

# Level Of Knowledge Among Nursing Staff In A View To Prepare A Protocol On Management Of Neonatal Jaundice At A Selected Hospital, Vadodara.

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**ABSTRACT:** *Background: About 15% to 30% of breast-feeding newborns having elevated bilirubin levels requiring medical intervention. There are various factors, which lead to hyperbilirubinemia specifically in infants. They are, increased production of bilirubin, decreased hepatic uptake of bilirubin from plasma, defective bilirubin conjugation, defective bilirubin excretion and increased inter hepatic circulation. At present neonates with hyperbilirubinemia can be best treated with phototherapy in the Neonatal Intensive Care Unit. The nurse must be having adequate knowledge and skill to manage the neonates with hyperbilirubinemia. Objective: The objective of the study is to find the knowledge regarding care of the neonate with Jaundice with a view to prepare the protocol on care of baby with neonatal Jaundice. Materials and methods: Descriptive research design was used among nurses regarding care of the neonate with Jaundice working at a selected Hospital in Vadodara district. Non probability convenient sampling technique was used to select 60 staff nurses those who are working mainly at neonatal as well as pediatric wards in the Hospital. Results: The result reveals that out of 60 participants nearly 27 (45%) of subject were having to adequate knowledge and 8 (13.3%) had average knowledge regarding care of the neonate with Jaundice. Remaining nurses 9 (15%) belong to poor knowledge category and 16 (26.7%) belongs to very poor knowledge category. There is no association between the level of knowledge regarding care of the neonate with Jaundice and selected socio demographic variables.*

**Key Words:** Knowledge, nurses, neonatal jaundice

## 1. INTRODUCTION

About a total of 7000 Million population, the children constitute almost 40% of all and 15% exclusively of newborns. Usually, a span of 28 days after birth is considered as the period of Neonate. The baby transforms from reflexive state to a more mature state and stabilization during these days by adapting with the external environment. As the baby has immature physiologic state, they may acquire problems like jaundice, infections, and regulation of body temperature issues.

About 60-70% of term neonates usually develops clinical jaundice and it is found to be a normal occurrence between 48-72 hrs. of extrauterine life. A Bilirubin level exceeds 12mg in

blood is considered Hyperbilirubinemia and only 10-15% of feeding neonates require medical care.

There is no evidence that it is influencing the baby's physical and mental health some sort of assessment may be required to screen any evidence of such problems but it is still believed to be a chance of delayed developmental milestones can occur along with other problems. This can be assessed through developmental assessment tools like anthropometric measurements, screening charts etc.

## 2. MATERIALS AND METHODS

A quantitative research approach was used for this study. The design of the study was Descriptive research design. Study conducted in Dhiraj General Hospital Piparia, Vadodara. The samples were staff Nurses working in Neonatal and pediatric areas of the selected hospital in Vadodara district. The samples were selected using non random sampling method that is convenience sampling technique. Total number of samples were 60. The tools used for data collection were divided in to two sections. Section – I includes the socio demographic variables of the subjects of the study. Section – II includes Self structured knowledge questionnaire for assessing the knowledge of staff nurses regarding care of newborn with neonatal jaundice.

### STATISTICS

Descriptive statistics is used for to assess the Mean, Frequency and Percentage Inferential Statistics like Chi Square test used to find the association

