Journal of Medicine, Physiology and Biophysics www.iiste.org
ISSN 2422-8427 An International Peer-reviewed Journal DOI: 10.7176/JMPB
Vol.72, 2022

ASSESSMENT OF KNOWLEDGE, ATTITUDE AND PRACTICE TOWARDS HEPATITIS C AMONG CLINICAL MEDICAL STUDENTS OF CHUKWUEMEKA ODIMEGWU OJUKWU UNIVERSITY (COOU), AMAKU, AWKA, ANAMBRA STATE

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ABSTRACT

Presently, there are so many viral diseases flying across the globe, of which hepatitis, a disease of the liver is one of them. This disease is caused by various strains of the hepatitis virus (A, B, C, D and E). Hepatitis C virus is a highly contagious virus that is majorly responsible for chronic liver disease across the globe. HCV infection is a blood-borne infection that is transmitted through contact with infected blood by reuse or insufficient sterilization of needles or sharp objects, transfusion of unscreened blood, sharing injection materials by drug users and perinatal transmission (mother to child). HCV infection prevalence is high in sub-Saharan region, where it is the cause of hundreds of thousands of deaths annually. Medical students, a great population of the health workers, are at most risk of the infection because they are mostly the first direct contact of patients in a healthcare facility. And so, there is need for them to be well aware of the viral infection and its mode of transmission.

This study is aimed at assessing the knowledge, attitude, and practice towards the infection as this will help curtail transmission of the virus. 147 clinical medical students were sampled for the purpose of this study using a 31-item self-administered questionnaire to extract the necessary information. SPSS 28.0 was used for data entry and analysis, alongside Chi-square test that evaluated the connection between variables, a p-value of less than 0.05 was regarded as statistically significant.

The result showed that in practice, 20.5% of respondents avoid HCV patients, and 15.6% do not wear gloves when attending to patients. For vaccination, 27.4% of the respondents were not immunized against the virus. The study found a strong correlation between students' ages and their mean Knowledge, Attitude, and Practice scores (p-value=0.014).

This study revealed that 46% of respondents believed that people with hepatitis C should be quarantined. This unfavorable attitude may increase stigmatization of people with hepatitis C in society. Sadly, our survey reveals that 63.7% of respondents had no clue about the protocols that should be followed after a needle injury. This is a dangerous finding because each clinical student should be familiar with these protocols in order to reduce the risk of contracting an infection.

In conclusion, there is a very important and urgent need to increase sensitization among clinical medical students as a whole lot of them have poor practice and attitude towards the virus.

Keyword: Hepatitis C Virus, Clinical Medical Students, Anambra State
DOI: 10.7176/JMPB/72-09
Publication date: November 30th 2022

Introduction

The liver disease viral hepatitis is characterized by liver inflammation and, frequently, irreversible liver tissue destruction. (1) The virus has five recognized strains: A, B, C, D, and E. (1,2). Along with hepatitis B virus, hepatitis C virus (HCV) infection is a form of infectious liver disease (3) and a major global cause of chronic liver disease (4). There is presently no vaccination for HCV, a blood-borne virus that is 10 times more contagious than HIV (5). An RNA virus belonging to the Flaviviridae family called HCV, which causes the infectious illness hepatitis C (6). Hepatitis C is a liver infection brought on by the hepatitis C virus (7). The hepatitis C infection could be a blood borne infection. It is most commonly transmitted through 1. the reuse or insufficient sterilization of therapeutic hardware particularly syringes and needles in healthcare settings; 2. the transfusion of unscreened blood and blood items; and 3. infusing medicate utilize through the sharing of infusion gear. HCV can be passed from a contaminated mother to her infant and through sexual hones that lead to introduction to blood, be that as it may, these modes of transmission are less common. (7)

Approximately 170 million individuals get tainted with HCV annually all over the globe (3). Around 30% (15–45%) of tainted people suddenly clear the infection inside 6 months of disease without any treatment. The remaining 70% (55–85%) of people will create persistent HCV disease. Of those with unremitting HCV contamination, the chance of cirrhosis ranges from 15% to 30% inside 20 a long time (7). An evaluated 58 million individuals have incessant hepatitis C infection contamination, with around 1.5 million new contaminations happening per year. There are an assessed 3.2 million teenagers and children with hepatitis C disease (7). Mortality from viral hepatitis is on the rise all-inclusive and it is assessed that around 48% of the assessed 1.4 million patients that come about from viral hepatitis in 2013 were inferable to hepatitis C contamination (4). Nine million individuals are chronically tainted within the African Locale (7). The sub-Saharan African locale has been detailed to have direct predominance extending from 1.5-3.5%. In Nigeria, the occurrence of HCV is 2.2% (5).

