

**EFFECTIVENESS OF HANDS ON TRAINING REGARDING PLOTTING OF
PARTOGRAPH AMONG THE NURSING STUDENTS**

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ABSTRACT

BACKGROUND OF THE STUDY: The World Health Organization (WHO) developed a partograph formulated by Philpott and Castle. To test whether the use of WHO partograph improved labour management and reduced maternal and fetal morbidity and mortality, A partograph is a representation of the changes that occur in labour, including cervical dilatation, fetal heart rate, maternal pulse, blood pressure and temperature. It also shows a numerical record of features such as urine output and the volume and type of intravenous infusions. It is therefore possible at a glance to identify deviations from normal in any of these variables. Objectives: The objectives of the research are to assess the existing knowledge regarding plotting of partograph among the nursing students, evaluate the effectiveness of hands on training regarding plotting of partograph among the nursing students.

AIMS: The main aim of the study was to assess the effectiveness of hands on training regarding plotting of partograph among the nursing students.

MATERIAL AND METHOD: Pre experimental research design and evaluative research approach was adopted to achieve the goal of the study. Total 50 nursing students were recruited at nursing college of Vadodara. Data were collected using Self administered knowledge questionnaire tool. Researcher applied 25 statements to measure the level of knowledge regarding plotting of partograph. The collected data was tabulated and analyzed by using descriptive and inferential statistics

RESULTS: Computed t test revealed that mean post test knowledge score regarding plotting of partograph (20.28) was significantly higher than mean pre test knowledge score (12.76) at $p < 0.05$ level. The 't' value was significant ($t=2.0096$) at $p < 0.05$ level indicating the hands on training regarding plotting of partograph was effective.

CONCLUSION: The study findings revealed that hands on training was highly effective in improving knowledge of plotting of partograph among nursing students.

KEYWORDS: *Effectiveness, hands on training, plotting partograph, nursing students.*

INTRODUCTION

Partograph is a composite graphical record of cervical dilatation and descent of head against duration of labour in hours. It also gives information about fetal and maternal condition which are all recorded on a single sheet of paper.¹ Most partographs have three distinct sections where observations related to maternal and fetal conditions and labour progress are recorded.² Early detection of prolonged labour greatly contributes to prevention of obstructed labour and other related complications such as post partum haemorrhage, ruptured uterus, puerperal sepsis and obstetric fistula.³ when augmentation of labour is appropriate and to recognize cephalic pelvic disproportion long before labour, becomes obstructed.⁴ A partograph is a representation of the changes that occur in labour, including cervical dilatation, fetal heart rate, maternal pulse, blood pressure and temperature. It also shows a numerical record of features such as urine output and the volume and type of intravenous infusions (including oxytocin drips). It is therefore possible at a glance to identify deviations from normal in any of these variables. It has been shown to be effective in preventing prolonged Maternal mortality is still a concern in India. Approximately 40% of all maternal deaths in India are due to haemorrhage (most post partum) and another 5% due to obstructed labour.⁵

When the partograph is used effectively it will prevent prolonged or obstructed labour, which accounts for about 8% of maternal deaths. The majority of the deaths and complications could be prevented by cost-effective and affordable health interventions like the partograph and indeed the same measures that would prevent maternal deaths would also prevent morbidity and improve neonatal outcome. Over the past one decade WHO has shown beyond any doubt that active management of the third stage of labour (AMTSL) reduces bleeding

from pregnancy by almost 50%,⁶ and plotting a partograph enables the service providers in the early identification of prolonged labour, thereby avoiding delayed labour and the resultant complications from exhausted or ruptured uterus.⁷ These services should be based on established norms and procedures, for example, standardized tools for practice such as the partogram (Daly et al 1993).⁸

MATERIAL AND METHODS

The research design of the study was pre experimental research design with evaluatory research approach is used to achieve the goal of the study. For study 50 nursing students were recruited from various nursing colleges of Vadodara. The participants included in of the study were selected by using non probability sampling technique based on inclusion criteria. After obtaining formal approval from the concerning authority informed consent from were filled by the sample ,the investigator personally collected the demographic data The study design shows that on the first day pre-test was given to collect the data by administration of self structured knowledge questionnaires. On the same day hands on training was given to students regarding how to plot partograph. On the seventh day post-test was conducted to assess effectiveness of hands on training with same pre-test knowledge questionnaires

FINDINGS:

Description of the level of knowledge:

The level of knowledge of students regarding plotting of partograph shows that, majority 39 (78%) of the sample had average knowledge, 1 (2%) of the students had poor knowledge and 10 (20%) had good knowledge

Knowledge distribution of pre-test and post-test scores of the nursing students.

