



A Pre Experiment Study to Assess the Effectiveness of Structured Teaching Program Regarding Knowledge on Phototherapy and its Association with Socio-Demographic Variables (Gender, Previous Posting in Pediatric Area, Duration of Posting in Pediatric Area and Previous Source of Knowledge) among B.Sc. (N) 3rd Year Students in the Selected College, Adarsh College of Nursing, Patiala, Punjab.

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ABSTRACT

Introduction: Jaundice is a major problem in neonates. In which high the serum unconjugated bilirubin level which leads to yellowish pale color of skin and sclera. Phototherapy is a simple, effective, inexpensive and acceptable procedure for reduction of bilirubin.

Aim of the study: The aim of the study is to assess the effectiveness of structured teaching program regarding knowledge on phototherapy and its association with socio-demographic variables (gender, previous posting in paediatric area, duration of posting in paediatric area and previous source of knowledge) among b.sc. (n) 3rd year students in the selected college, Adarsh College of Nursing, Patiala, Punjab.

Material and methods: A quantitative approach and one group pre-post test design was used in the study. Sample size was 50 students of Adarsh College of Nursing, Patiala, Punjab. Non-probability convenient sampling technique was used to select students. A structured questionnaire was used to collect the data.

Results: Findings of the pre-test had 24% had average knowledge score, 64% had poor knowledge and in post test 30% average knowledge and 70% had good knowledge. There was statistically association found between the previous source of knowledge, previous posting in pediatric area and the knowledge of students regarding phototherapy.

Key words: assess, effectiveness, structured teaching program, phototherapy,

INTRODUCTION

Jaundice is also known as icterus, comes from the French word *jaune*, meaning yellow. Jaundice is the yellowish discoloration of the skin, sclera and mucous membrane caused by hyperbilirubinemia.

Hyperbilirubinemia subsequently causes increased levels of bilirubin in the extracellular fluids. Typically, the concentration of bilirubin in plasma must exceed 1.5mg/dl three times the usual value of approximately 0.5mg/dl for the coloration to be easily visible.

Neonatal jaundice is usually harmless. This condition is often in neonates about 2nd day after birth, lasting until 8 days in normal births and 14 days in preterm births. Newborn frequently go through a brief period of jaundice right after their birth. This is termed as physiological jaundice of newborn and is due to immaturity of infants liver, if carefully monitored these newborns generally improve with 48-72 hours.

Jaundice appearing within 24 hours of birth persisting for more than 1 week in a term infant or more than 2 weeks in preterm infant where there will be excessive red cell haemolysis is pathological jaundice.

In neonates benign jaundice tends to develop because of two factors the breakdown of fetal hemoglobin and secondly the relatively immature hepatic metabolic pathways, which are unable to conjugate and so excrete bilirubin as quickly as an adult.

This causes accumulation of bilirubin in blood leading to symptoms of jaundice is serious and should be followed promptly.

PROBLEM STATEMENT:

A pre experiment study to assess the effectiveness of structured teaching program regarding knowledge on phototherapy and its association with socio-demographic variables (gender, previous posting in paediatric area, duration of posting in paediatric area and previous source of knowledge) among B.Sc. (N) 3rd year students in the selected college, Adarsh College of Nursing, Patiala, Punjab.

OBJECTIVES

1. To assess the pre-test knowledge regarding phototherapy among B.Sc. (N) 3rd year students.
2. To assess the post-test knowledge after implementation of structured teaching program regarding phototherapy.
3. To compare pre-test and post-test knowledge score regarding phototherapy
4. To find out association between the knowledge score and selected demographic variables.

ASSUMPTIONS

1. Students would have poor knowledge regarding phototherapy
2. Students will have the knowledge regarding the precautions use in phototherapy

HYPOTHESIS

H1- The mean post-test knowledge score of students who will attend the structured teaching program regarding phototherapy will be significantly higher than mean pre-test score.

H2- There will be no significant association between post-test knowledge scores of students regarding the phototherapy and their selected socio-demographic variables.

DELIMITATIONS

Study was limited to :

1. Those who can understand and able to read and write English
2. Sample with basic qualifications in nursing an implemented to B.Sc. (N) 3rd year.

