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A study to assess the knowledge on neonatal jaundice and expressed practices on prevention of neonatal jaundice among mothers in the selected area of Shillong, east khasi hills, Meghalaya

[1]Aashashree Das, B.Sc Nursing Students, College of Nursing, College of Nursing North Eastern Indira Gandhi Regional Institute of Health and Medical Sciences, Mawdiangdiang (NEIGRIHMS), Shillong, Meghalaya, India, Pincode-793018

[2]Chakpu Eni, B.Sc Nursing Students, College of Nursing, College of Nursing North Eastern Indira Gandhi Regional Institute of Health and Medical Sciences, Mawdiangdiang (NEIGRIHMS), Shillong, Meghalaya, India, Pincode-793018

[3]Kellyreen Dohling, B.Sc Nursing Students, College of Nursing, College of Nursing North Eastern Indira Gandhi Regional Institute of Health and Medical Sciences, Mawdiangdiang (NEIGRIHMS), Shillong, Meghalaya, India, Pincode-793018

[4]Phibaiaiap Syngkli, B. Sc Nursing Students, College of Nursing, College of Nursing North Eastern Indira Gandhi Regional Institute of Health and Medical Sciences, Mawdiangdiang (NEIGRIHMS), Shillong, Meghalaya, India, Pincode-793018

[5]Smritilekha Changmai, B.Sc Nursing Students, College of Nursing, College of Nursing North Eastern Indira Gandhi Regional Institute of Health and Medical Sciences, Mawdiangdiang (NEIGRIHMS), Shillong, Meghalaya, India, Pincode-793018

[6]Ummay Ruma Hoque, B.Sc Nursing Students, College of Nursing, College of Nursing North Eastern Indira Gandhi Regional Institute of Health and Medical Sciences, Mawdiangdiang (NEIGRIHMS), Shillong, Meghalaya, India, Pincode-793018

[7]Jodibala Haobijam, Lecturer, College of Nursing, College of Nursing North Eastern Indira Gandhi Regional Institute of Health and Medical Sciences, Mawdiangdiang (NEIGRIHMS), Shillong, Meghalaya, India, Pincode-793018

[8]Karung Rosema Kom, Tutor/ Clinical Instructor, College of Nursing North Eastern Indira Gandhi Regional Institute of Health and Medical Sciences, Mawdiangdiang (NEIGRIHMS), Shillong, Meghalaya, India, Pincode-793018

Corresponding Author: Aashashree Das, B. Sc Nursing Students, College of Nursing, College of Nursing North Eastern Indira Gandhi Regional Institute of Health and Medical Sciences, Mawdiangdiang (NEIGRIHMS), Shillong, Meghalaya, India, Pincode-793018

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Abstract

Globally neonatal jaundice has an estimated incidence of 99 of 100,000 or more. Since mothers are the primary care for the infants, their perception of understanding and dealing with neonatal jaundice would significantly affect

the disease outcome. Mother's perception regarding the disease in their infants reflects their own misconception.

A non-experimental cross-sectional study was conducted using structured knowledge-based questionnaire on neonatal jaundice and expressed practices with the sample size of 117 antenatal mothers using purposive sampling technique.

Out of 117 participants 65 (55.56%) had average knowledge, 45 (38.4) had poor knowledge and 07 (05. 98%) had good knowledge. According to the expressed practices towards prevention of neonatal jaundice 89 (76.06%) practice breastfeeding for preventing neonatal jaundice. According to the practices regarding exposing baby to sunlight 40 (33.33%) exposed baby to sunlight for about 21-30 minutes. According to the timing, 89 (76.07%) exposed babies to sunlight at around 9-10 AM and 53 (45.29%) of antenatal mothers expressed that any food items is not being avoided to prevent jaundice, 78 (66.67%) does not practice traditional method to prevent neonatal jaundice,

The study concluded that maximum participants have average knowledge on neonatal jaundice. Maximum participants practice breastfeeding to prevent neonatal.

Keywords: Antenatal mothers, Assessment, Knowledge and Expressed practices regarding neonatal jaundice.

Introduction

Background of the study

A neonates or a newborn infant is a child under 28 days of age. Jaundice is one of the common conditions in the neonates that require medical attention. [1] Infants usually are not jaundiced at the moment of birth, because the placenta has the ability to clear bilirubin from the fetal circulation. However, during the first week of life, most of the infants does not have elevated serum bilirubin concentrations (above 1.4mg/dL). [2]

According to the UNICEF (2020), most neonates term and preterm will have elevated levels of unconjugated bilirubin and some amount of jaundice during the first one to two weeks of life due to increased levels of unconjugated bilirubin, which is normal in this age group. But if the bilirubin level is very high and left untreated, then it can lead to neurological damage [13].

