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Labor Care Training Programme for Among Year Nursing Students In terms of Knowledge and Skill by using Objective Structure Clinical Evaluation

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ABSTRACT

Every year, out of an estimated 120 million pregnancies that occur worldwide, about half a million women die because of complications of pregnancy and childbirth. Maternal and Neonatal mortality is unacceptably high. Globally, 303000 women and 2.7 million neonates died in 2015. There is a paradigm shift toward the third delay rather than the first or second delay. The Government of India has taken the initiative to strengthen nursing students' SBA to achieve SDG-3 was targeted by 2030. So, there is a need for skilled assistance during labour is a very important and key service to reduce the rates of maternal mortality and morbidity rates. The study was conducted to assess the knowledge and skill of the labour care Training Programme among final-year nursing students.

Methodology:

The True experimental design with pre-test post-test control group research design was adopted with descriptive, evaluative approach was used in this study. The 208 Nursing students (104 in each group) from selected school of Nursing at karaikal. Simple Random Sampling was adopted. In this study investigator developed the Skill training programme for final year nursing students (Experimental group) regarding Labour care, includes skill demonstration by using

OSCE station with childbirth simulator .The data collection was done by using the knowledge questionnaire and Skill assessed by OSCE method. The data analysis and interpretation were based on the objectives of the study with the help of inferential and descriptive statistics.

Results:

In experimental group, majority of the students 101(97.1%) were between the age group of 20-24 years. Whereas in control group, majority of the students 99(95.2%) were between the age group of 20-24 years. The present study found out level of knowledge **in experimental group**, the pretest value is 87(83.6%) are having inadequate knowledge. Whereas in posttest 79(76%) are having adequate knowledge .**In control group** pretest, 92(88.4%) are having inadequate knowledge. Whereas in post- test, 71(68.3%) are having inadequate knowledge,

The present study found out level of Skill **in experimental group** pretest, 91(87.5%) are having Incompetent skills. Where as in post- test, 81(77.9%) are having Partial competent skills. **In control group** pretest, 92(88.5%) are having Incompetent skills; Where as in post- test 90(86.5%) are having Incompetent skills.

Association of pre and post test level of knowledge regarding Labour Care Trainning Programme in exprimental group with their selected demographic variable. In this, the ***Source of Information*** is found to be statistically significant at 0.05 level, were as other variables are found to be non significant with their level of Knowledge

Conclusion:

The overall results showed experimental scores are higher than that of the control group ($P < 0.01$). Significant improvement in both knowledge and skills of the trainee after the labour care training program suggesting, that training program and practical training sessions are effective ways of learning. Objective assessment of the impact of training by using standard tools is also suggested. Researcher also feels that such training program should be done on a larger scale to train the staff and nursing students in order to achieve the targets set under millennium development goals. SDG's target-3 and reduce MMR, NMR by 2030.

Statement of the problem

A Study to Assess the Effectiveness of Labor Care Training Programme for Final Year Nursing Students in terms of Knowledge and Skill by using Objective Structure Clinical Evaluation at selected Nursing Schools, Karaikal

Objectives of the study

- To assess the level of Knowledge regarding Labor Care among final year Nursing students in both experimental and control group.

- To assess the level of skills regarding Labor Care among final year Nursing students in both experimental and control group.
- To assess the effectiveness of Labor Care Training Programme among final year nursing students in experimental group.
- To associate the level of Knowledge & skills regarding labor care among final year Nursing students with their selected demographic variables in both experiential and control group.

Hypotheses

H1 There is a significant difference in the level of knowledge & skills regarding labor care among final year nursing students before and after intervention.

H2 There is a significant association between the level of knowledge & skills regarding labor care among final year nursing students with their selected demographic variables in both the groups.

