

A Study to Assess The Knowledge of Postnatal Mothers Regarding Neonatal Jaundice in Gandhi Hospital, Secunderabad, Telangana

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Abstract

Background of the Study: New-born baby is very vulnerable to infection, immune mechanisms are immature & the skin is thin & easily damaged. Neonatal jaundice is the yellowish discolouration of skin & mucosa is caused by accumulation of excess bilirubin. New-borns are more prone for neonatal jaundice because of several physiological & pathological changes occur after child birth. Incidence of neonatal jaundice is seen within first 3 days of birth in 80% of preterm babies & 60% of full term babies. Incidence vary with ethnicity & geography

Objectives:

The main objective of the study was

1. To assess the knowledge of postnatal mother regarding neonatal jaundice.
2. To analyse the relationship between the knowledge of postnatal mothers regarding neonatal jaundice with selected demographic variables.

Materials and methods: Descriptive design was adopted. The study was conducted at Gandhi Hospital, Secunderabad, Telangana. Purposive or judgmental sampling technique was used to select the samples. The tool designed to collect the data were socio demographic performa and structured questionnaire. The method used to collect data was structured questionnaire. **Results:** Collected data was analysed by using descriptive and inferential statistics. Findings of the study were that most of the postnatal mothers (74%) had

average knowledge, while the remaining (13%) had below average knowledge & (13%) above average knowledge. There was a significant relationship between knowledge of postnatal mothers, religion, type of family, duration of marriage, family income, source of information & number of previous pregnancies. There was no significant relationship between knowledge of postnatal mothers regarding neonatal jaundice with age & education. **Conclusion:** Although awareness of neonatal jaundice was seen in the majority of the mothers there was a paucity of knowledge regarding causes, danger signs and effective treatment available Cultural beliefs and traditional infant care practices need to have a significant impact on mothers. Special educational programs and involvement of electronic media are needed to increase the awareness of mothers regarding neonatal jaundice. The danger signs recognized by mothers in early period for neonatal jaundice helps health care providers to plan quality care for neonates and neonatal mortality can be prevented by early detection and need to educate family members not to do rush for discharge policy immediately after delivery of mothers.

Keywords: Neonatal jaundice; Postnatal mothers

Introduction

The birth of one new child a new life will arise which blows light in the world. If the world consider as a garden, then the children are named as flowers in the garden. So just after the delivery all the neonates have a transient rise in serum bilirubin in

the first week of life and 50% of term babies become visibly jaundiced. The etiological and contributory factors to neonatal jaundice vary according to ethnic and geographical differences. Unlike the developed countries where feto-maternal blood group incompatibilities are the main cause of severe neonatal jaundice.

Jaundice is the yellow discoloration of the skin, clear that results from raised levels of bilirubin in the blood. In neonate's jaundice is considered as either physiological or pathological. Physiological jaundice appears about 48 hours after birth and usually settles within 10-12 days. Pathological condition may result in the prolonged jaundice.

Physiological jaundice affects up to 50% of term babies who have a progressive rise in unconjugated bilirubin levels. A term baby level of serum bilirubin is 6-8 mg/dl on third day. But it rises to 12 mg/dl, in the cases of physiological jaundice. In the case of premature baby, the peak level of serum bilirubin is 12-15 mg/dl in the first weeks of time.

Pathological jaundice, that appears earlier, is persistent or associated with high bilirubin levels and can have a number of pathological causes which include increased hemolysis, metabolic and endocrine disorders and infection. In the term baby with pathological jaundice the level of unconjugated bilirubin is more than 12.9 mg/dl and in a preterm baby more than 15 mg/dl.

There is a strong relationship between breast feeding and neonates jaundice i.e., the neonatal jaundice is most prevalent in the breast feed babies than the bottle feed babies. A new born infants metabolism of bilirubin is in transition from the fetal stage, during which the placenta is the principal route of elimination of the lipid soluble bilirubin, to the adult stage, during which the water soluble conjugated form is excreted from hepatic cells into the biliary system and then into the gastro-intestinal tract.

Phototherapy is considered as the one of the main management for neonatal jaundice. Phototherapy is means exposing the baby to the fluorescent light. It is used when there is and increased in the bilirubin levels in the blood. It is used as one of the preventive measure of neonatal jaundice especially in the case of low birth weight baby and premature labor. When the phototherapy fails to prevent the jaundice, then blood transfusion can be done.

