum care in nursing education, we first need to improve the theoretical aspects of partograph and then focusing to its implication part.

**KEYWORDS :** Partograph, structured teaching programme, knowledge, nursing students.

### INTRODUCTION;

Partograph is a graphical recording of vital observations during the course of labour and to assess its progress and carry out appropriate interventions if necessary. According to world health organization more than one third of maternal deaths, half of stillbirths and quarter of neonatal deaths results from complications during labour and childbirth. Most of maternal deaths are preventable with timely management by skilled health professional working in a supportive environment.

Despite the fact that the partograph has been described and used since 1952, it is still not used worldwide and it's due to gaps in knowledge policies and availability of resources. With passage of time WHO has further modified the partograph and designed; composite, modified and simplified partographs. A digital partograph is a new electronic implementation of the standard paper-based partograph/partogram that can work on a mobile or tablet personal computer.

In February 2018, WHO published new recommendations on intrapartum care for a positive childbirth experience, which included updated definitions and durations for first and second stage of labour, based on evidence from systematic reviews. To help practitioners implement these recommendations, WHO subsequently initiated development of a "next-generation" partograph known Labour Care Guide.

Above all partograph has been developed to ensure quality evidence-based care, with a special emphasis on ensuring safety, avoiding unnecessary interventions, and providing supportive care. But still, many researches had concludes that the use of partograph is found to be complex and too much time consuming for its effective use. These challenges highlight a need for strengthening caregiver's knowledge and skills on partograph. This research specifically includes evaluation of the structured teaching programme and to assess the impact of teaching strategy in terms of knowledge on partograph. Where the teaching approach involves description in detail about all types of partograph that were used since its evolution to the new generation partograph.

### MATERIAL AND METHODS

The quasi-experimental nonrandomized control group design was found to be effective for the study. The target population were B.Sc. nursing 4<sup>th</sup> year students of Murari Lal memorial school and college of nursing, Solan and Shivalik institute of nursing, Shimla of Himachal Pradesh. A purposive sampling technique was used to extract a sample of 50 subjects (25 in experimental group and 25 in control group) from target population. A structured knowledge questionnaire was developed and used for data collection. Descriptive and inferential

statistics were used for data analyses and tables, diagrams, and graphs were used for data presentation.

### RESULTS

**Descriptive statistics;** here the study results showed that in experimental group the mean percentage knowledge score had improved to 82.51% from 45.03% where as in control group it was only 51.89% from 48.91%.

#### Inferential statistics; this include two entities;

**1. Paired t-test implication;** to assess effectiveness of structured teaching programme in experimental group and to assess effectiveness in control group where there were no interventions.

**2. Chi square implications:** to identify the associations of post-test in both experimental and control group with their selected demographic variables.

**Table 1.1: Table substantiating comparison of mean score between the pre-test and post-test knowledge score regarding partograph among nursing students in experimental group.**

Knowledge of experimental group	Mean	SD	Mean difference	df	Calculated T-Value	Table T-value at 0.05	Result
Pre-test	15.76	+3.632	13.12	24	17.782	2.06	P value= <0.001 significant
Post-test	28.88	+2.651					

Table 4.4.1 illustrate the mean difference (13.12) of pre-test and post-test knowledge score in experimental group and depicts the calculated T-value (i.e., 17.782). At 24 degree of freedom with 0.05 level of significance, the table value (2.06) of paired T-test is lower than that of calculated T-value (i.e., calculated value > table value). It shows a highly significant difference between pre-test and post-test knowledge score. Thus, H1a was accepted for the study.

**Table 1.2: Table substantiating comparison of mean score between the pre-test and post-test knowledge score regarding partograph among nursing students in control group. N=25**

Knowledge of control group	Mean	SD	Mean difference	df	Calculated T-Value	Table T-value at 0.05	Result
Pre-test	17.120	+2.848	1.04	24	1.583	2.06	P value= <0.127 non-significant
Post-test	18.16	+3.375					

Table 4.4.2 shows the mean difference (1.04) of pre-test and post-test

knowledge score in control group and depicts the calculated T-value (i.e., 1.583). At 24 degree of freedom with 0.05 level of significance, the table t-value (2.06) of paired T-test is higher than that of calculated T-value (i.e., calculated value < table value). It shows no significant difference between pre-test and post-test knowledge score. Thus, H1b was rejected for the study.