METHODOLOGY

Research approach: Quantitative approach

Research design: True experimental Research design (pre-test post test control group design)

Setting: Nursing School At Karaikal

Target Population: Nursing students

Sample: Final year Nursing students studying at a selected nursing school, Karaikal

Sample size: 208 students (104 experimental and 104 control)

Sampling technique: Simple Random sampling technique

Criteria for sample selection:

-Final year GNM students of selected Nursing school at Karaikal

-Willing to participate

-Available at the time of data collection

Tools and Instruments:

The data collection tool consist of 2section namely

Section A: Socio- Demographic Data

Section B: Knowledge Questionnaire to assess the final year nursing students by Multiple choice Knowledge questionnaire

Section C: Objective Structure Clinical Examination to assess the skills

Score Interpretation

1. Knowledge questions consisted of forty multiple-choice questions that checked the Nursing student's basic knowledge of labor care. Participants were expected to choose between four response items. Only one of the response items is correct Overall Score ranges from 0-40 with categorized in

Below 20 -Inadequate Knowledge

20-30 -Moderately Adequate Knowledge

31-40 -Adequate Knowledge

2. Skill -According to the nature of the procedure, checklist is constructed in the same manner. Each checklist contained 10 items based on the steps of the procedure. Each item is awarded 1 and 0 mark for the right and wrong answer respectively. Totally eight checklist is made for the eight stations, each checklist weighing 10 marks. The skill level of the samples was graded as follows:

Below 3 -Incompetent

4-6 -Partial competent

7-10 -competent

Data collection procedure

Formal consent was obtained from the Institutional Ethical Committee on 27.05.2021 to proceed with the study. Written permission was obtained from the Head of the institution to conduct the study. Procedure for data collection was explained to the samples and the willingness of the samples to participate in the study was confirmed. Written and Oral consent was obtained from the subjects prior to data collection. The study was conducted step by step precaution to maintain confidentiality and anonymity of the subjects. The researcher was available to clarify the doubts of the subjects throughout the study. Data collection was carried out from 05.07.2021- 29.07.2022 with structure interview knowledge questionnaire and eight OSCE stations.

Results and findings

Table 4.1: Frequency and Percentage wise distribution of the demographic variables among final year nursing students in both Experimental group and Control group.

(N=208 (104+104))

S. NO	DEMOGRAPHIC VARIABLES	EXPERIMENTAL GROUP		CONTROL GROUP		Chi-square X^2 and P-Value
		N	%	N	%	
1	**Age in years**					X^2=0.52 p =0.471
	20 – 24 Years	101	97.1	99	95.2	

	25 – 30 Years	3	2.9	5	4.8	NS
	>30 Years	0	0	0	0	
2	**Gender**					X^2=0.885 p =0.347 NS
	Female	96	92.3	92	88.5	
	Male	8	7.7	12	11.5	
3	**Marital Status**					X^2=0.058 p =0.810 NS
	Married	9	8.7	10	9.6	
	Unmarried	95	91.3	94	90.4	
4	**Religious Status**					**X^2=21.62 p =0.000 **HS**
	Hindu	56	53.8	82	78.8	
	Muslim	1	1	5	4.8	
	Christian	47	45.2	17	16.4	
	Others	0	0	0	0	
5	**Do you know about Labour Training Program**					X^2=0.124 p =0.725 NS
	No	83	79.8	85	81.7	
	Yes	21	20.2	19	18.3	
6	**Source of Information**					**X^2=28.46 p =0.000 **HS**
	Nil	12	11.5	0	0	
	Educational Institution	39	37.5	21	20.2	
	Clinical Posting	19	18.3	34	32.7	
	Mass Media and Journal/Magazine	13	12.5	30	28.8	
	CME/Conferences	21	20.2	19	18.3	

S–Significant;NS–Non-Significant;HS–Highly Significant

The **Chi-square - X^2 value** and p value for all the above variables shows that final year Nursing students in experimental and control group were homogenous and comparable with regard to Age, Gender, Marital Status and know about Labour care Training Program whereas dissimilar in terms of Religious Status and Source of Information.

Table 4.2:- Frequency and percentage wise distribution of level of Knowledge regarding Labour care among final year Nursing students in experimental and control group. (N=104+104=208)

LEVEL OF KNOWLEDGE	EXPERIMENTAL GROUP				CONTROL GROUP			
	PRETEST		POST TEST		PRETEST		POST TEST	
	N	%	N	%	N	%	N	%
Inadequate Knowledge	87	83.6	0	0	92	88.4	71	68.3

Moderately adequate Knowledge	13	12.5	25	24	9	8.7	26	25
Adequate Knowledge	4	3.7	79	76	3	2.8	7	6.7
Total	**104**	**100**	**104**	**100**	**104**	**100**	**104**	**100**

