ACTA SCIENTIFIC MEDICAL SCIENCES

Volume 2 Issue 7 October 2018

Research Article

Knowledge, Attitude and Practice (KAP) about Hepatitis B and C among Students of Hadhramout University, Al-Mukalla City, Yemen

Yahya Khamis Almualm[1]*, Nawal Saeed Banafa[2] and Abdulla Saeed Al-Hanshi[3]

[1]*Assistant Professor, Mother, Neonatal and Paediatric Nursing Department, Hadhramout University, Yemen*

[2]*Associate Professor, Fundamental Medical Sciences Department, Hadhramout University, Yemen*

[3]*Associate Professor, Community Health Nursing Department, Hadhramout University, Yemen*

***Corresponding Author:** Yahya Khamis Almualm, Assistant Professor, Mother, Neonatal and Paediatric Nursing Department, Hadhramout University, Yemen.

Received: July 19, 2018; **Published:** September 27, 2018

Abstract

Background and Objective: Hepatitis B (HBV) and C (HCV) are blood-borne infectious diseases. They are one of the most common causes of end-stage liver disease, including cirrhosis and hepatocellular carcinoma. The research, including nursing and medical laboratory students, are at a high risk of acquiring this infection.

Aim of this Study: To assess the knowledge, attitude and practices of the nursing and medical laboratory students about viral hepatitis B and C in Hadhramout University, Mukalla city, Yemen.

Setting: The carried out in Mukalla city-Yemen.

Design: Survey research (cross sectional) design.

Sample: Based on a stratified random sample of the academic levels 272 students was selected

Materials and Methods: The sample of the study consisted of 272 (males and females) students in Hadhramout University.

Parts of the Study: Data collected by using three tools: tool (a): student's knowledge regarding hepatitis (b): knowledge about attitude toward hepatitis disease. Tool (c): knowledge about practice of hepatitis.

Results: Regarding age groups of the study participants it found that the mean of participant's age (53.23 ± 8.35). Majority of participants had poor knowledge and practice about hepatitis B and C and its management. Also, the vast majority had negative attitude toward hepatitis.

Conclusion: This study found that participants had poor knowledge, attitude and practice toward hepatitis B and C.

Recommendations: Continuous and repeated health education guide on hepatitis B and C. frequent workshops and seminars should be organized in order to provide up-to-date knowledge about HBV and HCV infection and means of prevention among Hadhramout university students.

Keywords: Attitude; Knowledge; Practice; Medical Lab; Students; Nursing Students; Hepatitis B and C Virus; Vaccination

Introduction

Hepatitis is characterized by the inflammation of the liver and in many cases, hepatitis B and C can lead to permanent liver damage including liver cirrhosis or hepatocellular carcinoma and even death [1]. The World Health Organization (WHO) estimates that up to two billion people in the world have been infected with HBV; about 350 million people live with chronic HBV infection, and about 600,000 people die from HBV- related liver disease or HCV each year [2,3]. The prevalence of chronic HBV infection varies geographically, from high (> 8%), intermediate (2 - 7%) to low (< 2%) prevalence [4]. The endemicity of infection is considered high in Yemen, where prevalence of positive HBsAg ranges from 8% to 20%, and up to 50% of the populations generally have serological evidence of previous HBV infection [5]. In other studies, the