Clinical medical students' general knowledge and attitude about viral hepatitis and its transmission and prevention can stop the spread of this disease in hospitals and society because they face the risk of percutaneous injuries, which increases their risk of contracting blood-borne infections like the hepatitis B and C viruses. (1, 11)

Due to their frequent interaction with hepatitis C patients during their studies and as future healthcare providers, clinical medical students; knowledge of and attitudes toward HCV infection are crucial in reducing the diseases spread among them and their patients. (8) The junior members of the clinical staff are interns, post-graduate students, and clinical medical students in their last year. They meet patients for the first time in actual clinical settings. They might take part in a particular process. Therefore, without the correct information and clinical exposure, they could become infected with hepatitis C. (9)

With this in mind, this study aims at determining the level of knowledge and attitude of Chukwuemeka Odumegwu Ojukwu University Clinical medical students towards Hepatitis C virus.

Materials and Methods

Study Design and Population

The level of knowledge and attitude of clinical medical students in Chukwuemeka Odumegwu Ojukwu teaching hospital about hepatitis C infection was determined using a cross-sectional design approach which was carried out between 8th of January till 15th of January 2022. The Chukwuemeka Odumegwu Ojukwu Teaching Hospital provides us with the total number of clinical medical students as well as their distribution throughout the several strengths.

Sample Size Calculation

Due to the lack of a precise random selection that included the names of every clinical student at the teaching hospital, we were unable to use arbitrary examination. Hence 147 clinical medical students were involved in our study after using appropriate sample size adopted based on the below Yamane's sample size formula.

$$\text{Sample size (n)} = \frac{N}{1+Ne^2}$$

Where:
n = Required sample size
N= Population of the study group (200)
d = Level of precision or marginal error = 0.05(5%)

$$n = \frac{200}{1+200(0.05)^2} = 133.4$$

Considering the attrition of 10%, the sample size becomes approximately 147.

Study Questionnaire

A 31-item, self-administered questionnaire with five components which was employed. Sixteen (16) questions evaluated knowledge regarding Hepatitis C (HC), five (5) questions assessed attitude, five (5) questions explored practices regarding HC, and five (5) questions evaluated the respondent's vaccination status in addition to the socio-demographic and student work-related characteristics. After doing a thorough literature research, the questions were created.

Statistical Analysis

SPSS 28.0 was used for data entry and analysis. The sociodemographic information, as well as the knowledge, attitude, and practice levels about HC, served as the study's predictor variables. The respondents' level of

immunization served as the study's outcome variable. Chi-square test evaluated the connection between variables, a p-value of less than 0.05 was regarded as statistically significant.

Results

The result of the study has a male to female proportion of 3:4. A large portion of the members were clinical medical students of Chukwuemeka Odimegwu Ojukwu teaching hospital Awka. The demography of the 147 respondents is displayed in Table 1.

For Practice assessment the outcomes showed that 20.5% of respondents try not to manage HC patients, and 15.6% of specialists don't wear gloves when they manage the patients. For Vaccination status 35.4% of respondents were not immunized against HC. The age group of clinical medical students who participated most in this research work stands out to be at the range of 20 -30 years with approximately 63.3% of the respondents.

Table 1: Descriptive statistics of the study respondents.

Characteristics	**N=147**	**Percentage**
GENDER		
Male	59	40.0%
Female	88	60.0%
STUDENT LEVEL		
4th Level	57	39%
5th Level	6	4.0%
Final year	84	57.1%
AGE GROUPS, YEARS		
20-30	93	63.3%
31-40	34	23.1%
> 40	20	13.6%
VACCINATION STATUS:		
Vaccinated	95	64.6%
Not vaccinated	52	35.4%
TOTAL	147	100%

Table 2: Association Between (Knowledge, Attitude and Practice) Scores And Respondents' Characteristics

	Knowledge (p-value)	**Attitude (p-value)**	**Practice (p-value)**
Age	0.00	0.01	0.92
Gender	0.63	0.74	0.77
Students Level	0.00	0.02	0.01
Vaccination Status	0.08	0.16	0.01