In experimental group, the pretest value is 87(83.6%) are having inadequate knowledge Where as in posttest 79(76%) are having adequate knowledge **In control group** pretest, 92(88.4%) are having inadequate knowledge. Where as in post- test, 71(68.3%) are having inadequate

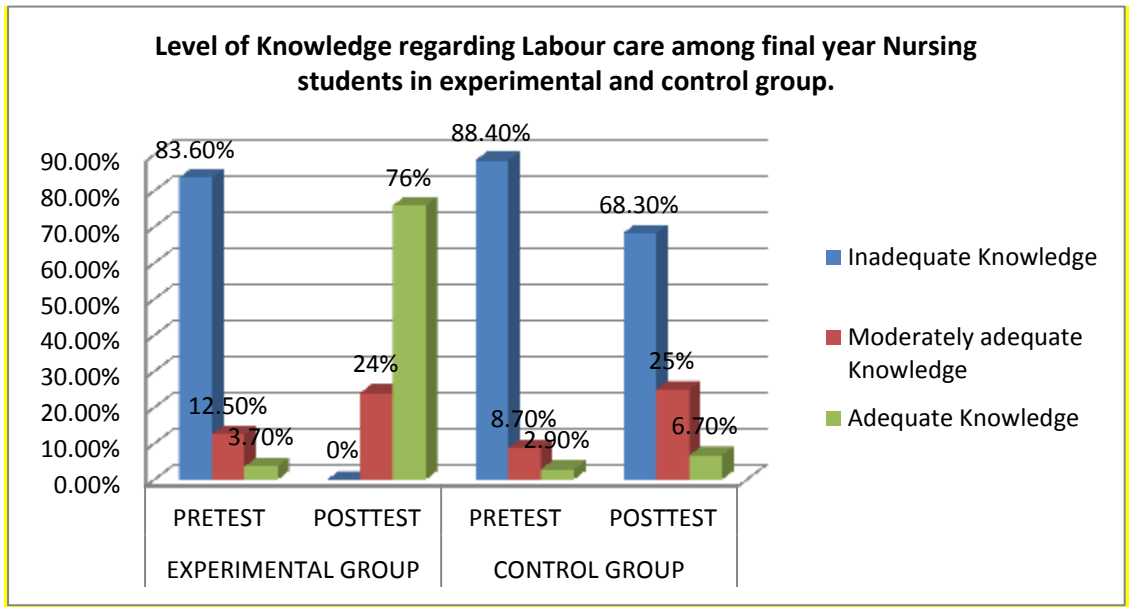

Fig. 4.2.1: Multiple Bar diagram showing percentage wise distribution of level of Knowledge regarding Labour care among final year Nursing students in experimental group

Table 4.3:- Frequency and percentage wise distribution of level of skills regarding Labour care Training Programme among final year Nursing students in experimental and control group.

(N=104+104=208)

Level of skills	**EXPERIMENTAL GROUP**				**CONTROL GROUP**			
	PRETEST		**POST TEST**		**PRETEST**		**POST TEST**	
	N	**%**	**N**	**%**	**N**	**%**	**N**	**%**

Incompetent skills	91	87.5	0	0	92	88.5	90	86.5
Partial competent skills	8	7.7	81	77.9	5	4.8	6	5.8
Competent skills	5	4.8	23	22.1	7	6.7	8	7.7
Total	**104**	**100**	**104**	**100**	**104**	**100**	**104**	**100**

In experimental group pretest, 91(87.5%) are having Incompetent skills Where as in post- test, 81(77.9%) are having Partial competent skills **In control group** pretest, 92(88.5%) are having Incompetent skills Where as in post- test 90(86.5%) are having Incompetent skills

