ORIGINAL ARTICLE

Assessment of Knowledge about Hepatitis C Virus among Attendants of the patients visiting medical ward of Services Hospital, Lahore

HANNANA AKHTAR[1], ROHMA AKHTAR[2], MOSHAYYADAH AKHTAR[3], *BUSHRA NOSHEEN[4], RANA MUHAMMAD AKHTAR KHAN[5]*

ABSTRACT

Background: Hepatitis is a disease of the liver that causes inflammation of liver, potentially resulting in permanent damage. In Pakistan more than 10 million people are living with Hepatitis C virus (HCV), with high morbidity and mortality. Hepatitis C Virus is one of the major life threatening diseases now a days and it is very important for the general population to have knowledge about this disease. So, this study was conducted to assess awareness among the people regarding this disease.

Aims: To assess the knowledge about Hepatitis C Virus among attendants, to assess the awareness among attendants about the modes of transmission and risk factors of hepatitis C Virus and to make recommendations for the prevention and control of Hepatitis C Virus.

Methods: A descriptive cross sectional study was carried out in medical wards of Services Hospital Lahore in the month May-July 2015. A total of 74 attendants of the patients were selected by Non-probability convenient sampling technique and were questioned about the awareness of Hepatitis C Virus. Knowledge about Hepatitis C Virus was then analyzed by SPSS version 20.

Results: Among all respondents, 63.5%were males and 36.48% were females. Men were more knowledgeable then females. Awareness was high among respondents of age group 21-40. According to 86.5% respondents, the transmission of disease was through sharing of various equipments. 87.8% of the respondents were having the opinion that the disease can be prevented by using screened blood. 75.7% of the respondents knew about vaccination against Hepatitis C Virus.

Conclusions: Poor knowledge score was observed in12.2% of the respondents and moderate knowledge score in 51.8% of the respondents. Therefore health education program should be started in the community.

Keywords: Hepatitis C virus, knowledge, morbidity and mortality

INTRODUCTION

Hepatitis is a medical condition defined as the inflammation of the liver. Hepatitis infections can be acute or chronic, and people may die from them. The disease can be caused by many different factors, including infectious organisms, chemical toxins, poisons, drugs, and alcohol. Unlike non-viral hepatitis, which can be caused by any number of noninfectious means, viral hepatitis is caused by one of six different viruses: hepatitis A, hepatitis B, hepatitis C, hepatitis D, hepatitis E, or hepatitis G[1].

According to the World Health Organization (WHO), it has been estimated that up to 3% of the world's population has been infected with hepatitis C virus (HCV)[3], of which 170 million people are chronically infected, and an additional 3 to 4 million people are infected each year. Infections of HBV and HCV are by far the most prevalent, and their consequences can be serious[4].

World Health Organization has been intensifying its efforts to support countries in addressing viral hepatitis. The Global Hepatitis Program was established in 2011 following a World Health Assembly resolution which also identified July 28, World Hepatitis Day as an official WHO Day[2]. Most morbidity and mortality result from the chronic form of viral hepatitis caused by hepatitis B virus (HBV) and hepatitis C virus (HCV) infection[5]

Pakistan is an endemic area for hepatitis C Virus. According to a recent study, prevalence of HCV in Pakistan is about 5%.In Pakistan; the victims of Hepatitis B and C exceed 12 million. A surge in Hepatitis C has been recorded in the country while there is a decline in hepatitis B. However the awareness level about these diseases remains low[6].

A large proportion of Pakistani population is unaware about the epidemiology, causes and risk factors of viral hepatitis. Although the screening and diagnostic recommendations advocate early detection of HCV[7] but most of the victims of viral infections are brought to the hospitals in Pakistan when they are at the end stages of liver damage. The late diagnosis increases the risk of Hepatocellular carcinoma and decrease the effect of antiviral therapies[8].

Public health authorities are creating awareness programs about hepatitis through print and electronic media, but still tremendous efforts are required to increase the awareness regarding various risk factors involved in hepatitis transmission[9].

Transmission of HCV is through blood[10], so persons who are receiving injections or dental treatments or unchecked blood transfusions in patients of thalassemia or patients on haemodialysis, or patients who have their armpits or face shaved by street barbers or involved in sexual abuse are at increased risk of developing this infection. Mother to infant during childbirth (less common in hepatitis C) Sharing straws, notes etc. for snorting cocaine.

[1,3]Demonstrator Avicenna Medical College, Lahore
[2]Ex-House Officer Lahore General Hospital Lahore
[4]Islamic Scholar, UET, Lahore
[5]Professor of Community Medicine, Avicenna Medical College, Lahore.
Correspondence: Dr Hannana Akhtar,
Email: hannanaakhtar@gmail.com

Tattooing and body piercing if done using unsterilized equipment.[11]

Despite the possible serious complications, hepatitis has the advantage of being preventable with relatively cheap interventions, such as health education, immunization, and environmental measures.

If you think you could have been at risk from hepatitis C Virus, it is important to get tested. A specific test is required for this. Do not assume that you would have been tested in a routine health check[13].

