Perceptions about Hepatitis C, its Myths, Misconceptions and Association with Health-Related Behaviour among People of District Layyah, Punjab, Pakistan

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Abstract

Background: Hepatitis C virus is a blood-borne virus where the most common modes of its transmission are unsafe injection practices, inadequate sterilization of medical equipment, and transfusion of unscreened blood and blood products. Approximately, 130–150 million people globally are suffering from chronic hepatitis C infection. A significant number of these chronically infected will develop liver cirrhosis or liver cancer subsequently. Approximately 500,000 people die of hepatitis C related liver diseases every year. This study aimed to describe personal characteristics, knowledge of respondents and to find out association of these factors with perceptions about Hepatitis C. The study also aimed to focus on perceptions (perceived susceptibility, severity and cues to action) of general population and finding association between their perceptions and health-related behaviors.

Methods: A cross sectional study was conducted in Layyah city situated in Punjab province. Total of 423 male participants were selected through multistage sampling from general population of district Layyah. Structured questionnaire was used to collect data.

Results: Out of 423 respondents, participants with the poor level of knowledge had right perceptions about hepatitis C (16.8%). 82.7% of the respondents were aware about the availability of hepatitis C treatment. Highest perceptions were observed in age group of 21-25 years old (39.7%), unmarried (73.0%), Saraiki (58.2%) and unemployed population (45.9%). People with less myth had the right perceptions about the hepatitis C.

Conclusion: Increasing age, unmarried status and ethnicity were associated with right perceptions shown by respondents. Knowledge remained significant in showing association with perceptions about hepatitis C. General population perceived their susceptibility, severity of consequences and cues to actions were connecting them to show right perceptions overall. Relatives, colleagues and TV were common source of information about hepatitis C respectively.

Keywords: Hepatitis C, Myths, Misconceptions, Knowledge, Health Belief Model, Perceived susceptibility, Perceived severity, Cues to action

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Introduction:

Hepatitis is an inflammatory state of liver that may be self-limiting or can lead towards fibrosis, cirrhosis or carcinoma of liver. Causes of hepatitis include substance abuse, autoimmune diseases and viruses. Viruses

are the most common cause of hepatitis worldwide (1). Self-limiting types of hepatitis do not cause permanent damage to liver while others may lead to serious and fatal conditions like liver failure and liver cancer (2). Viral hepatitis includes hepatitis-A, B, C, D and E, where hepatitis-B and hepatitis-C are the most common and the most fatal types (3).

Hepatitis B, C and HIV are highly prevalent worldwide. The patients suffering from hepatitis B, C and HIV amount to be 370 million, 130 million and 2-4 million, respectively. All these viruses are growing epidemic worldwide and they are sharing common routes of transmission. However, they differ in their prevalence according to geographical regions (4).

According to statistics, all the types of viruses exist in Pakistan. Hepatitis A and E are endemic in Pakistan because of poor water and sanitation system. Contamination of drinking water with sewage during monsoon rains and floods evoke mini epidemics of hepatitis C occur regularly. Both hepatitis B and C viral infections occur in sporadic fashion. There are four million people with hepatitis B infection and eight million people with hepatitis C infection in Pakistan (5). In pediatric population, the prevalence of weighted average of hepatitis B and C is 2.4% and 2.1%, respectively. In healthy adults (blood donors and non-donors), the prevalence of weighted average of hepatitis B and C is 2.4% and 3.0%, respectively. Factually, rates in the high-risk subgroups are far higher (6).

Awareness and perceptions about health vary from person to person as subjective things do not remain constant for everyone and every society. Perception is one's judgment about his or her health (7). In other words, it is person's individual evaluation or judgment which decides health values and determines health behavior (8). An individual feel about his/her own health is a subjective measure that can be calculated at individual level (9).

Knowledge leads towards right or wrong decision. Right and good knowledge gives direction for positive attitude for decisions. Knowledge is the precursor to decision about hepatitis C, especially for those who are less engaged and those with lower knowledge (10). Age, household income, education level and knowledge about hepatitis C are factors which lead towards the right or the wrong perceptions about the hepatitis B and C. People from high risk population are more aware about the consequences of the Hepatitis B and C. There are perceived barriers that have negative relationship with willingness to any health related behavior (11). This study revealed the relationship of socio-economic variables, myths and misconceptions, perceived susceptibility, perceived severity and cues to action with hepatitis.

