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ORIGINAL ARTICLE

Knowledge, Attitude, and Practice (KAP) of mothers regarding Neonatal Jaundice in the hospital of KPK, Pakistan

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ABSTRACT

Neonatal jaundice (NNJ) is a significant pathological condition that causes morbidity and mortality in 80% of preterm infants and 50-60% of full-term newborns worldwide. NNJ can result in a variety of serious complications, including irreversible brain damage and, in severe cases, death. It is very critical for mothers to detect neonatal jaundice in the early stages of babies, so proper treatment, such as therapy, can begin. Mother knowledge, attitude, and practices are extremely important in the lives of newborn babies all over the world. This study was carried out in District Headquarters Hospital, KPK, Pakistan, to determine mothers' knowledge, attitude, and practices regarding neonatal jaundice. A significant relationship between postnatal mothers' knowledge and attitude toward neonatal jaundice was recorded in the current study. Almost 55% of mothers have a neutral attitude toward neonatal jaundice while 30% and 15% have a positive and negative attitude, respectively. The majority of mothers (30.75%) were between the ages of 21 and 25, while 25.75 and 24.50% were between the ages of 26-30 and 31-35, respectively. 64.250% of mothers were stay-at-home mothers, while 35.75% worked for the government. Illiterate (26.75%), primary (25.00%), middle (25.75%), higher (14.75%), and graduation (6.25%) level mothers participated, according to the data. Babies born to middle-class mothers had the highest rate of jaundice, followed by illiterate, primary, secondary, and graduate mothers. It was found that 55.50% of mothers had female babies and 44.50% of mothers had male babies. The majority of mothers (80.25%) were aware that jaundice changed skin colour, whereas 19.75% of mothers had a negative attitude toward skin colour. According to the majority of mothers, jaundice is a dangerous disease, while only 11.75% of mothers respond negatively. The participants in this study have a positive attitude toward Neonatal jaundice, their management measures and practices are ineffective and filled with misconceptions. More research on KAP in females is required.

Keywords: Knowledge; Attitude; Practices; Neonate; Pakistan

INTRODUCTION

This pathological disease, Neonatal jaundice (NNJ) is the yellowing of the newborn's sclera and skin caused by high levels of bilirubin in the blood. In many communities, NNJ is still a primary cause of avoidable brain damage, mental and physical handicaps, and premature mortality in infants. Bilirubin is produced from the haem, and neonates produce more bilirubin than adults, owing to relative polycythemia and red blood cell turnover enhanced. Serum bilirubin levels in some infants may rise excessively, resulting in acute and chronic bilirubin encephalopathy, which causes irreversible brain damage (Onyearugha et al., 2016; Eneh and Ugwu, 2009; Rasul et al., 2010). Twenty-four million neonates were exposed to be at danger for newborn death. Bad or adverse effects of hyperbilirubinemia have been reported in Pakistan. The prevalence of NNJ was 39.7 per 1000 live births (Bhutani et al., 2013; Tikmani et al., 2010; Abbey et al., 2019). Neonatal jaundice can lead to fatal complications if not treated properly and promptly. There are different causes of jaundice, such as presence of bruising cephalo hematoma, prematurity, gestational age, trisomy syndrome, and use of oxytocin in labor (Edmond and Zandoh, 2006; Huq et al., 2017). The rate of neonatal jaundice is relatively high in developing countries like Pakistan while low in developed countries such as the United States that have access to equipment and advanced technology. Pakistan is a developing country, so the rate of neonatal jaundice is very high (Iliyasu et al., 2010).

There is a strong relationship between education and what mothers and caregivers would do if their newborn developed jaundice as reported by many researchers around the globe (Maisels and McDonagh, 2008; Cohen et al., 2010; Ali et al., 2018). As a result, the primary caregiver (mother), must be able to identify jaundice and bring affected babies to the hospital for immediate care and management. There is a need for awareness about NNJ among mothers in the country. To determine the knowledge, attitude, and practices of mothers regarding neonatal jaundice in southern regions of KPK, Pakistan. To full fill this need, the current survey was conducted.

