

Hepatitis C – Knowledge and Attitude Among Patients Attending OPDs in Tertiary Care Hospital in Karachi: A Patient's Survey

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ABSTRACT

Objective: To assess knowledge and attitude about Hepatitis C among Patients attending tertiary care hospital at Gadap town, Malir Karachi.

Study Design: Cross Sectional Study

Place and Duration of Study: This study was conducted at the Al-Tibri Medical College, Isra university campus at Gadap town, Malir Karachi. Survey was conducted from October 2018 to March 2019.

Materials and Methods: Systematic (Random) Sampling Technique was used. Data was collected by help of a pre-tested semi-structured questionnaire. Data was analyzed by using SPSS version -24.

Results: A total of 259 patients filled/answered the questionnaire, waiting outside of general OPDs to see a doctor. (n=259) Total number of male Patients were n=101 (39%) and females n=158 (61%). The results findings revealed that Out of the 259 participants, 92 (35.5%) showed adequate and satisfied level of knowledge about Hepatitis C. whereas, 167 (64.5%) of the study participants possessed 'in-adequate and poor knowledge' regarding Hepatitis C. Majority (93.4%) of survey participants was not aware of good practice against Hepatitis C and 88.1% of the participants were inadequate knowledge about utilization of healthcare services regarding hepatitis C.

Conclusion: There was a prominent lack of awareness with respect to the HCV infection, its risk factors and prevention among the Gadap town community in Malir Karachi.

Key Words: Hepatitis C, Knowledge, Attitude, Patient, Tertiary care hospital Gadap Town, Karachi

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INTRODUCTION

Hepatitis is an infection of the liver. Hepatitis has many types, but Hepatitis C and B are the most serious as those are viral blood borne infections and are transmitted through unscreened blood transfusions, disinfectants medical equipment, devices and re-utilization of syringes. Vaccine for hepatitis C has yet not discovered. Unscreened blood transfusions and re-use of syringes are one of the main causes of the prevalence of hepatitis C in Pakistan.

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The worldwide commonness of HCV contamination is 2.5 to 3%¹. Prevalence of hepatitis C differs in nations and locale of world, it is more than 11% in Egypt and considered highest rate of hepatitis in the world², it is ranging from 2% to >3% in African countries³. Its prevalence in the United State is 1.6% and its prevalence in the European countries is 1 to 2.3%⁴. At present 2%–3% of the world's populace are living with hepatitis C infection⁵. Majority of patients developed liver cirrhosis and hepatocellular carcinoma which is 27% and 25% respectively but this rate is different in different countries, for instance in Japan 90% hepatocellular carcinoma cases are caused by HCV infection⁶. More than 350 thousand people are died due to HCV infection every year in the world⁷.

Pakistan is among top ten countries having the highest population in the world; various studies in Pakistan indicates HCV prevalence is between 3.2-14%⁸, most HCV prevalence rate is accounted for in Punjab which is 6.7% followed by in Sindh is 5% then in Baluchistan is 1.5%, and lowest in Khyber Pakhtunkhwa which is 1.1%. More than 10 million individuals in Pakistan are living with HCV contamination⁹. It is affirmed from different studies in Pakistan that prevalence of hepatitis C is >40%¹⁰.

Hepatitis C is very endemic in Pakistan attributed mainly to unsafe injections, as one person in Pakistan averagely takes 13 injections per year¹¹. Different survey reports confirmed risk of HCV transmission and relationship between the quantity of frequent and unsafe infusions got in the 6 months preceding the determination of viral hepatitis¹².

It was identified by number of studies that people who were minimum level of education had good sense of risk factors for disease then illiterate persons¹³. Tragically, the education rate of Pakistan is only 43%¹⁴. Gadap town is most in reverse and least possible created zone of Karachi city, where individuals have minimum approach to medical services.

MATERIALS AND METHODS

The calculated sample size was 259. Patients belong to all communities having age more than 17 years were included voluntarily, who refused to give informed consent, those with mental illness, those who were extremely ill, those who were very old and disabled were excluded from the sample. Data collected by help of a semi-structured pre-tested questionnaire. Before the distribution of the questionnaire, the objective of the study and questions were explained and translated into the local language; and anonymity was assured.

The questionnaire was divided into four parts contain 44 questions. Part one contains questions to assess the socio-demographic characteristics of the respondents. Part two have 20 questions to evaluated knowledge about hepatitis C transmission, its etiology, types, symptoms; age of occurrence of disease, mode of acquisition, possible transmission routes, complications, and treatment. Knowledge was assessed by giving 1 to correct answer and 0 to the wrong answer. Score < 12 were taken as inadequate knowledge of Hepatitis C.