In newborn, some degrees of jaundice in normal and probably not preventable. All the pregnant women should be tested for blood type and unusual antibodies. If the mother is Rh negative, follow up, testing the infants cord is recommended.

Neonatal jaundice is one of the major causes of admission in newborn nurseries. There is an estimated belief that the jaundice is always self-limited condition of newborns. This belief rather than awareness of jaundice causes late admission for medical care. So it is important to educate the mother about care off neonate with jaundice for their better survival.

Need For Study

Knowledge of mothers regarding care of neonates with jaundice is very important in poor countries. Where there is often a high mortality rate in hospitals which cannot often sophisticated care. Ongoing research has shown that it is in fact, a superior approach to care for birth term and preterm babies.

Neonatal jaundice is growing in popularity worldwide for both term 60% and preterm babies 80% in the first week of life. The incidence of neonatal jaundice is increased in infants of East Asian, American, Indian and Greek descends. In worldwide 35% of NICU admission is neonatal jaundice. Neonatal jaundice is extremely common because almost every newborn develops in United States with hyperbilirubinemia. In 2003, in the United States 4.3% 47,801 infants are suffering with neonatal jaundice.

In India 5% prevalence of morbidity in term infants with relative risk of 2 times in late preterm compared with term infants. Incidence varies with ethnicity and geography. The incidence of significant neonatal jaundice (NNJ) was 76.6% and 37.3% required exchange transfusion.

The American academy of pediatrics recommended phototherapy as a method of diagnosis for neonatal jaundice. The studies shows that phototherapy had and absolute risk reduction rate of 10% to 17% for prevention of serum bilirubin levels higher 20 ml healthy infants with jaundice.

Statement of the problem:

A study to assess the knowledge of postnatal mothers regarding neonatal jaundice in Gandhi hospital, Secunderabad, Telangana".

Objectives:

1. To assess the knowledge of postnatal mother regarding neonatal jaundice.
2. To analyse the relationship between the knowledge of postnatal mothers regarding neonatal jaundice with selected demographic variables.

Hypothesis:

1. The postnatal mothers have some knowledge regarding neonatal jaundice.
2. There is a significant association between levels of knowledge of postnatal mothers with their selected demographic variables.

Materials and Methods:

Research approach and design

Quantitative research approach and descriptive design was used in this study.

Research setting

The study was conducted in Gandhi hospital, Secunderabad, Telangana.

Study population

Postnatal mothers who admitted in postnatal ward

Sampling Size and Sampling Technique:

100 samples were selected by Non-random sampling technique and purposive sampling technique used

Research tool

Part I: Socio-demographic variables consists of age ,religion, educational qualification, type of family ,marital status, family income, source of information, number of previous pregnancies and source of information

Part II: knowledge questionnaire used to collect data

Ethical considerations:

Permission taken from Deputy Medical Superintendent and Nursing Authorities

Method for data collection:

The data collection was scheduled on 9.9.2012 to 9.19.2012. Semi structured Interview method used with the knowledge questionnaire.

Data analysis:

The analysis was done using descriptive and inferential statistics used like mean ,percentage,chi-squaretest was used to find out the association between the variable's .p value < 0.05was considered significant.

Results and Discusssion

Table 1 shows majority of them were in 18-25 years of age, 61% Hindus, most of them up to 10 class (63%),majority were from joint family(47%), majoriy 37% were having 2years of duration of marriage, majority have Rs 5000 family income ,most of them were primigravida(45%) and source of information majority got information from television.

Table 2 shows thatthere is a significant association between levels of knowledge of postnatal mothers with their selected demographic variables at the level of $p > 0.05$ significance. There was a significant relationship between knowledge of postnatal mothers, religion, type of family, duration of marriage, family income, source of information & number of previous pregnancies. There was no significant relationship between knowledge of postnatal mothers regarding neonatal jaundice with age & education.

Table 3 shows thatmost of the postnatal mothers (74%) had average knowledge, while the remaining (13%) had below average knowledge & (13%) above average knowledge.