MATERIAL AND METHODS

Study area and participants: A cross-sectional descriptive, prospective interview-based survey was conducted in January 2020-June to 2022 in District Headquarters Hospital, KPK, Pakistan. Data were collected from 400 perinatal mothers admitted to paediatric and neonatal wards within the first 72 hours of their postpartum period by using a questionnaire. Their responses were recorded in a pre-designed form. The mothers' consent was obtained. The clearance of the institutional ethics committee was obtained.

Statistical analysis: Data were put on the excel sheet of MS Office and the analysis was carried out with the help of SPSS (Statistical package for social science) Windows software program version 20 while interpretation of the findings was done through descriptive statistics.

RESULTS AND DISCUSSION

Pakistan is a developing country where men and women must collaborate. They are the two most important growth and development pillars. It is very difficult for the public to growth without them working together. Pakistani women vigorously contribute in both creative and noncreative activities throughout the state. In Pakistan, women have dual roles. For example, at home, they play the role of mother, while at workplace, they play the role of the labor. Some stay-at-home mothers are kept busy around the clock caring for their children. The role of a woman as a mother is crucial. A mother is especially important not because she possesses special abilities, but because she employs extra time with her children than any other creature, and her instructions have a very strong influence on children's attitudes, abilities, and behavior. The majority of successful and well-adjusted children

come from low-income families. Parental attitudes are positive, and children and parents have a positive relationship (Priyanka and Devina, 2010; Almani et al., 2012).

Mother knowledge, attitude, and practices play a very important role in the life of newborn babies all over the world. The babies need their mother's care during their growth and development (Sohail et al., 2017). The current study was conducted in District Headquarters Hospital, KPK, Pakistan to determine the knowledge, attitude, and practices or behavior of mothers regarding jaundice. In the current study total of 400 mothers were participated who admitted to the hospital with their jaundiced babies. The age of the majority of the mothers (30.75%) was between 21-25 years. In the current study, 25.75 and 24.50% of mothers were between the age of 26-30 and 31-35 years, respectively. It was also observed that 64.250% of mothers were home makers while 35.75% were Government employees. In the previous study, mothers from different professions such as scientific officers, teachers, dress designers, and housewives participated in that study. The education-wise data showed that illiterate (26.75%), primary (25.00%), middle (25.75%), higher (14.75%), and graduation (6.25%) level mothers participated in this cross-sectional study (Table 1). It was found that babies of middle pass mothers were highly affected with Jaundice followed by illiterate, primary, higher secondary, and graduation. It was found that 55.50% of the mothers were having female babies and 44.50% of the mothers have male babies (Table 2).

Table 1: Demographic characteristics of respondents.

Variables		Frequency	%age	X^2	p-value
Age	21-25	123	30.75		
	26-30	103	25.75		
	31-35	98	24.5		0.856
	36-40	76	19.00		
	Total	400	100		
Occupation	Home maker	257	64.25		
	Gov. employ	143	35.75		
	Total	400	100		
Education	Illiterate	107	26.75		
	Primary	100	25.00	1.063	
	Middle	109	27.25		0.475
	Higher	59	14.75		
	Graduation	25	6.25		
	Total	400	100		
Monthly family income	<5000	32	8.00		
	5001-10000	103	25.75		
	1001-15000	112	28.00		
	1501-20000	56	14.00		
	<20000	97	24.25		
	Total	400	100		

Table 2. Demographic characteristics of child.

Variables		Number (%)
Age of child	<5 months	166 (41.50)
	>5 months	234 (58.50)
Sex of child	Male	178 (44.50)
	Female	222 (55.50)
Type of delivery	Normal	181 (45.25)
	C-section	219 (54.75)

Maximum mothers (80.25%) were well known that jaundice changes skin colour while the response of 19.75% of mothers was negative about skin colour due to jaundice. Said et al. (2018) reported similar conclusions that jaundice converts the skin colour to yellow which is the sign of jaundice in babies. Among participating mothers, 89.25% of mothers responded that breastfeeding was not the cause of jaundice in babies or children (Table 3). It was also found that food play key role in causing jaundice in children.

