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Assessment of Knowledge, Attitude and Practice to Hepatitis B and C Virus Infection among Clinical Year Medical Students of Jimma University medical Center, Jimma, Ethiopia

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Abstract

Background: Medical students are high-risk people for blood-borne diseases such as hepatitis B and C virus. Data regarding knowledge of hepatitis B and C has been reported to be low among respondents in different studies. Although several studies were done on HBV and HCV infections among different risk groups, so far there is no published data about factors associated with knowledge, attitude and practice related to hepatitis B and C virus infection among clinical year medical students of Jimma University Medical Center, Jimma, Ethiopia.

Objective: The present study aimed to assess knowledge, attitude and practice of clinical year medical students to hepatitis B virus and hepatitis C virus infection in Jimma University Medical Center, Jimma, Ethiopia.

Methods: Intuitional based cross-sectional study was conducted at Jimma University medical center, Jimma, Ethiopia in January to March 2020.

Results: Two hundred sixteen clinical year medical students participated. Of the total participant, .558 127 (58.8%) male and 89 (41.2%) were female. Most 130 (60.2%) participants were in the ≤ 24 ± .558 years, age groups. 202 (93.5%), of the participant, were single and 14 (6.5%) were married. Of 113 (52.3%), 103 (47.7%) the participants were Year-I and Year-II respectively. Most participants had Good knowledge, positive attitude and Good Practices to hepatitis B virus and hepatitis C virus infection157 (72.7%),162 (75.0%) and 126 (58.3%) respectively.

Conclusion: Regarding the present study participants had good knowledge, positive attitude and Good practice to hepatitis B virus and hepatitis C virus infection. The overall knowledge, attitude, and Practices were not significantly associated with socio-demographic data of the participant of the study.

Keywords: *Knowledge; Attitude; Practices; Clinical Year; Hepatitis*

Introduction

Hepatitis is a serious global public health challenge and is characterized by the inflammation of liver, in severe cases it may lead to liver cirrhosis or hepatocellular carcinoma and ultimately lead to death [1]. Among the leading chronic liver diseases Hepatitis B virus (HBV) and disease Hepatitis C virus (HCV) is the most serious [2]. The infection of these two viruses accounts for a substantial proportion of liver disease worldwide since they have the same modes of Transmissions [3]. Globally, in 2015, an estimated 257 million people were

living with chronic HBV infection and 71 million people with chronic HCV infection which together cause around 96%of hepatitis-related deaths worldwide [4] and the epidemic caused by HBV affects mostly the WHO African Region and the Western Pacific Region [5]. The epidemic caused by HCV affects all regions, with major differences between and within countries. The WHO Eastern Mediterranean Region and the European Region have the highest reported prevalence of HCV [6]. Hepatitis B virus (HBV) and Hepatitis C virus (HCV) are silent killers not yet recognized as major public health problems in many developing countries with huge diseases burden, in Ethiopia Hepatitis B virus (HBV) with an average prevalence's of 10.8% and the prevalence of Hepatitis C (HVC) is 2% [7]. The World Health Organization endorsed the Global Health Sector Strategy (GHSS) for the elimination of viral hepatitis as a public health threat by 2030 (reduction of new infections by 90% and mortality by 65%) [6]. Elimination of HBV and HCV is feasible in Developed Countries because of the characteristics of the viruses, reliable diagnostic tools, and available cost-effective or cost-saving interventions, Broad implementation of infant immunization against HBV, blood safety, and infection-control programs [8]. Even though Ethiopia has prepared a national strategic plan and guidelines for viral hepatitis still lacks the required partnerships, and resource mobilization as a national health response is limited. The clinical and public health burdens due to viral hepatitis, in general, are still not emphasized in the country's health system. Prevention and control of viral hepatitis; viral hepatitis screening services are not widely available except for the occasional mandatory medical checkups for work or travel purposes. Healthcare providers often take no further action after diagnosing patients with viral hepatitis due to a lack of treatment guidelines and strategic frameworks for screening, diagnosis, and treatment. Besides, drugs that are effective in the treatment of viral hepatitis are available but expensive, despite the scientific and programmatic advances, responses to viral hepatitis are fragmented or non-existent in medical students. Clinical year medical students are at high risk of acquiring infection as a result of their direct contact with patients through different routes. Success in the prevention of hepatitis B and C depends to a large extent on the adult level of knowledge and practice. Although several studies were done on HBV and HCV infections among different risk groups, so far there is no published data about factors associated with KAP related to viral hepatitis among clinical year medical students of Jimma University. Therefore, this study tried to assess factors associated with KAP related to Hepatitis B and C virus infection among clinical year medical students of Jimma University, Ethiopia.