prevalence of HBsAg in Yemen is 12.7% -18.5% [6]. Infection with both HBV and HCV are important causes of chronic liver disease in Yemen Republic [2]. However, the prevalence of antibodies to HCV is 1.7% in healthy volunteers [7]. Most of epidemiological studies were done in different cities in Yemen, the prevalence rates of HBsAg and HCV antibodies are 10.5% and 2.3% in Sana'a, 4.75% and 0.6% in Aden, 5.6% and 0.8% in Hajah, 26.3% and 5.1% in Soqotra respectively [8]. A vaccination program that Yemen introduced universal immunization against HBV for infants and high risk groups in early 2000 [5], A safe and effective vaccine against HBV is available for 20 years and is effective in preventing infection and the serious consequence of hepatitis including liver cancer and cirrhosis when given before or after exposure [9]. Vaccination gives long term protection from HB infection, possibly lifelong. KAP surveys are representative of a specific population to collect information on what is known, believed and done about a particular topic, and are the most often used study tool in health-seeking behavior research [10]. Knowledge is usually assessed how far community knowledge corresponds to biomedical concepts [11]. Practices in KAP surveys usually inquire about preventive measures or different health care options. Normally, hypothetical questions are asked, so it permits statements about actual practices, rather, it yields information on people's behaviors or on what they know about healthy practices [12]. Medical lab and nursing science students, being part of the health care delivery system, are exposed to the same size of risk as other health care workers when they come in contact with patients and contaminated instruments. few studies have been conducted to find out the knowledge, attitude and practice among medical lab and nursing students about Hepatitis B and C in Yemen. Hence, this study aims to assess the knowledge, attitude and practice of students towards hepatitis B and C transmission and prevention among medical lab and nursing students in Hadhramout University.

Materials and Methods

Study population

A cross-sectional descriptive study is carried out at Medicine and health sciences, Nursing Colleges, at Hadhramout University, Al-Mukalla City, Hadhramout Governorate, Yemen.

Only four academic levels from both Medicine and health sciences and Nursing Colleges were included in this study due to logistics, time and financial constraints. Stratified randomly selected academic levels. The sample of this study composed of 272 which included (130) lab students and (142) nursing students

Data collection

The data collection procedure of this study was executed in the period from June to August, 2016. The researcher explained briefly the purpose of the study to the subjects who were willing to participate. A self-administered questionnaire was delivered. The duration of data collection of the assessment of males and female answers was about 4weeks and the time spent with each participant to answer the questionnaire sheet ranged from 30 to 45 minutes according to education level of each participant

Tools of the study: Data were collected by self-administrated questionnaire used for data collection.

Part 1: Included demographic characteristics such as: age, gender, level of education..

Part 2: Assessment of knowledge about hepatitis B and C

It contains 20 items to assess the knowledge hepatitis B and C, definition, predisposing factors, signs and symptoms, and last part concern the treatment and vaccination. The knowledge questionnaire contains one type of questions, the respondents answer with either Yes or No.

A scoring system was developed. For each item, one grade was awarded for the correct answer and zero for incorrect answers. A total score of knowledge was determined as Mohammed 2013 [13] who estimated the answer by taking points as the following:

- Poor < 50%
- Average - 50% > - 70%
- Good > 70%

Part 3: Attitudes scale toward hepatitis B and C

It's composed of (15) statements to assess attitude response modified by the researcher after reviewing different related research and literature to measure attitude responses were measured using a two-point Likert scale; agree and disagree. The total mean attitude scores calculated by:

1- Positive response (agree) given a score of two.

2- Negative response (disagrees), given a score of zero.

In this way a score calculated for each individual in relation to the highest possible score.

Part 4: Assessment of practices about diabetes

It's composed from (23) items to assess the knowledge of practice about hepatitis B and C, using sterilizing instruments, hand washing, wearing gloves, and last part concern the blood analysis before blood transfusion

A score was given for each answer, with the proper answer given a score of one and the wrong answer given a score of zero. A total score of practice was determined for each respondent by taking points as the following

- Satisfactory Practice 60% - < 70% +
- Unsatisfactory Practice > 60%-

Pilot study

A pilot study was carried on a sample of 20 participants excluded from the sample from Medicine and health sciences, Nursing Colleges during July 2016 in order to determine the adequacy, clarity of questions, and response of participants and estimate the length of time required to complete the questionnaire. The necessary modification was done.

Ethical considerations

Written permission was sought from the dean of nursing because our participants included students, a the purpose of this study explained to all participants. The participants have ethical rights to agree or refuse to participate in the study, so written and oral consent was taken from all students who participated in the study and informed that the information and data obtained is confidential and will be used only for the purpose of the study.