MATERIAL AND METHODS

Research methodology includes the strategies to the use to collect and analysis the data to accomplish the research objectives. The methodology of research indicates the general pattern for organizing the procedure of gathering valid and reliable data for an investigation. It includes the research approach, research design, setting sample, sampling technique, development and description of tool, data collection procedure and plan of data analysis.

Research approach and design: A quantitative research approach was employed for the study. The research design used in study was one-group pre-test post-test design.

Sample and sampling technique: study comprised of 50 students. Non-probability convenient sampling technique was used to select the sample.

DESCRIPTION OF TOOL

Part A: It comprised of socio-demographic variables

Part B: A structured knowledge questionnaires was selected to assess the knowledge regarding phototherapy

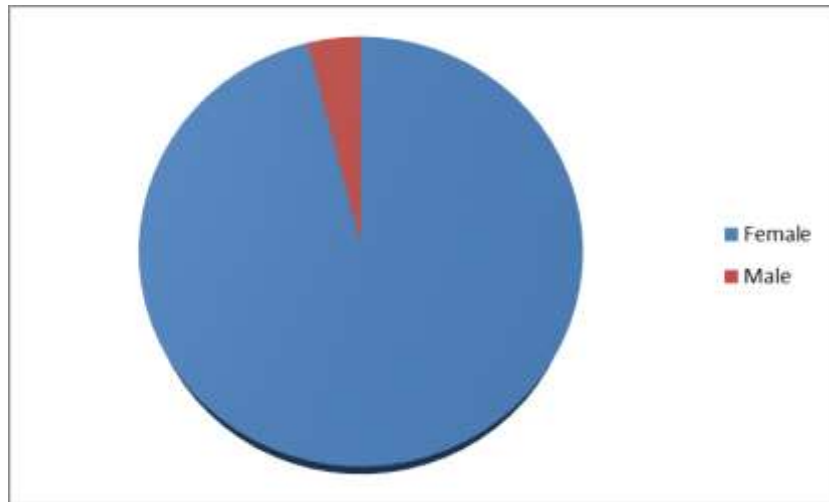
RESULTS**Section A**

To assess socio-demographic variables

1. **Frequency and percentage distribution of respondents according to socio-demographic variables**

N=50

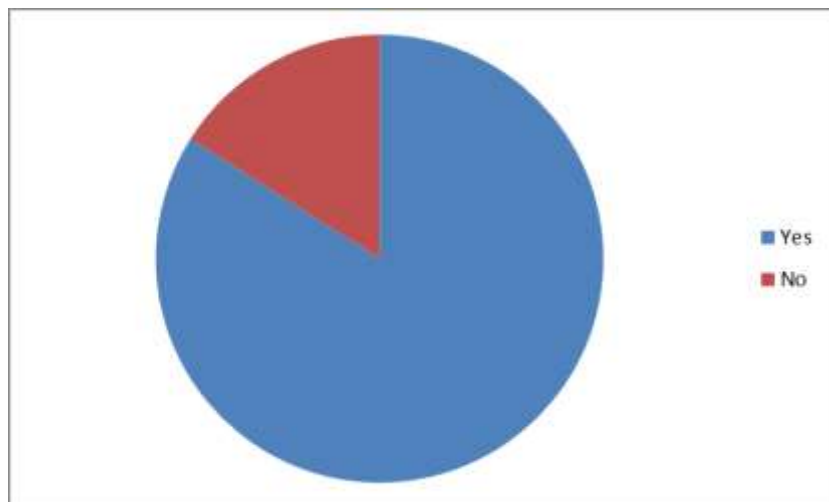
S. No.	Gender	Frequency	Percentage (%)
1.	Female	48	96%
2.	Male	02	04%



