

PERCEPTION OF NEONATAL JAUNDICE AMONG STUDENTS AT A PRIVATE NURSING INSTITUTE IN KARACHI

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ABSTRACT

OBJECTIVES

This study aims to determine nursing students knowledge of neonatal jaundice.

METHODOLOGY

This cross-sectional study was conducted in a private nursing institute in Karachi from May to July 2023. A total of 108 nursing students were recruited through a convenient sampling technique. An adopted questionnaire consisting of two components: demographic data and knowledge assessment questions of neonatal jaundice. SPSS version 26 was used to analyze data for descriptive statistics.

RESULTS

The study findings showed 74% were males and 26% were females nursing students. Results revealed that 46.21% of the participants had a low level of knowledge, 41.8% of the participants had a moderate while 12.0% had a high level of knowledge regarding neonatal jaundice.

CONCLUSION

According to the study's findings, nursing students generally have a low to moderate level of awareness about neonatal jaundice. Therefore, there is a dire need to close this knowledge gap through focused education and training to provide competent care to neonates with jaundice.

KEYWORDS: Knowledge, Neonatal Jaundice, Nursing Students

INTRODUCTION

The condition known as neonatal jaundice, often called physiological jaundice, typically affects infants within their first few days of life. It occurs when bilirubin, a yellow pigment produced during the breakdown of red blood cells, accumulates in the baby's circulation.¹ In addition, newborn hyperbilirubinemia, another name for neonatal jaundice, is a term for the yellow staining of the skin or other organs brought on by the body-wide bilirubin buildup.² Neonatal jaundice is a serious illness that can result in deadly complications if not correctly and quickly treated.³ Additionally, about 50%-60% of full-term infants and 80% of preterm infants get jaundice within the first week of life, making it a prevalent clinical issue in the neonatal period.⁴ Furthermore, in the first month of life, 38% of the deaths of 10.8 million children under five have been reported to die.⁵ In addition to this, according to a recent international study, 1.1 million neonates globally would annually acquire hyperbilirubinemia with or without bilirubin encephalopathy. The poorest nations in the world, particularly those in South Asia and sub-Saharan Africa, are primarily affected by the worldwide burden of newborn hyperbilirubinemia. Extreme hyperbilirubinemia, defined as total bilirubin above 428 mol/L, most frequently occurs in Latin America, sub-Saharan Africa, and South Asia,

accounting for 4%, 32%, and 39% of cases, respectively.⁶ According to a Pakistani study, the prevalence of neonatal jaundice is 27%.⁷ Besides, lack of understanding about newborn jaundice and late admission to the hospital for treatment are two factors linked to problems. Multiple factors contribute to the delay in seeking care, including mothers inadequate perception of the severity of their child's jaundice and their failure to recognize it in time.¹⁸ Additionally, a predilection for unconventional treatment methods and misconceptions about healthcare can contribute to the delay in obtaining medical attention for the newborn.⁹ In this regard, nurses and nursing students are primary caregivers for infants with neonatal jaundice. Providing efficient and secure patient care depends on their expertise in identifying, evaluating, and managing this condition.¹⁰ Nursing students can play a significant role in minimizing complications associated with newborn jaundice by familiarizing themselves with its causes, risk factors, assessment methods, and appropriate interventions. Their knowledge can aid in early detection and timely care, thus reducing the potential risks.¹¹ Moreover, nursing students with the correct knowledge and abilities can help in the early diagnosis and efficient treatment of neonatal jaundice, increasing favorable outcomes for newborns.¹² As a result, assessing the knowledge level of nursing students regarding neonatal jaundice helps identify any gaps or

deficiencies in their understanding. Therefore, this study aims to determine the level of knowledge regarding neonatal jaundice among nursing students.

METHODOLOGY

This cross-sectional study was carried out to evaluate nursing students knowledge of neonate jaundice at the Horizon School of Nursing and Health Science from May to July 2023. The study sample, which consisted of 108 nursing students, was chosen using a convenient sampling strategy, in which participants were chosen based on their accessibility and availability for the study. The Cochran formula calculated the sample size with a 95% confidence interval. The study tool was adopted from the previous study.¹³ and the reliability of the tool is 0.78. The tool comprises two components: demographic data and a knowledge assessment tool for neonatal jaundice. In the demographic section, participants were requested to provide details about their age, gender, and study year. Moreover, in the knowledge assessment tool, the statements comprised the definition of jaundice, causes, complications, treatment, and prevention. Each statement is in the form of a Likert scale of 1-5, strongly disagree to agree strongly. The total score of the tool was converted into percentages. Those participants who scored below 50% were considered to have a low level of knowledge, 50-70% moderate level of knowledge, and above 70% high. Study approval was obtained from Horizon School of Nursing and Health Sciences before conducting the study. The principles of informed consent and confidentiality were strictly followed. Participants were provided with information about the purpose of the study and assured of the confidentiality of their responses. They were also allowed to withdraw from the study without any consequences. SPSS version 26 was used to analyze the data that had been collected. The participants demographic information was compiled using descriptive statistics, such as frequencies and percentages. Each participant's total knowledge level was classified as low, moderate, or high based on predetermined criteria.

