



# Evaluation of Nurses Sociodemographic Characters and Knowledge Regarding Neonatal Jaundice at Tertiary Level Hospitals at Dhaka city in Bangladesh

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## ABSTRACT

Neonatal jaundice is a yellowish discoloration of the white part of the eyes and skin in a newborn baby due to high bilirubin levels. Other symptoms may include excess sleepiness or poor feeding. Complications may include seizures, cerebral palsy, or kernicterus. In Bangladesh many children die due to neonatal jaundice. However the present study has conducted to describe the socio-demographic & characteristics of nurses at Tertiary level hospital at Dhaka city in Bangladesh and to identify the level of knowledge of nurses on neonatal jaundice at Tertiary level hospital at Dhaka city in Bangladesh. It was a descriptive type of cross-sectional study and conducted at selected different Government-Dhaka Nursing College and private-Holy Family Red Crescent Nursing College in Dhaka City. From each nursing college 200 respondents were selected. So, total 400 respondents were selected for the study. Purposive sampling method was used for the study. Data were collected from primary and secondary sources. Primary data were collected by face-to-face interview by the investigator. Collected data were analyzed by computer program Statistical Package for the Social Sciences (SPSS). From the result it was found that the socioeconomic conditions of the nurses are average. The levels of knowledge of nurses on neonatal jaundice at Tertiary level hospital at Dhaka city in Bangladesh are good. The nurses know about Jaundice caused due to Obstruction of Bile Duct, Nurses can define about Jaundice. Nurses know the normal Range of Total Serum Bilirubin of a Neonate; Nurses know the other Name of Jaundice and reason of Hemolytic Jaundice. The study recommend that all nurses' students should provide educational stipend to help financially, Nurses' knowledge regarding Neonatal Jaundice should be upgraded by providing latest trainings and Nurses' knowledge regarding Neonatal Jaundice should be upgraded by visiting and staying modern hospitals of developed countries.

**Key words:** *Neonatal Jaundice, Knowledge, Management, Obstruction of Bile Duct, Bilirubin Serum Bilirubin, Care, Blood.*

## INTRODUCTION

Bangladesh is a small country of 147,570 square kilometers with a vast population of 164.69 million inhabitants. Remarkable is that about 27.21% are below 15 years. Our countries major portion of our children is struggling with poverty, diseases and illiteracy. Infant mortality rate is very high (24.73/1000 live birth) in this country and hence more than two third of this high infant mortality rate are count for deaths within 1 month of age (Neonatal mortality rate, 19.1/1000 live birth). There is total neonatal death 152,000/year in Bangladesh. In other hand Japan NMR is only 5/1000 live birth. Neonatal morbidity is also common in the world. The disease profile about NNJ in Bangladesh is not exactly known. There are very few data available on rural area. Maximum data are hospital based. The commonest problem from which neonate hospital admit is neonatal jaundice. This admit due to physiological jaundice, pathological jaundice. Jaundice due to lack of breastfeeding, Rh incompatibility. ABO incompatibility, Jaundice due to septicemia. Among them 6% are die for neonatal jaundice. 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.

Now a day's NNJ is considerate major health problem in Asian country and also a worldwide common public health problem. The journal of pediatrics reports is retrospective study, which observed that the incidence of jaundice is higher in breast-fed babies than in the formula-fed ones. Asian male babies and Native American ones are reported to be most affected by neonatal jaundice. They are followed by Caucasian infants who in turn are followed by African neonates. Neonatal Jaundice is clinical condition; therefore, it is very emergency to aware health care provider for reduced NMR. It is very important to reduce neonatal jaundice as it contribute for high mortality rate and the nurses can play a vital role in reduction of mortality rate due to neonatal jaundice. So the researcher got an interest to carry out this study. The purpose of this study is to find level of awareness of the nurses about Knowledge and Management of Neonatal Jaundice at Tertiary level hospital in Dhaka city. For management of neonatal jaundice, many latest practices, treatment systems and technology based management systems have been invented. Health care workers especially nurses know more or less management system for neonatal jaundice but there may have some lacking of updated management system or technology based management system. This will help policy maker to develop planned health programs and law enforcement for reducing the complication of neonatal jaundice and NMR also. So this type of research is necessary to cope up the upcoming challenges of neonatal jaundice in Bangladesh. The study will do to find out the level of awareness of the nurses about Knowledge and Management of Neonatal Jaundice at Tertiary level hospital in Dhaka city, Bangladesh.

### OBJECTIVES OF THE STUDY

The specific objectives of the study are as follows:

1. To evaluate the socio-demographic & characteristics of nurses at Tertiary level hospital at Dhaka city in Bangladesh.
2. To identify the level of knowledge of nurses on neonatal jaundice at Tertiary level hospital at Dhaka city in Bangladesh.