According to WHO (2013), 50% of term and 80% of pre-term new born in the first week of life suffers from Neonatal jaundice. And the majority of neonatal jaundice cases are physiological and usually appears 36 hours after birth [14].

Researcher from the Lancet Child Adolescent Health report that jaundice affects 60% of full-term and 80% of preterm neonates and suggested that about 84-112 million of the 140 million babies born yearly worldwide will develop jaundice in the first 2 weeks of life [15].

Need of the study

Jaundice is the commonest abnormal physical finding in the neonates. It is also known as Icterus which is a yellowish or greenish pigmentation of the skin and whites of the eyes due to high bilirubin levels. Neonates however may not appear jaundiced until the serum bilirubin concentration exceeds 5-7mg/dl. Jaundice is often temporary and relatively harmless during the development period of newborn babies but sometimes it can be a sign of a more serious problem. [2]

Neonatal jaundice is a preventable cause of morbidity and mortality. Since mothers are the primary care giver for the infants, their perception of understanding and dealing with neonatal jaundice would significantly affect the disease outcome. Improving mothers' knowledge will help with early recognition of Neonatal Jaundice, prompt and appropriate intervention [16].

Mother's perception regarding the diagnosis, causes, severity and treatment of jaundice in their infants mostly reflects their own misconceptions about this condition.

Apparently, their experiences in providing care for neonates with jaundice in the neonatal period, as well as their influence of the society and their families form their perception about Neonatal Jaundice. Adequate maternal knowledge, early perception and care seeking behaviour are fundamental components of effective management of Neonatal Jaundice.

A study conducted by Chandresh Kumar BP, et.al (2016) in Nazareth Hospital, Meghalaya on 2400 (1.8%) newborns of which 43 newborns are jaundiced. It was found that the prevalence is 18 per 1000 live births. [12]

Objectives of the study

Primary objective

To assess the knowledge of neonatal jaundice and it's expressed practices on the prevention of Neo natal Jaundice.

Secondary objective

To determine association between the knowledge and expressed practices with the selected socio-demo graphic variables.

Operational definitions

Neonatal Jaundice

It refers to neonatal babies having jaundice from the time of birth up to 28 days.

Antenatal Mothers

It refers to woman at their reproductive age when they are expecting a baby of all gestational age and is not a primigravida mother.

Prevention of Neonatal Jaundice

It refers to the action and measures taken for the purpose of preventing neonatal jaundice from occurring or arising.

Knowledge

It refers to the ability of the antenatal mothers to respond correctly to the items regarding neonatal jaundice as evident from their knowledge score obtained in structured knowledge questionnaire.

Expressed Practices

It refers to the practices that the antenatal mother expressed of having behaved or acted according to their knowledge when their babies suffers from jaundice and for the prevention of neonatal jaundice as evident from their practice score obtained in the structured practice questionnaire.

Methodology

research approach

In this study the quantitative research approach was considered appropriate in order to assess the knowledge and expressed practices of antenatal mothers on prevention neonatal jaundice.

Research design

A non-experimental cross-sectional study to assess the knowledge of neonatal jaundice and expressed practices for the prevention of neonatal jaundice of antenatal mothers.

Study settings

The study was conducted from 23 rd May 2022 to 1 st June 2022 in Maw pat and Rynjah, Shillong, East Khasi Hills, Meghalaya.

Study population

All the antenatal mothers residing in Maw pat and Rynjah, Shillong, East Khasi Hills, Meghalaya.

Sample size

Sample size is 117 antenatal mothers

Sampling technique

Purposive sampling technique.

Data collection procedure: The study was conducted from 23 rd May 2022 to 1 st June 2022 in Maw pat and Rynjah, Shillong, East Khasi Hills, Meghalaya.

After obtaining permission, the study was conducted. Prior to data collection, a written consent from the participants was taken to explain the procedure and the purpose of the study which also stated the confidentiality and anonymity of the results.

Thereafter the participants were allowed to proceed with the self-administered questionnaire and were given approximately 10-15 minutes.

