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A Study to Assess the Effectiveness of Planned Teaching Programme on Knowledge Regarding Nesting on Posture and Movements of Preterm Babies Among Nursing Students in a Selected College at Mangaluru.

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Abstract

Background: Premature birth is when a baby is born too early, before 37weeks of pregnancy. More than 3 quarters premature babies were saved with feasible, cost effective care such as essential care during child birth and postnatal period for every mother and baby. Nesting technique is nursing procedure which is commonly used for premature babies as one of the developmental care. Nesting means, the use of rolled–up sheets to form nest to provide physiological, behavioural, and postural stability to the premature babies. Posture and movements means positioning or arrangement of the different parts of babies body corresponding to each other.

Objectives:

1. To assess the knowledge regarding nesting on posture and movements of the premature babies among B.Sc. nursing students.
2. To evaluate the efficacy of enlightenment programme regarding nesting on posture and movement of the premature babies in terms of gain in knowledge score.
3. To find out the association between pre-test knowledge score and selected demographical variables.

Methodology: A pre-experimental study was conducted among 45 B.Sc. nursing students at selected Athena College of Nursing. The research design used for the study was pre experimental; one group pre-test, post–test design. Sample was selected by using non-probability convenient sampling technique. The data was collected by using structured knowledge questionnaire. Data analysis was done by using descriptive and inferential statistics.

Results: The result of the study revealed that in pre-test, majority of the subject 30(67%) had average knowledge, 09(20%) had good knowledge and 06(13%) had poor knowledge. Whereas in post-test after educational intervention programme (EIP), all of the subjects 45(100%) had good knowledge regarding nesting on posture and movements of the premature babies. There was a significantly gain in knowledge of the B.Sc. nursing students who exposed to educational intervention programme i.e. 22%. The paired 't' value (tcal= 23.16*) at $p<0.05$ level of significance for knowledge proved that the stated hypothesis i.e. the mean post-test knowledge scores of B.Sc. nursing students in selected nursing institute who exposed to the enlightenment programme will be significantly higher than mean pre-test knowledge scores at 0.05 level of significance. Hence H1 was accepted and H2 was rejected.

Conclusion: The study concludes that enlightenment programme was more effective for B.Sc. nursing students to increase and update their knowledge regarding nesting on posture and movements of the premature babies.

Keywords: B.Sc. Nursing Students, Planned teaching Programme, Knowledge, Nesting on Posture and Movements, preterm.

Introduction:

Child birth can be beautiful, yet unimaginable experiences to any mother and family can encounter. According to United Nations International Children's Emergency Fund (UNICEF) more than 3.71 lakhs babies were born worldwide on the day of New Year 2021 and in that nearly 67 thousands of babies were born in India. Premature birth is when a baby is born too early, before 37weeks of pregnancy. More than 3 quarters premature babies were saved with feasible, cost effective care such as essential care during child birth and postnatal period for every mother and baby [1-3]. Nesting technique is nursing procedure were performed by the nurses commonly used for premature babies as one of the developmental cares. Nesting means, the use of rolled–up sheets to form nest to provide physiological, behavioural, and postural stability to the premature babies. It was designed by Denille Salducca. Here premature babies must be positioned in such way that the head and body are on the same axis closed to the midline which is similar to the fetal position in mother womb. It helps in the maintenance of temperature, heart rate, respiration and also better sleep [4-7]. Statement of the Problem A study to evaluate the efficacy of enlightenment programme on knowledge regarding nesting on posture and movements of the premature babies among B.Sc. nursing students at selected nursing institute, Hubballi.

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Methodology

Research Approach: Evaluative research approach. Research Design: Pre-experimental; one group pre-test, post-test design (O1-X-O2).

Research Setting: Athena College of Nursing Mangalore.

Table 1. Symbolic representation of pre-experimental one-group pre-test and post-test design.

Group	Pre-test	Intervention	Post – test
Experimental group	O_1	X	O_2

Keys:

Key: O1: Pretest by measuring the level of knowledge regarding nesting on posture and movements of the premature babies among B.Sc. nursing students.

X: Administration of Planned teaching programme regarding nesting on posture and movement of the

premature babies.
O2: Post-test by measuring the level of knowledge regarding nesting on posture and movements of the premature babies among B.Sc. nursing students.

Variables
Independent Variable: Planned Teaching programme.
Dependent Variable: Knowledge Regarding Nesting on posture and movement
Baseline Variables: Age, gender, religion, education of the mother, education of the father, occupation of mother, occupation of father, family income, habitat, and source of information. Population Target Population: Nursing students.
Sample and Sampling Technique Sample: 3rd year B.Sc. nursing students of Athena College of Nursing Mangalore
Sampling Technique: Non-probability: Purposive sampling technique.
Sample Size: 45

Criteria for Selection of the Sample
The criteria for selection of samples in this study involve:

Inclusive Criteria
B.Sc. nursing students who were:
1. Present at the time of study.
2. Willing to participate in the study.

