Knowledge & Health Seeking Behavior of Newly Delivered Mothers Regarding Neonatal Jaundice

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Background: Neonatal jaundice is one of the most common diseases globally. It's believed that delays in detection and improper treatment of neonatal jaundice can be responsible for neonatal morbidity and mortality. Knowledge and health seeking behavior of mothers play an important role in the course of this health condition.

Objectives: to assess the knowledge and health seeking behavior regarding neonatal jaundice of newly delivered mothers. Determine the influence of some maternal characteristics on knowledge, and health care seeking behavior regarding neonatal jaundice.

Methodology: A cross sectional study was conducted on newly delivered mothers at Al-Yarmouk teaching hospital in Baghdad for the period from May to the end of August, 2016. Data was collected via direct interview with the newly delivered mothers using a special questionnaire form to assess the knowledge and health seeking behavior regarding neonatal jaundice. In addition, the data collected comprised some characteristics of the mother.

Results: The study included 500 mothers. Only 4% of mothers had good knowledge, while others were between fair and poor knowledge levels.

Appropriate health seeking behavior was adopted by only 21% of the study group regarding the management of neonatal jaundice.

Cultural beliefs and traditional care practices still have an impact on mothers as (78.4%) of them had used traditional methods for treating their babies. Better education and being employed influenced mothers' knowledge and health seeking behavior. Mothers parity showed its' influence on knowledge level only.

Conclusion:

There are gaps in mothers' knowledge and health seeking behavior regarding neonatal jaundice. Targeted education during antenatal care by health professionals is needed to

help mothers recognize neonatal jaundice, refrain from potentially harmful home interventions and promptly seek healthcare**.**

Keywords: Knowledge, Behavior, Mothers, Neonatal, Jaundice.

Introduction:

Jaundice refers to the yellow discoloration of the skin and sclera of new born infants because of accumulation of bilirubin in the skin and the mucous membrane, it's one of the most common and important conditions during the neonatal period [(1)]. It is estimated to be present in about 60% of the full term and 80% of preterm infants, it's a common disorder worldwide and accounts for 75% of hospital readmissions in the first week of life [(2, 3)]

Jaundice in the newborn is serious condition, can result in death or numerous lifelong neurological squeal .These conditions undoubtedly pose severe handicap in the affected individuals and causes severe psychosocial stress in their families and caregivers [(4)].

Short post- natal hospital stay and early discharge results in bilirubin levels peaking at home rather than in the hospital, thus shifting the primary responsibility for early detection and seeking medical attention to the mothers. Therefore parents play a very important role in final results of jaundice and it is important that mothers should have correct knowledge of how to recognize newborn jaundice as well as how to respond appropriately [(1, 5)].

Deficient knowledge of mothers' about NNJ will likely result in unhealthy infant practices, risky delays, mismanagement and complications for the affected child [(6)].

Therefore there is need to ascertain the knowledge level of the mothers about NNJ and the care they offer to affected newborns especially prior to presentation to a health facility.

The current study was performed aimed to assess the level of knowledge of mothers about neonatal jaundice and to identify their health seeking behavior. As well as to ascertain the influence of some maternal characteristics on knowledge, and health care seeking behavior regarding neonatal jaundice.

Methodology:

A cross-sectional study carried out at obstetric ward of Al-Yarmouk Teaching Hospital. The study population comprised women, who had newly delivered a live baby for the period from May to the end of August 2016.

Data was collected by direct interview with newly delivered mothers utilizing a questionnaire form designed for the study.

The questionnaire comprised three sections:

First section contains questions to describe some socio-demographic characteristics of the mothers.

Second section consists of 15 items to assess mothers' knowledge about various aspects of neonatal jaundice. Each question with suggested answer or answers.

A correct answer received one mark, while incorrect answer or don't know scored zero. Thus the knowledge score was scaled from 0-15.

The scores were summed, then the total scores achieved were categorized into three categories: good knowledge level was defined by a score of ≥11, fair knowledge level (8-10), and poor knowledge level (<8).