Table 3: Knowledge of the mothers related to neonatal jaundice

Knowledge about NNJ	Response of Participants	
	Yes (%)	No (%)
Is jaundice a yellowish discoloration of the skin?	321 (80.25)	79 (19.75)
Is it a common problem for newborns?	68 (17.00)	332 (83.00)
Is it the cause of improper breastfeeding?	43 (10.75)	357 (89.25)
Is it lasts for two weeks?	55 (13.75)	345 (86.25)
Is food cause jaundice?	274 (68.50)	126 (31.50)
Is it cause the death of neonates?	100 (25.00)	300 (75.00)
Can jaundice damage the child's brain?	133 (33.25)	267 (66.75))
Can you wait before seeking help or going to the hospital	144 (36.00)	256 (64.00)
Does the baby or child show abnormalities during jaundice?	33 (8.25)	367 (91.75)
Do disparity between the blood group of baby and mother cause jaundice?	94 (23.50)	306 (76.50)
Can cold water cause jaundice?	135 (33.75)	265 (66.25)
Can any infection cause jaundice?	169 (42.25)	231 (57.75)
Can convulsions occur later in life?	37 (9.25)	363 (90.75)
Can jaundice cause blindness?	12 (3.00)	388 (97.00)

Jaundice is considered a dangerous disease as responded by the majority of mothers while only 11.75% of mothers respond negatively. Egube et al. (2013), Le et al. (2014), and Ebbesen et al. (2012) reported similar findings about jaundice. It was recorded that 387 (96.75%) mothers respond that a jaundiced baby should be kept under direct sunlight. Putting the baby under sunlight is beneficial for their health and reduces the effect of jaundice. On the other hand, 93% of the respondents believed that breastfeeding should be given to diseased babies. The treatment of NNJ can be done with massaging oil as reported by many early researchers in the globe (Yaqub et al., 2016; Farha and Kuddus, 2018; Qumer et al., 2022). In our current study no response was given from mothers related to oil massage. Out of total, 59.25% of mothers misbelieve that NNJ is communicable disease that spread person to person which persists for more than 2 weeks and badly affect the newborn babies (Table 4).

Table 4: Attitude of the mothers related to neonatal jaundice

Statements	Attitude of respondents	
	Positive	Negative
Taking the child to the hospital with jaundice	214 (53.50)	186 (46.50)
Herbal medicines (willow, hock, manna) for jaundice	232 (58.00)	168 (42.00)
Antibiotics are given to jaundiced baby	311 (77.75)	89 (22.25)
Jaundice is a dangerous disease	353 (88.25)	47 (11.75)
Jaundice is a communicable disease	237 (59.25)	163 (40.75)
Breastfeeding can be given to jaundiced baby	372 (93.00)	28 (7.00)
Putting a jaundiced baby under direct sunlight	387 (96.75)	13 (3.25)
Phototherapy for jaundice	278 (69.50)	122 (30.50)

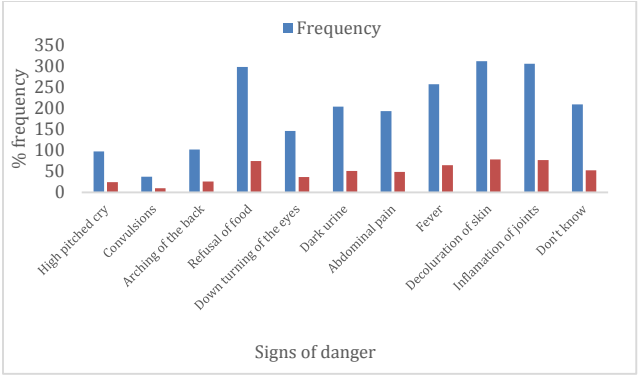

Figure 1: Respondent's knowledge of the signs of danger of NNJ

The respondent's/Mothers' knowledge about signs of danger of NNJ was not proper or satisfactory and similar to the previous studies which conducted in different countries by researchers (Yeung et al., 1993; Singhet al., 2000; Khalesi and Rakhshani, 2008; Omar et al., 2018). The mothers' knowledge about signs of danger of NNJ is shown in figure 1, while preventive measures adopted by females during pregnancy are shown in figure 2.

