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Assessment of knowledge and attitude of mothers of children admitted with jaundice in a tertiary care hospital in Bangladesh

Shohely Parveen[1], Ridwanul Islam[2], Jesmeen Morshed[3], Shariful Hasan[4], Mohammad Asadur Rahman[5], Mohammad Shoaib Chowdhury[6], Zahidur Rahman[7]

[1]Associate Professor, Department of Paediatrics, Bangladesh Medical University (BMU), Dhaka, Bangladesh.

[2]Associate Professor, Department of Paediatrics, Bangladesh Medical University (BMU), Dhaka, Bangladesh.

[3]Associate Professor, Department of Paediatrics, Bangladesh Medical University (BMU), Dhaka, Bangladesh.

[4]Associate Professor, Department of Paediatrics, Bangladesh Medical University (BMU), Dhaka, Bangladesh.

[5]Associate Professor, Department of Gastroenterology, Bangladesh Medical University (BMU), Dhaka, Bangladesh.

[6]Associate Professor, Department of Gastroenterology, Bangladesh Medical University (BMU), Dhaka, Bangladesh.

[7]Associate Professor, Department of Gastroenterology, Bangladesh Medical University (BMU), Dhaka, Bangladesh.

Corresponding author: Dr. Shohely Parveen, Associate professor, Department of Pediatrics, Bangladesh Medical University (BMU), Dhaka, Bangladesh. Email: shohelypaediatrics@yahoo.com. Orchid ID: 0009-0002-8912-5354

ABSTRACT

Background: Jaundice is a common clinical condition marked by yellow discoloration of the skin and sclera due to bilirubin accumulation. It results from various hepatic, biliary, or hemolytic disorders. In Bangladesh, viral hepatitis, particularly Hepatitis B infection, is a major cause. Beyond medical issues, jaundice is often linked to social stigma, misconceptions, and psychological distress. Studies in other countries show negative public attitudes and poor awareness about jaundice. However, limited data exist in Bangladesh regarding community perceptions. This study was therefore conducted to assess the knowledge and attitude of mothers of children admitted with jaundice, aiming to identify gaps and guide future health education efforts. **Methods**: This cross-sectional study was conducted in the Department of Pediatrics, North East Medical College Hospital, Sylhet, from June 2024 to June 2025. Mothers of children admitted with jaundice were interviewed using a predesigned structured questionnaire covering sociodemographic information, knowledge, and attitudes toward childhood jaundice. Trained physicians conducted the interviews to ensure accuracy. Data were analyzed using SPSS version 20. Continuous variables were summarized as mean ± standard deviation, and categorical variables as frequencies and percentages. Results were presented in tables and figures for clarity. **Results**: Among 46 mothers, most were aged 21–30 years (78.3%), educated (76.1%), and from joint families (76.1%). While 95.3% had heard of jaundice, only 54.3% recognized yellow skin/eyes as a symptom, and knowledge of causes, complications, and treatment was limited. Phototherapy and modern medicine were known to 63% and 52.2%, respectively. Regarding attitude, 39.1% considered jaundice transmissible, 34.8% were willing to work with patients, 54.3% supported school/work attendance, and 67.4% opposed marriage. Most (65.2%) preferred modern treatment. Overall, awareness was high but knowledge and attitudes were incomplete. **Conclusion**: Mothers' knowledge and attitudes are crucial for early recognition, timely treatment, and prevention of childhood jaundice complications. Misconceptions can delay care, highlighting the need for targeted education on causes, warning signs, and preventive measures. Structured counseling and community awareness programs can improve maternal understanding, treatment adherence, and child health outcomes.

Keywords: *Jaundice, Tertiary care hospital, knowledge, Attitude.*

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1. INTRODUCTION

Jaundice, characterized by the yellow discoloration of the skin, sclera, and mucous membranes due to the accumulation of bilirubin in body tissues [1]. It is a clinical manifestation of various underlying pathological processes involving the liver, biliary system, or red blood cell destruction. The yellow coloration of urine in jaundiced patients is attributed to the renal excretion of conjugated bilirubin [2]. Elevated serum bilirubin levels can result from multiple etiologies such as genetic disorders, hemolytic diseases, infectious hepatitis, biliary obstruction, and toxin- or drug-induced hepatic injury. Among adults, infections, drugs, toxins, and alcohol-induced liver diseases are considered the most frequent causes [3]. Gilbert's syndrome, a benign hereditary disorder caused by decreased bilirubin conjugation, is also a common cause of mild, recurrent jaundice in otherwise healthy individuals [4, 5].

