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Original article

Knowledge attitude and practices in parents regarding jaundice residing in Nalgonda District of Telangana

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Abstract

Introduction: Neonatal jaundice prevention is important in the first week of life. Early detection and treatment are the key strategies to prevent the complications of NNJ. Understanding mothers' knowledge of NNJs can help identify gaps and target areas for intervention, preventing chronic morbidity and neonatal mortality. In low to middle-income countries, most mothers have misconceptions about the management of neonatal jaundice, which include the beneficial role of sunlight in reducing severe jaundice. **Objective:** The objective of this study is to know the knowledge, attitude and practice of jaundice in parents residing in Nalgonda district. **Method:** A cross-sectional analysis was done, to assess knowledge, attitude, practice regarding jaundice from parents residing at Nalgonda district. A pre validated list of questions were used for collecting data for assessing knowledge, attitude, practice regarding jaundice from parents. Data was collected using simple random sample taking technique. **Results:** For question regarding jaundice can effect any age group, 96% said that they know it can affect any group showing fair knowledge to the question. Only 26.5% knew that there are self-limiting forms of jaundice and remaining 73.5% had no knowledge. 53.5% knew from family members about jaundice initially other than doctors, 15.75% from neighbors and 30.75% from local healers. **Conclusion:** Study shows many parents are having very poor knowledge, wrong beliefs and wrong practices towards jaundice, so it indicates need for mass education of parents to eliminate complications from misleading approaches as we have understood from the above study.

Key words: Knowledge attitude and practices, parents, jaundice

Introduction:

Jaundice, also known as hyperbilirubinemia,[1] is a yellow discoloration of the body tissue resulting from the accumulation of an excess of bilirubin. Deposition of bilirubin happens only when there is an excess of bilirubin, a sign of increased production or impaired excretion. The normal serum levels of bilirubin are less than 1mg/dl; however, the clinical presentation of jaundice as scleral icterus (peripheral yellowing of the eye sclera), is best appreciated only when the levels reach more than 3 mg/dl. Sclerae have a high affinity for bilirubin due to their high elastin content. [2] With further increase in serum bilirubin levels, the skin will progressively discolour ranging from lemon yellow to apple green, especially if the process is long-standing; the green color is due to biliverdin. [3]

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Bilirubin has two components: unconjugated (indirect) and conjugated (direct), and hence elevation of any of these can result in jaundice. Icterus acts as an essential clinical indicator for liver disease, apart from various other insults. [4]
Yellowing of skin sparing the sclerae is indicative of carotenoderma which occurs in healthy individuals who consume excessive carotene-rich foods.
There are many false beliefs, wrong conceptions, lack of knowledge among the parents of children in India. There is also lack of correct management measures in jaundice from fake drugs rituals without scientific evidence practiced by local healers. [5]
The present study is done to know understanding, attitudes and approaches of the parents in the Nalgonda district, since they are the people who take care of children, so that the jaundice is effectively approached and treated.

Materials and methods:
An approval from head of institutional ethical board and the consent from the head of dept. of paediatrics, Kamineni Institute of Medical Sciences, Narketpally, Nalgonda, Telangana is received. The cross-sectional analysis was done, to assess knowledge, attitude and practice regarding jaundice from the parents residing in Nalgonda district. Study was conducted over a period of 3 months from Feb 2018 to April 2018. A pre validated questionnaire was used for collecting data for assessing knowledge, attitude and practice regarding jaundice from parents. Single population proportion formula is used to asses size of sample. The following assumptions have been made: 95 % confidence interval (Za/2 = 1.96), 50 % proportion, and 5 % margin of error.
The parents who are interested in study are given questionnaire in assessment KAP for jaundice. The experimental variables are age, sex, religion, education and socio-economic status. The variables for outcome are knowledge, attitude and practice for jaundice. The parents were called separately, were informed about use of study, permission was taken and are requested to answer the questionnaire. The questionnaire consisted of open ended and close ended questions. The questions were in English which were translated to their mother tongue by the trained data collectors, who are in turn supervised by the chief investigator. The questionnaire was made into three divisions. The first division consisted socio demographic details, second consisted questions regarding knowledge assessment, the last division had questions related to attitude and practice. If the parent chooses the right option, then he is considered to be having good knowledge, positive perception and good practices towards jaundice. On the other hand, if the parent chooses the wrong option, he is considered to be having poor knowledge, negative perception and wrong method of approach towards the jaundice.