### METHODOLOGY OF THE STUDY

**Study design:** It was a descriptive cross sectional study which assesses the level of awareness of the nurses Knowledge and Management of Neonatal Jaundice at Tertiary level hospital in Dhaka city.

**Study area:** The study was conducted in selected hospital in Dhaka city.

**Study place:** The study was conducted at Holy Family Red Crescent Medical College hospital and Dhaka Medical College Hospital.

**Sampling method:** Purposive sampling method was used for the study.

**Sample Size:** Total 400 nurses were selected for the study. From each hospital 200 respondents were selected.

**Sources of Data:** Data were collected from primary and secondary sources.

**Sources of Primary data:** Primary data were collected from the respondents of study area.

**Sources of secondary data:** Secondary data were collected from books, research report, journals and internet.

**Instruments of data collection:** Questionnaire was used for data collection.

**Media of language:** Data were collected in English Media.

**Methods of data collection:** Data were collected through face to face interview with questionnaire and secondary data were collected by reviewing books, research report, journals and internet etc.

**Data processing and Analysis:** Data were computerized, analyzed and interpreted using of SPSS (Statistical package for social science) Windows software program version 16.

## RESULTS AND DISCUSSION

**Table 1: Age of the Respondents**

Age group	Frequency	Percent	Cumulative Percent
31-40 Years	73	18.2	18.2
41-50 Years	183	45.8	64.0
51Years and Above	144	36.0	100.0
Total	400	100.0	

Age of the Respondents has shown in the above table. From the result it was found that 45.8% respondents were age group 41-50 Years which was maximum but 18.2% respondents were age group 31-40 Years which was minimum. On the other hand 36.0% respondents were age group 51 years and above.

**Table 2: Gender of the Respondent**

Gender of the Respondent	Frequency	Percent	Cumulative Percent
Female	400	100.0	100.0

Gender of the Respondent has shown in the above table. From the result it was found that all the respondents were female.

**Table 3: Educational Qualification of the Respondents**

Name of Degree	Frequency	Percent	Cumulative Percent
Diploma in Nursing and Midwifery	74	18.5	18.5
Diploma in Midwifery	108	27.0	45.5
Basic B. Sc. in Nursing	72	18.0	63.5
Post Basic B. Sc. in Nursing	72	18.0	81.5
MPH	74	18.5	100.0
Total	400	100.0	

Educational Qualification of the Respondents has shown in the above table. From the result it was found that 18.5% respondents had Diploma in Nursing and Midwifery, 27.0% respondents had Diploma in Midwifery, 18.0% respondents had Basic B. Sc. in nursing degree, 18.0% respondents had Post Basic B. Sc. in nursing degree and 18.5% respondents had MPH degree.

**Table 4: Service Duration of the Respondents**

Service Duration	Frequency	Percent	Cumulative Percent
5-9 Years	36	9.0	9.0
15-19 Years	74	18.5	27.5
20 Years and More	290	72.5	100.0
Total	400	100.0	

Service Duration of the Respondents has shown in the above table. From the result it was found that 9% respondents had 5-9 Years service duration experiences, 18.5% respondents had 15-19 Years service duration experiences and 72.5% respondents had 5-9 Years service duration experiences.

**Table 5: Performed Neonatal Jaundice Related Duties of the Respondents**

Respondent's opinion	Frequency	Percent	Cumulative Percent
Yes	180	45.0	45.0
No	220	55.0	100.0
Total	400	100.0	

Performed Neonatal Jaundice Related Duties of the Respondents has shown in the above table. From the result it was found that 45% respondents performed neonatal jaundice related duties and 55% respondents did not perform Neonatal Jaundice Related Duties.

**Table 6: Duration of Neonatal Jaundice Related Duties**

Duration of duties	Frequency	Percent	Cumulative Percent
1 Year	36	9.0	9.0
2-3 Years	108	27.0	36.0
>5 Years	36	9.0	45.0
No	220	55.0	100.0
Total	400	100.0	

Duration of Neonatal Jaundice Related Duties has shown in the above table. From the result it was found that 9% respondents performed 1 year neonatal jaundice related duties, 27% respondents performed 2-3 years neonatal jaundice related duties and 9% respondents performed more than 5 years neonatal jaundice related duties.

**Table 7: Respondents Knowledge about Definition of Jaundice**

Respondent's opinion	Frequency	Percent	Cumulative Percent
Yes	400	100.0	100.0

Respondents Knowledge about Definition of Jaundice has shown in the above table. From the result it was found that all the Respondents had Knowledge about Definition of Jaundice.