Knowledge Score	Pre-test			Post-test		
	Frequency (f)	Cumulative Frequency	Percentage cumulative frequency	Frequency (f)	Cumulative Frequency	Percentage cumulative frequency
5-7						
7-9						
10-11	5	5	10			
11-13	24	29	48			
13-15	11	40	22			

15-17	5	45	10	3	3	6
17-19	4	49	8	9	12	18
19-21	1	50	2	11	23	22
21-23				18	41	36
23-25				9	50	18

Above table shows that majority of respondents percentage (48%) had scores between 11-13 and all the respondents had scores below 21 in the pre-test in comparison to majority (36%) of the students in post-test had scores between 21-23.

Area wise effectiveness of structured teaching programme

Area wise distribution of knowledge score of the students reveal that, in Introduction of partograph the mean post-test knowledge score was 94.5% and the mean pre-test knowledge score 56.5%. The effectiveness score was 38%. The ‘t’ value was computed to find the level of significance between the means and it was observed that not significant (‘t’ = 1.9) at $p < 0.05$ level for the ‘partograph’. The mean post-test knowledge score for Components of partograph was 78% and the mean pre-test score was 53.84% with the effectiveness of 24.15%. The statistical test indicates the effectiveness of score was 24.15% found highly significant (‘t’ = 5.27) at $p < 0.05$ level for ‘Components of partograph’. The mean post-test knowledge score of ‘Importance of partograph’ was observed to be 79.5% and the mean knowledge pre-test score of 43.75% with the effectiveness knowledge score of 35.75% established significant result (‘t’ = 5.4) at $p < 0.05$ level which is highly significant.

Significance of the difference between pretest and post-test knowledge score

Mean pretest	Mean posttest	Mean effectiveness	‘t’ value	Table value	Level of significance
12.76	20.28	7.52	12.57	2.0096	Significant

Above Table shows that Pre-test and post-test mean knowledge scores and ‘t’ value showed that the mean gain in knowledge was 12.57. The ‘t’ value was significant (t= 2.0096) at $p < 0.05$ level which indicates this hands on training regarding partograph was effective.

DISCUSSION

The aim of selection of this study on plotting of partograph is to improve the knowledge of nursing student so they can use this knowledge and practice in maintenance of partograph in the labour room and can prevent further complications during labour. The findings of the pretest study showed that the level of knowledge of students regarding plotting of partograph shows that, majority 39 (78%) of the sample had average knowledge, 1 (2%) of the students had poor knowledge and 10 (20%) had good knowledge and no participants belong to very poor and excellent group in pretest. Area wise distribution of the knowledge scores in pretest of the students reveals that out of 25 maximum obtainable scores the total mean score was 12.76 which is 25.52% of the maximum score. The highest mean percentage (56.5%) was obtained in the area of “Introduction of Partograph” with mean and SD of 2.26 ± 0.59 . The mean percentage of 53.84% was obtained in the area of “Components of partograph” with mean and SD of 2.26 ± 1.74 . The mean percentage of 43.75% was obtained in area of “Importance of partograph” with mean and SD of 3.5 ± 1.16 . These findings explain that the students had average knowledge regarding plotting of partograph. Thus, pre-test and posttest mean knowledge scores and ‘t’ value showed that the mean gain in knowledge was 12.57. The ‘t’ value was significant ($t=2.0096$) at $p<0.05$ level indicating the teaching programme was effective. This same type of findings present in the study Sama J after plotting of partograph knowledge of student was improved and difference between pre-test and post-test knowledge score was varying.⁹ The study conducted by Mathews JE, Rajaratnam, there data also shows and supports that the composite partograph, and was associated with better labour outcomes.¹⁰

CONCLUSION:

The aim of selection of this study on plotting of partograph is to improve the knowledge of nursing student regarding how to plot partograph, so they can use this knowledge and practice in maintenance of partograph in the labour room and can prevent further complications during labour

Ethical approval

Since the study involved human subjects, a formal ethical approval received from institutional ethical committee.

Conflict of Interest

The authors declare no conflict of interest.

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