Results:
Total of 400 parents were included in the survey of which n=177(44.25%) are male and n=223(55.75%) female in that Hindus are n=297(74.25%), Muslims are n=69(17.25%) and Christians are n=34(8.4%). There are n=21(5.25%) professionals, n=43(10.75%) graduates, n=43(10.75%,) post high school, n=71(17.5%) high school, n=49(12.25%) middle school n=32(8%)primary school, n=141(35.25%) uneducated in the current study.In that the upper class parents are n=18(4.5%), upper middle class are n=59(14.75%), lower middle class n=133(33.25%), upper lower class n=107(26.75%), lower class n=83(20.75%) according to modified KuppuSwamy scale.

Of 400 people for the first question about jaundice sign n=400(100%) knew about jaundice, in the next question about presentations of jaundice n=153(38.25%) parents said yellowish discoloration of skin, sclera and mucous membranes were the signs of jaundice.

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N=89(22.5%) parents said that yellowish discoloration of urine as that cause of jaundice. n=115(28.75%) parents said both skin , mucous membrane discoloration and high coloured urine as the sign of jaundice, N=11(2.75%) answered that prolonged fever and repeated infections as presentation of jaundice and n=9 (2.25%) generalised swelling as the featureof jaundice,n=23(5.75%) reported that all of the previously mentioned ones are the signs of jaundice.when the parents were asked about the causes of jaundice n=334(83.5%) knew the cause of jaundice,Of which n=58%1(7.37%) said liver and biliary tract disease due to infections,drug toxicity as the cause of jaundice. n=19(n=5.69%) and n=11(3.29%) reported haaemolytic and hereditary or genetic disease respectively n=25(7.49%) reported that all the previous three can cause jaundice.n=144(43.11%)anger of local goddess as the cause of jaundice and n=77(23.5%) parents reported as the cause.For the complications of the jaundice most reported that neurological complications are common. Others seizures n=34(8.5%), abnormal movements n=29(7.25%) and itching n=15(3.75%), all the three n=39(9.75%) and none n=217(54.5%) was reported by the parents. N=106(73.5%) parents informed that they know that few forms of jaundice are self-limiting for the question about the preventable diseases causing jaundice n=111(27.75%) reported positively and rest n=289(72.25%) negatively. N=39 (9.75%) parents said that few forms of jaundice occurring in neonates is physiological and rest n=361(90.25%) were opposite of the view. For the query whether diet plays important role in jaundice n=75(17.5%) parents reported that it plays a role and rest n=325(81.25%) they did not know about it.

Parents reported that n=241 (53.5%) family members, n=63(15.75%) neighbours, n=123(30.75%) local healers gave them information about jaundice other than doctors.

The second division consisted of questions testing attitude and practise among parents and the results are as follows, many parents believed that jaundice is treatable n=400(100%) and for the type of treatment which they preferred n=246(61.5%) reported they wished to visit certified practitioner giving modern medicine and some preferred local healers giving herbal medicine n=41(10.25%). Significant number of parents wished to go to local healers to performing banding n=94(23.5%), few preferred all three of them n=30(3.25%) and very few reported that they will take advice from grandparents and neighboursn=6(1.5%).

