Awareness Regarding Neonatal Jaundice Treatment Among Mothers: A Descriptive Study in Tertiary Level Hospital

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ABSTRACT

Background: Neonatal Jaundice (NNJ) is a major public health problem worldwide and is present among 50 – 60 % of full term and 80% of preterm newborns. This study was carried out in order to assess the knowledge on neonatal jaundice treatment among the mothers in a selected tertiary level hospital of Jessore district town.

Methodology: It was a descriptive type of cross – sectional study. 110 samples were selected by non – randomized purposive sampling technique with the administration of a pretested modified and semi – structured questionnaire by face to face interview.

Results: Study found that majority of the respondents (54.55%) was in the age group 20 – 25 years. Regarding knowledge on preventive measures of NNJ 95.45% respondents had knowledge on ''putting jaundiced baby under direct sun light'', 41.82% had knowledge on 'phototherapy'. 97.27% indicated'' consult with doctor` A significant association was also found between age and `consultation with doctor` (p=0.025).

Conclusion: Awareness should be created among the expecting mothers about neonatal jaundice and encourage them to take preventive measures to reduced neonatal mortality and morbidity.

Keywords: Neonatal Jaundice, Newborns, Knowledge, Hyperbilirubinemia.

INTRODUCTION

Neonatal Jaundice (NNJ) is still a leading cause of preventable brain damage, physical and mental handicap and early death among infants in many communities.[1] Over two-thirds of newborn babies develop clinical jaundice and by adult standards almost all newborn babies are jaundiced during early day of life.[2] Neonatal morbidity and mortality remain, very high in the developing countries of sub-saharan Africa, Asia and Latin America and one of the important contributors to this is neonatal jaundice.[3,4]

Yellow discoloration is first evident on the skin of face, nasolabial folds and tip of the nose. It is essential that all newborn babies must be clinically screened twice a day in good day light to detect the onset and severity of jaundice.[2]

The maximum risk hyperbilirubinemia is kernicterus because of accumulation of unconjugated bilirubin in serum. According to a study, kernicterus causes at least 10% of mortality and 70% of morbidity. However, correct use of phototherapy and blood exchange to control serum bilirubin level can prevent complications.[5]

Neonatal jaundice is a major public health problem worldwide and is present among 50 – 60% of full term and 80% of preterm newborns. Neonatal jaundice is recognized as a major problem in other Asian countries as well.[6] However, large-scale prospective studies documenting incidence of jaundice have not been reported from any part of the world.[7]

MATERIALS &METHODS

This was a descriptive type of cross-sectional study. All mothers, who admitted in a tertiary level hospital at Jessore district town, were the target population and the sample population was all the mothers who were present at the time of data collection in the selected hospital at Jessore, Bangladesh. The study was carried out at Ad-din Sakina Medical College Hospital Jessore from July

2018 to December 2018 with a sample size of 110 and non-randomized purposive sampling method was applied. Data was collected by pretested and modified, self-administered semi-structured questionnaire by face to face interview. All the postnatal mothers who gave consent was included in the study and those who refused to give consent and was found to be mentally handicap were excluded from the study.

All questionnaires were checked for its completeness and correctness, coding and classification were done. The analysis was carried out manually.

Descriptive statistics was used for the interpretation of the findings. Filled questionnaires were checked daily for completeness and consistency of the responses to eliminate possible errors.

Table 01: Distribution of the respondents by socio-demographic variables

Socio-demographic variables		Frequency (n)	Percentage (%)
Age (In years)	< 20	11	10
	20 – 25	61	55.45
	26 – 30	30	27.27
	30	08	07.27
	Total	110	99.99
Religion	Muslim	101	91.82
	Hindu	09	08.18
	Total	110	100
Education	Primary	30	27.27
	Secondary	63	57.27
	Above	17	15.46
	Total	110	100

Table 02: Distribution of the respondents by knowledge on NNJ (110)

Knowledge on NNJ	Answer	Percentage
Is yellow discoloration of skin called Jaundice?	Yes	95.45%
	No	02.73%
	Don`t know	01.82%
Is jaundice a common problem of newborn?	Yes	24.55%
	No	40%
	Don`t know	35.45%
NNJ lasting for more than 2 weeks is abnormal	Yes	17.27%
	No	08.18
	Don`t know	74.55%
Is NNJ due to improper breastfeeding?	Yes	81.81%
	No	03.64%
	Don`t know	14.55%
Is premature delivery a risk factor of NNJ?	Yes	60.91%
	No	09.09%
	Don`t know	33.30%
Is phototherapy a treatment of NNJ?	Yes	41.82%
	No	09.09%
	Don`t know	49.09%
Is any infection of newborn a risk factor?	Yes	70.91%
	No	13.64%
	Don`t know	15.45%
Does severe Jaundice cause death of neonate?	Yes	73.64%
	No	05.45%
	Don`t know	20.91%

Table 03: Distribution of respondents by knowledge on preventive measures of NNJ (n=110).

