

# A study to assess the knowledge regarding neonatal hyperbilirubinemia among BSC nursing students in selected college of nursing in Kanpur

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## ABSTRACT

The term “kernicterus” turned into brought withinside the early 1900 to consult the yellow staining of the basal ganglia discovered in infant who struggling with extreme jaundice [1]. The study was conducted to assess the level of knowledge regarding neonatal hyperbilirubinemia among BSC nursing students. The main objective of study was to assess the knowledge regarding neonatal hyperbilirubinemia and to associate the level of knowledge with selected demographic variables. A quantitative research approach with descriptive research design was used for this study [2]. The sample for the study was 100 BSC nursing students who were studying in Rama nursing college in Kanpur. The sample was selected by convenience sampling technique and structured knowledge questionnaire was used for this study to collect the data. The result showed that 40 (40%) having good knowledge level, 52 (52%) having average knowledge level and 8(8%) having poor knowledge level of students regarding neonatal hyperbilirubinemia. The study concluded that, the knowledge level of students regarding neonatal hyperbilirubinemia is average and, the study suggested that proper teaching and adequate training regarding neonatal hyperbilirubinemia will be helpful for the students to gain knowledge [3].

**Key Words** – Assess, knowledge, neonatal hyperbilirubinemia, Icterus neonatorum

## 1 Introduction

Neonatal jaundice is noted >50% of newborns [1]. it is a more offend physiological, however sometimes serum bilirubin level cross the normal range (as per the recommended guidelines by the American academy of paediatrics (AAP) (<1-2mg /dl/4h).[2] to become pathological if timely detected and treated appropriately for underlying causes severe consequences like bilirubin encephalopathy can be prevented [4]. severe hyperbilirubinemia warrants need for exchange transfusion which itself lot of complication. Hence it is essential to understand about the science of neonatal jaundice, underlying causes and intervention, so as to decrease the need for exchanged transfusion. This study help to analyse the incidence of pathological jaundice, average time of presentation possible causes of jaundice, mean duration of phototherapy, medical management, and need for exchange transfusion. [5]

## 2 Objectives of the study

- To assess the level of knowledge regarding neonatal hyperbilirubinemia among BSC nursing students in selected college of nursing in Kanpur.

- To find out the association between level of knowledge regarding neonatal hyperbilirubinemia among BSC nursing students with their selected demographic variables.

## 3 Hypothesis

- H<sub>0</sub>:** There is a no significant the association between level of knowledge regarding neonatal hyperbilirubinemia among BSC nursing students in selected college of nursing in Kanpur with their demographic variables.
- H<sub>1</sub>:** There is a significant association between knowledge score of students regarding neonatal hyperbilirubinemia.

## 4 Methodology

**Research approach:** A Quantitative, approach was used by the investigators to assess the knowledge regarding neonatal hyperbilirubinemia among BSC nursing students.

**Demographic variables:** In this study the demographic variables are Age, Gender, previous knowledge related to hyperbilirubinemia, Sources of information.

## 5 Population

A population is the entire aggregation of cases in which a researcher is interest.

In the present study the population comprises the student nurses in college of nursing.

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## 6 Target Population

The entire population in which the researcher are interested and to which they would like to generalize to research finding

Target population of present study is students studying in selected college of nursing

## 7 Accessible Population

Accessible population of present study is B.Sc. nursing students in Rama nursing college

**Sample:** In this study, the sample was BSC nursing students in selected Rama collage that fulfilled the sampling criteria.

**Sample size:** The sample size of present study comprised of 100 nursing students who fulfilled inclusion criteria.

**Sampling technique:** In this research study, the sample was selected through convenient sampling technique.

## 8 Sampling criteria

### Inclusion criteria

- Nursing students who are willing to participate in the study.
- Students who are in selected nursing college.

### Exclusion criteria

- Students who are not available during data collection.
- The students who are studying in BSC nursing 1st year & 2 nd year

## 9 Method of Data Collection

The collection of data was finished in two weeks in Rama College of nursing Kanpur. The data was collected from 100 samples that fulfilled inclusion criteria. The written consent of the participants was obtained before data collection and assurance was given to participant that confidentiality of information is going to be maintained. The info was analysed on the idea of objective of the study by using descriptive and inferential statistics.

- Master data sheet was organized
- Demographic variables were analysed in term of frequencies of percentage
- Knowledge of nursing students was presented in from of mean, median and standards deviation
- A planned questionnaire was ready in such how it carries with it two parts

## 10 Development and Description of Tools

### Section –A

**Demographic Data:** It contains four items for obtaining age, gender, previous knowledge, and if sources of knowledge, related neonatal hyperbilirubinemia.