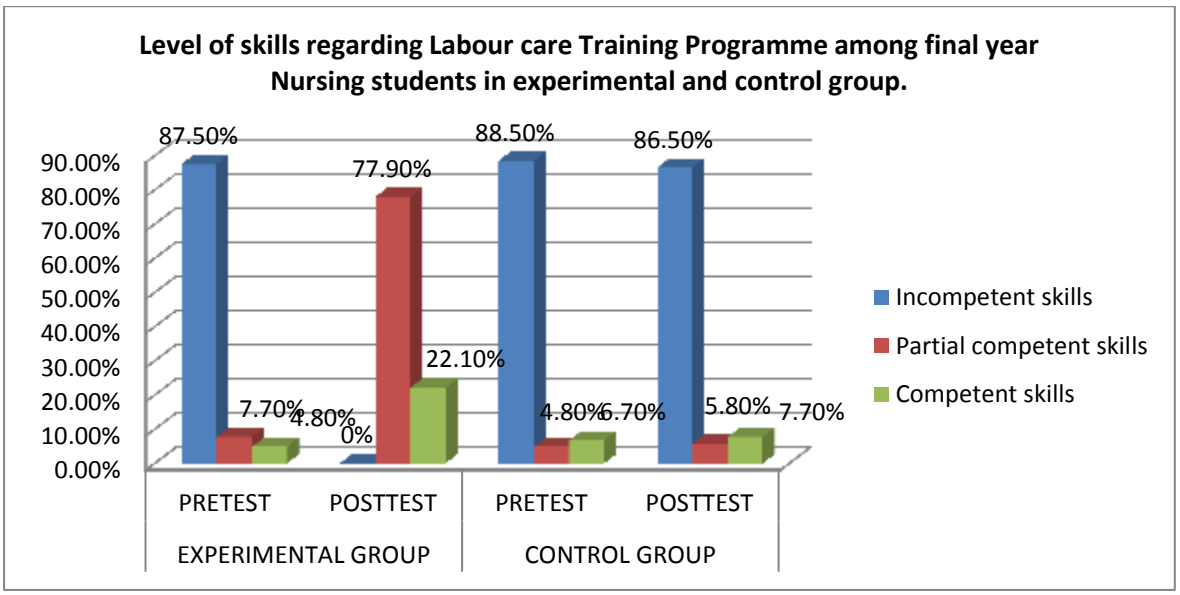

Fig. 4.3.2: Multiple Cylindrical diagram showing the percentage wise distribution of level of skills regarding Labour care Training Programme among final year Nursing students in experimental

Table – 4.4 Mean and standard deviation of Labour Care Training Programme in terms of Knowledge among final year Nursing students in both experimental and control group. (N=208)

Level of Knowledge regarding Labour care							
GROUP	**TEST**	**MEAN**	**STANDARD DEVIATON**	**MEAN DIFFERENCE**	**'t' VALUE Paired -t test**	**df**	**'p' VALUE**
Experimental	**Pretest**	15.61	3.45	19.14	28.62	103	**0.000****

group	**Posttest**	34.75	5.51				**HS**
Control Group	**Pretest**	16.25	2.64	0.519	1.63	103	0.105
	Posttest	16.77	4.26				NS

-p < 0.001 highly significant , NS-Non Significant.

In **Experimental group** the **pre-test** was 15.61±3.45 and the **post- test** mean was 34.75±5.71 with **t** value 28.62 and P value 0.000 which shows ***statistically highly significant* difference.** Where as in **Control Group** the **pre-test** mean was 16.25±2.64 and the **post- test mean** was 16.77±4.26. with **t** value 1.63 and P value 0.105 shows *statistically non-significant* difference.

