

Mother's Knowledge toward Neonatal Jaundice Complications in Baghdad City

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Abstract

Neonatal jaundice (NNJ) is one of the most common diseases globally. It is believed that delays in detection and improper treatment of neonatal jaundice can be responsible for neonatal morbidity and mortality. Knowledge of mothers play an important role in the course of this health condition. A descriptive analytical study was conducted in internet based from 1 February 2021 to 25 June 2021. The study aimed to identify mother's knowledge toward neonatal jaundice complications and to find out the association between mother's knowledge and their socio demographic characteristics. A purposive "non-probability" sample of (200) mothers and their children diagnosed with complications from neonatal jaundice. The data were collected by mothers in internet based. Questionnaire form was constructed for the purpose of the study. It consists of two parts which were dealing with the demographic characteristics of the mothers and their knowledge towards neonatal jaundice complications. Reliability of the questionnaire was determined through internal consistency. Content validity of the questionnaire was determined through panel of experts. Data were analyzed through descriptive statistical approach (frequency, percentage and inferential statistical analysis, chi-square) are used by Socioeconomic Package for Social Science approach Version 26. The finding of the study demonstrated that mothers have highly information about neonatal jaundice with signs and symptoms, while they have low knowledge regarding complications. Results showed that there is highly significant association between mother's information with their ages and their educational level. The study recommended providing continuing medical education programs, annual workshops need to be certified by the training department directorate of health about newborns jaundice for mothers and the ways that help to prevent it in future.s

1. Introduction-

Neonatal jaundice which is yellow coloration of the skin and sclera in newborns from the accumulation of unconjugated bilirubin occurs in most newborn infants and it is the most common condition that requires medical attention in newborns. Most jaundice is benign (physiological) and usually need no treatment as it resolves within two weeks. However, the diagnosis of physiological jaundice is retrospective because sometimes jaundice can start with bilirubin in the physiological range and then escalate or become prolonged or show signs of cholestasis [1]. More importantly is the neurotoxicity (acute bilirubin encephalopathy) or death in newborns and lifelong neurologic sequelae in infants who survive (kernicterus) from excessive rise of unconjugated bilirubin. For these reasons, newborn infants with jaundice must be identified early and the level of jaundice monitored to identify those who might develop severe jaundice, acute bilirubin encephalopathy and kernicterus [2].

The most prevalent health problem among neonates is Neonatal jaundice. It changes the color of body skin and sclera to the yellowish discoloration; which considers the main clinical features of due to an elevated level of bilirubin in the neonate's body. Also, it is an important cause of neonatal morbidity worldwide and represents about 60% and 80% of full-term and preterm neonates respectively [3].

Most cases are physiological; but, if the bilirubin levels reach to highest value it becomes dangerous especially for central nervous system; which may lead to impairment

and disabilities such as cerebral palsy, deafness, mental retardation, or gross developmental delays, especially in the developing countries. Also, it may lead to neonatal death. These severe complications may have resulted from bilirubin accumulation in the brain tissue. So, NNJ must be carefully evaluated and prevented from progress. The main problem of, Neonatal jaundice is still a leading cause of preventable brain damage, physical and mental handicap, and early death among infants in many communities. Greater awareness is needed among all pregnant women [2].

2. Methodology

Descriptive analytical study design was conducted on mothers having children with neonatal jaundice, and data collected from 1 February 2021 to 25 June 2021 was conducted in order to assess mother's knowledge toward neonatal jaundice. Setting of the study was carried out from internet based and tack information for mothers.

A non-probability (purposive) sample of (200) mothers to determine the extent of mother's knowledge about neonatal jaundice, its complications, causes, and ways to prevent it. The questionnaire was designed and constructed by the investigators to measure the variable underlying the study. A questionnaire was consisted of two parts includes demographical information such as (mother's age, educational level, and their occupational status). The part consists of structured elements related to the knowledge of the expectant mothers about neonatal jaundice. Data were collected through the use of electronic forms questionnaire with mothers to determine the extent of mother's knowledge about

neonatal jaundice and complications.

The results of the study will be clarified. We have reached this study and the interpretation of each result.