The aim of this study was to find out association between socio-demographic variables and perceptions about hepatitis-C along with assessing knowledge of people about hepatitis-C and to identification of myths and misconceptions related to Hepatitis-C and to find their association with perceptions about hepatitis-C and it also include to find out association between Perceived Susceptibility, Perceived Severity and Cues to action with overall perceptions about hepatitis-C.

Methodology:

A cross-sectional study having total of 423 participants was conducted in District Layyah, Punjab for 8 months. The sample size was calculated through openepi software

at 50% prevalence. Structured questionnaire was used for data collection. Multistage sampling technique was followed for the selection of the study population. Tehsil Layyah was selected through lottery method from three tehsils i.e. Layyah, Karor and Chubara. List of all chaks and 22 union councils of tehsil Layyah were obtained from Thal Development Authority (TDA), selecting two chaks from each union council. Jamia Masjid (Mosque) of every chak was considered its geographical centre and sampling was started from the right side of the Mosque with the help of local residents. Every 4th house from the geographical centre was selected. Our sample size was completed at the 6th Union Council of the tehsil Layyah. Fifteen people refused giving data. There was also unavailability of respondents due to job at the morning time and we moved to the 5th house for data collection and resumed with the next 4th house from the geographical centre.

Permanent male residents were included in the study excluding any healthcare professional were from the study. Data was collected from selected population after obtaining informed consent from participants using Urdu version of a structured questionnaire. Prior to data collection, district coordination officer (DCO) was approached for the permission for data collection from the community of District Layyah.

"Health Belief Model (HBM)" was used for developing conceptual framework of this study. HBM is a psychological model that attempts to explain and predict health behaviors. It focuses on the attitudes and beliefs of the individuals. The model is based on health belief theory which states that people's attitude and behavior lead them to decide to take actions or steps related to their health. According to this theory, people's attitudes and perceptions matter for their health consequences. HBM is structured in a way highlighting the main factors concerned for health behaviors. SPSS version 19 was used for data analysis. Analysis was divided in two main parts: descriptive and inferential statistics. Descriptive statistics (percentages and frequency tables) were generated and reported for socio-demographic variables. Personal characteristics were cross tabulated for each character with Hepatitis-C perceptions. Perception about Hepatitis-C in general population was kept main outcome variable.

Results:

Total 423 respondents were included in this study and their age distribution was as 65 respondents (15.4%) were in age category ranging from 18-20 years, 168 (39.7%) were in range of 21-25 years, 103 respondents (24.3%) were in range of 26-30 years and 87 (20.6%) respondents were having age greater than 30 years. Their education status revealed that out of total 423 respondents, 48 (11.3%) were illiterate, 52 (12.3%) were primary, 44 (10.4%) were middle, 67 (15.8%) were metric, 99 (23.4%) were under Graduate, 53 (12.5%) were Graduates and 60 (14.2%) of them were having Masters Degree. Almost half of the respondents 194 (45.9%) were unemployed, 38 (9%) were Government employees, 20 (4.7%) were doing private jobs, 37 (8.7%) were having their own private business, 16 (3.8%) were Land Lords and 118 (27.9%) were having other kind of jobs. Respondent's monthly income results were as 21 (5.0%) respondents were having no income, 256 (60.5%) of them were having income in range of 5,000-10,000 per month, 53 (12.5%) were in monthly income category ranging from 11,000-20,000, 25 (5.9%) were in monthly income category ranging from 20,000-25,000 while remaining 68 (16.1%)

were in >25,000 per month income group. About 309 (73.0%) respondents were unmarried and 114 (27.0%) were married. Only 33 (7.8%) respondents had past history of Hepatitis-C and 390 (92.2%) did not have exposure to Hepatitis-C. When personal characteristic of respondents were cross-tabbed with dependent variable i.e. perceptions about hepatitis-C, all findings were found significant. For each single characteristic of respondents, 195 respondents were in wrong perceptions level and 228 fell in correct perceptions level and this distribution remained constant throughout the cross tabulation of characteristics and perceptions about hepatitis-C.