Prevention is the only safe strategy against a high prevalence of HBV and HCV, having enough knowledge and proper attitude and safe practice towards this infection are the corner-stones of preventing the spread of the virus. The significance of this study is to describe the KAP towards Hepatitis B and C viral infection among clinical year medical students of Jimma University, which enable to identify the gap of KAP in the study population to reduce all the effects of HBV and HCV on medical students and health professionals. The result of this study serves as baseline information, helps health managers, health care providers to develop prevention strategies and improve the level of knowledge attitude and practice towards hepatitis infection.

Materials and Methods

Study design and period

Institutional based cross-sectional study was conducted to assess knowledge, attitude, and practice to Hepatitis B and C virus infection among clinical year medical students of Jimma University Medical Center, Jimma, Ethiopia in January to March 2020.

Source population and Study population

All clinical year medical students of Jimma University who are available on the campus during the study period and who meet the inclusion criteria and consented for this study.

Data collection instrument and methods

The data was collected from study subjects using pre-tested structured questioner adopted from previous similar studies and were modified to fit the local situations containing items to assess KAP towards hepatitis B and C. The questionnaire consisted of 30 questions divided into 4 sections that cover questions to assess socio-demographic characteristics, and the rest on knowledge, attitude, and practices of respondents. The questionnaire has a guideline that guides the interviewer and explains to the study participants the purpose and use of the survey.

Sampling procedure and sample size

The sample size (n) required for the study was calculated using the formula to estimate a single population proportion by considering the following assumptions. Zα/2 = Critical value for normal distribution at 95% confidence level which equals 1.96 (Z value at alpha=0.05). P = Estimated proportional of the level of good knowledge (since the level KAP of clinical year medical student is unknown so, we take 50%), d = Margin of error of 0.05 and using 10% of none respondent rate, it was established that an adequate sample size would comprise 384. Since our source population is less than 10,000, by using correction formula our finale sample would be 216.

Data processing and analysis

After collecting, the data were cleaned and checked for completeness and consistency. The data generated were analyzed using Statistical Package for Social (SPSS version 24) for analysis using binary and multivariable logistic regression to determine the frequency, percentage and association between dependent and independent variables. We checked all factors with p-value < 0.25 in the bivariate logistic regression analysis for further cofounding effects controlled by multiple logistic regression. The crude and adjusted odds ratios with a 95% confidence interval reported to measure the strength of the association between independent and dependent variables. The result of multivariate logistic regression was considered as statistical significance at $p < 0.05$.

Result

Socio-demographic characteristic of the clinical year medical students

A total of 216 clinical year medical students participated in the study the response rate was 100%. More than half of the study subjects 127 (58.8%) were male while the remaining 89 (41.2%) were female. The most age distributions of the participants were < = 24 age groups 130 (60.2%). 79 (36.6%) and 7 (3.2%) were in the age group of 25 - 30 and >= 30 respectively. Ninety-eight 98 (45.4%) were orthodox Christians while 56 (25.9%), 43 (19.9%) and 19 (8.8%) were Muslim, protestant and catholic respectively. Of the participants, 202 (93.5%) were married. Data on educational level showed that 113 (52.3%) were clinical year one and 103 (47.7%) were clinical years 2 students (Table 1).

Clinical year medical students knowledge to hepatitis B and C virus infection

Regarding the knowledge of the participant 214 (99.1%) of them heard about hepatitis B and C Virus, 212 (98.1%) awarded isolation of Hepatitis patients. Out of 216 participants 212 (98.1%) of the respondent correctly answered Hepatitis B and C affect liver function, 194 (89.8%) participants answered Health care professionals are at increased risk of Hepatitis B and C virus, about the route of transmission of hepatitis B and C viral infection 170 (78.7%) correctly identified route of transmission such as un-sterilized syringes, needles, surgical instruments, unsafe sex, sharing of sharp material and mother to child. Out of 216 participants, 157 (72.7%) of the participant knew the causes of hepatitis B and C viral infection. All of the participants 216 (100.0%have no history of hepatitis. while about 187 (86.6%) knew that HBV and HCV carriers, although they look healthy, can easily infect others. Majority 144 (66.7%) of the study participants responded that hepatitis B and C infection are life-threatening and 206 (95.4%) of the respondent are no aware of the availability of vaccine which prevents hepatitis B and C infection and 210 (97.2%) of the respondent were not answered hepatitis B and C have treatment (Table 2). The overall Knowledge of the participants was summed and estimated after calculated mean scores. Which resulted in a mean score of 6.9722 (± 1.29369 SD). The maximum score was 10.00, the minimum score was 2.00 and the median was 7.00. Based on the response of those clinical year medical students scored the mean and above the mean ≥ 6.9722 of, Hepatitis B and C Virus Knowledge statement were considered as having good Knowledge 126157 (72.7%). Whereas Clinical year medical students who scored less than mean score (< 6.9722) of Knowledge statement were considered as having poor Knowledge towards to Hepatitis B and C Virus infection accounts 59 (27.3%) (Table 5).

