

KNOWLEDGE, ATTITUDE AND PERCEPTION TOWARDS JAUNDICE AMONG AYDER REFERRAL HOSPITAL HEALTH WORKERS

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ABSTRACT

The objective of the study was to determine knowledge, practice and attitude towards jaundice among hospital health workers in Ayder Referral Hospital. Jaundice is a condition in which a person's skin and the whites of the eyes are discolored yellow due to an increased level of bilirubin in blood it is associated with many myth and Misconception. A study, using self administered questionnaire, was conducted from March 2009 to early May 2009. The result of the study showed that 79% respondents were selected, from which only 4(4%) of the respondents select all of the correct options namely Dark colour of the urine, Yellowish colour of skin and eye, Aching and convulsion. 10% knew two manifestation of jaundice, 84% of respondent knew only one manifestation of jaundice. 83% of the respondents knew jaundice is due to high blood concentration of bilirubin. 5% answered wrong that is jaundice is due to high blood concentration of urea. 76% of the workers prefers modern medicine for the treatment of jaundice and 8% the traditional medicine. The health workers are fairly clear in some aspects of jaundice and inadequate knowledge in other aspects of jaundice. Most of the health workers have positive perception towards jaundice and prefer modern medicine for treating jaundice. They have totally poor knowledge about traditional medicine for the treatment of jaundice. The health workers need an education and training about jaundice to update their knowledge and other study at community level should be conducted to know more about traditional method of treating jaundice.

KEY WORDS: Jaundice, Billirubin, independent variable, dependent variable

INTRODUCTION

Jaundice is a condition due to an increased level of bilirubin in the blood resulting from liver disease. Jaundice is sometimes called *icterus*, from a Greek word for the condition¹. In order to understand jaundice, it is useful to know about the role of the liver in producing bile. The most important function of the liver is the processing of chemical waste products like cholesterol and excreting them into the intestines as bile. The liver is the premier chemical factory in the body. Most incoming and outgoing chemicals pass through it. It is the first step for all nutrients, toxins, and drugs absorbed by the digestive tract. The liver also collects chemicals from the blood for processing. Many of these outward-bound chemicals are excreted into the bile. Bilirubin is a product of the breakdown of hemoglobin, which is the protein inside red blood cells. If bilirubin cannot leave the body, it accumulates and discolors other tissues and results hyperbilirubinemia. The normal total level of bilirubin in blood serum is between 0.2 mg/dL and 1.2 mg/dL. When it rises to 3 mg/dl or higher, the person's skin and the whites of the eyes become noticeably yellow². Acute viral hepatitis is the most common cause of jaundice in pregnancy. Chronic hepatitis B or C infections may be transmitted to neonates; however, hepatitis B virus transmission is effectively prevented with perinatal hepatitis B vaccination and prophylaxis with hepatitis B immune globulin³⁻⁴. Drugs that sometimes tend to inhibit liver function such as anti-cancer medications, antidepressants, and steroids, can also cause a bilirubin build-up and results in jaundice⁵. A study conducted in Ethiopia, Tikur Anbessa Teaching Hospital, Addis-Ababa to evaluate the validity of ultrasonography in patients who have obstructive jaundice. A descriptive retrospective study design was made on a total of 49 patients; 15 male and 34 female underwent operation for obstructive jaundice⁶.

The result of the study showed that the cause of obstructive jaundice identified by ultrasonography with reasonable sensitivity of 90% and specificity of 79% for choledocholithiasis and sensitivity of 50% and specificity of 90% for pancreatic head tumours. The degree of common bile duct enlargement was significantly higher when the

cause for obstruction was malignant, originating from the head of pancreas or distal end of the common bile duct⁶.

The neonatal period is the first 28 days of life that have at maximum risk. Neonatal morbidity and mortality is still higher in African, Asian, Latin America and developing country in which one of the most important contributing factors is jaundice. The maximum risk of hyperbilirubinemia is kernicterus because of accumulation of unconjugated bilirubin in serum. According to a study kernicterus cause at least 10% of mortality and 70% of morbidity. However, correct use of phototherapy and blood exchange to control serum bilirubin level can prevent complication⁷. Increasing mother's knowledge about jaundice of neonates can be the first step to enhance healthy behaviors; through education program's during pregnancy⁸. On multivariate analysis, rural habitation, female gender and tribal ethnicity were found to independently associate with the beliefs that jaundice can be acquired by touch, that indigenous medicines and rituals can cure jaundice and that these are harmless⁹. Sexual practices and medical exposure also play some role as determinants of hepatitis B marker prevalence in Ethiopia. General preventive measures, with particular reference to health education, by affecting incriminating habits and practices could have some impact on infection rates in Ethiopia¹⁰.