DOI: 10.7176/JMPB
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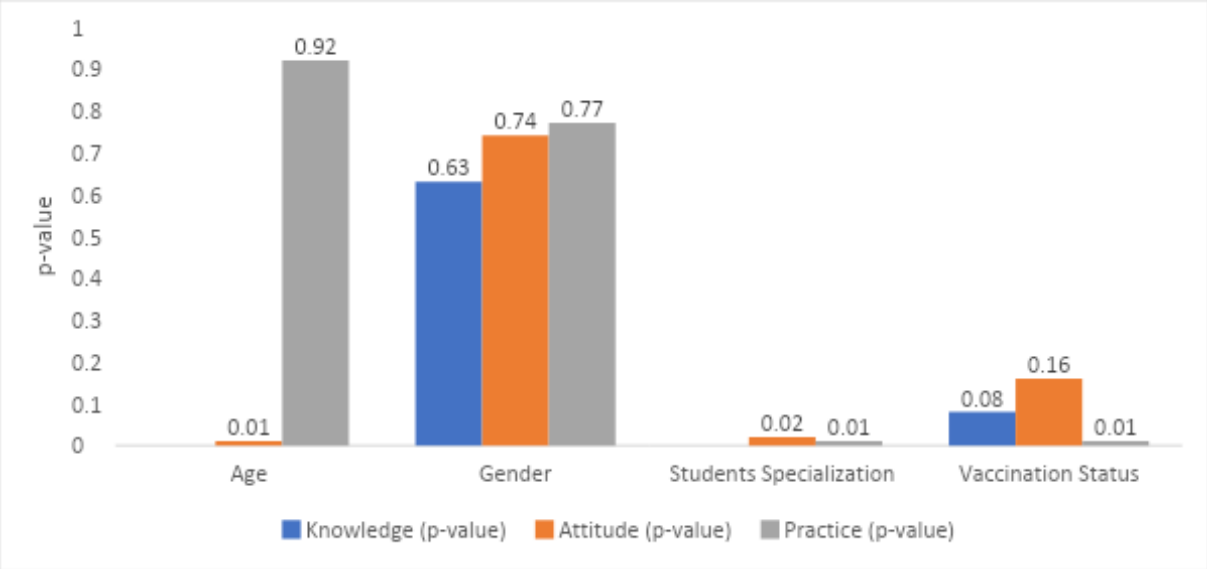

Fig 1: Association of KAP scores with respondents' characteristics

Correlation Results

The study found a strong correlation between students' ages and their mean Knowledge, Attitude, and Practice scores (p-value=0.014); however, this connection was weak (Cramer's V score = 0.231). There was no correlation between respondents' orientation and their mean Knowledge, Attitude and Practice score (p-value = 0.422). Additionally, there is a significant correlation (p-value 0.001) between the respondents' level of knowledge and their positive behavior toward Hepatitis C. Additionally, the study demonstrated a substantial (p-value=0.029) and strongly significant (Cramer's V score =0.512) correlation between respondents' knowledge levels and their vaccination status. Finally, this study showed that there is a moderate correlation between respondents' mean Knowledge, Attitude, and Practice scores and their vaccination status (p-value = 0.008; Cramer's V score = 0.239).

Discussion of findings

The goal of the continuing study was to assess clinical medical students at Chukwuemeka Odimegwu Ojukwu teaching hospital University's Knowledge, Attitude, and Practice scores concerning Hepatitis C. Clinical medical students need to control HC immediately. According to the inquiry, there is a significant correlation between respondents' ages and the mean Knowledge, Attitude, and Practice score (p-value=0.014; Cramer's V score=0.231).

The students' level was associated with the most notable Knowledge, Attitude, and Practice scores (37.61% of the student's level scored "excellent" in this study; p-value = 0.021); According to this study, 49.21% of the respondents had a moderate level of knowledge on hepatitis C.

This study revealed that 46% of respondents believed that people with hepatitis C should be quarantined. This unfavorable attitude may increase stigmatization of people with hepatitis C in society. Sadly, our survey reveals that 63.7% of respondents had no clue about the protocols that should be followed after a needle injury. This is a dangerous finding because each clinical student should be familiar with these protocols in order to reduce the risk of contracting an infection.

The findings indicated that general awareness of Hepatitis C, its method of transmission, and its prophylaxis was quite high (61.32%). The majority of respondents were aware that contact with contaminated objects, such as needles or blood, increases one's risk of contracting hepatitis C. It is disheartening to note that 16.2% of survey participants did not use gloves when managing patients, which is a dangerous symptom of insensitive behavior towards this condition.

64.4% of those who have received the hepatitis vaccine feel it to be highly successful and that it should be made mandatory, which is extremely consistent with recent literature **[1].**

Additionally, this study found that final year students have the highest mean Knowledge, Attitude, and Practice scores among all clinical student level (such as 4th level and 5th level students) and immunized respondents have higher mean knowledge, attitude, and practice scores than non-immunized respondents. The mean Knowledge,

Attitude, and Practice score of the respondents and their immunization status had a moderate connection (p-value=0.025).

Conclusion

Viral hepatitis is a global mayhem that needs curtailing as it is wreaking havoc. It is the main cause of chronic liver disease globally. It is transmitted through contact with infected blood. The population at most risk is the health workers as they are on the frontline in healthcare institutes. Medical students happened to be major constituents of the health workers, and so, there is need to ensure they have ample knowledge, positive attitude and practice towards the virus. This infection is highly preventable by taking the necessary preventive measures and getting vaccinated against the virus. This gave rise to this study that assessed the knowledge, attitude and practice of Chukwuemeka Odumegwu Ojukwu University Clinical medical students towards hepatitis C virus. The result of the study showed that a great percentage of the students have a very poor practice and attitude towards the virus.

There is need for more and proper sensitization among the students. This will help reduce occupational exposure to the virus.

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