Socio demography data	Category	Frequency N (%)
Age	≤ 24	130 (60.2%)
	25 - 30	79 (36.6%)
	≥30	7 (3.2%)
Sex	Male	127 (58.8)
	Female	89 (41.2%)
Religions	Orthodox	98 (45.4%)
	Muslim	56 (25.9%)
	Protestant	43 (19.9%)
	Catholic	19 (8.8%)
Marital status	Single	202 (93.5%)
	Marriage	14 (6.5%)
Education Status	Year-I	113 (52.3%)
	Year-II	103 (47.7%)

Table 1: *Socio-demographic Data of clinical year medical students in Jimma University Medical Center, Jimma, Ethiopia (n = 216).*

Statements	Yes N (%)	No N (%)
1. Do you know or have you heard of Hepatitis B and C?	214 (99.1%)	2 (0.9%)
2. Hepatitis patients are required to be kept in isolation	212 (98.1%)	4 (1.9%)
3. Can Hepatitis B and C affect liver function?	212 (98.1%)	4 (1.9%)
4. Health care professionals are at increased risk of Hepatitis B and C virus?	194 (89.8%)	22 (10.2%)
5. Can Hepatitis B and C be transmitted by un-sterilized syringes, needles, surgical instruments, unsafe sex, sharing of sharp material and mother to child?	170 (78.7%)	46 (21.3%)
6. Do you know the cause of Hepatitis B and C virus?	157 (72.7%)	59 (27.3%)
7. Do you have a history of hepatitis?	0 (0.0%)	216 (100.0%
8.HBV and HCV carriers (although they look healthy) can easily infect others	187 (86.6%)	29 (13.4%)
9. Are hepatitis B and C life-threatening?	144 (66.7%)	72 (33.3%)
10. Do you think that vaccine can prevent hepatitis B and C infections?	10 (4.6%)	206 (95.4%)
11. Do you think that hepatitis B and C have treatment?	6 (2.8%)	210 (97.2%)

Table 2: *Distributions of clinical year medical students knowledge to hepatitis B and C virus infection in Jimma University Medical Center, Jimma, Ethiopia (n = 216).*

Clinical year medical students Attitude to Hepatitis B and C Virus Infection

Attitude towards HBV was assessed by asking six questions with liker scales (Agree = 2, Neural = 1, and Disagree = 0). All participants 216 (100.0% believed that hepatitis B and C are serious public health challenges, more than half 207 (95.8%) of the participants believe that their job does put them at high risk of acquiring HBV and HCV. 197 (91.2%) of the participants are aware that healthy people need vaccination, 216 (100.0%) of the participants disagreed changing of gloves during blood collection and tests is waste of time, Most of the participants 185 (85.6%) believed all patients should be tested for HBV and HCV before they receive health care and Most of the participant 201 (93.1%) would like to get vaccinated for hepatitis B free of cost (Table 3). The overall attitude of the participants was summed

and estimated after calculated mean scores. Which resulted in a mean score of 9.5880 (± 0.82498). The maximum score was 10.00 and the minimum score was 7.00. Based on the response those clinical year medical students scored the mean and above the mean ≥ 9.5880 of Hepatitis B and C Virus attitude statement was considered as having positive (favorable) attitude 162 (75.0%). Whereas Clinical year medical students who scored less than mean score (< 9.5880) of attitude statement scale were considered as having a negative (unfavorable) attitude towards to Hepatitis B and C Virus infection accounts 54 (25.0%) (Table 5).