Jaundice is a common symptom that occurs in several diseases, It is commonly believed that indigenous medicines and rituals can cure jaundice. However, there is absence of any supporting scientific evidence. Studies from different regions of India have shown poor knowledge about diseases even among urban educated people. Use of indigenous and folk medicines to cure jaundice is common worldwide. The use of Indigenous medicines and rituals often go hand in hand. Frequently, indigenous and traditional folk medicines aroused clandestinely and adverse effects are not uncommon. Studies on the community perception of jaundice are very few. In a study from northern India, 18% and 39% of subjects knew about the causes and dangers of jaundice, respectively, and 26% preferred indigenous medicines and rituals⁹. A nationwide seroepidemiological study of hepatitis B markers prevalence was conducted in Ethiopia on 5,270 young males from all regions of the

country. Overall prevalence rates were 10.8% for HBsAg and 73.3% for at least one marker positive¹⁰.

MATERIALS AND METHODS

As health workers are the primary professionals that have a close contact with the health related problem of the society studying knowledge, practice and attitude (KAP) of the health worker towards a certain disease will have a significant contributions to determine in what manner a better and efficient health service can be given to the society.

Specifically in case of disease like jaundice which has various traditional beliefs and practices about the cause and its treatment that may affect awareness and perception of health worker. So to treat jaundice effectively with minimum cost and time, the health workers should have adequate knowledge about the cause, symptom, diagnosis and treatment of jaundice.

1. The study will have a significant contribution in determining whether the health worker has adequate knowledge or not and in what aspect does the health professional lack awareness and how could this be solved .
2. In determining the attitude of the health workers towards jaundice
3. In determining which methods of treatment either traditional or modern method does the health worker prefers in treating jaundice
4. How much awareness do the health workers have about traditional method of treatment of jaundice

The objective of the research was to assess the knowledge attitude and perception of health worker (nurse and pharmacists) towards jaundice in Ayder Referral Hospital. The study was conducted

- To determine the knowledge of health worker towards jaundice
- To determine the attitude of health worker towards jaundice
- To know some of the herbal medicine used by the society to treat jaundice
- To know the preference of the health worker towards modern and traditional medicine in treating jaundice
- To decide weather the health worker need training about the disease jaundice

METHODS

The study was conducted in Mekelle University, College of health Sciences, Ayder referral hospital; found in Mekelle city, 785 km towards north from Addis Ababa, the capital of Ethiopia. The study was conducted from March 2009 to early may 2009.

A cross sectional study was used to assess the knowledge, Attitude and perception of the health workers (nurse and pharmacy professionals) towards the disease jaundice in Ayder Referral hospital. Self administered questionnaire was used as a data collecting instrument to assess the KAP towards jaundice. All of the Ayder Referral hospital Health workers were used as a source population to assess the KAP towards jaundice. Health works with nursing and pharmacy profession in the referral hospital were used. All health workers, with a profession of pharmacy and nursing that were willing to respond to the self administered questionnaire during the study period were used as a sample population for the assessment of the health worker for KAP towards jaundice .the two variables used in the study were Independent variable: Age, sex, profession work experience.

Dependent variable: Knowledge, practice and attitude towards jaundice

A self-administered questionnaire was used as a data collection instrument. The health professionals were approached individually and informed of the purpose of the study, those who gave consent to participate in the study were requested to fill the questionnaire in their own. The questionnaire consisted of open ended and closed ended questionnaire, the first part of the questionnaire was concerned with socio demographic condition of the respondent like age, sex, profession and work experience. The second part of the

questionnaire had questions that assessed about the knowledge and practice towards jaundice. The third part of the questionnaire was concerned about the attitude of the health workers towards jaundice. After collection of data they should be analyzed and processed systematically the first step was to sort the data into different groups. Then the data were checked for their completeness and missed data were excluded from the study.

Knowledge: It was assessed by asking the questions and their response: - awareness about the presence of jaundice, knowledge of its causal factors, knowledge of the disease is transmissible or not, methods of prevention, awareness and preference of treatment option were used to assess the knowledge if all of the correct option answered for that question they have very good and adequate knowledge for that question. If they answer more than 75% of the correct option they have fairly good knowledge. If they answer 50% of the option they have partial knowledge. If they answer less than 50% of the correct option they have poor knowledge for that specific question.