Part three comprised of 9 questions regarding awareness and practices towards hepatitis C. Attitude towards Hepatitis C was evaluated through questions regarding perception about acquiring Hepatitis C infection, treatment, and importance of screening. Practices towards Hepatitis C were explored by asking questions about availability of Hepatitis C vaccination, use of new syringes / razors / blades, and transfusion of contaminated blood and blood products.

The awareness and practices assessed by giving 1 to positive and 0 to negative answer regarding answers pertaining to awareness and practices. The scale classified awareness and practices as good if score > 6 and poor < 5.

Part four contain questions regarding health services utilization which included knowledge about healthcare facility in the area, vaccination status of participant's. A cut-off level of 60% i.e. 5 out of 8 correct responses were labeled as good practices and a score below to 5 were considered as bad and unsafe practices.

A majority of the responses were dichotomous i.e. recorded in 'Yes' or 'No' and 'do not know' in all parts of questionnaire. The collected data was analyzed with help of SPSS.24.0

RESULTS

A total of 259 patients filled/answered the questionnaire (n=259). Total number of male Patients were n=101 (39%) and females n=158 (61%). Most of the Patients were in range of 21 to 45 year of age n=152 (58.7%). As regards educational status of the study participants majority of patients have secondary level education n=132 (51%). Among total number of respondents, 198 (76.4%) were married and 61 (23.6%) were unmarried. 201 (77.6%) out of total number of study participants were unemployed among them 33 (12.7%) were house wives and 23 (8.8%) were students. Among employed study participants 20 (7.7%) were own business, 14 (5.4%) were government/local government employees, 17 (6.5%) were self-employed. Out of 259 research participants, One hundred nine (42.1%) individuals belonged to semi urban area and 89 (34.4%) belonged to urban area, followed by 61 (23.5%) who were from rural area. As regards to ethnic back ground ninety two n=92 (35.5%) were Baluchi speaking, 71 (27.4%) were Urdu speaking, 69 (26.7%) were Sindhi speaking, 13 (5%) and 9 (3.4%) were Punjabi and Pashto speaking respectively (Table I).

Table No.I: Socio-Demographic Characteristics of Study Participants (N = 259)

Variables		Frequency (n)	Percentage (%)
Gender	Male	101	39
	Female	158	61
Age (32.16 ± 8.66)	17 – 26	64	24.7
	27 – 36	122	47.1
	37 - 46	51	19.7
	More than 46	22	8.5
Education	Uneducated	62	23.9
	Primary	40	15.4
	Secondary	132	51.0
	Graduate	25	9.7
Marital Status	Married	198	76.4
	Un-Married	61	23.6
Occupation	Unemployed	201	77.6
	Employed	58	23.4
Residence	Urban	89	34.4
	Semi-urban	109	42.1
	Rural	61	23.5
Language	Baluchi	92	35.5
	Sindhi	69	26.7
	Punjabi	13	5.0
	Pashto	9	3.4
	Urdu	71	27.5
	Speaking	5	1.9
	Other		

Assessment of Knowledge towards Hepatitis C among the study participants: The findings revealed that out of the 259 participants, 92 (35.5%) showed adequate and satisfied level of knowledge about HC. whereas, 167 (64.5%) of the study participants possessed 'in-adequate and poor knowledge'. Most of participants' were unaware of modes of hepatitis C infection, including reuse of syringes (83.0%), blood transfusions (78.3%), use of intravenous drugs of addiction (91.5%), and multiple sexual contact (89.9%). However, most (67.8%) respondents correctly believe that hepatitis C primarily affects the liver.

Participants had good knowledge about affects of hepatitis C regarding age group and cost of treatment. Majority of respondents were considering that hepatitis C is spreading due to contaminated food and physical contact with person suffering from hepatitis C. Nearly half 133 (51.3%) of the study participants knew that jaundice is common symptom of hepatitis C and affect the liver (Fig 1).