SCORING: SECTION 1: It consists of Demographic characteristics and was not scored. SECTION 2: It consists of Self-Administered Knowledge Based Questions to assess knowledge. There are 10 items. Each item number is allotted a score of 1 mark. There is no negative mark for negative responds. SECTION 3: It consists of Structured Based questions to assess the expressed practices. There are 5 items. Each item is allotted a score of 1 mark.

Interpretation of score

Knowledge items

Good knowledge: score (8-10)

Average knowledge: score (4-7)

Poor knowledge: score (≤3)

Expressed practices items

Favorable (≥3)

Unfavorable (≤2)

Analysis and interpretation

Analysis and interpretation of the data was done by using both descriptive and inferential statistics based on the objectives of the study and hypothesis to be tested.

Organization of findings

Data has been organized into four parts as divided below

- Section I: Socio – demo graphic profile of the partici pants
- Section II: Level of knowledge of the participants regarding neonatal jaundice
- Section III: Findings related to the expressed practices of participants regarding prevention of neonatal jaundice among antenatal mothers according to the socio- demo graphic data
- Section IV: Findings related to association of knowledge regarding Neonatal jaundice with selected demographic variables.

Section i: socio-demographic profile of the participants

Table 1: Frequency and percentage distribution of the participants according to the socio-demographic data n=117

VARIABLES	FREQUENCY(f)	PERCENTAGE
Age (in years)		
21-30	79	**67.52%**
31-40	38	32.48%
Religion		
Christian	98	**83.76%**
Hindu	16	13.68%
Others	03	02.56%
Education		
Illiterate	03	02.56%
Primary school (class 1-5)	12	10.27%
Middle school (class 6-8)	11	09.40%
Secondary school (class 9-10)	45	**38.46%**
Higher secondary	18	15.38%
Undergraduate	01	00.85%
Graduate	22	18.80%
Post graduate	05	04.27%
Occupation		
Self employed	18	15.38%
Employed	09	07.69%
unemployed	90	**76.92%**
Parity		
1	69	**58.97%**
2	22	18.80%
More than 3	26	22.22%

Gestation		
1st trimester	25	21.37%
2nd trimester	46	**39.32%**
3rd trimester	46	**39.32%**
Previous knowledge		
1. Yes	98	**83.76%**
If yes :		
a) Mass media	07	05.98%
b) Relatives/Friends	56	47.86%
c) Hospital experience	35	29.91%
2. No	19	16.24%

Table 1 shows that most of the participants 79 (67.52%) belongs to the age group of 21- 30 years. 98(83.76%) of the partici pants were Christian. Majority of the partici pants 45 (38.46%) were under secondary school education (class 9-10) passed and most of the partici pants 90 (76.92%) were unemployed. 69 (58.97%) of the participants have a parity of 1. Each 46 (39.32%) of the participants were in the 2 Nd and 3 rd trimester. Most of the participants 98(83.76%) have a previous knowledge regarding neonatal jaundice and 56(47.86%) of the participants had the knowledge from relatives and friends

Section ii: level of knowledge of the participants regarding neonatal jaundice

Fig 1: Bar diagram showing the percentage of level of knowledge score of the mothers.

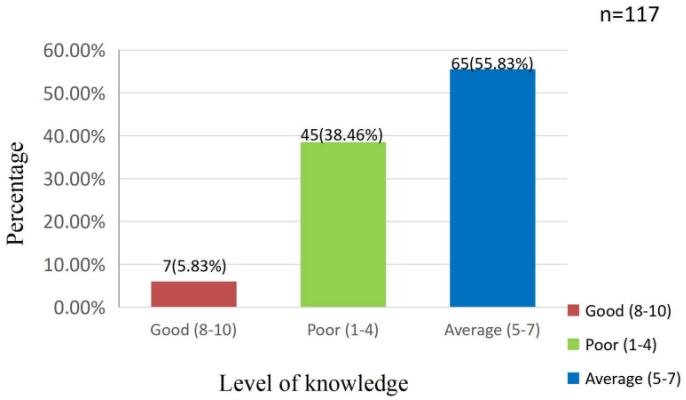

Fig 1 shows that majority of the participants had average knowledge (55.83%) regarding neonatal jaundice.