Statements	Agree N (%)	Neutral N (%)	Disagree N (%)
1. Hepatitis B and C are serious public health challenges.	216 (100.0%	0 (0.0%)	0 (0.0%)
2. Your job puts you at a high risk of acquiring Hepatitis B and C virus.	207 (95.8%)	0 (0.0%)	9 (4.2%)
3. Healthy people need Hepatitis B and C vaccination.	197 (91.2%)	19 (8.8%)	0 (0.0%)
4. Changing of gloves during blood collection and tests is a waste of time	0 (0.0%)	0 (0.0%)	216 (100.0%)
5. All patients should be tested for HBV and HCV before they receive health care	185 (85.6%)	31 (14.4%)	0 (0.0%)
6. You must receive hepatitis B and C vaccine free of cost	201 (93.1%)	9 (4.2%)	6 (2.8%)

Table 3: *Distributions of clinical year medical students' attitudes to hepatitis B and C virus infection in Jimma University Medical Center, Jimma, Ethiopia (n = 216).*

Clinical year medical students practice to hepatitis B and C virus infection

Practice towards hepatitis B and C infection assessed by asking 8 questions with yes or no answer. Among 216 participants 203 (94.0) were no exposed to sharp injury in their work area, 13 (6.0%) were exposed to sharp injury in their work area, 203 (94.0) participants were not tested hepatitis were as 13 (6.0%) tested hepatitis after sharp injury in their work area. Of 178 (82.4%) had hepatitis B and C screening. All participants 216 (100.0%) were asked for a screening of blood before transfusion and all of them 216 (100.0%) were asked a new syringe before use, 188 (87.0%) of the participants were asked barber or hairdresser for new or clean material, 153 (70.8%) had not to use a condom during sexual contact out of spouse and 139 (64.4%) had participated in health education program related to hepatitis B and C virus (Table 4). The overall Practice of the participants was summed and estimated after calculated mean scores. Which resulted in a mean score of 4.7500 (± 0. 97049). The maximum score was 8.00, the minimum score was 3.00 and the median was 5.00. Based on the response of those clinical year medical students scored the mean and above the mean ≥ 4.7500 of Hepatitis B and C Virus practice statement was considered as having good practice 126 (58.3%). Whereas Clinical year medical students who scored less than mean score (< 4.7500) of practice statement were considered as having poor practice towards to Hepatitis B and C Virus infection accounts 90 (41.7%) (Table 5-8).

Statements	Yes N (%)	No N (%)
1. Do you have exposure to sharp injury in your work area?	13 (6.0%)	203 (94.0)
2. Do you test after a sharp injury?	13 (6.0%)	203 (94.0)
3. Have you done screening for hepatitis B and C?	178 (82.4%)	38 (17.6%)
4. Do you ask for a screening of blood before transfusion?	216 (100.0%)	0 (0.0%)
5. Do you ask for a new syringe before use?	216 (100.0%)	0 (0.0%)
6. Do you ask the barber/ hairdresser to use a new blade or clean equipment before the procedure?	188 (87.0%)	28 (13.0%)
7. Do you use condom always during sexual contact out of a spouse	63 (29.2%)	153 (70.8%)
8. Have you ever participated in a health education program related to hepatitis B and C virus?	139 (64.4%)	77 (35.6%)

Table 4: *Distributions of clinical year medical students practice to hepatitis B and C virus infection in Jimma University Medical Center, Jimma, Ethiopia (n = 216).*

Domain	Minimum score	Mean score	Maximum score	Range	Category	N (%)
Knowledge	2.00	6.9722	10.00	≥ Mean score	Good Knowledge	157 (72.7%)
				< Mean score	Poor Knowledge	59 (27.3%)
Attitude	7.00	9.5880	10.00	≥ Mean score	Positive Attitude	162 (75.0%)
				< Mean score	Negative Attitude	54 (25.0%)
Practices	3.00	4.7500	8.00	≥ Mean score	Good Practice	126 (58.3%)
				< Mean score	Poor Practice	90 (41.7%)

Table 5: *Overall assessment clinical year medical students knowledge, attitudes, and practices to hepatitis B and C virus infection in Jimma University Medical Center, Jimma, Ethiopia (n = 216).*