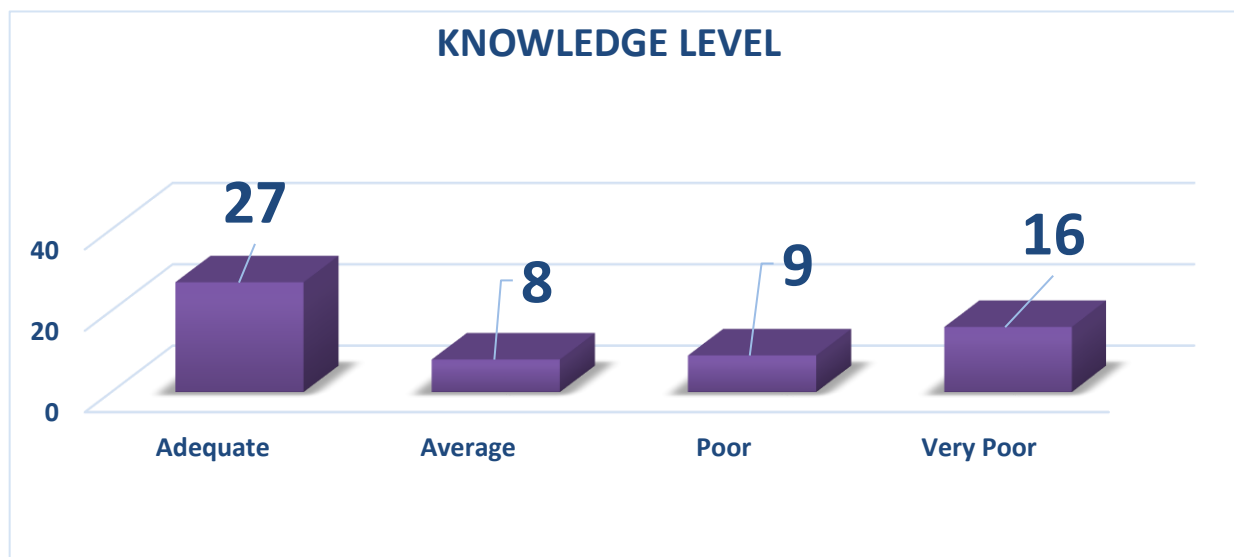
### RESULTS

#### SECTION – A. Categorization of knowledge of Subjects on care of the neonate with Jaundice.

Frequency and percentage of knowledge of Subjects on care of the neonate with Jaundice.

KNOWLEDGE	FREQUENCY	PERCENTAGE
Adequate	27	45%
Average	08	13.3%
Poor	09	15%
Very Poor	16	26.7%

The above table shows that out of 60 participants nearly 27 (45%) of subject were having to adequate knowledge and 8 (13.3%) had average knowledge regarding care of the neonate with Jaundice. Remaining nurses 9(15%) belong to poor knowledge category and 16(26.7%) belongs to very poor knowledge category.



The Figure Shows the frequency of subjects based on the knowledge

**SECTION – B. Association of Knowledge scores with Socio demographic Data**  
 (Significant at 0.05 level)

Si.no.	Demographic variables	Chi Square Value	df	Significance
1	Age	8.357	09	Not significant
2	Gender	10.614	03	Significant
3	Educational Status	17.821	09	Significant
4	Previous Training – in Newborn care	6.576	09	Not significant
5	Experience	7.461	09	Not Significant
6	Marital Status	5.940	06	Not Significant
7	Previous Training – in Phototherapy	1.185	03	Not Significant
8	Medium of Study	0.143	03	Not significant
9	Source pf Information	10.996	18	Not Significant
10	Religion	14.247	06	Significant

The table signifies, at 0.05 level only three out of 10 selected demographic variables - Gender, Educational Status and Religion were significantly associated with the knowledge. The other selected variable such as Age, Previous Training – in Newborn care, Experience, Marital Status, Previous Training – in Phototherapy, Medium of Study, Source pf Information shown no association.

**3. DISCUSSION**

The study finding reveals that the knowledge of staff nurses regarding care of the neonate with Jaundice was considerable below average level. Out of 60 participants nearly 27 (45%) of subject were having to adequate knowledge and 8 (13.3%) had average knowledge regarding care of the neonate with Jaundice. Remaining nurses 9(15%) belong to poor knowledge category and 16(26.7%) belongs to very poor knowledge category. The

Association in level of knowledge regarding care of the neonate with Jaundice and selected socio demographic variables is found to be nil as per  $X^2$  test. A well-constructed Nursing protocol can help in this scenario. Even the nurses are lacking knowledge and skills a planned protocol can function as a standing order for the nurse to function so that it can minimize the errors during the intervention. So as a sub part of this study the investigator prepared a nursing protocol for the better delivery of nursing care.

#### 4. CONCLUSION:

The study finding reveals that the knowledge of staff nurses regarding care of the neonate with Jaundice was considerable below average level. Only 45% of the total nurses are able to acquire the minimum score with the questionnaire. It indicates the necessity of a protocol for the treatment and care of neonates with neonatal jaundice. There were no significant association between finding with selected socio demographic variables.

**CONFLICT OF INTEREST:** The authors declare that there is no any conflict of interest.

**ETHICAL CLEARANCE:** As the study conducted on humans, approval from institutional ethical committee was obtained before commencement of the study.

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