Knowledge on preventive measures of NNJ	Frequency	Percentage
Putting jaundiced baby under direct sun light	105	95.45
Herbal remedy	09	08.18
Phototherapy	46	41.82
Consult with doctor	107	97.27

Table 04: Distribution of the respondents by association between age and knowledge on management of NNJ

Age (In yrs)	Knowledge on management of Neonatal Jaundice			
	Direct sun light	Herbal remedy	Phototherapy	Cons=doctor
<20	11	02	06	11
20-25	60	03	24	60
26-30	30	04	13	30
>30	04	-	02	05
Total	105	09	45	106
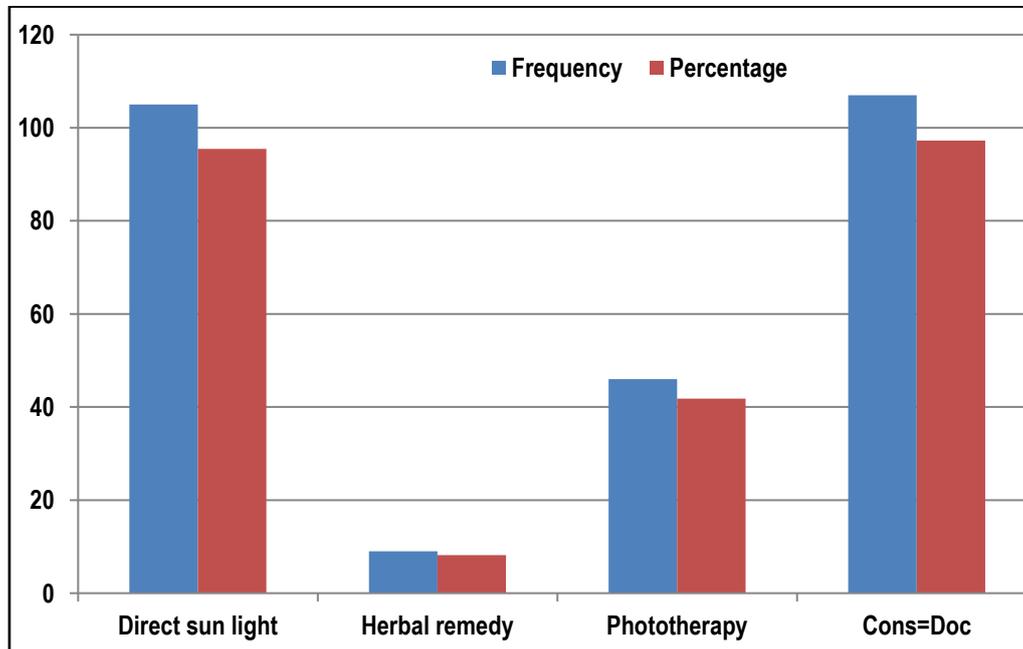
Fig 01: Distribution of the respondents by knowledge on preventive measures of NNJ (110)

RESULTS

The following Variables of table 01 describe Socio-demographic characteristics of the study population. They are as following: age, religion, education etc. Majority of the respondents (54.45%) were in the age group 20 –25 years. Most of the respondents (91.82%) were Muslim and 57.27% of the respondents completed Secondary level of education. Majority of the respondents correctly answered the knowledge related questions like, is jaundice in newborn yellowish discoloration of skin (95.45%).

Another knowledge related questions which were answered by the respondents, is jaundice a common problem of newborns (24.55%), is it abnormal if jaundice lasting for more than 2 weeks (17.27%).

Majority of the respondents replied correctly when they had been asked that is NNJ a cause of improper breastfeeding (81.81%), is premature delivery a risk factor of NNJ (60.91%), is any infection of newborns can be a risk factor for NNJ (70.91%), severe jaundice may cause death in neonates (73.64%). (Table 02)

Regarding knowledge on preventive measures of NNJ, it was found from table 03 that among the respondents 95.45% had knowledge on `putting jaundiced baby under direct sun light`, 8.18% said `herbal remedy`, 97.27% indicated `consult with doctor` and 41.82% had knowledge on `ph0t0therapy`.

It is found from table 04 that 20 – 25 years old respondents had good level of knowledge regarding treatment of NNJ rather than 26 – 30 years of respondents.

DISCUSSION

A cross-sectional study was conducted to assess the knowledge on neonatal jaundice treatment among the 110 postnatal mothers attending a selected tertiary level hospital at Jessore district town from July/18 to December/18. A semi-structured questionnaire, consisting 15 questions used to collect the information. Questions were about the socio-demographic characteristics and about knowledge of the respondents regarding NNJ treatment. The data presented in the form of table and graph.