Exclusion Criteria
B.Sc. nursing students who were:
1) Sick at the time of data collection.
Description of the Tool The tool consists of structured knowledge questionnaire.
Section I: Socio Demographic Data This section consists of 10 items for obtaining information about socio-demographic variables such as age, gender, religion, education of mother, education of father, occupation of mother, occupation of father, family income, habitat, source of information regarding nesting on posture and movements of the premature babies.
Section II: Items on Knowledge Questionnaire This section consists of 43 items for obtaining level of knowledge regarding nesting on posture and movements of the premature babies.
- A score value of one (1) was allotted for each correct response
- zero (0) for each incorrect response.
- Total maximum score limit was 43.

Development and Description of Planned Teaching Program
Planned teaching programme on knowledge regarding nesting on posture and movements of the premature babies was designed to educate and upgrade knowledge of B.Sc. nursing students. For the present study, in order to organize the content of the lesson plan, the literature were reviewed from the books, journals, published and unpublished studies, electronic media and websites. The opinion suggestions from various experts helped to determine the different areas to be covered during teaching.

The contents were organized in the following subheading:

1. Introduction of anatomy and physiology of musculoskeletal system.
2. Introduction of nesting on posture and movements.
3. Definition of prematurity, nesting on posture and movements.
4. Purposes of nesting on posture and movements.
5. List the articles needed for the procedure.
6. Procedure of nesting.
7. List the position and movements in premature babies.
8. Advantages of position and movements.
9. Effects of poor position on baby.
10. Summary and conclusion.
11. Reference.

Figure 1. The figure gives customized nesting posture f perterm babies

Analysis of Results

Findings Related to Socio-Demographic Variables of Subjects Maximum subjects 23(51%) were in the age group of 20-22years, 22(49%) from 18-20years. Majority of subject 39(87%) were female and 06(13%) were male. Majority of subjects 29(65%) were Hindu, 09(20%) were Christian, 7(15%) were Muslim and none of them belongs to other religion. Majority of subjects mothers 19(43%) had completed PUC, 9(20%) had completed SSLC and 7(15%) had completed degree, 6(14%) had no formal education and 4(8%) had competed their post degree. Majority of subjects father 15(33%) had completed PUC, 13(29%) had completed SSLC and 8(18%) had competed degree, 5 (11%) had no formal education and 4(09%) had completed their post degree. Majority of subject mother 20 (44%) were homemakers, 13(30%) were daily wages, 8(18%) private employee and 4(08%) were government employee. Majority of subjects father 24(53%) were daily wages, 11 (25%) were farmer, 6(13%) were private employee and 4(09%) were government employee. With regards to the family income per month

majority of subject 21(46%) had income between Rs. 5000-Rs. 10000, 12(27%) had income between Rs.10000-Rs.15000, 8(18%) had income between Rs.15000-Rs.20000 and 4(09%) had income Rs.20000 and above per month. With regards to the area of residence majority of subjects 24(57%) belongs to rural area and 21(43%) belongs urban area. With regards to the source of information 22(49%) were gain knowledge from print media, 23(51%) were gain knowledge from health professionals.

Table 2. Mean, median, mode, standard deviation and range of knowledge scores of subjects regarding nesting on posture and movements of the premature babies (n = 45).

Area of analysis	Mean	Median	Mode	Standard deviation	Range
Pre-test	16.9	17	17.2	2.68	11
Post-test	29.3	29	28.4	2.3	08
Difference	12.4	12	11.2	0.38	03

Table 2 reveals that, the mean pre-test knowledge score was 16.9, median 17, mode 17.2, standard deviation 2.68 and range 11. Whereas the mean post-test knowledge score was 29.3, median 29, mode 28.4, standard deviation 2.3 and range 08. The overall difference in mean knowledge score was 12.4, median 12, mode 11.2, standard deviation 0.38 and range 03

Table 3. Frequency and percentage distribution of knowledge scores of subjects regarding nesting on posture and movements of the premature babies (n = 45).

Level of knowledge	Pre-test		Post-test	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Good (above 20)	09	20	45	100
Average (14 – 20)	30	67	00	00
Poor (below 14)	06	13	00	00

Table 3 reveals that, in the pre-test majority of the subjects 30 (67%) had average knowledge, 09(20%) had good knowledge and 06(13%) had poor knowledge. In post-test after enlightenment program, all of the subjects 45(100%) had good knowledge regarding nesting on posture and movements of the premature babies.