Results and Discussion

Results

The socio-demographic characteristics of the studied participants are summarized in table 1. It showed that 54.4% of sample belonged to age group 21 - 23 years, and the majority (77.5%) of them were from urban areas. The same table reveals that the majority (78.3%) of the sample are females

Table 2 illustrates that only 40.4% of the participants didn't know the definition of hepatitis B and C. 83.3% reported that hepatitis B and C are not curable at present, and 62.1% of the studied participants knew types of hepatitis, 58.8% knew factors effecting hepatitis B and C B and C and 37.8% don't know. Regarding knowledge of incubation period, 71.6%, of the studied participants knew, and quarter 28.3% didn't know the incubation period of hepatitis B and C.

Socio-demographic characteristics	Males (n = 110)		Females (n = 162)		Total (n = 272)	
	No	%	No	%	No	%
Age [years]: 21 - 23	55	50.0	93	57.4	148	54.4
24 - 26	45	40.9	64	39.5	109	40.0
> 26	10	9.0	5	3.0	15	5.5
Mean ± SD (range)	53.23 ± 8.35 (21 - 26)					
Residence						
Rural	26	23.6	35	21.6	61	22.4
Urban	84	76.3	127	78.3	211	77.5

Table 1: Distribution of the study participants according to their personal demographic characteristics in Yemen- 2016 (n = 272).

Items	Males (N = 110)		Females (N = 162)		Total (N = 272)	
	No	%	No	%	No	%
Know Meaning of hepatitis B and C	57	51.8	105	64.8	162	59.5
Don't know the definition of hepatitis B and C	53	48.1	57	35.1	110	40.4
Know Hepatitis B and C are not curable at present	86	78.1	140	86.4	226	83.0
Don't know hepatitis B and C are not curable at present	24	21.8	22	13.5	46	16.9
Know Types of hepatitis	64	58.1	105	64.8	169	62.1
Don't know the types of hepatitis	46	41.8	57	35.1	103	37.8
know Factors affecting hepatitis	53	48.1	107	66.0	160	58.8
Don't know the factors affecting hepatitis	57	51.8	55	33.9	112	41.1
Know Incubation period of hepatitis B and C	73	66,3	122	75,3	195	71.6
Don't know the incubation period of hepatitis B and C	37	33,6	40	24.6	77	28.3

Table 2: Distribution of the studied participants Knowledge about definition, Types and incubation period of hepatitis B and C in Yemen- 2016.

Table 3 displays studied participants' knowledge about the causes, factors, signs and symptoms of hepatitis B and C, (73.1%, 66.9%, 62.8%) respectively knew about the causes, factors, signs and symptoms of hepatitis.

Items	Males (N = 110)		Females (N = 162)		Total (N = 272)	
	No	%	No	%	No	%
Knowledge about causes						
Know the causes of hepatitis B and C	97	88.1	102	62.9	199	73.1
Don't know the causes of hepatitis B and C	13	11.8	60	37.0	73	26.8
Knowledge about factors						
Know the factors leading to hepatitis B and C	77	70.0	105	64.8	182	66.9
Don't know the factors leading to hepatitis B and C	33	30.0	57	35.1	90	33.0

Table 3: Distribution of the studied participants Knowledge about causes, factors of hepatitis B and C in Yemen- 2016.

Table 4 displays studied participants' knowledge about high risk groups of hepatitis B and C, the results showed that (53.5%) mentioned doctors and 46.3% nurses, 74.2% knew that the vaccine is available for hepatitis B while only 25.7% of them pointed out that there is no vaccine for types B and 68.7% indicated that there is a vaccine for type C. Furthermore, 40.4% believe that hepatitis could be transmitted through hand shaking and kissing. In assessing the knowledge regarding the transmission of hepatitis, more than half (66.5%) knew that it could be transmitted by direct contact with patient 'items and 84.1% knew that hepatitis could be transmitted by sharing same needle and 95.9% knew that hepatitis could be transmitted by blood transfusion. However, 39.7% believed that mosquito-bite could lead to hepatitis infection and 40.0% knew that hepatitis is not transmitted from mother to the her fetus.