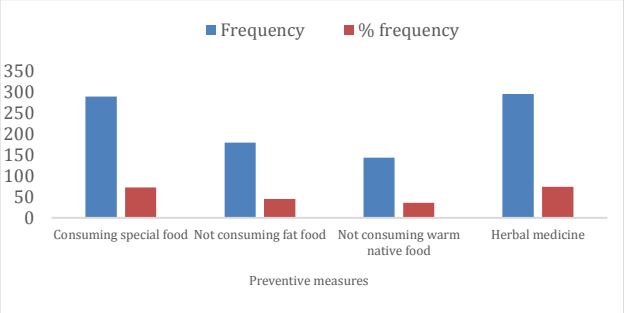

Figure 2: Preventive measures during pregnancy

It was observed that in the study area, the majority of mothers gave breastfeeding to their children while very few mothers use water as food. In the rural areas of Pakistan, the majority of mothers preferred ghutti as compared to other foods bottled milk, breastfeeding, and water. The first food given by mothers to newborn babies is shown in figure 3. According to Ch et al. (2015), 60% of mothers preferred breastfeeding and 26% favored bottled milk while 10% and 4% of them preferred a solid diet and juice, respectively. (Abdulkadir et al. (2018) and Muniyappa and Kelley (2020) reported the similar findings.

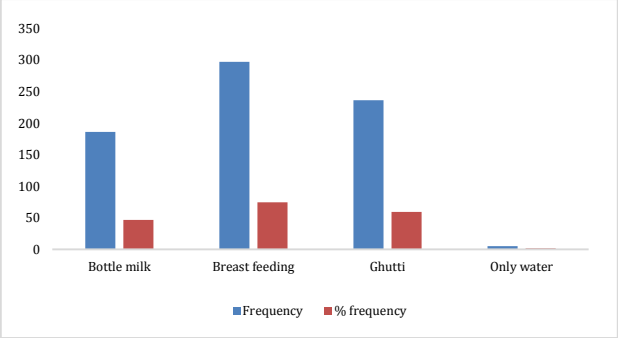

Figure 3: Use of First Food to a newborn child.

The majority of mothers (70.25%) responded that breastfeeding started one hour after normal delivery while 47% of mothers responded that the child must be fed after 2-3 hours of delivery as shown in figure 4.

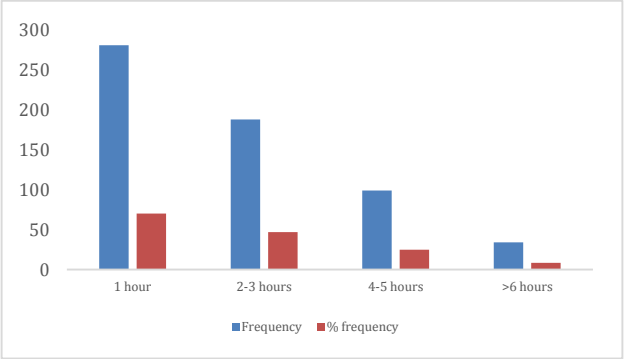

Figure 4: Time Frame of Breast Feeding to child by mother

According to a previous study conducted in Lahore, Pakistan, 52% of mothers started breastfeeding after one hour of normal delivery while 22% after 3 hours of normal delivery (Ch et al., 2015; Boo et al., 2011; (Boskabadi et al., 2018; Allahony et al., 2016). Our current study findings are almost similar to their findings.

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