



A study to assess the effectiveness of planned teaching programme (PTP) on knowledge regarding care of newborn during phototherapy among third year BSc nursing students of selected college of nursing Mangalore

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Abstract

Introduction: The child is the most precious possession of mankind, most loved and perfect in its innocence so children need to be cared and protected. The aim of the present study is to assess the effectiveness of planned teaching programme on knowledge regarding care of new born during phototherapy among 3rd year BSc Nursing students of selected College of Nursing Mangalore.

Objectives: To assess the pre-test and post-test level of knowledge regarding care of new born in Phototherapy among 3rd year BSc (N)students as measured by structured knowledge questionnaire. To evaluate the effectiveness of planned teaching programme on knowledge regarding care of New born during Phototherapy among 3rd year BSc (N)students in terms of gain in mean post-test knowledge score.

Methodology: An evaluative approach was used for the study, which was conducted in a selected College of Nursing Mangalore. The sample comprised of 60 students of 3rd year BSc Nursing. The data was analyzed by using descriptive and inferential statistics.

Result: The mean post- test knowledge score obtained by the 3rd year BSc (N) students (17.3) were higher than mean pre-test knowledge score (14.35) paired 't' test was done to find out the difference between mean pre-test and post-test knowledge score and statistically it was highly significant ($t=11.59, P<0.05$). There was no significant association between the mean pre-test and post-test knowledge score.

Keywords: Effectiveness, planned teaching programme, new born, phototherapy

Introduction

Phototherapy is a specially designed electronic based instrument which has an effective light source for the therapeutic purposes. Modern Phototherapy uses specific wave length by within the ultraviolet part of the electromagnetic spectrum by means of treatment modalities including UV Phototherapy and photo chemotherapy to treat neonatal jaundice. Most Phototherapy unit depends on Fluorescent lamps. There are low pressure mercury discharge lamps with a phosphor coating inside the tube. Electrons from the power source exit mercury atoms to produce UNC which is then re-emitted by the phosphor as longer wave length.

Phototherapy is effective in preventing or reducing and increase in bilirubin levels. It is the main form of therapy for infant with physiologic jaundice. The infant must be unclothed during treatment along with covering the genitals with a diaper and the eyes with a eye pad. In order to prevent chills, maintain normal temperature and the vital signs are taken at least every 4 hours for the infant, the goal of treatment is to prevent the level of serum bilirubin from rising.

Objectives of the study

1. To assess the pre-test and post-test level of knowledge regarding care of newborn during Phototherapy among 3rd year BSc (N) students as measured by planned knowledge questionnaire.
2. To evaluate the effectiveness of planned teaching programme on knowledge regarding care of newborn during phototherapy terms of gain in mean post-test knowledge score

Methodology

An evaluative approach and a quasi- experimental one group pre-test and post-test designed was adopted for the study. The study was conducted on selected Nursing College Mangalore. Simple random sampling technique was used to select 60 3rd years BSc Nursing students based on the inclusion criteria. The resulting knowledge score were categorized as poor knowledge (<33%), average knowledge score (34-67%), and good knowledge score (68-100%). Validity of the tool was established. Permission obtained from the concerned management of the Nursing College to conduct study. Informed consent was obtained from the 3rd year BSc Nursing students for data collection. After collection of baseline data a knowledge level of student,

planned teaching programme implemented. Post-test was conducted on the 7th day by using same structured knowledge questionnaire.

Results

Effectiveness of planned teaching programme regarding care of newborn during phototherapy

Table 1: Frequency and percentage distribution of pre-test and post- test knowledge

Grading knowledge	Score range	Pre-test		Post-test	
		Frequency	percentage	Frequency	Percentage
Poor<33%	0-8	0	0%	0	0%
Average 33-67%	9-17	57	95%	6	10%
Good-100%	18-23	3	5%	54	90%

Knowledge of student nurses regarding care of newborn during phototherapy

Mean value is higher in post- test (17.3) than in pretest (14.35) standard deviation of pretest is 2.28 and that of post-test is 5.09. Mean percentage is higher in post- test (35 %) than in pretest (21.78%).

Table 2: Range, mean, standard deviation, mean% score of pre-test and post-test knowledge

Knowledge level	Range	Mean #SD	Mean%
Pre-test	9-17	14.35#2.28	21.78%
Post-test	18-23	17.74#5.09	35%

Effectiveness of planned teaching programme on care of newborn during phototherapy

The mean post- test knowledge score (17.3) is higher than the mean pretest knowledge score 14.35. The computed t value is 11.59 which is higher than the table value (t₅₉=3.39) at 0.05 level of significance. Hence the null hypothesis rejected and research hypothesis is accepted.

Table 3: Paired “t” tests the significant difference between the mean pre-test and post-test knowledge

Group	Mean Value	Mean Difference	SD Difference	“t” Value
Pre-test	14.35	2.95	2.81	11.59
Post-test	17.3			

Discussion

The mean value of pretest knowledge of student Nurses on care of newborn during phototherapy was (14.35) and the present study finding showed that the mean post- test knowledge score (17.3) suggesting. This PTP helped in improvising the knowledge of 3rd year BSC Nursing students regarding care of newborn during phototherapy. The finding of the study consisted with other study w showed that in the pretest percentage (21.78%) students has good knowledge which increase in post- test as (35%). This indicates that PTP helps in improving the knowledge. The study conducted at Mangalore among 60, 3rd years BSC Nursing students showed that planned teaching programme is effective in increasing knowledge among 3rd year BSC Nursing students. The finding showed that there is a significant increase in post-test knowledge score and computed t value t=11.59 (t₅₉=3.39), (p<0.05) Which showed significant difference between the pretest and post-

test knowledge regarding care of newborn during phototherapy.

The findings of this study are consistent with another study which was conducted among college students at Idayakodi. The result showed that the mean post- test knowledge score (12.05) was higher than pretest knowledge score (7.08). Paired t value was (7.63) which shows high significant p<0.05. It showed the effectiveness of planned teaching programme.

Conclusion

PTP is an effective strategy for increasing knowledge among 3rd year BSC Nursing students regarding care of newborn during phototherapy. Studies conducted earlier have showed that PTP is effective in increasing knowledge of the participants.

Conflicts of interest

None

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