ORIGINAL RESEARCH PAPER

Nursing

KEY WORDS: Simulated Learning, Intrapartum Care, Competencies

EFFECTIVENESS OF SIMULATED LEARNING ON MATERNITY ENHANCED CARE COMPETENCIES OF MIDWIVES DURING INTRAPARTUM CARE AT CORPORATION MATERNITY CENTRES, COIMBATORE

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ABSTRACT

Background: Childbirth is important for the women and it bring a positive experience for her family. It is very challenging for their physical and psychological health, so it considers the prevention of morbidity and reaction to the emergency situation. This study aimed to develop effective simulation learning on intrapartum care among midwives. Before entering to the clinical ,Simulation learning is important ,it is the most important training and effective skill development by all specialty , this lead to bring the safety of the mother and child. **Methodology:** In this study, 20 midwives were selected based on inclusive criteria (10-Interventional group and 10 – Routine care group) simple random sampling technique (lottery method) is used. The pretest was conducted on knowledge of labour by using questionnaire and skills by observation checklists to assess maternity enhanced care competencies in progress of labour among midwives. **Results:** The result shows that in interventional group the knowledge of pre and post test is 18 and 21, whereas skill of pre test and post test is 86.3 and 96.7. The reliability of the tool obtained for knowledge 'r' = 0.81 and skills on maternity enhanced care competencies k = 0.6 the strength of agreement is moderate. **Conclusion:** The finding of study concluded that simulated learning on maternity enhanced care competencies during intrapartum care was effective in enhancement of knowledge and skills among midwives.

INTRODUCTION

Birth is a life-changing event for every women, it brings happiness in their life .The women has the potential to care them during intrapartum which affect them both physically and emotionally at the time of delivery [1]. Women bring a positive experience for her family. It is very challenging their physical and psychological health, so it consider the preventing of morbidity and reaction to the emergency situation [2].

Worldwide, the statistic pointed that , 140 million women are giving birth every year. Every women and their foetus are healthy during the time of antenatal but it may be low risk of developing complications during childbirth[3]. At the same time, the morbidity or mortality may occur in the minority of women and neonate which lead to several complications[4]. Most of the maternity care policies are recognize that mother and their child should be fair, compassionate and respectful care during labor and delivery .This make the mother and neonate are get good healthy in their life .

As WHO enabled that evidence supporting the development of the 2018 followed the intrapartum care guidelines[6] which indicated that the women want a "positive birth experience" which meets or exceeds their personal ,sociocultural beliefs and expectations of the mother (7).

MATERIALS & METHODS

Formal permission obtained from Corporation Maternity Officer and Medical officer, the study was conducted at Vilankurchi and Gandhimanagar Maternity Centres, Coimbatore. The investigator used true experimental –pre and post test design.20 midwives were selected based on inclusive criteria (10-Interventional group and 10 – Routine care group)simple random sampling technique (lottery method) were used.

The pretest was conducted about knowledge of labour by structure questionnaire and skills by observation checklists to assessed the maternity enhanced care competencies in progress of labour among 20 midwives for 4 weeks. On 5th week the researcher delivered the simulated learning regarding maternity enhanced care competencies such as Pervaginal Examination, Partograph, Immediate Newborn Care and Placental Examination for Interventional group. Each competency took 15 minutes and completed in 1 hour. The researcher ensured the practice of midwives by return demonstration regarding maternity enhanced care competencies with the help of mannequin for 2 weeks. Researcher assessed the post test knowledge and skills on maternity enhanced care competencies through questionnaire and observation check list for 1 month. All the data were collected and analyzed with proper statistical method by using descriptive and analytical data.

VARIABLES:

Independent Variable:

Simulated Learning on Maternity Enhanced Care Competencies.

DependentVariable:

Knowledge on labour and skills i) to assess the progress of labour, (Per Vaginal Examination, Partograph), ii) Placental examination iii) Immediate new born care.

Reliability Of The Study:

Inter rater observational method is used to test the skills through stimulated learning on maternity enhanced care competencies among the midwives. By using cohens kappa inter rater reliability method, In Observer I the pretest score is 89.8 and the post test score is 98.Whereas Observer II, the pretest is 84 and the post test is 98 .So the agreement between both observer kappa 'k' = 0.6, the strength of agreement is moderate .The test retest method is used to assessed the knowledge questionnaire by using karlpearson correlation coefficient, 'r' = 0.81 which showed that the tool is reliable.

RESULTS

The result shows that in interventional group the knowledge of pre and post test is 18 and 21, whereas skill of pre test and post test is 86.3 and 96.7. The reliability of the tool obtained for knowledge 'r' = 0.81 and skills on maternity enhanced care competencies k = 0.6 the strength of agreement is moderate.

Table :1 Frequency And Percentage Of Pre And Post Test Level Of Knowledge On Labour During Intrapartum Care Among Interventional And Routine Care Group. (N-20)

Level of knowledge	Interventional (N-10)				Routine care (N-10)			
	Pre test		Post test		Pre test		Post test	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)

In adequate	1	10	-	-	4	40	2	20
Moderately adequate	6	60	4	40	4	40	4	40
Adequate	3	30	6	60	2	20	4	40

depicts that, 1(10) in pretest had inadequate knowledge 6(60%) of them in pretest and 4(40)% in post test had moderately adequate knowledge, 3(30%) of midwives had adequate knowledge, Whereas in post test most 6(60%) of them had adequate knowledge in interventional group, In routine care group in pretest 4(40%) had inadequate, 4(40%) in pre test and 4(40%) in post test had moderately adequate and 2(20%) in pre test and 4(40%)post test had adequate knowledge

Table 2 Frequency And Percentage Distribution Of Pre Test And Post Test Score Of Skills On Maternity Enhanced Care Competencies In The Interventional And Routine Care Group (N-20)

Level of competencies skill	Interventional group (N-10)				Routine care group (N-10)			
	Pretest		Posttest		Pretest		Posttest	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Outstanding	-	-	7	70	-	-	-	-
Competent	6	60	3	30	4	40	5	50
Incompetent	4	40	-	-	6	60	5	50

Depicts that, 6(60%) of them were competent in pretest, 4(40%) was incompetent,Where as in post test most 7(70%) of them were outstanding and 3(30%) in were competent, in interventional group. In routine care group, both pretest and post test 4(40%) and 5(50%)of them were competent and 6(60%) in pretest and 5(50%) post test were incompetent.