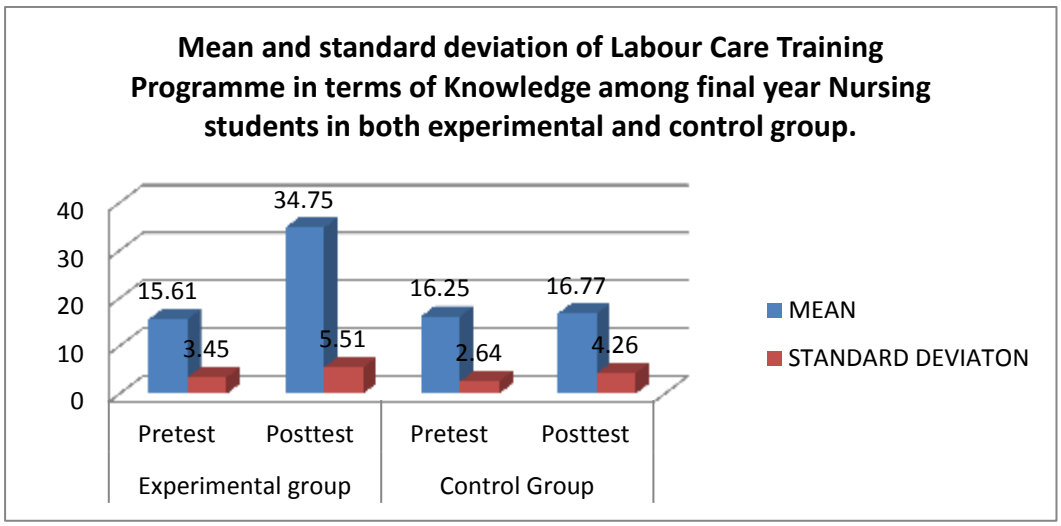

Fig. 4.4.3: Multiple Cylindrical diagram showing Mean and standard deviation of Labour Care Training Programme in terms of Knowledge among final year Nursing students in both experimental and control group.

X. Discussion, Conclusion, Implications and Recommendation

CONCLUSION:

Globally MMR and NMR are unacceptably high; most of them could be prevented. The Government of India had taken initiative to strengthening nurse-midwives' capacity requires hands-on skills training as well as improvements in labour room practices.

In educational level, training related to management of the stages of labor in level of knowledge among nursing students were significantly associated with the competent skill

towards labor care. Midwives should update their academic level and knowledge and improve their skills to provide fruitful service towards labour care and save mother and child lives. Health institutions should arrange training progarmme for all nursing students. However, Labour care training programme is described in order to provide a way forward to address the SDG's target-3 and reduce MMR, NMR by 2030.

IMPLICATIONS

Skill training programme is essential for final year nursing students. This study helps Nursing students to develop the competencies, handle the labour effectively, and provide quality care. The present study findings have implications in nursing service, Nursing Administration, Nursing education and Nursing research.

Nursing Services:

For update improving the knowledge and skill of student nurse, there is a need for regular teaching programme. This will improve their knowledge level and develop their competent skill of nurses. This leads to timely intervention. To reduce the complication during labour also reduces the motility rate. to improve the knowledge of staff nurses in service education & workshop & regular teaching should be organized at regular period so that their knowledge will be updated and refined. . The improved nurses 'competencies with resources would aid in bridging the gap in clinical practice and quality care, which would further reduce the maternal and neonatal mortality.

Nursing Administration:

An administrative role of a nurse will enhance the working capabilities of staff nurses in the hospital areas. The nurse administrator assesses the quality of care provided by the staff nurses regarding partograph. it will improve the quality assurance of staff nurses in rendering care during labor at the hospital. The government in collaboration with the nursing council may conduct in-service skill training programs for nurses, which helps to gain knowledge as well as credit point. Administrators must focus on a continuous supply of logistics and other health care facilities including manpower.

Nursing Education:

- Nurse educators should consider the inclusion of stage-wise nursing care during the intranatal period in the nursing curriculum and motivate them to gain competent skills towards it.
- Student nurses and midwives have to update their knowledge regarding conducting safe delivery.

Nursing Research

The findings of the present study are helpful for nursing professionals and nursing students to conduct further studies to find out the effectiveness of various methods of providing education on improving the knowledge regarding labour care among GNM Students. It will in turn strengthen nursing research pertaining to the obstetrics & gynecology nursing.

LIMITATIONS

- This study limited to Labour care during Intranatal period.
- The study was limited to GNM students only
- Study was limited to school of nursing
- Skill training program was implemented in short duration (1year).
- The researcher limited to school of nursing only one districts Karaikal due to feasibility

Recommendations

Labour care based training should be integrated in the practice for students before their contact with actual woman in the labor unit.

The study can be replicated in various settings

Recommendations for further research study

- The study may be replicated on large sample size and in different settings for making broader generalizations.
- A comparative study may be conducted between Staff Nurses.
- Follow-up studies can be done to evaluate the long-term effect of training.
- A similar kind of skill training can be developed on other aspects of Labour care

Recommendations for further implementation-

It is important for health services and policymakers to take the finding's implications into account as they plan and prioritize future approaches.

i. The skill training program can be used as a T**ool for teaching and evaluation** for nurses.
ii. It is not always possible to attend the training outside the facility due to a shortage of manpower. In this scenario, **Mobile Skill Lab** can be developed to provide the training at their door step & a familiar environment for rural settings.
iii. Pre-service nursing education can include an **Internship in a rural setting**.
iv. The **periodic in-service** skill training with **supportive supervision** can implemented.

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