2. Frequency and percentage distribution of respondents according to their previous posting in pediatric area

N=50

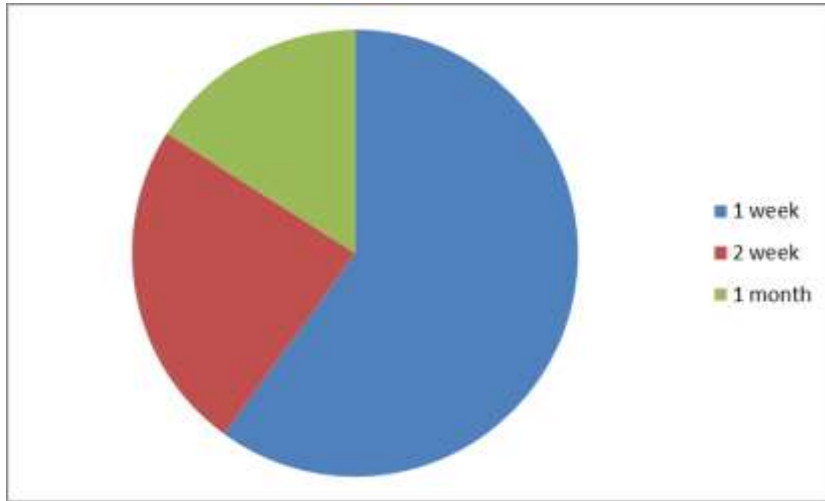
S. No.	Previous posting	Frequency	Percentage (%)
1.	Yes	42	84%
2.	No	08	16%



3. Frequency and percentage distribution of respondents according to duration of posting in pediatric area

N=50

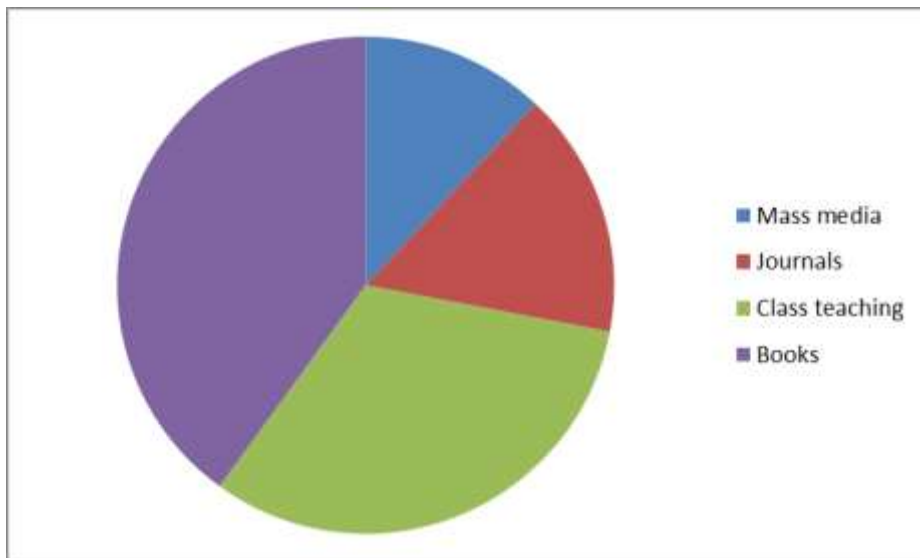
S. No.	Duration	Frequency	Percentage (%)
1.	1 week	30	60%
2.	2 week	12	24%
3.	1 month	08	16%



4. Frequency and percentage distribution of respondents according to their previous source of knowledge

N=50

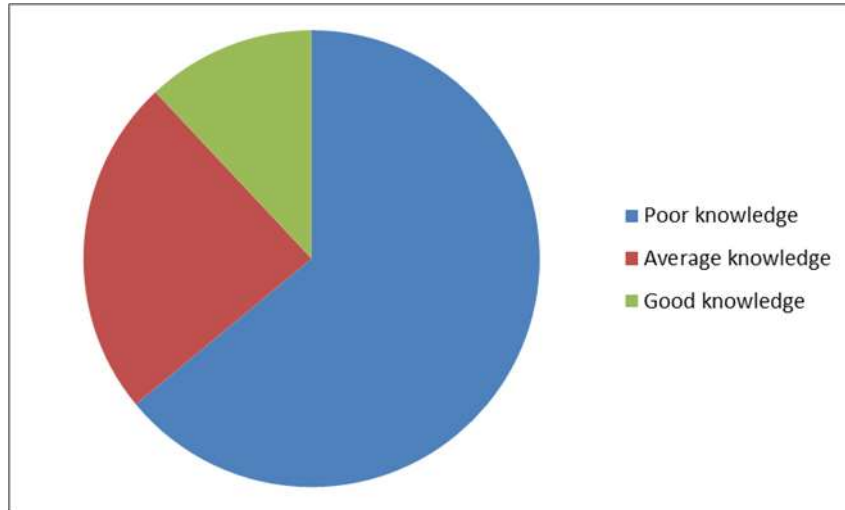
S. No.	Previous source of knowledge	Frequency	Percentage (%)
1.	Mass media	06	12%
2.	Journals	08	16%
3.	Class teaching	16	32%
4.	Books	20	40%



Section B

To assess the pre-test knowledge regarding phototherapy among B.Sc. (N) 3rd year students.