		Knowledge		COR (95%CI)	AOR (95%CI)
Socio demography data	Category	Good Knowledge	Poor Knowledge		
Age	<=24	94 (59.9%)	36 (61.0%)	3.481 (0.74 - 16.328)*	0.292 (0.060 - 1.427)
	25 - 30	60 (38.2%)	19 (32.2%)	4.211 (0.86 - 20.511)*	0.243 (0.048 - 1.232)
	>=30	3 (1.9%)	4 (6.8%)	1	
Sex	Male	64 (40.8%)	25 (42.4%)	1.068 (0.583 - 1.960)	0.945 (0.512 - 1.744)
	Female	93 (59.2%)	34 (57.6%)	1	
Marital status	Single	147 (93.6%)	55 (93.2%)	1.069 (0.322 - 3.550)	1.121 (0.318 - 3.956)
	Marriage	10 (6.4%)	4 (6.8%)	1	
Education Status	Year - I	80 (51.0%)	33 (56.0%)	0.819 (0.448 - 1.494)	1.142 (0.619 - 2.104)
	Year - II	77 (49.0%)	26 (44.0%)	1	

Table 6: *Association factors with knowledge of clinical year medical students to hepatitis B and C virus infection.*

**p < 0.05, r = Reference, AOR = Adjusted Odds Ratio, COR = Crudes Odds Ratio, CI = Confidence Interval.*

		Attitude		COR (95%CI)	AOR (95%CI)
Socio demography data	Category	Positive Attitude	Negative Attitude		
Age	≤ 24	98 (60.5%)	32 (59.3%)	0.510 (0.059 - 4.401)	0.292 (0.060 - 1.427)
	25 - 30	58 (35.8%)	21 (38.9%)	0.460 (0.052 - 4.052)	0.243 (0.048 - 1.232)
	≥ 30	5 (3.1%)	2 (3.7%)	1	
Sex	Male	96 (59.3%)	31 (57.4%)	1.079 (0.578 - 2.014)	0.945 (0.512 - 1.744)
	Female	66 (40.7%)	23 (42.6%)	1	
Marital status	Single	150 (92.6%)	52 (96.3%)	0.481 (0.104 - 2.220)	1.121 (0.318 - 3.956)
	Marriage	12 (7.4%)	2 (3.7%)	1	
Education Status	Year - I	80 (49.4%)	33 (61.1%)	0.621 (0.331 - 1.163)*	1.142 (0.619 - 2.104)
	Year - II	82 (50.6%)	21 (38.9%)	1	

Table 7: *Association factors with attitudes of clinical year medical students to hepatitis B and C virus infection.*

**p < 0.05, r = Reference, AOR = Adjusted Odds Ratio, COR = Crudes Odds Ratio, CI = Confidence Interval.*

		Practice		COR (95%CI)	AOR (95%CI)
Socio demography data	Category	Good Practice	Poor Practice		
Age	< = 24	83 (65.9%)	47 (52.2%)	4.415 (0.824 - 23.651)*	0.233 (0.042 - 1.303)
	25 - 30	41 (32.5%)	38 (42.2%)	2.697 (0.494 - 14.738)	0.384 (0.067 - 2.197)
	> = 30	2 (1.6%)	5 (5.6%)	1	
Sex	Male	79 (62.7%)	48 (53.3%)	1.471 (0.849 - 2.548)*	0.656 (0.374 - 1.148)
	Female	47 (37.3%)	42 (46.7%)	1	
Marital status	Single	120 (95.2%)	82 (91.1%)	1.951 (0.653 - 5.833)*	0.562 (0.180 - 1.756)
	Marriage	6 (4.8%)	8 (8.9%)	1	
Education Status	Year - I	68 (54.0%)	45 (50.0%)	1.172 (0.682 - 2.015)	0.806 (0.462 - 1.407)
	Year - II	58 (46.0%)	45 (50.0%)	1	

Table 8: *Association factors with practice of clinical year medical students to hepatitis B and C virus infection*

**p < 0.05, r = Reference, AOR = Adjusted Odds Ratio, COR = Crudes Odds Ratio, CI = Confidence Interval.*

Discussion

Viral hepatitis is considered one of the serious public health problems mostly in the developing countries as it can lead to fatal consequences of liver cirrhosis and hepatocellular and mostly hepatocellular carcinoma and cirrhosis are end stages clinical manifestation of chronic hepatitis B Virus and chronic Hepatitis C virus carcinoma [9,10]. KAP surveys have been used as important sources of data to design health intervention methods and public health policies. In Jimma university medical center, there is a scarcity of data regarding the knowledge, attitude, and practices towards HBV and HCV infection among clinical year medical students hence the current study sought to evaluate the knowledge, attitude and practice of clinical year medical students to Hepatitis B virus (HBV and Hepatitis C Virus (HCV) infections at Jimma University Medical center, Jimma, Ethiopia.