For four categories of age, respondents of age 21-25 years were showing highest percentage for right perceptions about hepatitis-C followed by age group ranging from 26-30 years. Overall the result for association of perceptions about hepatitis-C and age of respondents was statistically significant. Chi squared value resulted 9.0 at p-value of 0.03 which made results significant. Ethnicity of respondents played a significant role in determining perceptions about hepatitis-C of respondents. Among listed ethnicities of respondents perceptions about hepatitis-C was depicted mainly from Saraiki ethnicity followed by Punjabi ethnic group. P-value of 0.001 was kept as significant result for this cross tabulation. Chi squared value resulted 18.1. Detail about ethnicity is given in Figure 1.

Cross tabulation of education level with perceptions about hepatitis-C resulted in right perceptions presented in highest percentage by Intermediate respondents (15.1%) followed by Metric respondents ranked second in showing right perceptions (9.2%). Over all result was found statistically significant with chi square value 25.2 and p-value 0.000. For marital status and perceptions about hepatitis-C relation, unmarried respondents were showing right perceptions and were with high percentage (43.5%) remaining percentage was found reserved for married respondents. P-value was found greater than 0.05 rendering the results statistically significant with chi square value 14.7 and p-value 0.000. Respondents were asked about employment status and when these results were cross-tabulated with perceptions about hepatitis-C; significant association was found among the two variables. Highest proportion (26.7%) of unemployed was found showing right perceptions level. Chi square value reported 28.2 while p-value worked at 0.00. Percentage distribution of myths and misconceptions among respondents is given in Figure 2.

Respondents were asked about monthly income and theses results were cross-tabulated with perceptions about hepatitis-C, highly significant association was found between two variables. Highest proportion (37.1%) of 5000-10,000 monthly income range was found showing right perceptions level. Chi square value reported 24.1 while p-value worked at 0.00. Respondents were asked about past history of hepatitis-C and were cross-tabulated with perceptions about hepatitis-C and highest percentage of perceptions was found in “No Answer (51.8%)”. Association between two variables was significant with chi square value 10.2 while p-value worked at 0.001. This also can see in

Table.

Discussion:

The study aimed at assessing the perceptions, myths and misconceptions related to Hepatitis-C. The study reveals that there are

gaps of knowledge in terms of perceptions of people regarding hepatitis C about its different aspects. Socio-demographic characteristics of all 423 respondents were considered in terms perceptions about hepatitis C and more than half (53.5%) respondents had right perceptions about Hepatitis C. Unfortunately, significant number of respondents were having wrong perceptions about hepatitis C which is a big barrier in the prevention of hepatitis C infection. The respondents of age 21-30, Saraiki ethnicity, intermediate education, single status and employment status have highest percentage of right perceptions.

A study was conducted in Faisalabad (12) showed the awareness level that is nearly equal to our study results. The reason lies behind the fact that Hepatitis C is moderately prevalent in Pakistan (13). Khan et al. (2004) reported that 92% of the people get knowledge about Hepatitis C through TV and in our study information through media is very low (TV-32.6, Newspaper-13.5) because of study setting, as that study was conducted in a metropolitan city and our study was conducted in southern Punjab(14). Denniston et al. (2012) reported maximum knowledge and awareness about hepatitis C in 40-59 years of age (15). Similarly, Joukar et al. (2012) also reported increased awareness about hepatitis C with increasing age while in our study results; people of 21-25 years of age have more knowledge about Hepatitis C as they got information through media (16). According to National report of Pakistan (2012), patients receiving more than 4 injections per year are 9-11 times more prone to Hepatitis C, while in our results, more than 50% of the population does even not have the knowledge that injections are source of Hepatitis C infection. No other study was found to compare the awareness about hepatitis C in ethnicities or marital status of the respondent in Pakistan. Alike the results of the present study, Ali et al. (2015) have reported that educated respondents had much more knowledge about hepatitis C as compared to illiterate ones. Hence, awareness about hepatitis C increases with the education status (17).

Conrad et al. (2006) reported that the individuals were of view that HCV is highly contagious thus made themselves at risk of casual relation with other people. Thus, adequate awareness helps control such believes and improves the prevention. Similarly, the respondents with increased perceived susceptibility to HCV had more right perceptions than those with low perceived susceptibility. The respondents who believe low susceptibility of HCV had higher wrong perceptions and vice-versa. In other words, the individual respondents who think of less severe consequences after having HCV had more wrong perceptions (18). There risk awareness provokes the individuals to find for a solution to the problem. Similarly, the respondents with low cues to action had more wrong perceptions and vice-versa. In other words, the individual respondents who consider low cues to action after having HCV had more wrong perceptions. Chen et al. (2013) have demonstrated that the individuals with higher cues to action have more positive effect on the prevention of HCV as they have more knowledge of HCV (19).