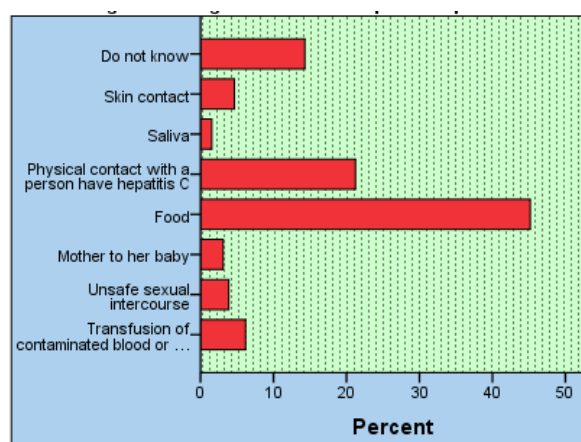


Figure No.1: Knowledge about mode of Hepatitis C spread

Assessment of Awareness and Practice towards Hepatitis C Prevention: Majority of the respondents, 234 (90.4%) not tested to Hepatitis C and said that they have no any knowledge about hepatitis C vaccine. Nearly all 252 (97.3%) of participants did not instruct barber to change the razor before shaving or before piercing needles in ear or nose and 148 (57.1%) of participants never asked for a new syringe when needed. Only 9 (3.5%) respondents using antiseptic solutions to clean sharp needles and instruments and only 23 (8.9%) knew that HCV positive person cannot donate blood.

Comparisons of Socio-Demographic Characteristics with Knowledge, Awareness, Practice and health care services Scores utilization: With Pearson's correlation analysis gender and occupation showed good association with adequate knowledge whereas age and ethnicity was found to be positively associated with adequate knowledge and good awareness and practice pertaining to hepatitis C respectively. Table 2.

Utilization Health Care Services towards Hepatitis C Prevention: 189 (72.9%) participants were not sure that Hepatitis C is preventable or not but 35% participants were positive that it can be prevented through health education, media and seminars. Almost all 255 (98.5%) neither attended and 246 (95.0%) never heard any health education campaign against hepatitis C. Out of 259 participants only 16 (6.2%) vaccinated, 122 (47.1%) were not vaccinated due to different reasons. (Fig 2)

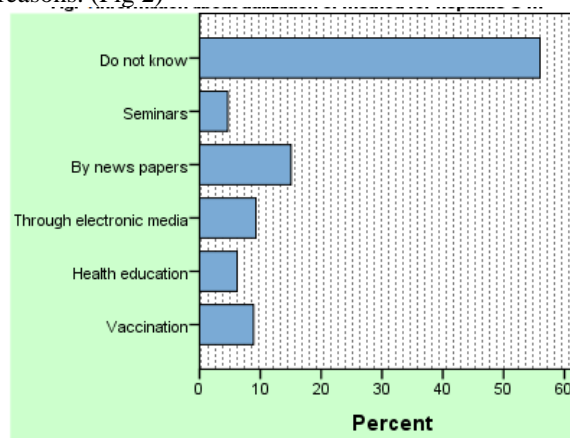


Figure No.2: Information about utilization of method for hepatitis C.

Univariate analysis of age and occupation depicted those participants of age group between 17 – 26 years were 34% hardly have adequate knowledge (OR = 0.66, 95% CI 0.36 – 2.02) and age group between 27 – 36 years was not statistically significantly associated with adequate knowledge towards Hepatitis C. However, significant association was observed for relationship of occupation with adequate knowledge when compared to unemployed participants, employed participants were around two times more likely (OR = 0.14, p-value 0.03, and 95% CI 0.07–0.78) to have appropriate knowledge (OR = 0.14, p-value 0.03 and 95% CI 0.07–0.78). Similarly, the effect of age was not statistically significantly associated with positive attitude towards Hepatitis C. Association of gender, marital status and ethnicity on practices towards Hepatitis C on univariate analysis elucidated that 60% males hardly acquired adequate awareness and practice (OR = 0.40, 95% CI 0.18 – 0.90) in comparison to females. Who were employed were 74% less likely to have good awareness and practices (OR = 0.26, 95% CI 0.15 – 1.91), towards Hepatitis C in contrast to the unemployed respondents.

Correlation between Awareness and Practice of the study participants: Significant positive but weak linear correlations between awareness and practice were discovered in this study ($r = 0.183$, $p = 0.003$). The findings support the hypothesis that there is a link between awareness and practice and the use of healthcare services. In this study, the association is weak. Good awareness and knowledge, it is determined, can lead to good practices.