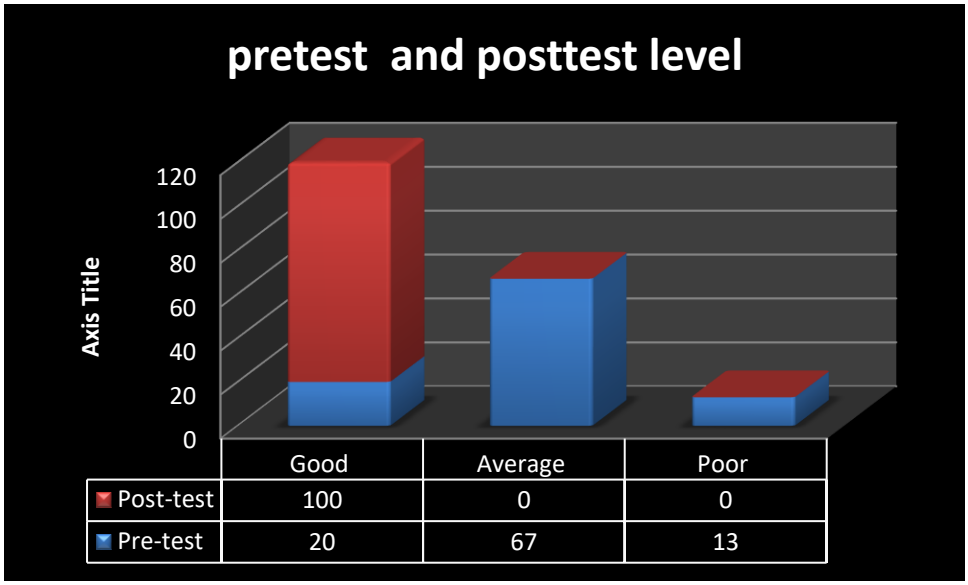

Figure 2.. The percentage distribution of subject according to their level of knowledge scores in pre-test and post-test.

Testing Hypotheses

H1: The mean post-test knowledge scores of 3rd year B.Sc. nursing students undergone enlightenment program will be significantly higher than the mean pre-test knowledge scores as measured by structured knowledge questionnaires at 0.05 level of significance

Table 4. Mean difference ($\bar{d}$), standard error of the difference ($S\bar{d}E$), and paired 't' values of the knowledge scores of subjects (n = 45).

Mean difference ($\bar{d}$)	Standard error of difference ($S\bar{d}E$)	Paired 't' values	
		Calculated	Tabulated
12.4	2.23	23.16*	2.02
*Significance at 0.05 level			

Table 5 reveals that the calculated paired 't' (t cal =23.16*) was greater than the tabulated value (ttab= 2.02). Hence, H1 was accepted. This indicates that the gain in knowledge score was statistically significant at 0.05 level. Therefore, the enlightenment program approach was effective to improve the knowledge of subjects.

H2: There will be a statistical association between pre-test knowledge scores of B.Sc. nursing students with their selected socio-demographic variables at 0.05 level of significance.

There was an association found between 4 socio-demographical variables and those are age, education of mother, education of the father, occupation of father. Hence H1 was accepted in these variables. Whereas, there was no association found between other variables. Hence in these cases H2 was rejected.

Contributions Made towards Increasing the State of Knowledge in the Subject

The findings of the present study have contributions in nursing practice, nursing education, nursing administration and nursing research.

Nursing Education: Nursing education plays an important role in preparing the nurses for wellbeing of

the people in various areas. The present study has implication on nursing education. The study emphasizes the need for educating the nursing personnel through in service or continue education programme to update their knowledge regarding nesting on posture and movements of the premature babies. Nurse educator plays a major role in preparing nursing students to improve their knowledge on understanding the importance of the nesting on posture and movements procedure in premature babies.

Nursing Practice: Several implications may be drawn from the present study for the nursing practice. Nurses and nursing students need to learn the fine art of neonatology and paediatric care, in order to give appropriate care to the premature babies. To attain mastery on practice of giving care to these children, nurse need to have an depth knowledge regarding methods of nest making and it uses and should know how to handle and position of premature babies.

Nursing Administration: Since children are often overlooked in terms of care according to their developmental age, nursing administrators need to motivate their subordinates to improve and advance the field of neonatal nursing. Nursing administrators will able to involve themselves in policy making and programme implementation regarding nesting on posture and movements for premature babies and make protocols regarding developmental care. Nursing administrators have to arrange CNE programme to improve the knowledge and practice regarding nesting on posture and movements.

Nursing Research: Research can help to increases the body of nursing knowledge which improves the care provided. There is need for evidenced based standards of practice. The tool, lesson plan and enlightenment programme used for the study can utilize or modified for the similar kind of study. The findings of the present study can be published in journals, internet and other useful media as review for further research study.

Conclusions:

Based on the findings of the study, the following conclusions were drawn:

1. The overall pre-test knowledge of 3rd year B.Sc. nursing students was average.
2. The post-test knowledge scores of the subjects after administration of planned teaching programme was significantly higher than pre-test scores. Hence enlightenment programme was effective in improving knowledge regarding nesting on posture and movements of the premature babies.
3. There was statistical association found between 3 socio demographical variable like age, education of mother, education of father, occupation of mother.

Hence H2.1,H2.4,H2.5,H2.7 were accepted. Whereas in regards with remaining variables there was no association found H2 rejected in these cases.

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