For the information regarding about the people surround parents and their treatment preferences, many reported that they visited certified practitioner n=282(70.5%), some preferred local healers n=73 (18.25%) and few preferred both n=31(7.75%) and few preferred remedies of grandparents and neighboursn=14(3.5%). And for the belief about white jaundice n=358(89.5%) did not believe in it and n=42(10.5%) believed in it. When asked about wheather jaundice is transmissible n=237(59.75%) agreed, and n=163(40.75%) disagreed and finally when enquired about sending their child to school during jaundice n=379(94.75%) disagreed to send their child and the rest n=21(5.25%) agreed.

Table 1: Sociodemographic information of the study variables

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NO	SOCIO DEMOGRAPHY	VARIABLE	NO. OF CASES	PERCENTAGE
1	Age (years)	18 – 24	129	32.25
		25 – 34	186	46.5
		35 – 44	59	14.75
		> 44	26	6.5
2	Sex	Male	177	44.25
		Female	223	55.75
3	Religion	Hindu	297	74.25
		Muslim	69	17.25
		Christian	34	8.5
4	Education	Professionals	21	5.25
		Graduates	43	10.75
		Post high school	43	10.75
		High school	71	17.75
		Middle school	49	12.25
		Primary school	32	8
		Uneducated (illiterate)	141	35.25
5	Socio-economic status	Upper class	18	4.5
		Upper middle class	59	14.75
		Lower middle class	133	33.25
		Upper lower class	107	26.75
		Lower class	83	20.75

Discussion:

From the survey we came to know that almost everyone had good knowledge about the sign of jaundice but about the presentation of jaundice only few are having good knowledge (28.75%) and of the remaining 38.25% thought yellowish discoloration of skin, mucous membranes , and sclera of eye and 22.5% replied yellow or high colored urine as the only cause of jaundice showing that they have partial knowledge about jaundice and 2.75% parents replied that prolonged fever or repeated infections and 2.25% replied that generalised swelling of the body and finally 5.75% replied all the above causes as the signs of jaundice showing very poor knowledge in those parents.

For the reason about factors causing jaundice 83.5% were aware of the cause but in that 25% had good knowledge choosing most of the causes and 58% said liver disease infections and drug toxicity, 19% haemolytic disease and 11% hereditary or genetic disease as the cause of jaundice showing partial knowledge. 43.11% said that anger of local god or goddess and 23.05% informed that they are the causes of jaundice showing very poor knowledge about jaundice.

And for the questions about complication of jaundice, 54.24% had no idea about the complications giving us the idea that only half of the people knew that jaundice has complications.

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For question regarding jaundice can affect any age group, 96% said that they know it can affect any group showing fair knowledge to the question. Only 26.5% knew that there are self limiting forms of jaundice and remaining 73.5% had no knowledge. 72.25% did not know that few forms of jaundice can be prevented by proper careshowing poor knowledge in majority, and 90.25% did not know that few forms of jaundice occurring in neonates is physiological showing poor knowledge in the study subjects. 81.25% did not know that diet had a role in jaundice indicating majority had poor knowledge.

53.5% knew from family members about jaundice initially other than doctors, 15.75% from neighbours and 30.75% from local healers.

In the second division of the survey about attitude and practice everybody believed that jaundice is treatable (100%), but only 61.5% preferred certified practitioner for treatment 23.5% preferred local healers performing banding and 10.25% preferred herbs prescribed by local doctors for treatment and few preferred combination of all, few even followed treatment from grandparents and neighbours showing wrong practices going on in the area ,also they notified that the people surrounding them followed the similar priorities indicating need for mass education of the parents in this area. Few percent of parents (10.5%) believed there is something called as white jaundice without classic signs of jaundice and followed the advice of local healers leading to complications from other diseases and progression of the current disease which they believed it jaundice.59.25% believed that jaundice is transmissible indicating concern about transmission to other family members in them, which is partially true, since not all the forms of jaundice are transmissible. Many parents (94.75%) did not wish to send their children to school when they are having jaundice, which is the best practice since it limits the burden on already diseased child.