**Table 8: Respondent's Definition about Jaundice**

Respondent's Definition about Jaundice	Frequency	Percent	Cumulative Percent
Due to increase bilirubin level in the blood	327	81.8	81.8
Yellow discoloration of the skin and mucus membrane	73	18.2	100.0
Total	400	100.0	

Respondent's Definition about Jaundice has shown in the above table. From the result it was found that 81.8% respondents defined jaundice as increase bilirubin level in the blood and 18.2% respondent's defined jaundice as Yellow discoloration of the skin and mucus membrane.

**Table 9: Normal Range of Total Serum Bilirubin of a Neonate**

Normal Range of Total Serum Bilirubin	Frequency	Percent	Cumulative Percent
0.2-1.5 mg/dl	363	90.8	90.8
0.5-2.5 mg/dl	37	9.2	100.0
Total	400	100.0	

Respondent's Definition about Jaundice has shown in the above table. From the result it was found that 90.8% respondents replied that normal range of total serum bilirubin of a neonate os0.2-1.5 mg/dl and 9.2% respondents replied that normal range of total serum bilirubin of a neonate os0.5-2.5 mg/dl.

**Table 10: Cause of Jaundice**

Cause of Jaundice	Frequency	Percent	Cumulative Percent
Excess of bilirubin in the Blood	400	100.0	100.0

Cause of Jaundice has shown in the above table. From the result it was found that all the respondents replied that jaundice is caused due to Excess of bilirubin in the Blood.

**Table 11: Bilirubin is a waste product released during the break down of**

Name of breakdown	Frequency	Percent	Cumulative Percent
Mast Cells	37	9.2	9.2
Red Blood Cells	363	90.8	100.0
Total	400	100.0	

Bilirubin is a waste product released during the break down of has shown in the above table. From the result it was found that 9.2% respondents replied that Bilirubin is a waste product released during the break down of mast cells and 90.8% respondents replied that Bilirubin is a waste product released during the break down of Red Blood Cells.

**Table 12: Other Name of Jaundice**

Other Name of Jaundice	Frequency	Percent	Cumulative Percent
Icterus	363	90.8	90.8
Hemophilia	37	9.2	100.0
Total	400	100.0	

Other Name of Jaundice has shown in the above table. From the result it was found that 90.8% respondents replied that other name of jaundice is icterus and 9.2% respondents replied that other name of jaundice is hemophilia.

**Table 13: Reason of Hemolytic Jaundice**

Reasons of Hemolytic Jaundice	Frequency	Percent	Cumulative Percent
Liver disease	37	9.2	9.2
Rapid Destruction of Erythrocytes or RBC	289	72.2	81.5
Intestinal Diseases	74	18.5	100.0
Total	400	100.0	

Reason of Hemolytic Jaundice has shown in the above table. From the result it was found that 9.2% respondents replied that the reason of hemolytic jaundice is liver disease, 72.2% respondents replied that the reason of hemolytic jaundice is rapid destruction of erythrocytes or RBC and 18.5% respondents replied that the reason of hemolytic jaundice is Intestinal diseases.

**Table 14: Jaundice Caused due to Obstruction of Bile Duct is also referred to as**

Obstruction of Bile Duct is also referred to as	Frequency	Percent	Cumulative Percent
Hemolytic Jaundice	36	9.0	9.0
Hepatocellular Jaundice	37	9.2	18.2
Cholestasis	327	81.8	100.0
Total	400	100.0	

Jaundice Caused due to Obstruction of Bile Duct is Also Referred to as has shown in the above table. From the result it was found that 9% respondents replied that jaundice caused due to obstruction of bile duct is also referred to as hemolytic jaundice, 9.2% respondents replied that jaundice caused due to obstruction of



bile duct is also referred to as hepatocellular jaundice and 81.8% respondents replied that jaundice caused due to obstruction of bile duct is also referred to as cholestasis.

## CONCLUSION

The socioeconomic conditions of the nurses are average. The levels of knowledge of nurses on neonatal jaundice at Tertiary level hospital at Dhaka city in Bangladesh are good. The nurses know about Jaundice caused due to Obstruction of Bile Duct, Nurses can define about Jaundice

Nurses know the normal Range of Total Serum Bilirubin of a Neonate; Nurses know the other Name of Jaundice and reason of Hemolytic Jaundice.

## RECOMMENDATION

1. All nurses' students should provide educational stipend to help financially.
2. Nurses' knowledge regarding Neonatal Jaundice should be upgraded by providing latest trainings.
3. Nurses' knowledge regarding Neonatal Jaundice should be upgraded by visiting and staying modern hospitals of developed countries.

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