

# A Study to Assess the Knowledge regarding Early Prediction and Risk Factors of Neonatal Jaundice among Postnatal Mothers at SMVMCH, Puducherry

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**Abstract:** Jaundice is defined as yellowish discoloration of skin and sclera, icterus appears on face when serum bilirubin level exceeds 5 mg/dl. The common causes include sepsis, G6PD deficiency, prematurity, blood group incompatibilities and majority being idiopathic. The aim of the Study is to Assess the knowledge regarding early prediction and risk factors of neonatal jaundice among postnatal mothers at SMVMCH, Puducherry. A qualitative research approach was adopted for this present study. A descriptive research design was adopted for this study. The study sample comprises of 30 postnatal mothers at Sri Manakula Vinayagar Medical College and Hospital. A purposive sampling technique was adopted for this present study. The findings reveal that out of 30 postnatal mothers with 16 (23.3%) had moderately adequate knowledge, 10 (33.3%) had adequate knowledge and 4 (13.3%) of them had inadequate knowledge. The study shows that mean score with standard deviation in level of knowledge were  $9.07 \pm 5.285$ . This study implies that postnatal mothers had adequate knowledge regarding neonatal jaundice.

**Keywords:** jaundice, early prediction, risk factors, postnatal, neonatal

## 1. Introduction

*“Hatred is one of the poisons, likes jaundice, it alters the true colors of the things”.*

- Rae foley

Jaundice in new born is quite common affecting nearly 70% of term and 80% of preterm neonates during first week of life. Luckily, majority of times this is a physio - logical event resulting from increased bilirubin load due to breakdown of red blood corpuscles (RBC), defective uptake, conjugation and excretion by immature liver; and increased entero - hepatic circulation. Neo - natal hyperbilirubinemia also known as pathological jaundice results from increased production and limited elimination of bilirubin during the initial days of new born period. This occurs in nearly 5 to 25% of neonates. Jaundice is defined as yellowish discoloration of skin and sclera, icterus appears on face when serum bilirubin level exceeds 5 mg/dl. The common causes include sepsis, G6PD deficiency, prematurity, blood group incompatibilities and majority being idiopathic. Other less common causes include polycythemia, extravasation and oxytocin infusion during labor. Immature new - born brain is susceptible to toxicity from unconjugated bilirubin resulting in "Kernicterus" or "bilirubin induced brain damage" (BIND).

Globally, every year, about 1.1 million babies would develop severe hyperbilirubinemia with or without bilirubin encephalopathy, and the majority resides in sub - Saharan Africa and South Asia. In Nigeria, it is 100 times more than in developed countries. The burden was highest in low income and middle - income countries of Sub - Saharan, Africa and South Asia. The global burden of neonatal jaundice reported that the African region has the highest incidence of severe neonatal jaundice per 1000 live births followed by the Southeast Asian and Americas and

European regions respectively. Ethiopia is one of the top ten countries with jaundice - related neonatal mortality. At national level, Neonates, however may not appear jaundiced until the serum bilirubin concentration exceeds 5 to 7 mg%. Jaundice is the commonest abnormal physical finding in the neonates. The overall incidence of neonatal jaundice as reported by various Indian workers varies from 54.6% to 77%. At State level, Important causes for morbidity were Perinatal asphyxia 490 (15.7%), Preterm/LBW 456 (14.6%), Neonatal jaundice 438 (14%) and then sepsis 402 (12.9%). The mortality rate was 10.4% with statistically significant difference between inborn and out born babies ( $P < 0.0001$ ). At district level, Puducherry 19.04% were born preterm, 54.11% had jaundice in 3or4 day of birth. 78.78% babies were managed by Phototherapy & 21.21% by breast feeding.

## Objective

- 1) To assess the level of knowledge regarding early prediction and risk factors of neonatal jaundice among postnatal mothers.
- 2) Association between the level of knowledge regarding early prediction and risk factors of neonatal jaundice among postnatal mothers with their selected demographic variables.

## 2. Materials and Methods

**Research approach** - Qualitative research approach was used for the present study.

**Research design:** Descriptive research design was selected for this study.

**Setting:** The study was conducted at postnatal ward at Sri Manakula Vinayagar Medical College & Hospital.

**Population:** All Postnatal mothers.

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**Sample:** postnatal mothers

**Sample size:** 30 postnatal mothers

**Sample technique:** purposive sampling technique

**Sample criteria:**

**Inclusion criteria:**

- Postnatal mothers who got admitted in postnatal ward
- Postnatal mothers who are available at the time of data collection.