Table 5 illustrated the knowledge regarding signs and symptoms that appear in the hepatitis infection, studied participants knew about abdominal pain, Loss of appetite, skin rash and jaundice, (28.3%, 33.4%, 24.2%, 13.9) respectively.. On the other hand,

Items		Males (N =110)		Females (N = 162)		Total (N = 272)	
		No	%	No	%	No	%
High risk groups							
Doctor	Yes	54	49.0	92	56.7	146	53.6
	No	56	50.9	70	43.2	126	46.3
Nurses	Yes	56	50.9	70	43.2	126	46.3
	No	54	49.0	92	56.7	146	53.6
Vaccine availability:							
There is no vaccine for type B		26	23.6	44	27.1	70	25.7
There is a vaccine for types B		84	76.3	118	72.8	202	74.2
There is no vaccine for type C		76	69.0	129	79.6	205	75.3
There is a vaccine for type C		44	40.0	143	88.2	187	68.7
-Hepatitis B and C transmission:							
Transmitted through hand shaking and kissing	Yes	36	32.7	74	45.6	110	40.4
	No	74	67.2	88	54.3	162	59.5
Transmitted by direct contact with patient 'items	Yes	101	91.8	80	49.3	181	66.5
	No	9	8.1	82	50.6	91	33.4
Transmitted by sharing same needle	Yes	107	97.2	122	75.3	229	84.1
	No	3	2.7	40	24.6	43	15.8
Transmitted by blood transfusion	Yes	109	99.0	152	93.8	261	95.9
	No	1	0.9	10	6.1	11	4.0
Transmitted by mosquito-bite	Yes	95	86.3	13	8.0	108	39.7
	No	15	13.6	149	91.9	164	60.2
Transmitted from mother to the her fetus	Yes	66	60	43	26.5	109	40.0
	No	44	40.0	119	73.4	163	59.9

Table 4: Distribution of the studied participants Knowledge about high risk groups, vaccine availability, transmission of hepatitis B and C in Yemen- 2016.

on assessing sources of infection, according to participants' perception, the results showed that 45.9% mentioned the Only human, and 31.2% mentioned humans and animals are sources of hepatitis infection.

Items		Males (N = 110)		Females (N = 162)		Total (N = 272)	
		No	%	No	%	No	%
Signs, symptoms							
Abdominal pain	Yes	33	30.0	44	27.1	77	28.3
	No	77	70.0	118	72.8	195	71.6
Loss of appetite	Yes	28	25.4	63	38.8	91	33.4
	No	82	74.5	99	61.1	181	66.5
Akin rash	Yes	11	10.0	27	16.6	38	13.9
	No	99	90.0	135	83.3	234	86.0
Jaundice	Yes	38	34.5	28	17.2	66	24.2
	No	72	65.4	134	82.7	206	75.7
Sources of hepatitis B and C infection							
Only human	Yes	52	47.2	73	45.0	125	45.9
	No	58	52.7	89	54.9	147	54.0
Only animal	Yes	26	23.6	36	22.2	62	22.7
	No	84	76.3	126	77.7	210	77.2
Both of them	Yes	32	29.0	53	32.7	85	31.2
	No	78	70.9	109	67.2	187	68.7

Table 5: Distribution of the studied participants Knowledge about signs ,symptoms and sources of hepatitis B and C infection in Yemen- 2016.

Table 6 shows the complications of the hepatitis disease, however 51.1% participants' mentioned that the liver, cirrhosis, liver cancer and liver failure (21.6%, 21.3%) respectively as complication of hepatitis B. Liver cirrhosis, liver cancer (81.6%, 17.6%) respectively as complication of hepatitis C. Furthermore, 86.6% believe that the isolation of patients with viral hepatitis is important to protect against the disease while only 13.6% of participants' mentioned that there is no any risk for the others to work at the same place with the patient.