Observing socio-demographic characteristics of the respondents, it was found that majority of the respondents (55.45%) was in the age group 20 – 25 years and 27.27% was in 26 – 30 years of age group.

Study also showed that most of the respondents (91.82%) were Muslim followed by Hindus (8.18%). More than half (57.27%) of the respondents completed their Secondary education and above only 10%. This educational variation among mothers has been observed as Bangladeshi women are gradually educated.

Majority of the respondents correctly answered the knowledge related questions like, Is yellow discoloration of skin called jaundice? (95.45%). A quite dissimilar finding was observed in a study conducted by Egube BA at Nigeria that only 51.5%of the respondents gave a correct definition of NNJ.[9] This difference is likely due to difference in socio-demographic   criteria of two countries. Another knowledge related questions which were answered by the respondents, is jaundice a common problem of

newborns (24.55%), Is jaundice lasting for more than 2 weeks abnormal (17.27%), in relation to this quite dissimilar finding was found in a study done by Boo NY etal in Malaysia where it was seen that 71.7% knew that jaundice lasting more than 2 weeks abnormal.[8]

Majority of the respondents replied correctly when they had been asked that, Is NNJ a cause of improper breastfeeding (81.81%), Is premature delivery a risk factor of NNJ (60.91%), Is any infection of newborns can be a risk factor for NNJ (70.91%). Severe jaundice may cause death in neonates (73.64%). Almost consistent finding has been found in a study conducted by Boo NY etal[8] regarding severe jaundice may cause death in neonates, where it has been that 71.7% of the mothers knew that severe jaundice could cause death in newborn.

Current study also found that only 41.82% of the respondents knew about phototherapy as treatment of NNJ. Almost similar finding was observed in a study conducted by Ogunfowora OB et al in Nigeria.[10] where it was found that 54.5% has adequate knowledge on effective treatment namely phototherapy and exchange blood transfusion.

Regarding knowledge on preventive measures of NNJ it was found that among the respondents 90.45% had knowledge on `putting jaundiced baby under direct sun light`, 8.18% said `Herbal remedy`, 97.27% indicated `consult with doctor` and 41.82% had knowledge on `phototherapy`.

These findings completely vary from the study done in Nigeria by Boo NY[8] possibly due to difference in knowledge pattern of the respondents of two different countries.

CONCLUSION

Neonatal care has always been neglected in our country as yet Bangladeshi people are not properly educated. More over cultural values and customs make rural women out of focus regarding ANC and neonatal care. As women cannot ask for their reproductive right, mortality and morbidity are still high among rural mothers.

It is the policy makers who can take necessary measures to make the rural mothers aware and save thousands of neonates and mothers.

RECOMMENDATIONS

As per the findings of the study, following recommendations are suggested;

- Awareness programmed should be conducted among the mothers attending out-patient department.
- Further study also can be conducted to have greater view regarding the knowledge on neonatal jaundice care among mothers with larger sample size covering the whole Bangladesh.

LIMITATIONS

- Time was very limited.
- Limitation of the fund.
- Small study area could not represent the whole.

REFERENCES

1. S. Huq, SM Hossain, SMT Haque, MA Tarafder. Knowledge regarding Neonatal jaundice management among Mothers: A descriptive study done in a Tertiary level Hospital of Dhaka city. AKMMC 2017;8(2) 121 – 27.
2. Essence of Pediatrics. By Prof. M R Khan. 3rdedition, page-60.
3. OwaJA, Oshinaike AI. Neonatal morbidity and mortality in Nigeria. Indian J Pediatric 1998;65:441 – 49.
4. Parkash J, Das N. Pattern of admissions to neonatal unit. J Coll Physicians Surg Pak 2005;15:341 – 44.
5. IP S Chang M, KuligJ, O`Brian R, Sege S, Glichen et al. An evidence-based review of important issues concerning neonatal hyperbilirubinemia. Pediatrics 2004;114.
6. Ho NK. Neonatal jaundice in Asia. Baillieres Clinical Haematology 1992; 5:131 –42.
7. American Academy of Pediatrics Subcommittee on Hyperbilirubinemia. Management of hyperbilirubinemia in the newborn infant 35 or more weeks of gestation. Pediatrics 2004 Jul; 114 (1):297 – 316.
8. Egube BA, Ofili AN, Isara AR, Onakewhor JU. Neonatal jaundice and its management: Nigerian Journal of Clinical Practice. Apr-Jun 2013; 16 (2).
9. Boo NY, Gan CY, Gian YW, Lim KSL, Lim MW, Kumar HK. Malaysian Mothers` Knowledge and practices on care of Neonatal jaundice. Med J Malaysia. August 2011; 66(3).
10. Ogunfowora OB, Daniel OJ. Neonatal jaundice and its management: knowledge, attitude and practice of community health workers in Nigeria. BMC Public Health. 2006 Jan27;6:19.