Attitude and Perception: It is assessed by asking questions such as: willingness to work with jaundice, willingness to marry a jaundice patient and willingness to send a jaundice child to school. This all considered as positive perception towards jaundice whereas unwillingness working with a patient with jaundice, to marry a jaundice patient and refusing sending a jaundice child to school were considered as negative perception. Preference to modern medicine to treat jaundice conceded as positive attitude towards modern medicine in the some way preference of traditional medicine considered as positive attitude towards traditional medicine for the treatment of jaundice. The opposite of the above considered as negative attitude.

RESULTS AND DISCUSSION

n(91)82.7% of 110 health workers participated in the study. The remaining n19 (17.3%) did not participate in the study for different reason. n43 (47.2%) of the respondent were male and n46 (50.5%) of the respondents were female n10 (10.8%) of the respondent were pharmacy professionals and n81 (89.0%) of the respondent were Nurse Professionals.

Table1: Results in Socio demographic condition of the respondent in Ayder Referral Hospital.

NO	SOCIDEMOGRAPHY	VARIABLE	F	%
1	Age	1. 18 – 24 year	31	34.0%
		2. 25 – 34 year	48	52.7%
		3. 35– 44 year	10	10.9%
		4. above 44 year	2	2.2%
2	Sex	1. Male	43	47.2%
		2. Female	46	50.5%
3	Profession	1. Nurse	81	89.0%
		3. Pharmacy:	10	10.9%
4	Work experience	1. 0 – 1 year	17	18.6%
		2. 1 – 3 years	21	23.0%
		3. More than 3 years	52	57.1%
5	Marital status	1. Single	54	59.3%
		2. Married	37	40.6%
		3. Divorced	0	0
		4. Widowed	0	0
6	Religion	1. Orthodox	76	83.5%
		2. Muslim	6	6.5%
		3. Protestant	7	7.6%
		4. Catholic	0	0%
		5. Other---		

93% of the respondent heard about the disease jaundice and among them n5(5.4%), n14(15.3%), n7(7.6%), n4(4.3%), n40(43.9%) heard from family ,neighbors media ,friend and working area respectively

and n14(15.3%) from media and working area. The other n7 (7.6%) in all area mentioned in the option. n60 (65.9%) of the respondent do not believe that jaundice is yewef Beshita ((local Ethiopian term)

and n25 (27.4%) believe that jaundice is Yewef Beshita. n77 (84.5%) of the respondents see a person with jaundice and n11 (12.0%) do not see jaundice patient

Table 2: Result for question that assess the knowledge of health worker about jaundice in Ayder Referral Hospital.

NO	QUESTION	VARIABLE	F	%
1	Have you heard about jaundice?	1. Yes 2. No	85 6	93.4% 6.5%
2	If you say yes, where have you heard from?	1. Family 2. Neighbors 3. Media 4. Friend 5. Working area 6. 3 AND 5 7. in all	5 14 7 0 40 14 7	5.4% 15.3% 7.6% 0% 43.9% 15.3% 7.6%
3	Do you believe that jaundice is "yewef beshita"?	1. Yes 2. No	25 60	27.4% 65.9%
4	Have you ever seen a person with jaundice?	1. Yes 2. No	72 11	79.1% 12.0%
5	What are the manifestations of jaundice?	1. Dark color of the urine 2. Yellowish color of the skin and eye 3. Etching and convulsion 4. 1and 2 5. 1 and 3 6. all	4 61 0 13 5 8	4.3% 67.0% 0% 14.2% 5.4% 8.7%
6	What are the causes of jaundice?	1. Hepatic disease. Bile duct and hemolytic disorder, infection ,drug toxicity 2. Hereditary disorder 3. Urination towards moon side 4. Urine of bat 5. both 1 and 2	65 0 0 0 19	71.4% 0% 0% 0% 20.8%
7	What are the consequences of jaundice?	1. Convulsion 2. Itching 3. Loss of appetite 4. Neuronal problem 5. 1 and 2 6. 1and 4 7. all	15 9 12 19 11 8 3	16.4% 9.8% 13.1% 20.8% 12.0% 8.7% 3.2%
8	The cause of jaundice is associated with high blood concentration of-----	1. Urea 2. Histamine 3. Bilirubin	14 0 76	15.3% 0% 83.5%
9	Can jaundice be cured?	1. Yes 2. No	78 9	85.7% 9.8%
10	If yes for question 9, which types of treatment is possible?	1. Modern medicine 2. Traditional medicine 3. Both modern & traditional medicine 4. I don't know	58 7 15 3	63.7% 7.6% 16.4% 3.2%
11	In modern medicine which type of lab test is used for the diagnosis of jaundice?	1. Blood & Urine test for bilirubin 2. Ultrasound 3. Both 1 & 2 4. I don't know	51 0 39 0	56.0% 0% 42.8% 0%
12	In modern medicine, which are the possible therapies for the treatment of jaundice?	1. Phototherapy 2. Bloodtransfusion 3. Surgical 4. Drug therapy	14 14 15 36	15.3% 15.3% 16.4% 39.5%
13	Do you know any herbal medicine (yebahl medhanit) to treat jaundice?	1. Yes 2. No	12 73	13.1% 80.2%