Table 7 shows the respondents' attitude towards hepatitis related items. 53.3% agreed that hepatitis could occur in all category age and 12.1% agreed that scared of being infected with hepatitis. In addition, 75.3% agreed that the hepatitis disease is a big problem as the media suggest. Furthermore, 38.3% agreed that using condom properly prevents hepatitis infection. Also, 94.4% disagreed that the future of hepatitis infected people is lost

Items		Males (N = 110)		Females (N = 162)		Total (N = 272)	
		No	%	No	%	No	%
Complication of hepatitis B							
Liver cirrhosis	Yes	66	60.0	73	45.0	139	51.1
	No	43	39.0	89	54.9	133	48.8
Liver cancer	Yes	19	17.2	40	24.6	59	21.6
	No	91	82.7	122	75.3	141	51.8
Liver failure	Yes	16	14.5	42	25.9	58	21.3
	No	94	85.4	120	74.0	214	78.6
Don't Know		9	8.1	7	4.3	16	5.8
Complication of hepatitis C							
Liver cirrhosis	Yes	107	97.2	115	70.9	222	81.6
	No	3	2.7	47	29.0	50	18.3
Liver cancer	Yes	1	0.9	47	29.0	48	17.6
	No	109	99.0	115	70.9	224	82.3
Don't Know		2	1.8	00	00	2	0.73
isolation of the patient is important to protect against the disease	Yes	105	95.4	130	80.2	235	86.3
	No	5	4.5	32	19.7	37	13,6
There is no any risk for the others to work at the same place with the patient.	Yes	5	4.5	32	19.7	37	13.6
	No	105	95.4	130	80.2	235	86.3

Table 6: Distribution of the studied participants Knowledge about complications of the hepatitis B and C in Yemen- 2016.

Items	Agree (N = 272)		Disagree (n = 272)		Total	
	No	%	No	%	No	%
Avoid sexual intercourse without using condom	145	53.3	127	46.6	272	100.0
Scared of being infected with hepatitis	33	12.1	239	87.8	272	100.0
Hepatitis disease is a big problem as the media suggest	205	75.3	67	24.6	272	100.0
The necessity of gloving during the insertion of intra-venous cannula	105	38.6	167	61.3	272	100.0
Future of hepatitis infected person is lost	15	5.5	257	94.4	272	100.0

Table 7: Student's attitude towards hepatitis B and C items in Yemen- 2016.

Table 8 shows the respondents' knowledge of practice on hepatitis. The majority of the respondents, 72.7% never screened for hepatitis and only 48.5% answered positively regarding immunized status against hepatitis. It was interesting to know that ma-

