Effect of Training Program on Knowledge, Attitude and Practice of Use of Partograph among Staff Nurses Working in Labour Room of Selected Hospital in Pune City

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Abstract: _Background: Labour process is all different for different women. Maternal and fetal monitoring during labour is very important as this is the only way to assess the progress of labour and to identify deviations from normal. Pregnancy and child birth is a normal physiological process and every pregnant woman hopes to give birth safely. Partograph is a printed chart on which observation in labour are recorded in a graphic format to provide an overview of labour, aiming to alert midwifes and obstetricians regarding deviation in labour progress as well as maternal or fetal wellbeing. The aim of this study, to assess the effectiveness of training program on Knowledge, attitude, &Practice regarding use of partograph. Research Methodology: A Pre-Experimental: One Group Pre-test Post-test Design was used for the study involving 40 staff nurses as sample by using non-probability purposive sampling method. Pre test was conducted with help of structure questionnaire for knowledge, likert scale for attitude and observational checklist for practice. Teaching Program on use of Partograph given as intervention after pretest. Then post test was conducted after 2 days. The staff nurses working in labour room have cooperated during data collection periods. Result and Summary: Paired t-test was applied for the effectiveness of training program on knowledge regarding use of Partograph. Average knowledge score in pretest was 2.8 which increased to 3.25 in posttest. Corresponding p-value was small (less than 0.05), which means that the training program on partograph imparted to the staff nurses was effective in enhancing their knowledge. The effectiveness of training program on attitude regarding use of Partograph. Average attitude score in pretest was 25 which increased to 25.3 in posttest. Corresponding p-value was small (less than 0.05) which means that the training program was significantly effective in improving the attitude among the staff nurses regarding the use of partograph. The effectiveness of training program on practices regarding use of Partograph. Average practice score in pretest was 1.55 which increased to 2.25 in posttest. Corresponding p-value was small (less than 0.05)Which means that the training program on use of partograph imparted to the staff nurses was significantly effective in improving their practices of using partograph. The correlation between Knowledge, attitude and practices though positive is not significant. None of the demographic variables was found to have significant association with the knowledge, attitude and practices of the staff nurses regarding the use of partograph. Conclusion: The findings of the study shows that the effect of training program on use of partograph was effective as seen in the score of in pre-test and post-test, which will help the staff nurses working in labour room to increase the knowledge and practice towards use of partograph._

Keywords: Effectiveness, Training, Knowledge, Attitude, Practice and Partograph

1. Introduction

Partograph was developed by Friedman, an Obstrestician, who has used it to monitor cervical dilation & called is the cervicograph. Partograph is a printed chart on which observation in labour are recorded in a graphic format to provide an overview of labour, aiming to alert midwifes and obstetricians regarding deviation in labour progress as well as maternal or fetal wellbeing.[1]

Globally, there were an estimated number of 287,000 Maternal deaths in 2010, This means, every day ,approximately 800 women die from preventable cause related to Pregnancy and Childbirth. Good quality care is important to the reduction of maternal mortality and because women in the antenatal, intranatal and postnatal period of pregnancy are at the highest risk special attention is needed in order to prevent any potential complicationshence, Partograph is one of the ways to atltest achieve this.[2]

WHO (2008), reported that, "tracking progress in maternal, new born and child survival." Count down to 2015 was launched on 17th April 2008 by the global partnership for maternal & newborn and child health (MNCH), and joins the MNCH communities into an alliance of 240 members globally to ensure that all women, infants and children not only remain healthy but thrive and receive call they need to live healthy and productive lives.

Partograph consist of Different Components related to monitoring of foeto-maternal wellbeing and identification data of the women in labour including maternal and fetal components, like fetal heart rate, amniotic fluid, moulding.Cervical dilatation, descent of the head, contractions per 10 min , oxytocin drops per minute drugs or IV Fluid givenvital signs, Urine protein, acetone, volume.[3]

Research Approach
Research approach refers to the way in which the researcher plans or structures the research process.The study approach used in this study was quantitative approach. Quantitative

approach is an inquiry into a identified problem, based on testing a theory composed of variable, measured with numbers and analysis by using descriptive or inferential statistic.[5]