Neonatal jaundice represents another prevalent form of the condition, affecting approximately 50% of newborns globally, and in most cases, it follows a benign and self-limiting course [6]. However, in certain cases, severe hyperbilirubinemia can lead to kernicterus, emphasizing the need for early recognition and management. Benign and malignant biliary diseases, including choledocholithiasis and cholangiocarcinoma, also contribute significantly to the global burden of jaundice [7]. In Bangladesh, one of the major causes of jaundice among adults is viral hepatitis, particularly Hepatitis B virus (HBV) infection [8]. HBV remains a major public health concern due to its potential to cause chronic liver disease, cirrhosis, and hepatocellular carcinoma.

Beyond its clinical implications, jaundice often carries a substantial social and psychological burden. Patients with HBV infection frequently face stigma and discrimination stemming from inadequate public knowledge and misconceptions regarding disease transmission and prognosis [9]. A study from Pakistan revealed a generally negative attitude among the public toward individuals living with HBV infection, reflecting widespread misinformation and fear [10]. Similarly, in Uganda, people expressed negative perceptions toward patients with sickle cell anemia—a genetic disorder that can also present with jaundice—further highlighting the social stigma associated with visible symptoms such as yellowing of the skin and eyes [11]. Moreover, another study conducted in Pakistan demonstrated that over two-thirds of patients with jaundice experience anxiety and depression, likely due to social isolation and perceived discrimination [12].

Despite the common occurrence of jaundice and its multifaceted impact, there is a notable lack of research exploring public awareness, knowledge, and attitudes toward the condition in Bangladesh. Understanding community perceptions is crucial, as stigma and misinformation may delay diagnosis, treatment, and social reintegration of affected individuals. With this background, the present hospital-based study was designed to assess the knowledge and attitude of mothers of children admitted with jaundice. This study aims to identify gaps in awareness, misconceptions, and social perceptions regarding jaundice, ultimately contributing to the development of targeted educational programs and health promotion strategies to improve community understanding and reduce stigma associated with this condition.

2. MATERIALS AND METHODS

This cross-sectional study was conducted in the Department of Pediatrics, North East Medical College Hospital, Sylhet, over a one-year period from June 2024 to June 2025. The study population comprised mothers of children admitted with jaundice. Data were collected through face-to-face interviews using a predesigned and structured questionnaire. The questionnaire included sections on sociodemographic information, maternal knowledge regarding childhood jaundice, and attitudes toward its causes, management, and prevention. Interviews were conducted by trained physicians working in the pediatric unit to ensure accuracy and consistency.

All collected data were compiled, coded, and analyzed using the Statistical Package for Social Sciences (SPSS), version 20. Descriptive statistics were used to summarize the data; mean and standard deviation were calculated for continuous variables, while frequencies and percentages were determined for categorical variables. The findings were presented in tables and figures where appropriate to facilitate interpretation and comparison.

3. RESULTS

Total 46 mothers attending their children with jaundice were included in this study. Of them, 36 (78.3%) were within 21 years to 30 years age group and 35 (76.1%) were educated. Among them, 19 (41.3%) 20(43.5%) and 7 (15.2%) had family income up to 10,000 BDT, >10,000 -20,000 BDT and above respectively. Most of the respondents were from joint family (Table 1).

Table 1: Characteristics of respondents

	Group	N	%
Age distribution			
Father	21 to 30	16	34.8
	31 to 40	25	54.3
	41 to 50	5	10.9
Mother	<21	6	13.0
	21 to 30	36	78.3
	31 to 40	3	6.5
	>40	1	2.2
Education			
Education of father	educated	35	76.1
	able to read and write	3	6.5
	Illiterate	8	17.4
Education of mother	educated	35	76.1
	Able to read and write	8	17.4
	illiterate	3	6.5
Income per month	up to 10,000	19	41.3
	>10,000 to 20,000	20	43.5
	>20,000	7	15.2
Type of family			
Type of family (father)	Joint	33	71.7
	Nuclear	13	28.3
Type of family (mother)	Joint	35	76.1
	Nuclear	11	23.9

In this series 41 (89.1%) previously saw patients with jaundice. Nineteen (41.3%) respondents thought jaundice is curable. In this study 25 (54.3%) knew that skin and eye become yellow in jaundice. Among them 10 (21.7%) had no idea regarding cause of jaundice and only one thought it to be due to curse of God. Regarding biochemical change and complication or consequence of jaundice, most of the respondents were ignorant. Regarding treatment, their knowledge was inadequate and incomplete.