RESULTS

Table 1 shows the result of demographic variables in which a total of 108 participants, out of which 80 (74%) were male and 28 (26%) were female. Regarding their age, 68 (62.9%) participants fell within the age group of 20-25 years, 30 participants (28.0%) were in the age range of 26-29 years, and 10 participants (9.2%) were above 30 years of age. Concerning their academic year, 48 (44.4%) participants were from 1st year, 30 (28.0%) participants were from 2nd year, 10 (9.2%) participants

were from 3rd year, and 20 (18.4%) participants were from 4th year.

Table 1: Participants Demographic Data

Variables	Frequency	%Age
Gender		
Male	80	74
Female	28	26.0
Age		
20-25	68	62.9
26-29	30	28.0
Above 30	10	9.2
Year of Study		
1st year	48	44.4
2nd year	30	28.0
3rd year	10	9.2
4th year	20	18.4

Table 2 shows the result of the overall level of knowledge. Participants with a low level of knowledge are 46.2%. The moderate level was 41.8%, and the high level of knowledge was 12.0%

Table 2: Levels of Knowledge Regarding Neonatal Jaundice

Levels of Knowledge	Participants	Range of the Score
Low Level of Knowledge	46.2%	Below 50%
Moderate Level of Knowledge	41.8%	50-70%
High Level of Knowledge	12.0%	Above 70%

DISCUSSION

As a result of an excessive buildup of bilirubin, babies frequently experience neonatal jaundice, characterized by the skin and eyes turning yellow. Around the world, it affects 60% of infants born at full term and 80% of newborns born prematurely. Neonatal jaundice, if not treated effectively, can result in severe side effects, such as kernicterus, a rare but dangerous type of brain damage.¹⁴ The early diagnosis, evaluation, and treatment of newborn jaundice are vitally important, and nursing students play a crucial part in these processes. In order to care for babies safely and effectively, their expertise and comprehension of the situation are essential.¹⁵ So, nursing students must have the information and abilities to properly identify and treat newborn jaundice. It is crucial to assess their level of knowledge. Present findings revealed that 46.2% of participants had a low knowledge of neonatal jaundice. The previous study found slight variations in results, showing that 64% of the participants had poor knowledge of neonatal jaundice.¹⁶ These findings differ from the study conducted in India. This study shows 25.7% of the participants had a low level of knowledge regarding neonatal jaundice.¹⁷ Moreover, another study from Egypt found that more than half the participants had inadequate knowledge of newborn jaundice.¹⁸ Jaundice in newborns must be promptly diagnosed and

treated as necessary.¹⁹ Nursing students may be unable to recognize the symptoms and signs of the illness, which could result in a delayed or incorrect diagnosis. This can delay treatment, allowing bilirubin levels to grow to dangerous levels and raising the likelihood of problems.¹¹ Present findings show that 41.8% have moderate knowledge regarding neonatal jaundice. Previous study findings differ slightly from current findings, showing that 30% have moderate knowledge.²⁰ Similarly, another study found that 37.38% of participants had moderate knowledge about Neonatal Jaundice.¹⁶ In this regard, another study found that 71.67% had moderate knowledge.¹⁷ The existence of a sizable percentage of participants who reported having moderate knowledge indicates that nursing students have a basic grasp of newborn jaundice. This degree of knowledge suggests that individuals are at least somewhat aware of the conditions causes, risk factors, clinical manifestations, and available treatments. Nursing students can recognize and start simple management techniques for newborn jaundice with moderate knowledge, but there is still potential for development to increase their competency in delivering complete care. Furthermore, the present findings show that 12.0% of the participants had a high level of knowledge regarding neonatal jaundice. Another study found a different result and showed that 3.33% of the participants had high knowledge.¹⁷ In this regard, another study found that 7.5% have a high knowledge of reading neonatal jaundice.²⁰ This suggests that many nursing students know the variables contributing to newborn jaundice, its risk factors, clinical symptoms, assessment methods, available treatments, and possible side effects. This is a positive conclusion because it shows that a sizeable percentage of nursing students have acquired complete expertise in this field.

LIMITATIONS

The study's limited scope, focusing on a specific nursing institute, raises concerns about generalizability to a broader nursing student population.

CONCLUSIONS

According to the study's findings, nursing students generally have a low to moderate level of awareness about neonatal jaundice. To enhance their competence in caring for newborns with jaundice, it is crucial to bridge this knowledge gap by providing targeted education and training.

CONFLICT OF INTEREST: None

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