Third section: it was considered with health seeking behavior of mothers toward NNJ. It consists of two questions with multiple choice answers to explore mother's behavior regarding management of neonatal jaundice. The health seeking behavior of mothers was categorized into appropriate if mother had only correct behavior, while categorized inappropriate if she had incorrect behavior or combination of both correct and incorrect behavior [7].

Data analysis

Microsoft Excel was used for data entry. Data was analyzed using statistical package of social sciences (SPSS) program version 20. Data present in forms of frequencies and percentages in tables as well as figures. Chi-square test was used to find out the association between study variables and overall knowledge, and health seeking behavior. P value≤ 0.5 was considered statistically significant.

Results

The study enrolled five hundred mothers.

The knowledge level of mothers regarding neonatal jaundice is presented in Fig-1. Nearly half of mothers, 246 (49.2%) had poor knowledge compared to only 22 (4.4%) mothers had good knowledge level

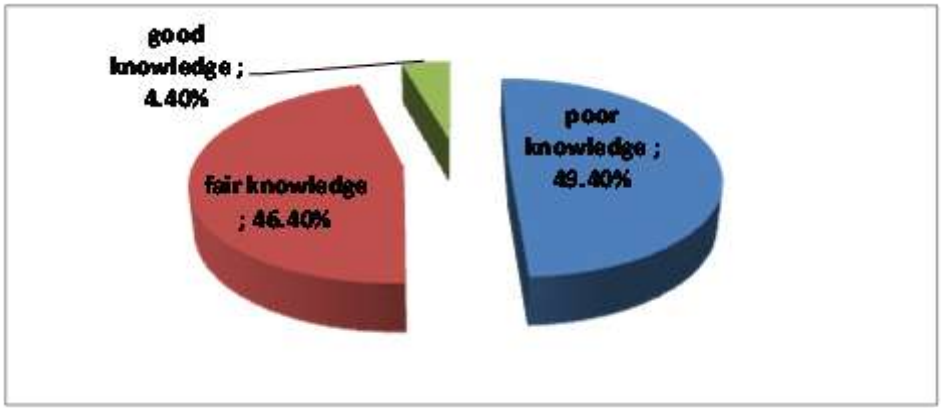

Fig -1: The distribution of mothers according to the level of knowledge on neonatal jaundice.

Table-1: Distribution of mothers according to the levels of knowledge and some mothers' characteristics

	Knowledge level					
Age / years old	Poor		Fair		Good	
	No	%	No	%	No	%
< 20	14	53.8	12	46.2	0	0.0
20- 35	180	51.7	152	43.7	16	4.6
≥ 36	52	41.3	68	54	6	4.7
Total	246		232		22	
$X^2 = 5.49$ df= 4 p value = 0.24						
Educational level	No	%	No	%	No	%
Illiterate	22	45.8	26	54.2	0	0.0
Read and write	28	60.8	18	39.2	0	0.0
primary school	92	73	34	27	0	0.0
Secondary school	72	46.1	78	50	6	3.9
College and higher	32	25.8	76	61.3	16	12.9
Total	246		232		22	
$x^2 = 77.9$ df= 5 p = 0.000						
Occupational Status	No	%	No	%	No	%
Unemployed	190	54.3	148	42.3	12	3.4
Employed	56	37.3	84	56.0	10	6.7
Total	246		232		22	
$x^2= 12.8$ df=1 p = 0.0015						
Parity / no. of Children	No	%	No	%	No	%
One	50	43.1	56	48.3	10	8.6
2-4	164	55	128	42.9	6	2.1
≥ 5	32	37.2	48	55.8	6	7
Total	**246**		**232**		**22**	
x^2=17 df= 4 p vale 0.001						

Table-1 illuminates the relation between knowledge levels and some socio-demographic characteristics of mothers. 53.8% of mothers in age group < 20 years had poor knowledge, while 41.3% of mothers in age group ≥ 36 years had the same level of knowledge. Despite that, the age of mothers failed to reveal a statistically significant association with knowledge level (P = 0.24).