2. Material and Methods

A Pre-Experimental One Group Pretest Posttest study design with quantitative approach was used, as this study was aimed, the approach was found to be most appropriate. This study was conducted in selected hospital of Pune city. The selection was based on easy accessibility, cooperation and availability of samples. Total 40 staff nurses working in labour room of selected hospital, Pune city who met the inclusion criteria were selected. Incidental teaching was impaired to sample, with the gap of 2days a post test. Tool used for the collection of data was a Questionnaire (knowledge), Likert Scale (Attitude) and Observational checklist (Practice). **Findings:** The analysis and interpretation of the data collected to determine the Effectiveness of training programme on knowledge, attitude and practice of use of partograph among staff nurses working in labour room is carried out based on objectives set by the researcher taking the level of significance as 0.05.[7]

Section I: Description of Samples (Staff Nurses Working in Labour Room) Based on the Demographic Variable

Table 1: Description of samples (staff nurses) based on their personal characteristics in terms of frequency and percentages.

Demographic variable	Freq	%
Age		
21- 25 years	22	55.0%
26- 31 years	18	45.0%
Education		
GNM	33	82.5%
BSc Nursing	7	17.5%
Year of experience		
Less than 5 years	36	90.0%
6-10 years	4	10.0%
Duration of posting		
3 -6 months	8	20.0%
6- 9 months	4	10.0%
9 months – 1 year	17	42.5%
More than 1 year	11	27.5%
Attended any in- service programme on Partograph		
Yes	24	60.0%
No	16	40.0%

Above table shows that 55% of the nurses working in Labour room had age 21-25 years and 45% of them had age 26-31 years.

82.5% of them were GNM and 17.5% of them were B.Sc. Nursing.
90% of them had less than 5 years of experience and 10% of them had 6-10 years of experience.
20% of them had posting for 3-6 months, 10% of them had posting for 6-9 months, 42.5% of them had posting for 9 months to 1 year and 27.5% of the had posting for more than 1 year.
60% of them had attended in-service program.

Section II: Analysis of the data related to assessment of knowledge, attitude, practice and practices regarding use of partograph among staff nurses working in labour room.

Table 2: Knowledge regarding use of Partograph before training program among staff nurses working in labour room

Knowledge	Pretest	
	Freq	%
Poor (score 0-6)	29	72.5%
Average (score 7-13)	11	27.5%
Good (score 14-20)	0	0.0%

In pretest, 72.5% of the staff nurses had poor knowledge (score 0-6) and 27.5% of them had average knowledge (score 7-13) regarding use of Partograph.

Table 3: Attitude regarding use of Partograph before training program among staff nurses working in labour room

Attitude	Pretest	
	Freq	%
Poor (score 10-16)	0	0.0%
Moderate (score 17-23)	12	30.0%
Positive (score 24-30)	28	70.0%

In pretest, 30% of the staff nurses had moderate attitude (Score 17-23) and 70% of them had positive attitude (Score 24-30) regarding use of partograph.

Table 4: Practice regarding use of Partograph before training program among staff nurses working in labour room

Practices	Pretest	
	Freq	%
Poor (score 0-3)	38	95.0%
Average (score 4-6)	2	5.0%
Good (score 7-10)	0	0.0%

In pretest, 95% of the staff nurses had poor practices (Score 0-3) and 5% of them had average practices (Score 4-6) regarding use of partograph.

Section III

Table 5: Paired T-Test for the Effectiveness of Training Program on knowledge Regarding Use of Partograph

	Mean	SD	T	df	p-value
Pre test	2.8	1.2	3.9	39	0.000
Post test	3.25	1.9			

Researcher applied paired t-test for the effectiveness of training program on knowledge regarding use of Partograph. Average knowledge score in pretest was 2.8 which increased to 3.25 in posttest. Corresponding p-value was small (less than 0.05), which means that the training program on partograph imparted to the staff nurses was effective in enhancing their knowledge. Thus, null hypothesis is **rejected.**

Table 6: Paired T-Test for the effectiveness of training program on attitude regarding use of partograph.

	Mean	SD	T	df	p-value
Pre test	1.55	1.2	2.6	39	0.006
Post test	2.25	1.8			

Researcher applied paired t-test for the effectiveness of training program on attitude regarding use of Partograph. Average attitude score in pretest was 25 which increased to 25.3 in posttest. Corresponding p-value was small (less than 0.05),which means that the training program was significantly effective in improving the attitude among the staff nurses regarding the use of partograph. Thus ,null hypothesis is **rejected**.