Items of practice		Males (N = 110)		Females (N = 162)		Total (N = 272)	
		N	%	No	%	No	%
Never screened for hepatitis	Yes	56	50.9	142	87.6	198	72.7
	No	54	49.0	20	12.3	74	27.2
Immunized status against hepatitis	Yes	23	20.9	102	62.9	132	48.5
	No	87	79.0	60	37.0	147	54.0
Vaccinated group against hepatitis							
Completed all 3 doses of their vaccination schedule	Yes	22	20.0	72	44.4	94	34.5
	No	88	80.0	90	55.5	178	65.4
Incompletely vaccinated	Yes	88	80.0	90	55.5	170	62.5
	No	22	20.0	72	44.4	94	34.5
Causes of Incomplete vaccination							
Lack of information	Yes	34	30.9	73	45.0	107	39.3
	No	76	69.0	89	54.9	165	60.6
Felt no need	Yes	65	59.0	32	19.7	97	35.6
	No	45	40.9	130	80.2	175	64.3
Fear of injection	Yes	1	0.9	7	4.3	8	2.9
	No	109	99.0	155	95.6	264	97.0
Said they ignorance	Yes	10	9.0	50	30.8	60	22.0
	No	100	90.9	112	69.1	212	77.9
It is necessary to use sterile instruments while dealing with infected patients	Yes	105	95.4	155	95.6	260	95.5
	No	5	4.5	7	4.3	12	4.4
It is necessary to do blood screening before any blood transfusion	Yes	103	93.6	145	89.5	248	91.1
	No	7	6.3	17	10.4	24	8.8
Felt that it's necessary to use gloves during working	Yes	102	92.7	135	83.3	237	87.1
	No	8	7.2	27	16.6	35	12.8
It is necessary to ask the barber to use a new blade before shaving.	Yes	76	69.0	101	62.2	178	65.4
	No	34	30.9	61	37.6	95	34.9
It is necessary to use the mask at work	Yes	64	58.1	88	54.3	152	55.8
	No	46	41.8	74	45.6	120	44.1
It is necessary to wash their hands after they finish working	Yes	104	94.5	133	82.0	237	87.1
	No	6	5.4	29	17.9	35	12.8
It is necessary to wear the mask at work	Yes	68	61.8	99	90.0	167	61.3
	No	42	38.1	63	38.8	105	38.6
It is necessary to wash their hands after they finish any work	Yes	105	95.4	160	98.7	265	97.4
	No	5	4.5	2	1.2	7	2.5
Never asked for screening of blood and blood products before transfusion	Yes	107	97.2	158	95.5	265	97.4
	No	3	2.7	4	2.4	7	2.5
Never asked for a new syringe when required	Yes	98	89.0	106	65.4	204	75.0
	No	12	10.9	56	34.5	68	25.0
Never participated in any educational program on hepatitis	Yes	103	93.6	145	89.5	248	91.1
	No	7	6.3	17	10.4	24	8.8

Table 8: Distribution of the studied participants Knowledge about practice on hepatitis B and C in Yemen- 2016.

jority 91.1% of the respondents asked for screening of blood and blood products before transfusion, and 75.0% of the respondents never asked for a new syringe when required. A majority, 91.1% of the respondents were never participated in any educational program on hepatitis. In the vaccinated group, 34.5% completed all 3 doses of their vaccination schedule and remaining 62.5% students were incompletely vaccinated. Reasons for not getting vaccinated were lack of information on 39.3% students, no need was falling by 35.6% students, 2.9% had a fear of injection and 22,0% said their ignorance. 95.5% mentioned that it is necessary to use sterile instruments while dealing with infected patients, meanwhile 87.1% of respondents, felt that it necessary to use gloves during working, 65.4% reported that it is necessary to ask the barber to use a new blade before shaving. And 55.8% use the mask at work, and 87.1% wash their hands after they finish working. Furthermore, 61.3% believed that it is necessary to wear the mask at work, and 97,4% wash their hands after they finish any work.

Table 9 shows that the majority of participants (71.8%) had poor score of knowledge about hepatitis. While only (2.3%) of them had good score.

Item	%
Poor score	71.8
Average	29.9
Good	2.3

Table 9: Total score of study participant's knowledge regarding hepatitis B and C in Yemen- 2016.

Table 10 reveals that the vast majority of participants (92.8%) had negative attitude score towards hepatitis.

Item	%
Positive score	7.2
Negative score	92.8

Table 10: Total score of study participant's attitude regarding hepatitis B and C in Yemen- 2016.

Table 11 this table shows that the majority of participants (87.1%) had unsatisfactory score of practice about hepatitis.

Item	%
Satisfactory	12.9
Unsatisfactory	87.1

Table 11: Total score of study participant's practice regarding hepatitis B and C in Yemen- 2016.

Discussion

Accurate knowledge is not only critical for decreasing the infection rate, but also important to dispel persistent myths, partial knowledge can further perpetuate the risk of infection [20].