Table 2: Knowledge about jaundice among respondent

			n (%)
Question 1	Have heard about jaundice before	Yes	44 (95.3)
		No	2(4.3)
Question 2	Is it curable	yes	27(58.7)
		No	19(41.3)
Question 3	Have you ever seen a person with jaundice before	yes	41(89.1)
		No	5(10.9)
Q4 Presentation	Yellow urine		1(2.2)
	Yellow skin and eye		25(54.3)
	Both		20(43.5)
Q5 Cause	Liver disease		15(32.6)
	Hereditary		14(30.4)
	Curse of God		2(4.3)
	Both 1 & 2		5(10.9)
	No idea		10(21.7)
Q6 Consequence	Convulsion		2(4.2)
	Itching		6(13.0)
	Loss of appetite		19(41.3)
	neurological problems		2(4.3)
	Both 1& 2		6(13.0)
	Both 1& 4		1(2.2)

	All of above	4(8.7)
	Both 2 & 3	2(4.3)
	Combination of 1, 2 & 3	2(4.3)
	Combination of 1 & 3	1(2.2)
	No idea	1(2.2)
Q 7 in jaundice there is	urea	1(2.2)
increase in blood of	Bilirubin	3(6.5)
	No idea	42(91.3)
Q8 Jaundice may be	yes	43(93.5)
cured	No	3(6.5)
Q 9 Modern medical	Phototherapy	29(63.0)
modalities of	Drug	2(6.5)
treatment of jaundice	Blood transfusion	1(2.2)
	No idea	14(30.4)
Q 10 All possible	Modern medicine	24(52.2)
treatment modalities	Traditional medicine	7(15.2)
for jaundice	Both	8(17.4)
	No idea	7(15. 2)

About two third respondents knew that jaundice is transmissible and one third were agreed to work with patients with jaundice. More than half of respondents were in favor of allowing persons with jaundice to attend school and job. Around two third respondents against marriage of patients with jaundice and they are also in favor treatment by physicians (Table 3).

Table 3: Attitude of respondent

Questions		**n(%)**
Jaundice is transmissible	yes	18(39.1)
	no	28(60.9)
Are you agreed to work with patient with jaundice?	Yes	16(34.8)
	No	30(65.2)
Patient of jaundice may go to school / office	Yes	25(54.3)
	No	21(45.7)
Patient with jaundice may marry	yes	15(32.6)
	No	31(67.4)
which modality of Rx you prefer for yourself	modern medicine	30(65.2)
	traditional medicine	5(10.9)
	Combination	11(23.9)

4. DISCUSSION

In this series respondents were attending mother of children admitted with jaundice in hospital. Most of them were within 21 to 30 years age group which was similar to previous report from our country [13], while lower than that of Nigeria, Iran, Pakistan and China [14, 15, 16, 17]. In our series two third respondents were educated which was similar to report from China[15] but reverse to report from Kashmir. [18] Average monthly family income of majority of respondents in this series was up to BDT 20,000 and it is similar to the previous report from our country [13]. In China majority of respondents were from lower economic group [17]. Almost all our respondents were familiar with jaundice which is consistent with report from Kashmir [18] but differs from previous report from our country may be due to difference in study population and design. More than half of respondents knew that jaundice is curable which contradict with report from Kashmir, [18] may be due to difference in study population and social structure. Most of our respondents had adequate knowledge about presentation of jaundice which was similar to report from Kashmir.[18] But in this series, more than half of our respondents had inadequate knowledge regarding affecting organ, biochemical change and consequence.

Regarding treatment, majority of our respondents preferred modern medicine. In Kashmir [18], majority want combination of both modern and traditional medicine. Regarding attitude of our respondents, majority were against working with jaundiced persons. While more than half were in favor of their schooling and job. About two third of our series were against marriage of patients with jaundice which contradicts report from Kashmir [18]. But majority of our respondents prefer modern medicine for treatment.

5. CONCLUSION

Mothers' knowledge and attitude toward childhood jaundice are key factors for early recognition, prompt treatment, and prevention of complications. As primary caregivers, their awareness directly influences timely medical consultation and adherence to treatment. However, many mothers hold misconceptions about the causes and management of jaundice, often attributing it to diet, sunlight, or traditional beliefs, which can delay proper care.

Focused health education and culturally sensitive counseling are essential to improve maternal understanding. Educating mothers about the causes, warning signs, and prevention—such as early breastfeeding, hepatitis immunization, and safe newborn care—can empower them to act promptly. Health professionals and community health workers should deliver clear, practical messages through antenatal and postnatal programs and local awareness campaigns.

Enhancing maternal knowledge through structured education and continuous support will promote early detection, improve treatment adherence, and reduce preventable complications of childhood jaundice, ultimately contributing to better child health outcomes.

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