### Section –B

**Knowledge:** The structured knowledge questionnaire regarding neonatal hyperbilirubinemia comprised 25 multiple choice questions each question had four responses with one correct answer, score one for every correct response during a single question and score zero was given for wrong answer

## 11 Results and Findings

### Section-A

**Major finding of the study –**

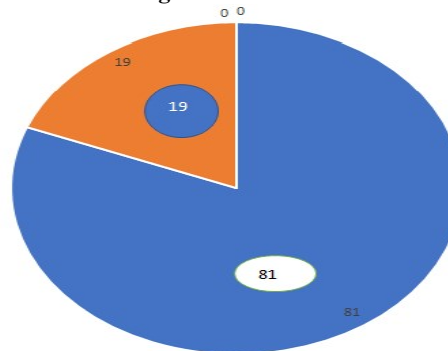
- **With** the respect to age as 37 (37%) were 18-20 years of age, 29 (29%) were 20–22-year age, 29(29%) was 22-24 year of age, 5(5%) was 24 to above year of age.
- According to gender 93 (93%) were female, and 7(7%) of male.
- With regards the nursing students attended any teaching program 93(93%) had attended and 7(7%) had no exposure to any teaching program.
- With respect nursing students’ sources of knowledge related to neonatal hyperbilirubinemia 25 (26.9%) were from mass media, 30(32.3%) were from class room, 23(24.7%) were from clinical area, 15(16.1) attained information through demonstration.

### Section -B

**Table 1: level of knowledge regarding neonatal hyperbilirubinemia among nursing students. N=100**

Level of Knowledge	Frequency	Percent
Moderate knowledge (9-16)	19	19.0
Adequate knowledge (17-25)	81	81.0
Total	100	100.0

**Level of Knowledge**



**Figure 1: The level of knowledge regarding neonatal hyperbilirubinemia among BSC nursing students.**

The above pie diagram shows percentage wise distribution of level of knowledge. The data shows that the majority of 81% have adequate knowledge, 19% have moderate knowledge. The results showed that out of 100 BSC nursing 3<sup>rd</sup> year and 4<sup>th</sup> year students 19 (19%) had moderate

knowledge and 81(81%) had adequate knowledge regarding neonatal hyperbilirubinemia. The mean was 18.55 and standard deviation was 2.40 of knowledge level the study shows that majority of nursing students had adequate level of knowledge

**Section -C**  
**Frequency & Percentage Distribution of Demographic Variable N=100**

Demographic variables		F	%
Age of students	18-20 year	37	37.0%
	20-22 year	29	29.0%
	22-24 year	29	29.0%
	24 year above	5	5.0%
	Total	100	100.0%
Gender of students	Female	93	93.0%
	Male	7	7.0%
	Total	100	100.0%
Have you ever attended any teaching programme on neonatal hyperbilirubinemia?	Yes	93	93.0%
	No	7	7.0%
	Total	100	100.0%
if yes Source of information	Mass media	25	26.9%
	Class room	30	32.3%
	Clinical area	23	24.7%
	Demonstration	15	16.1%
	Total	93	100.0%

**Table No .4: Association between levels of knowledge with selected demographic variables. N=100**

Demographic variables		Structured knowledge score				χ <sup>2</sup> value (df)	p-value
		Moderate knowledge (9-16)		Adequate knowledge (17-25)			
		N	%	N	%		
Age of students	18-20year	9	47.4%	28	34.6%	2.15 (3)	0.542
	20-22 year	6	31.6%	23	28.4%		
	22-24 year	3	15.8%	26	32.1%		
	24 year above	1	5.3%	4	4.9%		
	Total	19	100.0%	81	100.0%		
Gender of students	Female	16	84.2%	77	95.1%	-	0.124#
	Male	3	15.8%	4	4.9%		
	Total	19	100.0%	81	100.0%		
Have you ever attended any teaching programme on neonatal hyperbilirubinemia?	Yes	18	94.7%	75	92.6%	0.11 (1)	0.742
	No	1	5.3%	6	7.4%		
	Total	19	100.0%	81	100.0%		
if yes Source of information	Mass media	4	22.2%	21	28.0%	5.05 (3)	0.168
	Class room	9	50.0%	21	28.0%		
	Clinical area	2	11.1%	21	28.0%		
	Demonstration	3	16.7%	12	16.0%		

**Section B:** There is significant association between level of knowledge with selected demographic variables like age and source of information so the research hypothesis  $H_1$  is accepted and  $H_0$  is rejected

## 12 Recommendations

1. A study can be done on large amount of sample.
2. The same study can be done with a quantitative research approach having a large group.

## 13 CONCLUSION

This study concluded that most of the BSC nursing 3<sup>rd</sup> year and 4<sup>th</sup> year students having moderate and adequate level of knowledge regarding neonatal hyperbilirubinemia the results also showed significant association between level of knowledge with age and source of information.

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