The current study sought to evaluate knowledge, attitude and practice towards hepatitis among medical lab and nursing science students. The results of the study showed poor knowledge, attitude and practice towards hepatitis. Scientific knowledge about transmission is essential for medical lab and nursing students. In this study was found that the knowledge score of participants to below 71.8%. Among study participants, on assessing the knowledge regarding the transmission of hepatitis, 66.5% knew that it could be transmitted by direct contact with patient 'items and 84.1% knew that hepatitis could be transmitted by sharing same needle and 95.9% knew that hepatitis could be transmitted by blood transfusion. These results agree with the findings of a study from B.J. Medical College, Ahmadabad, Gujarat, India; where the majority of the medical students had correct knowledge of the mode of transmission [15].

The differences between study from India [22] and our study that previous study take knowledge and attitude and included 200 participants of medical students while our study takes all the three KAP and included nursing and lab students and our study also included 272 participants. Regarding to attitude score responses towards hepatitis, in this study only 7.2% had a positive score while almost of the participants have got negative attitude, in the same time study from India reported that 38% (38/100) of dental, 31% (31/100) of medical and 49.1% (27/55) of nursing interns claimed to be vaccinated for hepatitis C vaccine whereas no such vaccine exists. 60.8% (155/255) of interns agreed that wearing of gloves should be made mandatory during the insertion of an intravenous cannula and 85.1% (217/255) of total interns agreed that patients should be screened for Hepatitis B Surface Antigen (Hbs Ag) and HCV Ag before undertaking them for any procedure involving exposure to blood [21].

Regarding to practice score responses towards hepatitis, in this study only 12.9% had a satisfactory score while most of the participants 87.1% have gotten an unsatisfactory score. Otherwise, in the present study, 48.5% were vaccinated against hepatitis. In the vaccinated group, 34.5% completed all 3 doses of their vaccination schedule and remaining 62.5% students were incompletely vaccinated. This rate of vaccination was lower than the vaccination status of 87.8% study done at Muhammad Medical College Mirpurkhas [16], 29.3% was reported among medical students of B.J. Medical College [15], 35% was reported in civil hospital of 60 laboratory technicians [17], 88.1% in a study done at two national/regional congresses and two university hospitals in Iran [6,18], and 63% reported from India among medical students and 42% reported among medical students of Lahore [17]. The most frequent reason for not getting vaccinated in the present study was lack of information 39.3% and followed by ignorance 22.0% or fear of injection 2.9%. And no need was falling by 35.6% students. The finding is consistent with a study result from medical college of Mirpurkhas, Pakistan [16] and study from Iran [17]. These are serious issues and baseless reasons that need to be improved by education.

This study also showed the respondents have poor practice towards prevention of HB. The more than two third of the respondents, 72.7% never screened for hepatitis and 48.5% stated a negative immunized status against hepatitis, 91.1% never participated in any educational program on hepatitis. It was interesting to know that majority 97.4% of the respondents never asked for screening of blood and blood products before transfusion, and 75.0% of the respondents never asked for a new syringe when required. This finding is in agreement with a study from Saudi Arabia and is consistent with the study in Ibb governorate [20], Yemen reported that the highest HBV and HCV infections were 0.54% and 0.72% which observed in the age group 55 - 62. These patients had a varied history of exposure to HBV and HCV risk factors such as major/dental surgery or blood transfusion [8]. This indicates the weak role of health education programs in Yemen.

Limitations of the Study

This study was carried out only at four academic levels from both Medicine and health sciences and Nursing Colleges were included in this study due to logistics, time and financial constraints..

Conclusion

The majority of participants have poor knowledge, attitude and practice about Hepatitis B and C.

Recommendation

Since medical laboratory and nursing science students are at increased risk of acquiring needle stick injury, and exposed to blood and blood products in their future professional practice, they should be vaccinated upon entry into the medical and nursing colleges. It is also recommended that a policy be implemented for complete vaccination and giving training on infection prevention for all medical laboratories and nursing science students before they start clinical training (professional practice) in the country. Continuous and repeated health education guide on hepatitis B and C. Major steps should be taken towards improving the curriculum followed at medical and nursing colleges in Yemen.