**Exclusion criteria:**

- Postnatal mothers who are not willing to participate in data collection.
- Postnatal mothers who can't understand Tamil and English.

**Description of the tool:**

**Section A:** Demographic data of the mother and baby.

**Section B:** Knowledge questionnaire regarding early prediction and risk factors of neonatal jaundice.

**Section A:**

This section consists of demographic variables such as age, gestation, gravidity, religion, occupation, education, mode of delivery, blood group of the mother and the sex, birth weight, birth order, age of new born, blood group, birth injury during pregnancy of new born.

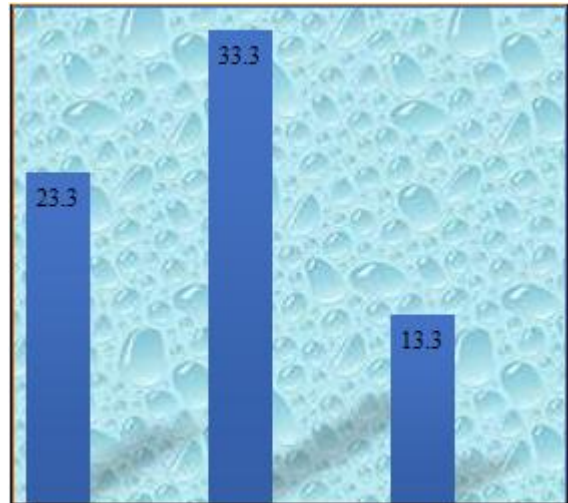
**Section B:**

This section consists of 25 knowledge questions regarding early prediction and risk factors of neonatal jaundice. Each question carry the score of 1 in case of correct answer, in case of wrong answer carry the score of 0, whereby responses will be ranged from inadequate knowledge, moderate knowledge, and adequate knowledge among postnatal mothers.

**Table 1:** Shows that level of knowledge regarding early prediction and risk factors of neonatal jaundice among postnatal mothers. (N=30)

S. No	Level of knowledge	Frequency (N)	Percentage (%)
1.	Inadequate knowledge	16	23.3
2.	Moderate knowledge	10	33.3
3.	Adequate knowledge	4	13.3
	Total	30	100

**Table - 1,** reveals that the level of knowledge among postnatal mothers were had 16 (23.3%), were in inadequate knowledge, 10 (33.3%) were in moderate knowledge and 4 (13.3%) in adequate level of knowledge.



**Figure 1:** Shows that level of knowledge regarding early prediction and risk factors of neonatal jaundice among postnatal mothers

**Table 2:** Shows that mean and standard deviation regarding early prediction and risk factors of neonatal jaundice among postnatal mothers (N=30).

S. No.	Level of knowledge	Mean	Standard deviation	P value
1.		9.07	5.285	0.03*

**Table - 2** depicts that the mean and standard deviation for the level of knowledge regarding early prediction and risk factors of neonatal jaundice among postnatal mothers was 9.07+5.285 respectively and shows that highly significant value at 0.03.

The association between the early prediction and risk factors with their selected demographic variables were mother's age, weeks of gestation on mother's profile and gestation of the baby in baby profile had shown statistically significant. The other demographic variables are not shown statistically significant.

## References

- [1] Parul Dutta, text book of Pediatric nursing, fourth edition, published by Jaypee medical publishers (P) Ltd, page no.96.
- [2] Marilyn J. Hockenberry et. al, Wong's essentials of pediatric nursing, second edition, published by ELSEVIER RELX India Pvt Ltd, Page no.360.
- [3] Rimple Sharma, essentials of pediatric nursing, third edition, published by Jaypee medical publishers (P) Ltd, page no.112 - 118.
- [4] Marlow, Textbook of Pediatric Nursing, Harcourt (India) Ltd.
- [5] Nelson, Textbook of Pediatrics, Harcourt India private Ltd.
- [6] Parthasarathy, IAP Textbook of Pediatrics, Jaypee Brothers Medical Publishers, New Delhi.