Strengths/Limitations of the Study: Incorporation of health belief model and Likert Scale are the strength of the study and results of the study may have internal validity and beneficiary population is district population. It was a KAP survey and respondents may have responded only all the right factors, that leads towards

overestimation of awareness. Sample of study is including only the male participants following an assumption that there are cultural barrier to collect data from females that are not allowed to give data. This criterion made this study context specific and context bound.

Conclusion/ Recommendations:

There is need for policy making about modifying syllabus to educate people about hepatitis and this should be sort of effective education. This can also be done by planning hepatitis C awareness campaigns at school, college level. Hepatitis C awareness campaigns targeting specific age groups, gender and ethnicities should be promoted. Culture and languages should also be kept in mind while planning for these campaigns as culture and surroundings are found barriers for adopting healthy behaviors. Perceptions of public are most important in deciding their behaviors towards health. In this case, they need to be sensitized and motivated for adopting healthy measures. Media can play an important role in provoking public for this purpose.

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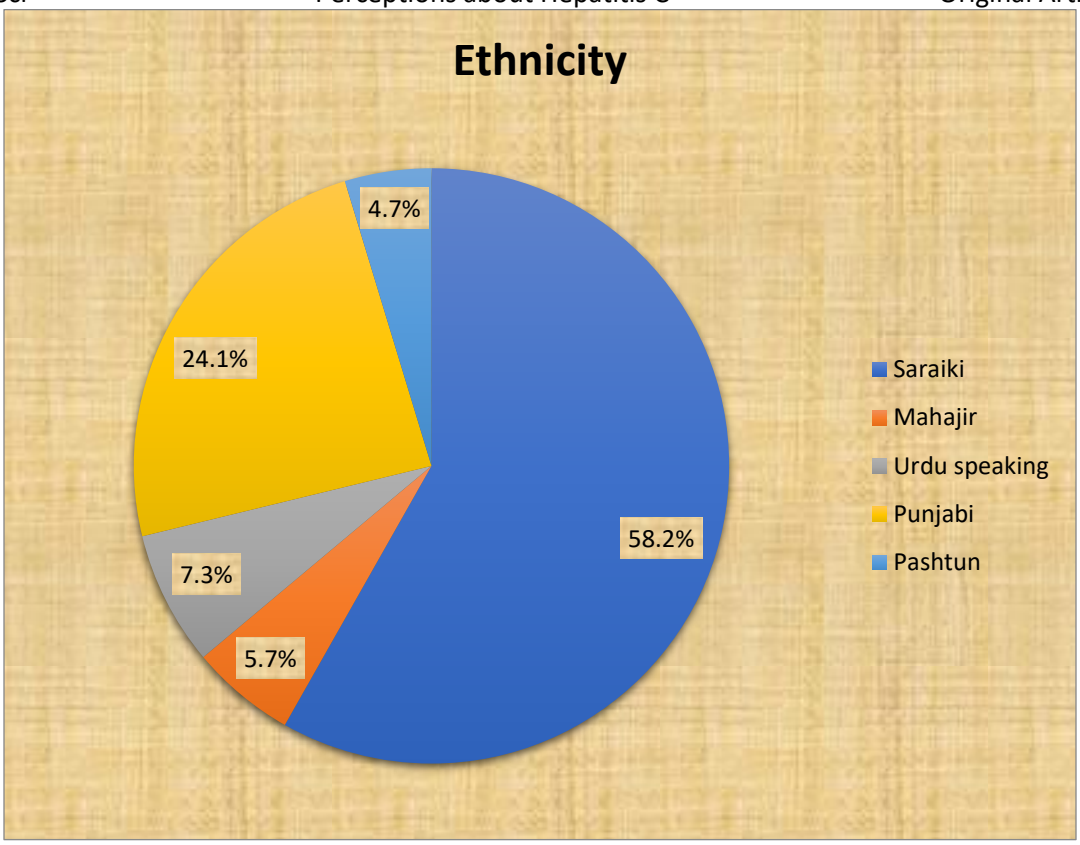