Table 3: Result of questions about attitude and perception towards jaundice and their answer in Ayder Referral Hospital.

NO	QUESTIONS	ANSWERS	F	%
1	Is jaundice transmittable?	1. Yes 2. No 3. I do not know	53 31 5	58.2% 34.0% 5.4%
2	Are you willing to work with jaundice patient?	1. Yes 2. No	67 25	73.6% 27.4%
3	Do you think that a jaundice patient can go school?	1. Yes 2. No	72 15	79.1% 16.4%
4	Would you marry a jaundice patient?	1. Yes 2. No	46 36	50.5% 39.5%
5	Which method of treatment would you prefer to treat jaundice?	1. Modern medicine 2. Traditional medicine 3. Combination of the two	69 7 13	75.8% 7.6% 14.2%

Question 5 was regarding the manifestation of jaundice only 4(4.3%) of the respondents select the correct options namely

1. Dark colour of the urine
2. Yellowish color of skin and eye
3. Aching and convulsion

n13 (14.2%) of the respondent choose 1 and 2 Dark colour of the urine and yellowish colour of the skin and eye. n13 (14.2%) of the respondent choose 2 and 3 option. n51 (56.0%) the respondent choose yellowish colour of the skin and eye. on the question regarding the cause of jaundice n19 (20.5%) of the respondent choose the two correct option namely

1. Hepatic disease, bile duct and hemolytic disorder, drug toxicity
2. Hereditary disorder

n65 (71.4%) the participant choose option I only as a cause of jaundice and none of the participant chose the option urination towards moon side and urine of bat

Question 7 tests the knowledge of the health worker about the complication of jaundice only n3 (3.2%) of the respondent choose the correct options namely

1. Convulsion
2. Aching
3. Loss of appetite
4. Neuronal problem

n15(16.4%), n9(9.8%), n17(18.6%) choose the option convulsion, aching, loss of appetite and Neuronal problem respectively as the cause of jaundice. n11(12.0%) respondent chose convulsion and neuronal problems n8(8.7%) of respondent chose convulsion and aching.

Question 8-tested the knowledge of the health worker about the main biochemical that accumulate in the blood and tissues of jaundice patient and results in Pathophysiologic condition. n76 (83.5%) respondents chose the correct answer bilirubin and n14 (15.3%) answer wrongly urea.

Question 10 was regarding the possible treatment option for the treatment of jaundice that the society use. n15 (16.4%) of the respondent chooses all of the option namely.

- Traditional medicine
- Modern medicine

n52 (57.1%) of the respondents answer modern medicine and 7(7.6%) chose traditional medicine

Question 11-test the awareness of health worker about the lab test used for the diagnosis of jaundice n39 (42.8%) of the respondent chose the two correct option

1. Blood and urine test for bilirubin
2. Ultrasound

n51 (56.0%) of respondents answer blood and urine test for bilirubin

Question 12-test the knowledge of health worker about the possible therapy of jaundice. None of the respondent chose the four correct option namely

1. Photo therapy
2. Blood transfusion
3. Surgical
4. Drug therapy

Only one respondent chose three correct options. And 2 respondent chose two option. n36 (39.5%), n15 (16.4%), n14 (15.3%), n14 (15.3%) of the respondent chose drug therapy, surgical, phototherapy and blood transfusion as a possible therapy respectively.

Question 13 was regarding the knowledge of the health worker about herbal medicines that were used to treat jaundice n73 (80.2%) of the respondent chose the option I don't know any herbal medicine. n12 (13.1%) of the respondent say I know herbal medicine. but

none of the 12 respondents could write at least one herbal medicine that is used for the treatment of jaundice around their society.