**Table No 2.1: Table showing association between post-test knowledge scores and their selected demographic variables among nursing students in experimental group. N=CG+EG N=25**

ASSOCIATION OF POST-TEST KNOWLEDGE SCORE WITH SOCIO-DEMOGRAPHIC VARIABLES IN EXPERIMENTAL GROUP						
SOCIO-DEMOGRAPHIC VARIABLES	Chi Test	P Value	Df	Table Value	Result	Hypothesis
Age	4.018	0.134	2	5.991	Not Significant	H <sub>2</sub> rejected
Area of residence	2.431	0.119	1	3.841	Not Significant	
Religion	0.543	0.762	2	5.991	Not Significant	
Marital status	0.260	0.610	1	3.841	Not Significant	
Family income	7.031	0.071	3	7.815	Not Significant	
Previous exposure to obstetric department	0.260	0.610	1	3.841	Not Significant	
Source of information	1.786	0.409	2	5.991	Not Significant	
Occupation of father	5.729	0.126	3	7.815	Not Significant	
Occupation of mother	0.705	0.872	3	7.815	Not Significant	

**Table No 2.2: Table showing association between post-test knowledge scores and their selected demographic variables among nursing students in control group. N=CG+EG N=25**

ASSOCIATION OF KNOWLEDGE SCORE WITH DEMOGRAPHIC VARIABLES (POST KNOWLEDGE) CONTROL GROUP						
DEMOGRAPHIC VARIABLES	Chi Test	P Value	df	Table Value	Result	Hypothesis
Age	0.520	0.471	1	3.841	Not Significant	H <sub>3</sub> Rejected
Area of residence	0.031	0.861	1	3.841	Not Significant	
Religion		NA				
Marital status		NA				
Family income	1.110	0.775	3	7.815	Not Significant	
Previous exposure to obstetric department	3.335	0.343	3	7.815	Not Significant	
Source of information	0.184	0.668	1	3.841	Not Significant	
Occupation of father	5.086	0.166	3	7.815	Not Significant	
Occupation of mother	1.103	0.576	2	5.991	Not Significant	

From table 2.1 and 2.2, it is evident that there is no significance association between the level of scores and other demographic variables (age, area of residence, religion, marital status, family income, previous exposure to obstetric department, source of information, occupation of father and occupation of mother) in both experimental and control group. The calculated chi-square values for all socio-demographic variables were less than that of table value of chi square at the 0.05 level of significance. Hence, hypothesis H3 and H4 were rejected.

Conclusion was drawn that the interventions were found to be significant, to bring an improvement in the knowledge level of nursing

students in experimental group. where there was no effect of socio-demographic variables on their knowledge level.

Thus, to address the new modalities of partograph for intrapartum care in nursing education and practice, we first need to improve theoretical aspects of partograph and then focusing to its implication part.

## DISCUSSION

By reviewing the literature, it has been observed that main hindrance in the use of this useful tool is related with the management and administration issues including logistic problems, shortage of staff, training and supervision inadequacy and inadequate attention being given to its inclusion as an essential labour monitoring tool starting from the learning periods of nurses and doctors. Keeping the view in mind the present study, a quasi-experimental study to assess the effectiveness of structured teaching programme on knowledge regarding partograph among 50 nursing students in selected nursing colleges of Himachal Pradesh, has been conducted.

The present study was supported by a similar study conducted by Sri Shahri BM (2017) to assess the effects of a structured teaching programme on partograph among midwifery students in a government nursing college, in Kedah. The study result showed that the pre-test knowledge 30 (75%) of student's Midwives had good knowledge and only 5 (12.5%) had good practices for control group. Meanwhile, 40 (100%) respondents from experimental group have poor knowledge & practices pre-test. Although, 80 (100%) respondents from control and experimental group gained a good knowledge and practices post teaching programmed.

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