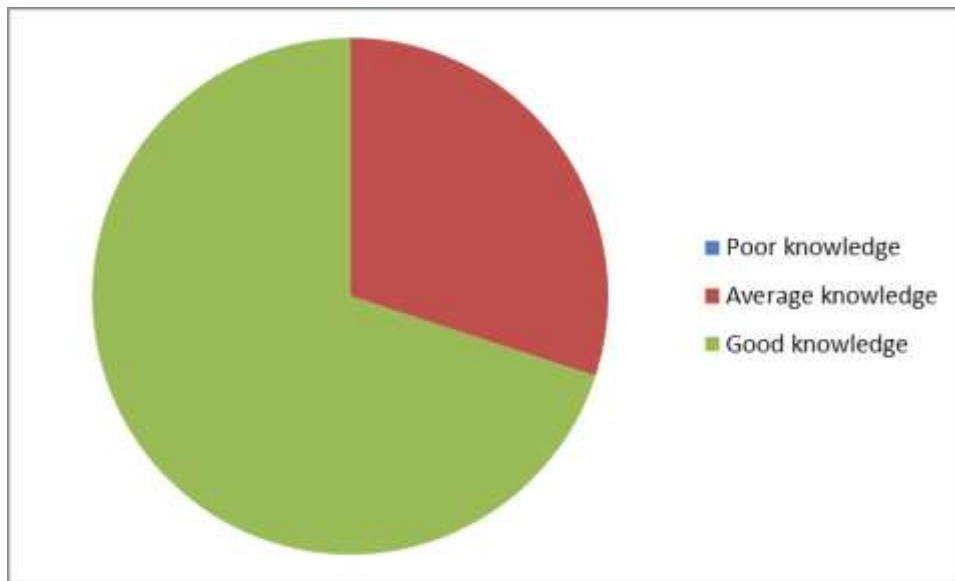
S. No.	Knowledge score	Frequency	Percentage
1.	Poor knowledge	32	64%
2.	Average knowledge	12	24%
3.	Good knowledge	06	12%



Section C

To assess the post-test knowledge regarding phototherapy among B.Sc. (N) 3rd year students.