Table 3 Comparison Of Mean, SD, And Mean Percentage Of Pre And Post Test Scores Of Skills On Maternity Enhanced Care Competencies During Intrapartum Care Of Interventional Group(N-10)

S. No	Areas	Max Score	Pre test score			Post test score			't' value paired test
			Mean	SD	Mean (%)	Mean	SD	Mean (%)	
1.	Per-vaginal Examination	10	6	0.57	60	9	0.7	90	0.93
2.	Partograph	10	5.5	0.5	55	8	0.8	80	0.90
3.	Immediate Newborn care	10	7	0.7	70	9	0.9	90	0.75
4.	Placental Examination	10	5.5	0.5	55	9	0.9	90	0.95

*significant at 0.05 level

It shows the comparison of skills on maternity enhanced care competencies in interventional group , pretest mean 6±0.57, post test mean 9±0.7 and the 't' value 0.93 for Pervaginal examination , pretest mean 5.5±0.5, post test mean 8±0.8 and the 't' value 0.90 for Partograph , pretest mean 7±.7, post test mean 9±0.9 and the 't' value 0.75 for Immediate newborn care , pretest mean 5.5±0.5, post test mean 9±0.9 and the 't' value 0.95 for Placental examination at the level of P<0.05 significant

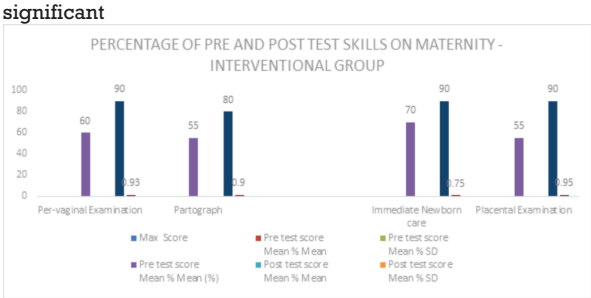

Figure 1 :

Table 4: Orrelate The Pretest And Post Test Level Of Knowledge And Skill On Maternity Enhanced Care Competencies Among Midwives During Intrapartum Care In The Interventional And Routine Care Group. (N-20)

Group	Variable	Pre Test				Post Test			
		Mean	S.D	Spearman rho correlation coefficient	Type of correlation	Mean	S.D	Spearman rho correlation coefficient	Type of correlation
Interventional group	Knowledge	18	2.5	r=0.78	Strong +	21	2.5	r =0.9	Strong +
	Skills	86.3	4.89			98.7	4.9		
Routine care group	Knowledge	17	2.3	r =0.4	Weak+	18	2.3	r =0.5	Weak +
	Skills	85.6	4.6			90.2	4.6		

It show pretest in the interventional group level of knowledge the mean and S.D was 18 ± 2.5 and for skills 86.3 ± 4.89, 'r' =0.78 shows strong positive correlation. Whereas in Routine care group on knowledge the mean and S.D was 17 ± 2.3 and 85.6 ± 4.6 for skills with the value 'r' =0.4 shows a weak positive correlation between knowledge and skills. post test in the interventional group on knowledge the mean and S.D was 21 ± 2.5 and for skills 98.7 ± 4.89 with value 'r'= 0.9 shows strong positive correlation, where as in Routine care group on knowledge the mean and S.D was 18 ± 2.3 and for skills 90.2 ± 4.6; the correlation value 'r' = 0.5 shows weak positive correlation between knowledge and skills.

DISCUSSION

The study result shows that lecturer based education is helpful along with the simulation learning with mannequins during clinical environment which makes more effective among midwives during intrapartum care. It is one of the best and active techniques of learning and due to that possibility of using different levels of learning through simulation. During multiple learning techniques handled through simulation, midwives can able to handle the real situation individually in clinical environment which leads to more effective and value added to study. Also simulation method is more safe and successful along with the learning environment. Success rate is improved gradually while multiple learning techniques are followed which results the study effective. The result shows that simulation learning experience is supportive to develop the midwives such as critical thinking, clinical reasoning, and decision making skills [10]. Future work must also study the implementation and sustainability of training programmes, evaluating of midwives and resources needed for, to conduct

of training for maternity care in both low- and high-income settings.

CONCLUSION

Findings suggest significant overall improvement in intrapartum and newborn care practices after the simulation learning the midwive monitoring during the progress of labour . It is helpful for all the midwvies to improve their knowledge and skill in all aspects . Simulation and team-training likely contributed towards the overall improvement, especially for intrapartum care.The reliability of the tool obtained for knowledge 'r' = 0.81 and skills on maternity enhanced care competencies k = 0.6 the strength of agreement is moderate, which showed the tool is reliable. The study concluded that simulated learning on maternity enhanced care competencies during intrapartum care was effective in enhancement of knowledge and skills among midwives in interventional group and the study is feasible and practicable.

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