Table 7: Paired T-Test for the effectiveness of training program on practices regarding use of partograph

	Mean	SD	T	df	p-value
Pre test	1.55	1.2	2.6	39	0.006
Post test	2.25	1.8			

Researcher applied paired t-test for the effectiveness of training program on practices regarding use of Partograph. Average practice score in pretest was 1.55 which increased to 2.25 in posttest. Corresponding p-value was small (less than 0.05). Which means that the training program on use of partograph imparted to the staff nurses was significantly effective in improving their practices of using partograph thus, null hypothesis is **rejected.**

Section IV

Table 8: Correlation between knowledge, attitude and practices regarding use of partograph

Correlation	r	t	df	p-value
Knowledge Vs Attitude	0.05	0.32	38	0.752
Knowledge Vs Practices	0.16	0.99	38	0.330
Attitude Vs Practices	0.17	1.04	38	0.306

Pearson's correlation coefficient between knowledge and attitude was 0.05 which is positive indicating that there is positive correlation between knowledge and attitude among staff nurses regarding use of partograph. Whereas knowledge and practices was 0.16 which is positive indicating that there is positive correlation between knowledge and practices among staff nurses regarding use of partograph and also attitude and practices was 0.17 which is positive indicating that there is positive correlation between attitude and practices among staff nurses regarding use of Partograph.

Section IV: Analysis of data related to association of demographic variables with knowledge, attitude& practices among staff nurses working in labour room of selected hospital of Pune city.

Table 9: Fisher's Exact Test for association of demographic variables with knowledge among staff nurses working in labour room of selected hospital of Pune City

Demographic variable		Knowledge		p-value
		Average	Poor	
Age	21- 25 years	7	15	0.724
	26- 31 years	4	14	
Education	GNM	9	24	1.000
	BSc Nursing	2	5	
Year of experience	Less than 5 years	10	26	1.000
	6-10 years	1	3	
Duration of posting	3 -6 months	0	8	0.088
	6- 9 months	2	2	
	9 months –1 year	4	13	
	More than 1 year	5	6	
Attended any in- service programme on Partograph	Yes	8	16	0.473
	No	3	13	

Table 10: Fisher's Exact Test for association of demographic variables with knowledge among staff nurses working in labour room of selected hospital of Pune City

Demographic variable		Attitude		p-value
		Moderate	Positive	
Age	21- 25 years	7	15	1.000
	26- 31 years	5	13	
Education	GNM	8	25	0.168
	BSc Nursing	4	3	
Year of experience	Less than 5 years	9	27	0.072
	6-10 years	3	1	
Duration of posting	3 -6 months	2	6	0.465
	6- 9 months	0	4	
	9 months –1 year	7	10	
	More than 1 year	3	8	
Attended any in-service programme on Partograph	Yes	9	15	0.297
	No	3	13	

Table 11: Fisher's Exact Test for association of demographic variables with knowledge among staff nurses working in labour room of selected hospital of Pune City

Demographic variable		Practices		p-value
		Average	Poor	
Age	21- 25 years	0	22	0.196
	26- 31 years	2	16	
Education	GNM	2	31	1.000
	BSc Nursing	0	7	
Year of experience	Less than 5 years	2	34	1.000
	6-10 years	0	4	
Duration of posting	3 -6 months	0	8	0.212
	6- 9 months	0	4	
	9 months –1 year	0	17	
	More than 1 year	2	9	
Attended any in-service programme on Partograph	Yes	1	23	1.000
	No	1	15	

Since all the p-values are large (greater than 0.05), none of the demographic variables was found to have significant association with the knowledge, Attitude and Practice of the staff nurses regarding the use of partograph.

3. Discussion

This study was carried out to assess the effect of training program towards use of partograph among staff nurses working in the labour room since the p – value was small (0.05) the findings led to there was an significant improvement in knowledge and practice of the staff nurses after training program . The result shows a good knowledge and attitude towards Partograph effective in maintaining a practice of Partograph.Nagesh wakgari et.al., conducted cross sectional study in the obstrestical care giver in 403 samples. The result of their research showed that the being knowledgeable and having good attitude needs on job training .this study conducted using pre experimental pre test post one group design study showed that knowledge and practice were improved because of training program.

4. Conclusion

There is an increase in incidence of the complications during labour and is more important to detect in early stage where it can be manage effectively so it is more important to monitor the women in labour. It will help to reduced the maternal mortality and morbidity.

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