DISCUSSION

The present study showed a good knowledge in some aspect of jaundice. But there are also some misconceptions, partial knowledge and poor knowledge in certain aspect of jaundice that must be focussed. In the first instance almost all of n85 (93.4%) heard about jaundice and they have awareness about the presence of the disease. And n61 (66.8%) of the health workers see jaundice patient in working area. This predicts how much is the prevalence of the case in their working area. But only n8 (8.7%) could answer all of the correct option namely Dark color of the urine, Yellowish color of the skin and Eye, itching and convulsion. Most of the respondents n82 (90.1%) aware of yellowish color of the skin and Eye and only n4 (4.3%), n61 (67%) choose option 1 and 2 respectively. This shows that there is only partial knowledge about the manifestation of jaundice.

With respect to work experience 4 of the 8 respondents who answered all of the correct answer have an experience below 1 year and three of the 8 have a work experience above 3 year. And n77(85.2%) of the respondent that answer only one option has a work experience above 3 years, work experience do not affect the knowledge to about the manifestations of jaundice. Education and training concerning jaundice should be given to update the knowledge of the health workers. During their professional cores of study the health workers should visit pediatrics ward adequately since the manifestations of jaundice is more prevalent in neonates.

Another area of inadequate knowledge and missconception absorbed by most respondents was on the cause of jaundice. Only n19 (20.8%) of the respondent chose hereditary disorder as the cause of jaundice. Genetic disorders in Bilirubin metabolism like Crigler-Najjar syndrome which is characterized by mild unconjugated hiperbilirubimia could be the cause of jaundice. The result of study shows work experience does not affect the awareness of the respondent about jaundice. Education and training concerning jaundice should be given to update the knowledge of the health workers.

Another area that should be focused is on the complication of jaundice. Only n3 (3.2%) of the respondent selects the four correct options namely convulsion, itching, loss of appetite and neuronal problem. Most of the participant chose only one option this shows that inadequate knowledge of the health workers for the complication of jaundice. This has much significant difference to the study in Nigeria about Neonatal Jaundice (NNJ) about 44.5% of the respondent knows all of the correct answer about the complication of NNJ. Like that of manifestations of jaundice the health workers should visit pediatrics ward adequately during their professional cores of study since the complication of jaundice is more prevalent in neonate³.

Most participant about n76 (83.5%) answer the correct option high per bilirubinimia as the cause of jaundice. so most respondent have good awareness about the main biochemical that accumulate in jaundice patients. But about n14 (15.5%) of respondents choose in wrongly hyper uremia as the cause of jaundice. This shows there is small gap among respondent regarding the cause that should be closed through regular training program.

Other partial knowledge observed was on the possible treatment option of jaundice. Most of the respondents have awareness about modern medicine for the treatment of jaundice. But the society also uses traditional medicine as a therapeutic option for the treatment of jaundice¹¹. Only n22 (24.1%) choose traditional medicine as a therapeutic option.

As the result indicates, some respondents n12 (13.2%) know herbal medicine used for treatment of jaundice; however, none of them

could write at least one herbal plant that is used. This is quite opposite to the study made in Nigeria that most of health worker believes in efficiency of Nigerian herbal medicine and most respondents could write the name of Nigerian herbal medicines that are used for the treatment of jaundice.

Poor knowledge was also observed on the type of therapy used in modern medicine for jaundice treatment. None of the respondent chose the four correct option namely Photo therapy, blood transfusion, surgical and drug therapy. Most of the respondents n (39.5%) chose only drug therapy. Only n 14 (15.3%) of the respondents chose photo therapy and blood transfusion. But photo therapy and blood transfusion are the standard treatment for neonatal jaundice³. This is opposite to Nigeria KAP study towards NNJ that n36 (54.5%) of the respondent answer both photo therapy and blood transfusion therapy and n 21 (31.8%) of respondents answer one of the two therapies⁷. This shows inadequate knowledge of respondent about therapy of jaundice. It should be resolved through regular training and education program.

Most respondents have positive perception towards jaundice and some have negative perception towards jaundice as jaundice is a disease that could be cured by treating the main cause behind the disease. If treated before the occurrence of complications, jaundice patient could work as other normal individual. So the poor perception of some respondent should be changed through education and training program. Most health worker prefers modern medicine

for the treatment of jaundice. These may be due to the effect of their training that since all of them trained in modern medicine and do not have a knowledge about traditional medicine. And also other study at community level should be conducted to know more about traditional method of treating jaundice.

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