Section iii: findings related to the expressed practices of participants regarding prevention of neonatal jaundice among antenatal mothers according to the socio- demographic data

Table 2: Domain wise distribution of frequency and percentage level on Expressed Practice on prevention of neonatal jaundice n=117

Domain	Percentage
Prevention of neonatal jaundice	
Breastfeeding	**89(76.06%)**
Home remedies	30(25.64%)
Hospital treatment	16(13.33%)
Traditional method	
None	**78(66.67%)**
Food items	19(16.23%)
Religious prayers	03(02.56%)
Herbal treatment	12(10.26%)
Maintaining of personal hygiene	08(06.84%)
Application of limestone	01(00.85%)
Avoid contact with people	01(00.85%)
Blowing of air through newspaper	02(01.71%)
Duration of exposure to sunlight	
1-10 minutes	13(11.11%)
11-20 minutes	34(29.06%)
21-30 minutes	**40(33.33%)**
31-40 minutes	01(00.85%)
41-50 minutes	-----
51-60 minutes	12(10.26%)
>2 hours (24 hours)	08(06.67%)
Timing of exposure to sunlight	
6-8 AM	21(17.94%)
9-10 AM	**89(76.07%)**
11-12PM	04(03.42%)
Evening	02(01.71%)

Foods avoided by the mother to prevent neonatal jaundice	
None	53(45.29%)
Spices	21(17.94%)
Fruits	15(12.82%)
Vegetables	09(07.69%)
Bettlenuts	02(01.71%)
Oily foods	01(00.85%)
Yellow color foods	14(11.97%)
Junk foods	05(04.27%)
	02(01.71%)

Table 2 depicts that majority of the participants 89 (76.06%) practice breastfeeding to prevent neonatal jaundice. 78 (66.67%) have no traditional method to prevent neonatal jaundice. 40 (33.33%) exposed the baby in sunlight for about 21-30 minutes. Most of the participants 89 (76.07%) exposed the baby in sunlight at the time 9-10AM. Majority of the participants 53 (45.29%) does not avoid any foods to prevent neonatal jaundice.

Section iv: findings related to association of knowledge regarding neonatal jaundice with selected demographic variables.

Table 3: Chi square value showing association between knowledge and selected demographic variables. n=117

Demographic variables	Good	Average	Poor	Tabulated value	Df	Chi square
Age						
21-30	3	43	33	5.99	2	2.71
31-40	4	22	12			
Religion						
Christian	5	54	39			
Hindu	2	10	4	9.49	4	3.26
Others	0	1	2			
Education						
Illiterate	0	3	0			
Primary school (1-5)	0	7	4			
Middle school(6-8)	1	4	7			
Secondary school(9-10)	3	23	19	23.69	14	12.74
Higher secondary(11-12)	1	10	7			
Undergraduate	0	0	1			
Graduate	2	14	6			
Post graduate	0	5	0			
Occupation						
Self employed	0	9	9			
Employed	0	7	2	9.49	4	4.1
Unemployed	7	49	34			
Parity						
1	4	36	29			
2	1	14	7	9.49	4	1.144
>3	2	15	9			
Gestation						
1st Trimester	0	17	8			
2nd Trimester	5	20	21	9.49	4	6.69
3rd Trimester	2	28	16			

Table 3 depicts that the computed Chi-square value of age, religion, education, occupation, parity, gestation were found to be statistically not significant at P<0.05 level of significant.

Discussion

In this section the major findings of the present study have been discussed with reference to results obtained investigators in the same aspect. The result of the present study showed that among 117 participants, maximum i.e 98(83.76%) had previous knowledge regarding neonatal jaundice, whereas in the study conducted by Kokou H Amegan-Aho, e. tal (2019) out of 175 participants, 135 had heard about neonatal jaundice. The result of the present study showed that among 117 participants, maximum i.e 45(38.46%) had secondary school education, whereas in the study conducted by TA Ogunlesi, e. tal. (2015) out of 98 mothers, 57.1% had tertiary education. The result of the present study showed that among 117 participants, maximum i.e 35 (29.91%) had knowledge about neonatal jaundice from hospital experience, whereas in the study conducted by Kokou H Amegan-Aho, e. tal. (2019) out of 175 participants, 37 (27.4%) had heard about neonatal jaundice from hospital. The result of the present study showed that among 117 participants, maximum i.e 07(5.98%) had good knowledge regarding neonatal jaundice whereas in the study conducted by Dalia M Allahony, e. tal. (2016) out

of 265 mothers only 18.9% had good knowledge about neonatal jaundice.

Conclusion

The study showed that majority of the respondents had poor knowledge regarding causes, risk factors, signs and symptoms, complications of neonatal jaundice. Majority of mothers practices breastfeeding to prevent neonatal jaundice and majority of the mothers does not follow any traditional practices. There is no association between the socio- demo graphic variables and the knowledge of mothers.

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