Figure 1: Ethnicity Distribution of Research Participants

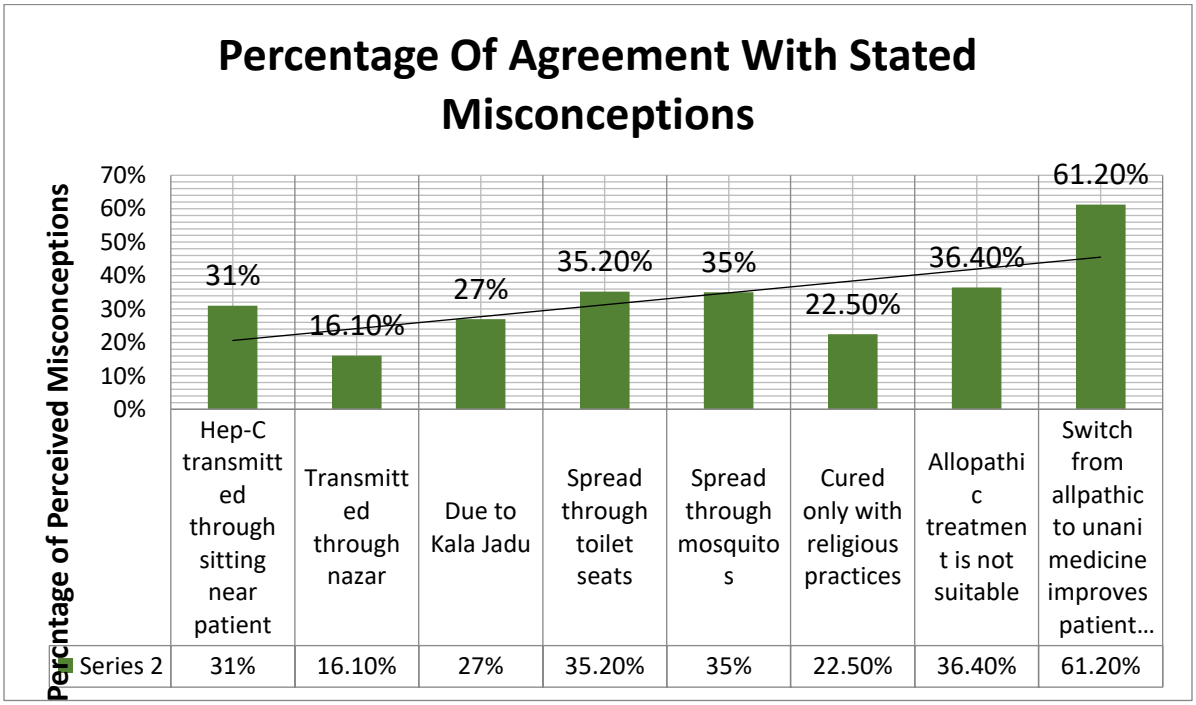

Figure 2. Percentage Distribution of Myths and Misconceptions Among Respondents

Table 1. Association of key Independent Variables with Perceptions About Hepatitis-C

	Variables in Association with Perceptions	Perceptions About Hepatic C		x^2 Results
		Wrong Perceptions 195(46.1%)	Right Perceptions 228(53.9%)	
1	**Myths and misconceptions**			
	Less perceived	160 (37.8%)	34 (8.0%)	x^2 =190.8, df=1, P=0.000
	More perceived	35 (8.3%)	194 (45.9%)	
2	**Knowledge**			
	Poor Knowledge	71 (16.8%)	33 (7.8%)	x^2 =27.3,df=1, P= 0.000
	Good Knowledge	124 (29.3%)	195 (46.1%)	
3	**Perceived Susceptibility**			
	Susceptibility (Not Perceived)	113 (31.4%)	48 (11.3%)	x^2 = 95.5, df=1, P= 0.000
	Susceptibility (Perceived)	62 (14.7%)	180 (42.6%)	
4	**Perceived Severity**			
	Severity (Not perceived)	146 (34.5%)	58 (13.7%)	x^2 =102, df=1, P= 0.000
	Severity (Perceived)	49 (11.6%)	170 (40.2%)	
5	**Cues to Action**			
	Low (< median 8)	98 (23.2%)	59 (13.9%)	x^2=26.7, df=1, P= 0.000
	High (>, = median 8)	97 (22.9%)	169 (40.0%)	