Table No.2: Study Participants Overall Scores comparison of Knowledge, Awareness, Practice and Utilization Healthcare Services of Study Participants

	Total Score	Median (IQR)	Adequate Knowledge	In-adequate Knowledge
Knowledge regarding Hepatitis C (8.56 ± 3.71)	19	8(5)	N (%)	N (%)
			92 (35.5)	167 (64.5)
Awareness and Practices Regarding Hepatitis C (3.59 ± 2.58)	10	5(3)	Good awareness & Practice	Bad awareness & Practice
			17 (6.6)	242 (93.4)
Utilization of Health care Services regarding Hepatitis C (2.37 ± 2.79)	8	4(1)	Adequate Knowledge	In-adequate Knowledge
			31 (11.9)	228 (88.1)

Table No.3: Correlation of Age & Education with Adequate Knowledge regarding Hepatitis C

Characteristics	Total	Adequate Knowledge N (%)	In-adequate Knowledge N (%)	Adjusted OR (95% CI) *	p-value
Age (year)					
17 – 26	64	29 (45.3)	35 (54.7)	0.54 (0.23 – 1.56)	0.02
27 – 36	122	36 (29.5)	86 (70.5)	1	-
37 - 46	51	19 (37.2)	32 (62.8)	0.73 (0.32 – 2.15)	0.16
More than 46	22	8 (36.4)	14 (63.6)	0.75 (0.33 – 2.26)	0.18
Education					
Uneducated	62	11 (17.7)	51 (82.3)	0.20 (0.09 – 0.51)	0.04
Primary	40	13 (32.5)	27 (67.5)	0.78 (0.43 – 2.27)	0.20
Secondary	132	52 (39.4)	80 (60.6)	0.59 (0.33 – 1.75)	0.15
Graduate	25	16 (64.0)	9 (36.0)	0.26 (0.12 – 0.65)	0.06

DISCUSSION

Results of the study showed there are significant gaps and lack in knowledge, awareness and practice towards hepatitis C. The mean awareness and practice score was 3.59 ± 2.58 showed poor knowledge to hepatitis C among the study participants. Knowledge regarding Hepatitis C was explored through questions related to its types, modes of transmission by using contaminated material such as razors / blades / syringes / tooth brush and also about its complications related to liver, availability of vaccine and cost of treatment and was thus found grossly unsatisfactory among the residents of Gadap Town, Karachi. These findings are consistent with other study conducted in Karachi, which found that respondents had little knowledge about hepatitis C infection¹⁵. Similar studies were carried out in Pakistan and various countries of world among different targeted populations, almost all studies have reported poor knowledge, negative attitudes and bad practices towards Hepatitis C in the communities, these finding are in line with our present study findings¹⁶.

The present study disclosed surprising results. Literacy rate of research participants is though reasonably high i.e. 60.7% but low level of awareness and practices about Hepatitis C reflects standard of education in rural and semi-urban areas of city.

Regarding considerable gaps in knowledge more than two third of survey participants had no idea what causes

Hepatitis C or how it spreads, this is also accordance to the studies of other researchers conducted earlier¹⁷. About 66% of respondents knew that Hepatitis C could develop liver disease/ cancer, as well as harm other organs. More than 70% of the study participants in our study revealed that Hepatitis C is curable or they were not firm about that. Thus this misconception of study participants leads them to harmful practices. Our study results also indicated overall lack of awareness of study participants towards use of new syringes / needles / blades and safe transfusion of blood. Barbers in Pakistan have been known source of spread of HCV as stated by Janjua and Nizami¹⁸.

In addition, about 27% of the survey respondents revealed to believe that HCV patient could donate blood. Whereas; half of them were not sure about it, therefore clearly reflects their poor awareness towards infection control practices.

Considering the healthcare services utilization pattern in Gadap town, more than 50% of the study participants believed that hepatitis C is preventable and can be prevented through health education and mass media campaign.

In this study, 93.8% of respondents had not received any vaccination against any type of hepatitis. This is less than the 87.8% immunization rate found in a research conducted in Mirpur Khas Sindh¹⁹.

Thus it is confirmed that individuals, who were weak in knowledge, were more likely to show negative attitudes to those who were knowledgeable.

CONCLUSION

This study discovered that in the community there is little awareness of Hepatitis C, its risks, modes of transmission, and prophylaxis. Require an immediate need to conduct countrywide health education programs to raise the awareness of HCV transmission in the Pakistani population exists. Another vital issue questioned about the overview group practice and attitude about this life threatening infection and the requirement of further HCV awareness.

Author's Contribution:

Concept & Design of Study: Riaz Ahmed Bhutto
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 Final Approval of version: Riaz Ahmed Bhutto

Conflict of Interest: The study has no conflict of interest to declare by any author.

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