3. Results of the Study-

Table 1: Distribution of Participants' Socio-demographic Characteristics of the Sample

List	Variable	Frequency	Percent
1.	Age group in years		
	20-30	73	36.5
	31-40	110	55
	40 and more	17	8.5
2.	Education		
	Read and write	10	5
	Elementary graduate	14	7
	Intermediate graduate	16	8
	Middle school graduate	29	14.5
	A graduate of an institute or college or above	131	65.5
	Total	200	%100

The table shows that the percentage of the largest participants was within the age group (31-40 years), where their percentage was (55%). As for the level of education, the largest percentage of them were

graduated of the institute or university and above, the percentage was (65.5%). As for the job, the largest percentage was for the housewives, where their percentage was (49 %).

Table 2: Distributions of Mother's Knowledge about Complications of Neonatal Jaundice

Complications of neonatal jaundice	I know		Uncertain		Don't know		T
	No	%	No	%	No	%	
Brain damage	82	41	30	15	88	44	200
Convulsions	66	33	30	15	104	52	200
Mental retardation	67	33.5	40	20	93	46.5	200
Deafness	19	9.5	54	27	127	63.5	200
Physical retardation	12	6	76	38	112	56	200
Death	62	31	30	15	108	54	200

This table shows that the mothers have low jaundice knowledge regarding Complications of neonatal

Table 3: Distribution of Mother's Knowledge toward Neonatal Jaundice Complications and Their Ages.

Mother's Knowledge	Age Group				T%	P.Value
	20-30	31-40	40 and more			
Jaundice is yellowish coloration of face and eyes of the newborn	12.8	52.5	27.5	71	0.002	
It is a common problem in the newly born babies	17.4	59.1	32.2	62	NS	

Cont. table (3)

Appearance of jaundice in the first day needs immediate medical consultation	21.7	59.1	42.2	74	NS
It is normal to continue neonatal jaundice for 8 week	24.5	56.8	38.5	56	NS
Jaundice necessitates many tests for mothers and neonatal	25.5	49.4	39.9	61	0.000
Jaundice is yellowish coloration of face and eyes of the newborn	33.1	62.4	41.6	70	NS
It is a common problem in the newly born babies	11.8	63.9	33.1	59	NS
Appearance of jaundice in the first day needs immediate medical consultation	21.6	54.4	27.5	69	0.001
It is normal to continue neonatal jaundice for 8 weeks	12.8	65.6	59.1	73	NS
Yellowing For the face and eyes of the baby	17.4	44.5	56.8	67	NS
Laziness and infatuation	21.7	52.7	59.4	66	NS
Weakness and lack of breastfeeding and nutrition	24.5	55.0	52.4	62	0.000
Fever And constant crying.	25.5	62.5	51.6	55	NS
Brain damage	32.8	56.5	27.5	71	0.002
Convulsions	27.4	43.1	32.2	62	NS
Mental retardation	29.7	55.1	42.2	74	NS
Deafness	34.5	65.8	38.5	56	NS
Physical retardation	30.5	59.4	39.9	61	0.003
Death	33.1	60.3	41.6	70	NS
Immediate doctor visit	11.8	53.2	33.1	59	NS
Exposure of the baby to sun	21.6	49.9	27.5	69	0.000
Continuation of breast feeding	12.8	58.3	59.1	73	NS
Spontaneous recovery	17.4	54.1	56.8	67	NS
Frequent body hygiene	21.7	52.7	59.4	66	NS
Exposure of the baby to phototherapy	27.4	43.1	32.2	62	0.001
Blood exchange in severe cases	25.5	52.5	51.6	55	NS

This table shows that there is highly significant Associations related to mothers' information and their ages.

Table 4: Distribution of Mother's Knowledge toward Neonatal Jaundice and Their Educational Level

Knowledge of Mothers	Educational Level					T%	P.Value
	read and write	Elementary graduate	Intermediate	middle school	institute or college or above		
	Yes (%)	Yes (%)	Yes (%)	Yes (%)	Yes (%)		
Jaundice is yellowish coloration of face and eyes of the newborn	12.1	16.3	22.7	40.5	63.9	82	0.004
It is a common problem in the newly born babies	10.2	13.8	19.3	47.4	54.4	72	NS
Appearance of jaundice in the first day needs immediate medical consultation	13.3	15.4	39.7	45.4	65.6s	83	NS
It is normal to continue neonatal jaundice for 8 weeks	15.4	17.2	26.1	32.6	44.5	67	NS
Jaundice necessitates many tests for mothers and neonatal	9.9	33.1	33.2	39.9	52.7	81	0.000
Jaundice is yellowish coloration of face and eyes of the newborn	19.4	12.8	25.6	32.5	55.0	72	NS
It is a common problem in the newly born babies	11.2	17.4	19.5	27.5	62.5	61	NS
Appearance of jaundice in the first day needs immediate medical consultation	17.8	21.7	27.8	32.2	55.1	69	0.001
It is normal to continue neonatal jaundice for 8 weeks	13.5	24.5	29.5	42.2	59.1	83	NS
Yellowing For the face and eyes of the baby	17.2	25.5	33.6	38.5	56.8	77	NS
Laziness and infatuation	12.4	16.9	35.7	42.3	59.4	76	NS