Table 1: Frequency and Percentage distribution of demographic variables of the subjects

N=100

DEMOGRAPHIC VARIABLES	FREQUENCY	PERCENTAGE
1. Age		
a. below 18 yrs	16	16
b. 18-25 yrs	65	65
c. 26-35 yrs	15	15
d. 36-45 yrs	4	4
2. Religion		
a. Hindu	61	61
b. Christian	19	19
c. Muslim	17	17
d. Others	3	3

3. Education

a. Uneducated	15	15
b. Upto 10th class	63	63
c. Intermediate	10	10
d. Graduation	12	12

4. Type of family

a. Nuclear	26	26
b. Joint	47	47
c. Extended	25	25
d. Single/Divorced	2	2

5. Duration of marriage

a. 1year	30	30
b. 2years	37	37
c. 3-5years	20	20
d. More than 6 years	13	13

6. Family Income

a. Rs.2000	22	22
b. Rs.5000	51	51
c. Below Rs.10,000	25	25
d. Above Rs.10,001	2	2

7. Source of Information

a. Television	63	63
b. Newspaper	26	26
c. Magazine	1	1
d. Peergroup	10	10

8. Number of previous pregnancies

a. One	45	45
b. Two	29	29
c. More than three	11	11
d. None	15	15

Table 2: Relationship between level of knowledge of postnatal mothers in association with demographic variables of subjects

N=100

DEMOGRAPHIC VARIABLES		LEVEL OF KNOWLEDGE						CHISQUARE (χ^2)
		Below Average		Average		Above Average		
1. Age								
	a. below 18 yrs	0	0	15	93.75	1	6.25	15.73 (NS) P=12.59 df =6
	b. 18-25 yrs	8	12.31	15	76.92	7	10.77	
	c. 26-35 yrs	5	33.33	7	46.7	2	20.0	
	d. 36-45 yrs	0	0	2	50	50	2	
2. Religion								
	a. Hindu	4	6.56	46	75.41	11	18.03	9.91 (S) P=12.59 df =6
	b. Christian	5	26.32	14	73.68	0	0	
	c. Muslim	3	17.65	12	70.59	1	11.76	
	d. Others	1	33.33	2	66.67	0	0	
3. Education								
	a. Uneducated	6	40.0	5	33.33	4	26.67	19.2 (NS) P=12.59 df =6
	b. Upto 10th class	5	7.94	50	70.37	8	12.70	
	c. Intermediate	0	0	10	100	0	0	
	d. Graduation	2	16.67	9	75	1	8.33	

4. Type of family

a. Nuclear	2	8.33	22	91.67	2	8.33	4.66 (S)
b. Joint	6	12.77	34	72.34	7	14.89	P=12.59
c. Extended	4	16.00	17	68.0	3	16.00	df =6
d. Single/Divorced	1	50.00	1	50.0	0	0	

5. Duration of marriage

a. 1year	3	10.00	25	83.33	2	6.67	8.37 (S)
b. 2years	4	10.81	29	18.38	4	10.81	P=12.59
c. 3-5years	5	25	12	16.00	3	15.00	df =6
d. More than 6 years	1	7.69	8	61.54	4	30.77	

6. Family Income

a. Rs.2000	2	9.09	14	63.64	6	27.27	5.86 (S)
b. Rs.5000	7	13.73	39	76.47	5	9.80	P=12.59
c. Below Rs.10,000	4	16.00	19	76	2	8.00	df =6
d. Above Rs.10,001	0	0	2	100	0	0	

7. Source of Information

a. Television	9	14.29	47	74.60	7	11.11	3.28 (S)
b. Newspaper	3	11.54	20	76.92	3	11.54	P=12.59
c. Magazine	0	0	1	10	0	0	df =6
d. Peergroup	1	10	6	60	3	30.0	

8. Number of previous pregnancies

a. One	6	13.33	33	73.33	6	13.33	9.63 (S)
b. Two	6	20.69	21	72.41	2	6.90	P=12.59
c. More than three	0	0	7	63.64	4	36.36	df =6
d. None	1	6.67	13	86.67	1	6.67	

Table 3: Level of knowledge of postnatal mothers regarding neonatal jaundice

N=100

Level	Frequency (f)	Percentage (%)
Below average	13	13
Average	74	74
Above average	13	13

Conclusion

A study conducted in Nigeria also reveals that many of them do not have good knowledge and there is a lack of knowledge related to preventive measures. Cultural beliefs and traditional newborn care practices need to have a significant impact on mothers. Special educational programs and involvement of electronic media are needed to increase the awareness of mothers regarding neonatal jaundice

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