This study was conducted as Hepatitis C Virus is one of the major life threatening diseases now a days and it is very important for the general population to have knowledge about this disease. So, this study was conducted to make recommendations for creation of awareness programs among the people of Pakistan.

METHODOLOGY

This study was a descriptive, cross sectional study. All the attendants of the patients admitted in medical ward of Services hospital, Lahore. The study was conduce during May and July 2015. The sample size was estimated by using formula of estimating a population proportion with specified relative precision. At confidence level of 95% with anticipated population proportion of 70% and relative precision of 15%, the minimum sample size was 74. Non-probability convenient sampling technique was used. Attendants of the patients age between 18-60 years were included in the study. While attendants not willing to participate in the study were excluded. Attendants of the patients visiting medical wards were approached. They were informed about the research and after taking the informed consent a self administered questionnaire was given.

Data analysis: By using SPSS software, the data were analyzed by using the Descriptive statistics. Data was presented by means and percentages

Data collection tool: A semi structured questionnaire (pre-designed closed ended with few open ended questions) was used to collect the information from the attendants.

Score for knowledge: Following criteria was used to categorize knowledge regarding Hepatitis C Virus.

- 10 and below was taken as Poor Knowledge.
- 11 to 20 was taken as Moderate knowledge
- Above 20 was taken as High knowledge.

Ethical Consideration: Written Consent from participants was taken before including them in study. The data collected from the nurses has been kept purely confidential and only used for statistical analysis about Study. Autonomy and beneficence of the participants were considered.

RESULTS

Age wise score distribution: The respondents who were below the age of 20 having poor knowledge were 1(11.1%), moderate knowledge were 5 (11.6%) and high knowledge were 1(4.5%). The respondents who were between the age group of 21-40 years having poor knowledge were 5(55.6%), having moderate knowledge were 29(67.4%) and having high knowledge were 17(77.3%) The respondents who were 41 years or more of age having poor knowledge were 3 (33.3%), having moderate knowledge were 9(20.9%) and having high knowledge were 4 (18.2%) The total number of respondents who had poor knowledge were 9, moderate knowledge were 43 and high knowledge were 22 (Table 1).

Gender wise score distribution.

Male respondents having poor knowledge were 6 (66.7%), moderate knowledge was 27 (62.8%) and high knowledge were 14 (63.6%). Female respondents having poor knowledge were 3 (33.3%), moderate knowledge were 16 (37.2%), and high knowledge were 8(36.4%) Total number of male respondent were 47 (63.5%) out of 74 and females were 27 (36.5%) (Table 2).

Regarding relationship of occupation with knowledge: There were 5 categories of the respondents. The office workers having low knowledge, moderate knowledge and high knowledge were 1 (7.14%), 10 (71.4%) and 3 (21.4%), respectively. The students having low knowledge, moderate knowledge and high knowledge were 2 (15.3%), 7 (53.8%) and 4 (30.7%), respectively. The respondents who were unemployed having low knowledge, moderate knowledge and high knowledge were 2 (10.5%), 11(57.8%) and 6 (31.5%), respectively. The respondents who were hard workers having low knowledge, moderate knowledge and high knowledge were 3 (25%), 7 (58.3%) and 2 (16.6%), respectively. The respondents who were businessmen having low knowledge, moderate knowledge and high knowledge were 1 (6.2%), 7 (43.7%) and 8 (50%), respectively (Table 3).

Out of 74 respondents, those believing that HCV is transmitted by blood and blood products, by transfusion of infected blood, by using infected needles/syringes, by using infected razors/blades, having sex with infected person, by using tooth brush of HBV and HCV positive person, by tattooing and ear piercing and from infected mother to child during birth are 60 (81.08%), 63 (85.13%), 64 (86.48%), 62 (83.78%), 46 (62.16%), 54 (72.97%), 49 (66.21%), 45 (60.81) respectively (Table 4).

Regarding scores, the respondents having poor knowledge were 9 (12.2%). While those have moderate knowledge were 43 (58.1%) and having high knowledge were 22(29.7%) (Table 5).

Table 1 Relationship of knowledge score of the respondents by age

Age of the respondents (years)	Knowledge Scores of the respondents			Total
	Poor	Moderate	High	
20 and below	1(11.1%)	5(11.6%)	1(4.5%)	7(9.5%)
21-40	5(55.6%)	29(67.4%)	17(77.3%)	51(68.9%)
41 and above	3(33.3%)	9(20.9%)	4(18.2%)	16(21.6%)
Total	9(100.0%)	43(100.0%)	22(100.0%)	74(100.0%)

Table 2 Relationship of knowledge score of the respondents by Gender

Gender of the respondents	Knowledge Scores of the respondents			Total
	Poor	Moderate	High	
Male	6(66.7%)	27(62.8%)	14(63.6%)	47(63.5%)
Female	3(33.3%)	16(37.2%)	8(36.4%)	27(36.5%)
Total	9(100%)	43(100%)	22(100%)	74(100%)