Similar studies were done by Al-Hazmi A H et al[6], Abdela A et al[7], Goodman Olayinka O et al[8] and Ogunfowora et al[9] on KAP of hepatitis A, hepatitis Band neonatal jaundice knowledge which showed poor knowledge and practices in their studies.

Moawad, et al[10] in 2016 carried out descriptive cross-sectional study in Egypt including 400 mothers. Practices of mothers towards neonatal jaundice Despite the majority of the respondents being educated, most of them engaged in bad practices (60%) towards neonatal jaundice.

Shehu, et al[11] in 2020 carried out descriptive cross sectional study Nigeria including 140 mothers. The practice of the mothers' concerning NNJ was not good as only (25%) of the mothers took their neonates to the hospital after detecting signs and symptoms of NNJ.

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Table 2: Knowledge about jaundice

NO	QUESTION	VARIABLES	NO. OF CASES	PERCENTAGE (%)
1	Do you know what is jaundice?	1. YES	400	100
		2. NO	0	0
2	Do you know the presentations of jaundice	1.yellowish discoloration of skin, mucous membranes, and sclera of eye	153	38.25
		2.yellow or high colored urine	89	22.25
		3.prolonged fever or repeated infections	11	2.75
		4.generalised swelling of the body	9	2.25
		5. both 1 and 2	115	28.75
		6. all	23	5.75
3	Do you know that jaundice is caused by various reasons?	1. YES	334	83.5
		2. NO	32	8
4	What are the reasons of jaundice?	1. liver and biliary tract disease due to infections, drug toxicity	58	17.37
		2. haemolytic disease	19	5.69
		3. hereditary or genetic disease	11	3.29
		4. 1,2, and 3.	25	7.49
		5. anger of local goddess	144	43.11
		6. black magic	77	23.05
5	Do you know the complications of jaundice	1. neurological deficits	66	16.5
		2. seizures	34	8.5
		3. abnormal movements	29	7.25
		4. itching	15	3.75
		5. 1,2 & 3	39	9.75
		6. none	217	54.25
6	Do you know that jaundice can affect any age group	1. YES	387	96.75
		2. NO	13	3.25
7	Do you know that few forms of jaundice are self limiting	1. YES	106	26.5
		2. NO	294	73.5
8	Do you know that there are preventable diseases causing jaundice	1. YES	111	27.75
		2. NO	289	72.25
9	Do you know that few forms of jaundice occurring in neonates is physiological	1. YES	39	9.75
		2. NO	361	90.25
10		1. YES	75	18.75

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	Do you know that diet plays important role in jaundice	2. NO	325	81.25
11	From whom u came to know about jaundice initially other than doctors	1. family members	214	53.5
		2. neighbours	63	15.75
		3. local healers	123	30.75

Table 3: Attitude and practices about jaundice

NO	QUESTION	VARIABLES	NO. OF CASES	PERCENTAGE (%)
1	Do you think Jaundice is treatable	1. Yes	400	100
		2. No	0	0
2	IF yes, which type of treatment do u prefer	1. certified practioner giving modern medicine	246	61.5
		2. local healers giving herbal medicine	41	10.25
		3. local healers performing banding	94	23.5
		4. combination of 1,2 and 3	13	3.25
		5. home remedies of grand parents and neighbours	6	1.5
3	Most people around you for jaundice management prefer	1. certified practitioner	282	70.5
		2. local healers	73	18.25
		3. 1 and 2	31	7.75
		4. home remedies of grand parents and neighbour	14	3.5
4	Do you know that there is no such thing as white jaundice	1. Yes	358	89.5
		2. No	42	10.5
5	Can jaundice be transmitted	1. Yes	163	40.75
		2. No	237	59.25
6	Does a child suffering from jaundice go to school	1. Yes	21	5.25
		2. No	379	94.75

CONCLUSION:

The above survey shows that many parents are having very poor knowledge, false beliefs and wrong practices towards jaundice, indicates the need for mass education of the people to address the appropriate epidemiology, clinical aspects and treatment of jaundice.

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