Cont. table (4)

Weakness and lack of breastfeeding and nutrition	9.8	11.8	22.5	41.6	52.4	62	0.000
Fever And constant crying.	10.3	21.6	31.7	33.1	51.6	75	NS

This table shows that there is highly significant educational level Association related to mother's information and their

Table 5: Distribution of Mother's Knowledge toward the Complications and Their Educational Level

Educational level	read and write	Elementary graduate	Intermediate	middle school	institute or college or above	T%	P. Value
	Yes (%)	Yes (%)	Yes (%)	Yes (%)	Yes (%)		
The Complications	12.1	16.3	22.7	40.5	63.9	82	0.000
Brain damage	10.2	13.8	19.3	47.4	54.4	72	NS
Convulsions	13.3	15.4	39.7	45.4	65.6	83	NS
Mental retardation	15.4	17.2	26.1	32.6	44.5	67	NS
Deafness	9.9	33.1	33.2	39.9	52.7	81	0.002
Physical retardation	19.4	12.8	25.6	32.5	35.0	72	NS
Death	11.2	17.4	19.5	27.5	62.5	61	NS
Immediate doctor visit	17.8	21.7	27.8	32.2	55.1	69	0.004
Exposure of the baby to sun	13.5	24.5	29.5	42.2	59.1	83	NS
Continuation of breast feeding	17.2	25.5	33.6	38.5	56.8	77	NS
Spontaneous recovery	9.9	33.1	33.2	39.9	52.7	81	NS
Frequent body hygiene	9.8	11.8	22.5	41.6	52.4	62	0.003
Exposure of the baby to phototherapy	10.3	21.6	31.7	33.1	51.6	75	NS
Blood exchange in severe cases							

This table shows that there is highly significant association related to mother's information and their educational level.

4. Discussion

Symptoms of neonatal jaundice during the first week of life can sometimes progress to a severe case. If administered inappropriately, it may lead to long-term, irreversible neurological disability or death [4].

The current study found that the average level of knowledge of pregnant mothers about the disease in the study group was good. This result was in agreement with who indicated that the mean scores for knowledge were

higher with a statistically significant association in the study group, this may be attributed to the fact that the improvement in overall knowledge was related to the age and educational level of the mothers.

Many studies indicated that there is a lack of knowledge of the studied pregnant mothers regarding; types, causes, risk factors, normal value, signs, complications, prevention and treatment of jaundice during evaluation before the program, which reaches a good level after the program, with statistically significant association between the pre- and post-test. The results were consistent with those of other studies conducted by Egube et al. [5] and studies done in developing countries such as Ethiopia by

Adebami [2], Nigeria by Ogunlesi et al. [6], Iran by Amirshaghghi et al. [7], and Turkey by Sutcuoglu et al. [8]. While the Egyptian study conducted with Moawad et al. [9] revealed unexpected moderate knowledge from the pregnant women's as regards about the disease.

These results were in accordance with the results of an Egyptian study conducted by Hassan et al. [10] who reported in his study about women's perception toward neonatal jaundice, that the lack of women's knowledge might lead to the delayed care and develop complications as kernicterus. This lack of women's knowledge in the study results might be attributed that the study sample was primi-gravida and primi-para and they not had the enough experience as other pregnant women's who had a previous neonate with neonatal jaundice and history of hospital admission.

The results also showed that the level of knowledge was negligible for the mothers participating in the study whose age was between (31-40 years) and the highest knowledge results were within this age range.

As for the level of education, the highest knowledge was for mothers whose level of education was a college graduates or higher.

Recommendations-

- 1) Ministry of Health and Population need to provide pre-service training for pregnant mothers before take their jobs. And this training It should include how to manage pediatrics problems especially neonatal jaundice.
- 2) Continuing Medical Education Programs Annual workshops need to be certified by the Training Department Directorate of Health about newborns Jaundice for pregnant mothers and they should take children to health centers immediately after birth at a time Thyroid screening and immunization before the pediatrician sees them.

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