The educational level revealed a statistical significance influence on the knowledge level of mothers (p = 0.0001). Also occupational status showed a statistically significant effect on knowledge level (P = 0.0001), 54.3% of unemployed mothers found to have poor knowledge compared to 37.3% of those who were employed.

When parity of mothers was considered in relation to the level of knowledge, it showed highly statistical significant association (P = 0.001). Among the women with one child, 43.1% of them had poor knowledge in comparison with 37.2% of mothers with ≥ 5 children. Fig-2 presents the health seeking behavior among the study participants; 394 (78.8%) mothers were categorized as inappropriate health seeking behavior.

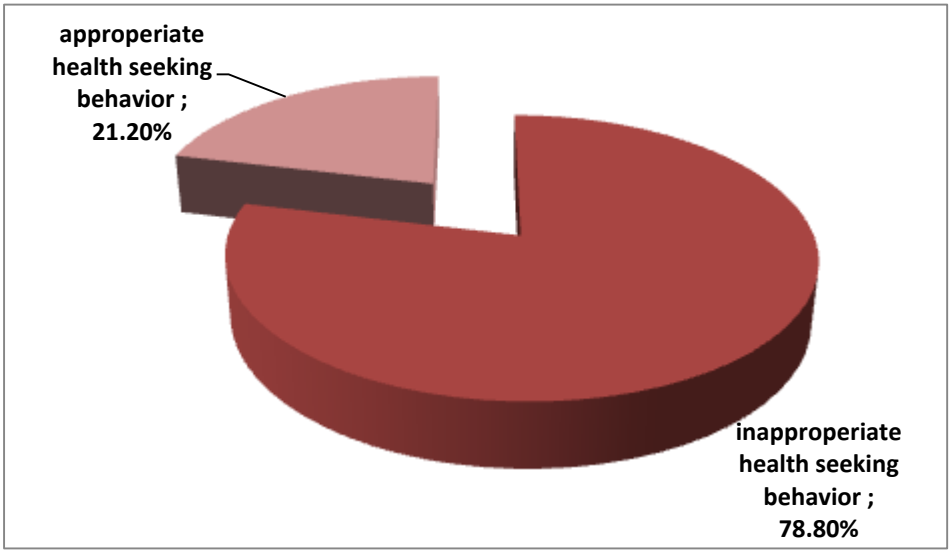

Fig-2: The distribution of mothers according to their health seeking behavior regarding neonatal jaundice management.

The mother's health seeking behavior regarding management of neonatal jaundice is illustrated in table-2. It showed that only 108(21.6%) mothers stated that they were seeking medical help, while (78.4%) were using different traditional methods for management of neonatal jaundice.

Table-2: The health seeking behavior of mothers for management of NNJ.

Health seeking behavior of mothers	No.	%
Seeking medical care	108	21.6
Traditional methods	392	78.4
Total	500	100

Table -3 demonstrates the various traditional methods used by study participants. It was appeared that 39.2% used combination of traditional methods. 84(21.92%) mothers used necklace of seven garlic and the least method used by mothers was exposing the baby to sun light (1%).

Table-3: Types of Traditional methods used by the mothers for NNJ treatment.

Types of Traditional methods	No.	%
Necklace of seven garlic	84	21.9
Put yellow bead	52	13.2
Put under fluorescent light at home	48	12.2
Use glucose water	30	7.4
Use traditional herbs	20	5.1
Sun light exposure	4	1
Combination of traditional methods	30	7.4
Total	392	100

Table - 4 presents the influence of mothers' socio-demographic characteristics on their health seeking behavior regarding management of NNJ.

Age of mother failed to show a statistical significance influence upon mothers' behavior (p = 0.247), although 26.2 % of those in age group ≥ 36 years old had appropriate mothers' health seeking behavior compared to 15.4 % of mothers who belong to age group < 20 years.

The educational level of mothers showed a significant effect on their health seeking behavior (p = 0.000), as 57.3 % of university graduates having appropriate behavior compared to 4.8% of those with primary education. The relationship between parity and mother's behavior displayed no statistical association (p=0.96).

Table-4: The distribution of mothers according to the health seeking behavior and their characteristics.