Table 3 Relationship of knowledge score of the respondents by occupation

Occupation	Low knowledge	Moderate knowledge	High knowledge
Office Worker	1(7.14%)	10(71.4%)	3(21.4%)
Student	2(15.3%)	7(53.8%)	4(30.7%)
Unemployed	2(10.5%)	11(57.8%)	6(31.5%)
Hard Worker	3(25%)	7(58.3%)	2(16.6%)
Businessman	1(6.2%)	7(43.7%)	8(50%)

Table 4: Knowledge of people about various mode of transmission of HCV (n=74)

People knowledge about mode of transmission	Frequency	%age
Blood borne transmission	60	81.08
Using infected blood for transfusion	63	85.13
using infected Needles/Syringes	64	86.48
Using infected Razors/Blades (at barber's shop)	62	83.78
Having sex with infected Person	46	62.16
Using tooth brush of HCV positive person	54	72.97
Tattooing and ear piercing	49	66.21
From infected mother to child during birth	45	60.81

Table 5: Knowledge score of awareness about Hepatitis B and C (n=74)

Knowledge score	Frequency	%age
Poor	9	12.2
Moderate	43	58.1
High	22	29.7
Total	74	100.0

DISCUSSION

This study was done for exploring the knowledge and awareness regarding HCV infection among attendants of the patients admitted in medical wards of Services Hospital, Lahore. As HCV infection is emerging health problem worldwide and a common infection in Pakistan. Awareness about the disease is necessary in prevention and control of the disease.

The Questionnaire based descriptive survey on awareness among attendants of Patients is completed on information given by them. In this study, respondents of different age groups were interviewed. The size of population was 74, 63.5% males and 36.48% females. They were also asked about the most common routes of transmission by blood borne unhygienic conditions.

In this study, we found high levels of HCV awareness among attendants of the patients. 87.8% of the respondents reported ever having heard of the disease, this shows increasing knowledge of this disease among people as this is the most common health problems these days. Men were more knowledgeable than women. This statement can be concluded from the fact that wherever discrepancies in the significance of the results emerged, it was due to more inaccurate answers from female questionnaire takers.

In relation to the age group, we also observed that people of age group 21-40 had moderate knowledge about Hepatitis C Virus and on the other hand people less than 20 years of age had low knowledge. This is in similar to another research carried out among barbers in different areas of Lahore that barbers from age 26-35 had more knowledge than those younger than 25 years[17].

In this study, the knowledge of HCV appears lower in the illiterate people like hard workers and higher in office workers and students. Knowledge needs to be strengthened more in less educated segment of society.

This study also showed that knowledge and awareness of population in the study areas regarding HCV, its mode of transmission and methods of prevention was quite satisfactory in spite of the study being conducted in people mostly belonging to low socioeconomic status and people from rural background. Most of them knew that contaminated syringes/injections, unsterile dental and surgical equipment, tattooing/body piercing, unsafe blood and blood product transfusion and reuse of razors by barbers are the major cause for transmission of these diseases Our findings are in consistent with the findings of another study carried out in Mansehra[17], Saudi Arabia[16] and Hong Kong[18]. However, there are many studies that show poor knowledge of people regarding mode of transmission and preventive methods like a study carried out in Haryana, India[19]. Similarly, in a study carried out Urban and rural areas of Sindh[20], only 43.5% of the urban area and 40% of the rural area respondents knew that transmission of HCV can occur by transfusing infected blood or blood products or injury by infected sharp or tattooing/body piercing. As far as, transmission of HCV from mother to child during birth and also during unsafe sex with the infected individuals was known to lesser individuals.

In our study, only 56.8% of the respondents knew that this disease effects liver and can cause liver cancer which was found to be greater than as reported in a research carried out in Haryana, India[22]. However, majority of the respondents (83.8%) had knowledge that jaundice is one of the symptoms of this disease.

Our study also revealed that 75.7% of the respondents of the participants had misconception that hepatitis C is also a vaccine preventable disease. This was also seen in a study carried out in Karachi among patients attending family medicine clinics[15]. Availability of diagnostic tests for this disease was also known to 68.9% respondents.

Even though the result of our study shows higher awareness among people but this can be due to convenient sample size used. Also the people participating in the study were mostly the attendants of the HCV patients, thus they had obviously more knowledge regarding this disease. But the purpose of this survey was to increase knowledge about this disease and highlight a need to increase the public awareness of HCV infection in Pakistan. Awareness campaigns should be enhanced to increase the knowledge of the public on HCV infection with emphasis on its mode of transmission and measures to reduce the risk of contracting the virus (practicing safe sex and avoidance of sharing injection needles, toothbrushes or shaving razors). The public should be aware of the risk when getting a tattoo or body piercing in places where adequate disinfective measures might not be available or practiced. Educational interventions are needed to promote HCV screening. It is important to develop educational strategies with special attention to persons of lower education levels and lower socio-economic classes, since they may not be aware of the importance of HCV screening. Family physicians can play an important role by effectively counseling and consulting with their patients and their relatives, they should also educate people about the risk factors and the preventive methods for this disease.

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