S. No.	Knowledge score	Frequency	Percentage
1.	Poor knowledge	00	0%
2.	Average knowledge	15	30%
3.	Good knowledge	35	70%

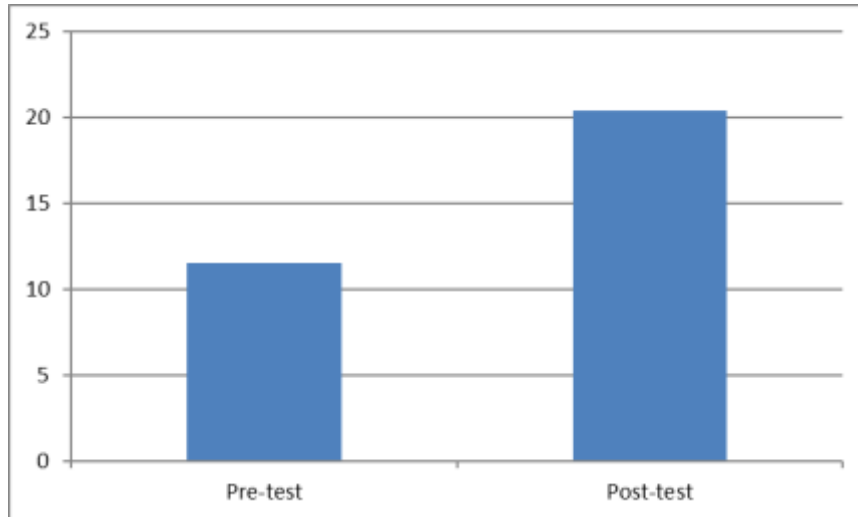


Section D

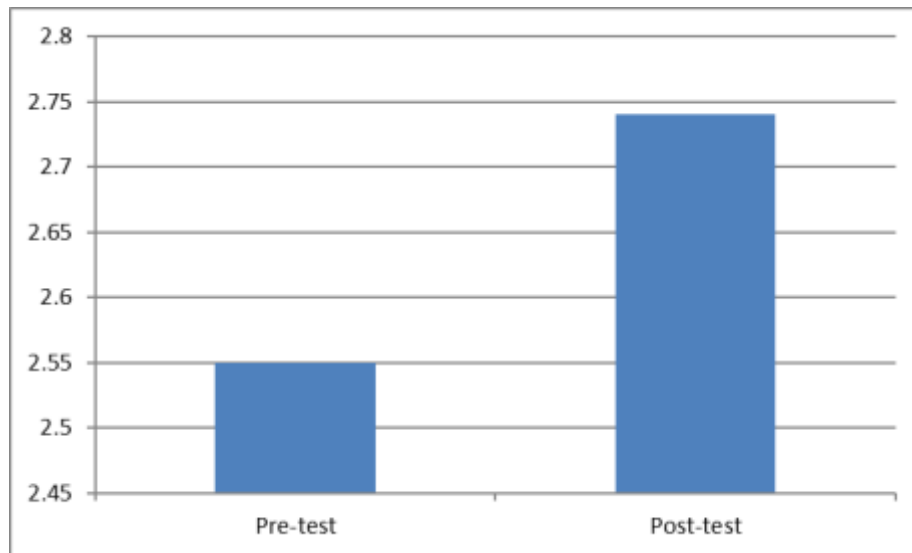
To compare pre-test and post-test knowledge score regarding phototherapy.

Comparison	Knowledge score		t value	p value
	Pre-test	Post-test		
Mean	11.54	20.38	2.00***	p<0.05
SD	2.55	2.74		

*** highly significant



Mean score



S.D.

Section E

Association of knowledge scores with socio-demographic variables

S.No.	Characteristics	Knowledge scores		Chi-square	df	p-value at 0.05 significant level
		Below above	Median			
1.	Gender			0.42 (NS)	1	3.84 P>0.05
	Male	1	1			
	Female	25	23			
2.	Previous posting in pediatric area			6.86 (S)	3	6.81 P<0.05
	Yes	24	18			
	No	5	3			
3.	Duration of posting in pediatric area			5.86 (NS)	3	6.81 P>0.05
	1 week	14	16			
	2 week	7	5			
	1 month	3	5			
4.	Previous source of knowledge			6.84 (S)	3	6.81 P<0.05
	Mass media	4	2			
	Journals	3	5			
	Class teaching	10	6			
	Books	18	2			

NS=Not Significant, S=Significant

CONCLUSION

The study concluded that the structured teaching program developed by the investigators was effective in improving the knowledge level of the students regarding phototherapy.

IMPLICATIONS

It includes:

Nursing education

- The students from Adarsh College of Nursing, Patiala, Punjab should be encouraged to attend specialized classes regarding phototherapy.
- Students should be well exposed to various knowledge on phototherapy.

Nursing research

- The study helps the nurse researcher to develop appropriate health education tools for educating the students regarding phototherapy.
- There is need for extensive and intensive research in this area so that strategies for educating students regarding various steps and methods of phototherapy can be maintained.
- Nurse researcher should take efforts to conduct interactive sessions with students to disseminate the findings of research on benefits of the patients who are exposed to the risk of jaundice because of negligence or malpractices.

Nursing administration

- The nursing administrator can mobilize the available resources towards the health education regarding phototherapy.
- Structured teaching program can be conducted for the students in improving and updating their knowledge and skills so they can create awareness among nursing students and the clients by teaching/educating.

RECOMMENDATIONS

- A similar study can be conducted with a large sample.
- A descriptive study can be conducted by students.
- A study can be conducted by using structured teaching strategies like planned teaching program etc. to determine the most effective method of teaching regarding phototherapy.

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