In the present study 157 (72.7%) of participants had good knowledge of the Hepatitis B virus (HBV and Hepatitis C Virus (HCV) infections. Almost all 214 (99.1%) of them heard about hepatitis B and C Virus, 212 (98.1%) awarded isolation of Hepatitis patients. Out of 216 participants 212 (98.1%) of the respondent correctly answered Hepatitis B and C affect liver function, 194 (89.8%) participants answered Health care professionals are at increased risk of Hepatitis B and C virus, about the route of transmission of hepatitis B and C viral infection 170 (78.7%) correctly identified route of transmission such as un-sterilized syringes, needles, surgical instruments, unsafe sex, sharing of sharp material and mother to child. Out of 216 participants, 157 (72.7%) of the participant knew the causes of hepatitis B and C viral infection. All of the participants 216 (100.0%have no history of hepatitis. while about 187 (86.6%) knew that HBV and HCV carriers, although they look healthy, can easily infect others. Majority 144 (66.7%) of the study participants responded that hepatitis B and C infection are life-threatening and 206 (95.4%)of the respondent are no aware of the availability of vaccine which prevents hepatitis B and C infection and 210 (97.2%) of the respondent were not answered hepatitis B and C have treatment this were in line with the study done in, Malaysia on international student [11] in Gondar on health professional [12], in Addis Ababa on health care professional [13] and contradicted the study was done in Turkish [14], and in Iran on medical students [15]. This is might be due to geographical variation and sample size differences. The find in this study showed that over knowledge level was not significantly associated with Socio-demographic data of the participant such as age, sex marital status, and education level. This finding was similar to the study conducted in Sudan [16] and contradicted another study in Sudan study [17]. The difference may be the difference between the study subject and the sample size.

According to overall Attitude to Hepatitis B virus (HBV) and Hepatitis C Virus (HCV) infections162 (75.0%) of the participant had a Positive (Favorable) attitude. All participants 216 (100.0%) believed that hepatitis B and C are serious public health challenges, More than half 207 (95.8%) of the participants believe that their job does put them at high risk of acquiring HBV and HCV., 197 (91.2%) of the participants are aware that healthy people need vaccination, 216 (100.0%) of the participants disagreed changing of gloves during blood collection and tests is waste of time, Most of the participants 185 (85.6%) believed all patients should be tested for HBV and HCV before they receive health care and Most of the participant 201 (93.1%) would like to get vaccinated for hepatitis B and C free of cost, this study in line with the study done in Pakistan on University students [18], this study were challenged the study done in Malaysia on international student [11]. The finding of the present study reveals that the overall attitude scale was not significantly associated with age, sex marital status and education level of the participant of the study.

In his study 126 (58.3%) of the participant had good practice to Hepatitis B virus (HBV) and Hepatitis C Virus (HCV) infections. Practice towards hepatitis B and C infection assessed by asking 8 questions with yes or no answer. Among 216 participants 203 (94.0) were no exposed to sharp injury in their work area, 13 (6.0%) were exposed to sharp injury in their work area, 203 (94.0) participants were not tested hepatitis were as 13 (6.0%) tested hepatitis after sharp injury in their work area. Of 178 (82.4%) had hepatitis B and C screening. All participants 216 (100.0%) were asked for a screening of blood before transfusion and all of them 216 (100.0%) were asked a new syringe before use, 188 (87.0%) of the participants were asked barber or hairdresser for new or clean material, 153 (70.8%) had not to use a condom during sexual contact out of spouse and 139 (64.4%) had participated in health education program related to hepatitis B and C virus.

Regarding the association of socio-demographic data of the participant such as age, sex, marital status and education level were not significantly associated with the overall knowledge, attitudes, and practices of the participants of this study.

Conclusion

In this study much more than half of the respondents had good knowledge, positive attitude and good practice to hepatitis B and C viral infection, The knowledge, attitude and practice of the participants were not significantly associated with their sociodemographic data such as age, sex, Marital status, and education level.

The Study Limitations

We believed that our finding has same limitations. The first is the nature of the study design, in cross-sectional study design, the fundamental interferences may not be drawn and association can be influenced by cofounding variables, second, the study was conducted only in one medical center the result regarding clinical year medical students knowledge, attitude and practice to hepatitis B virus and hepatitis C virus infection, cannot be generalized.

Conflict of Interest

The authors declare that they have no conflict of interest.

Data Availability of data and Materials

Not applicable.

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