Socio demographic characteristics	Health seeking behavior of mothers				Total
Age / years	Inappropriate		Appropriate		
	No	%	No	%	
< 20	22	84.6	4	15.4	26
20- 35	279	80.2	69	19.8	348
≥ 36	93	73.8	33	26.2	126
Total	394		106		500
x^2= 2.79 df= 2 p value 0. 24					
	Health seeking behavior of mothers				Total
	Inappropriate		Appropriate		
Educational level	NO	%	NO	%	
Illiterate	48	100	0	0.0	48
Read and write	44	95.6	2	4.4	46
Primary school	120	95.2	6	4.8	126
Secondary school	129	82.7	27	17.3	156
College and higher	53	42.7	71	57.3	124
Total	394		106		500
x^2 =139 df=4 p value< 0.001					
	Health seeking behavior of mothers				Total
	Inappropriate		Appropriate		
Occupational Status	No	%	No	%	
Unemployed	296	84.6	54	15.4	350
Employed	98	69.3	52	30.7	140
Total	394		106		500
x^2 = 23.2622 df =1 p value< 0.00001					
	Health seeking behavior of mothers				Total
Parity	Inappropriate		Appropriate		
	No	%	No	%	
One child	91	78.4	25	21.6	116
2-4	236	79.2	62	20.8	298
≥ 5	67	77.9	19	22.1	86
Total	394		106		
x^2 0.07 df = 2 p value 0.962					

DISCUSSION:

The results obtained from this study revealed that majority of mothers had poor level of knowledge about NNJ. This finding was in keeping with the results reached by previous studies carried out in Iraq [8], Nigeria [7,9] and Pakistan [10] which demonstrated that poor knowledge was dominant among mothers. The poor knowledge of mothers may be owed to that information acquired on the issue of NNJ is not enough to produce an acceptable level of knowledge among mothers in addition to a generally low level of health literacy among mothers[11].

Mothers participated in the study had adapted inappropriate health seeking behavior. This can be assigned to the fact that (49.2%) of them had a poor level of knowledge.

This result coincides with what revealed by previous studies carried out in Malaysia [1], Singapore [12], and Australia [13] in which mothers had inappropriate care seeking behavior. The current study showed that most of mothers still indicated the use of traditional and potentially harmful therapies for management of NNJ.

This would suggest that the dangers of such practice are yet to be well-valued in our community. Comparable results were reported by previous studies conducted in Iraq [14], Nigeria [7, 9] ,Turkey [15] and Vietnam[16].

Traditional practices used by mothers represent a potential barrier for seeking care, sometimes cause harm for children and increase in bilirubin admission levels. Therefore health education on the issue of NNJ must put emphasis on the necessity for mothers to take affected children to hospitals for prompt management [17].

The results gained by the current study revealed that age has no significant influence upon knowledge and health seeking behavior of mothers. Although the effect was not significant. Nevertheless, when increasing the age of mothers, the level of knowledge,

and behavior improved. The results were consistent with those reached by studies from Iraq [8], Egypt [18], and Nigeria [7, 19].

Maternal education showed significant influence upon knowledge, attitude and health seeking behavior regarding NNJ. These results were in agreement with the findings revealed by previous studies carried out in Iraq [8], Egypt[18] ,Turkey[20]and Iran[21]. This pointed to the positive relationship between education of mothers, and their level of knowledge and health seeking behavior.

Mother employment was one of the factors determining her level of knowledge, attitude and health seeking behavior regarding NNJ. Better knowledge and appropriate behavior were reported among the employed mothers. This was corroborated by findings of studies carried out in Iraq [14] and Egypt [18].

Multiparous mothers were more likely to have a better knowledge of NNJ than first time mothers. This was in accordance with studies carried out in Turkey [20] and Nigeria [22] which concluded that increase number of children was one of the predictors of knowledge of mothers regarding NNJ. On the other hand, the number of children failed to show any influence upon mothers' health seeking behavior, this finding was also observed by studies from Egypt [18] and Iraq [23] which revealed no effect of number of children on the behavior of mothers regarding NNJ.

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