Bibliography

1. Ramsay DB., *et al*. "Does the race or gender of hepatitis C infected patients influence physicians' assessment of hepatitis A and hepatitis B serologic status?" *Southern Medical Journal* 100.7 (2007): 683-685.

2. Hepatitis B. WHO (2002).

3. "Weekly epidemiological record". *Relevé* Épidémiologique *Hebdomadaire* 84.40 (2009): 405-420.

4. Hou J., *et al*. "Epidemiology and Prevention of Hepatitis B Virus Infection". *International Journal of Medical Sciences* 2.1 (2005): 50-57.

5. Al-Shamahy H. "Prevalence of hepatitis B surface antigen and risk factors of HBV infection in a sample of healthy mothers and their infants in Sana'a, Yemen". *Annals of Saudi Medicine* 20.5-6 (2000): 464-466.

6. Wasfi OA and Sadek NA. "Prevalence of hepatitis B surface antigen and hepatitis C virus antibodies among blood donors in Alexandria, Egypt". *Eastern Mediterranean Health Journal* 17.3 (2011): 238-242.

7. Fallahian F and Najafi A. "Epidemiology of hepatitis C in the Middle East". *Saudi Journal of Kidney Disease and Transplantation* 22.1 (2011): 1-9.

8. Bajubair MA., *et al*. "Hepatic viral infections in Yemen between 2000-2005". *Southern Medical Journal* 29.6 (2008): 871-874.

9. Muhammad SM., *et al*. "Hepatitis B vaccination status of health care worker of two university hospitals". *Journal of Liaquat University of Medical and Health Sciences* 6.2 (2007): 48-51.

10. World Health Organization. "Advocacy, communication and social mobilization for TB control: a guide to developing knowledge, attitude and practice surveys (2008).

11. Good B. "Medicine, rationality, and experience: an anthropological perspective". Cambridge: Cambridge University (1994).

12. Yoder PS. "Negotiating relevance: belief, knowledge, and practice in international health projects". *Medical Anthropology Quarterly* 11.2 (1997): 131-146.

13. Mohammed F. "Quality of Life and Nursing Intervention of Obese Female Employee at Assuit University". PHD. Thesis (2013): 100-105.

14. Centers for Disease Control and Prevention. Summary of notifiable diseases, Un15 (1997).

15. Anjali S and Shikha J. "Prevention of Hepatitis B knowledge and practices among Medical students". *Indian Medical Gazette* 2.2 (2011): 8-11.

16. Muhammad A., *et al*. "Hepatitis B vaccination coverage in medical students at a medical college of Mirpurkhas". *Journal of Pakistan Medical Association* 61.7 (2011): 680-682.

17. Kabir A., *et al*. "Knowledge, attitudes and practice of Iranian medical specialists regarding hepatitis B and C". *Hepatitis Monthly* 10.3 (2010): 176-182.

18. Bharti K and Lala MK. "A study of knowledge, attitude and practice of hepatitis-B infection among the laboratory technicians in the civil hospital, Ahmedabad, Gujarat". *Health Line* 3.1 (2012): 63-65.

19. Rajesh NG and Al Mohani SK. "Epidemiology of Viral Hepatitis B and C Infections in Ibb City, Yemen". *Hepatitis Monthly* 12.7 (2012): 460-462.

20. Babakian T., *et al*. "An assessment of HIV/AIDS risk in higher education students in Yerevan, Armenia". *AIDS and Behavior* 8.1 (2004): 47-61.

21. S Setia., *et al*. "Attitudes and Awareness Regarding Hepatitis B and Hepatitis C Amongst Health-care Workers of a Tertiary Hospital in India". *Annals of Medical and Health Science Research* 3.4 (2013): 551-558.

22. G Velvzhi., *et al*. "Knowledge and Attitude of Medical Students towards Hepatitis B Infection". *International Journal of Current Microbiology and Applied Sciences* 5.6 (2016): 570-576.

Volume 2 Issue 7 October 2018