

## Knowledge Attitude and Practices of adolescent youth regarding Hepatitis B & C in district Hyderabad

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### Abstract

**Introduction:** Globally Hepatitis B and C is a major public health problem & potential cause of substantial morbidity and mortality. Pakistan has been rated among countries which are endemic for hepatitis B and C where disease burden is high.

**Methodology:** A cross sectional descriptive study was conducted from June- August 2006 in government colleges of district Hyderabad. 243 students were interviewed by using a pre-tested, closed ended questionnaire. The variables assessed were regarding knowledge, attitude and practice towards hepatitis B & C

**Results:** 243 students were approached for interviewed. 10% (n=25) knew that hepatitis is caused by virus. 84% (n=205) agreed that it is transmitted from one person to another person. Among these 29% (n=71) agreed on reuse of syringes, 19% (n=47) attributed unscreened blood transfusion, 18% (n=44) consider reuse of blade and sexual intercourse as a mode of transmission. 45% (n=110) mentioned it as preventable disease, in this group 17% (n=42) advocated safe sex practices, 15% (n=37) stated vaccination, 12% (n=30) recommended use of new disposable syringe, 10% (n=25) advocated use of new blade and 8% (n=20) stressed screening of blood before transfusion. 71% (n=173) & 68% (n=166) respondents used new syringe & new blade respectively. 29% (n=71) were vaccinated against Hepatitis B. Television was the leading source of information.

**Conclusion:** Students' knowledge regarding Hepatitis is low, but their preventive practices are good. Majority of students were unvaccinated against Hepatitis B. Messages about Hepatitis may be incorporated in media to increase the level of awareness.

**Key Words:** KAP, Youth, Hepatitis

### Introduction:

Globally viral hepatitis is an emerging public health problem and it is one of the five infectious responsible for premature death. Approximately 3 billion people have been exposed to HBV, and more than 300 million are chronically infected with HBV<sup>1</sup> & 45% of the world's population lives in regions where HBV infection is endemic<sup>2</sup>. The World Health Organization (WHO) estimates that 130–180 million of the world's population is infected by hepatitis C virus<sup>3</sup> and three to four million individuals are diagnosed as new cases every year<sup>4</sup>. Pakistan has been rated among countries which are highly endemic for hepatitis B and C and is facing huge burden of these diseases. Pakistan Medical Research Council (PMRC) has undertaken a National Hepatitis B and C prevalence survey in 2008. According to which the overall prevalence for Hepatitis B & C is 2.5% & 4.9% respectively. It identifies prevalence in the age bracket of 20-29 years for Hepatitis B antigen as 2.2% and for Hepatitis C antibody as 4.4%. Prevalence follows an increasing trend with the age. Same survey estimates the prevalence of HBV and anti HCV in general population of Hyderabad as 2.2% and 5.7%, respectively<sup>5</sup>.

In country like Pakistan the main determinants of high prevalence of hepatitis B and C are, unsafe invasive surgical practices, unsafe injection delivery, transfusion of un screened blood,

unhygienic instrument used by barber and vertical transmission from mother to child during pregnancy<sup>6</sup>. The other contributing factors are low level of awareness regarding the etiology, mode of transmission, preventive method and low level of vaccination among different high-risk group regarding Hepatitis<sup>7</sup>. In Pakistan, over one-third of peoples are living in poverty cannot afford costly treatment of these diseases.

The objective of this study is to assess the level of knowledge attitude and practice regarding Hepatitis B and C among male students of public sector higher secondary colleges at District Hyderabad. The source of knowledge was also inquired and the contribution of electronic media in disseminating health education was compared to the other source of information.

The good knowledge regarding infectious disease & adaptive preventive measure is a major impediment to spread of these infections. State efforts to increase the awareness regarding prevention and control of hepatitis B and C among the community through mass media campaign are undergoing. To make it more effective, we attempted to assess gaps in existing knowledge and awareness & the resultant information might be used as a guide for development of health education material, educational and communication activities for prevention and control of hepatitis B and C.

### **Methodology:**

It was a community-based cross-sectional descriptive study, conducted in male colleges of district Hyderabad from June to August 010. Sample size was calculated by using 11% prevalence of knowledge reported in National Institute of Population Studies Survey (2004), by applying the formula for calculating the prevalence ( $p = t^2 \times p(1-p)/m^2$ ) a sample size of 150 students was calculated, incorporating the design effect of 1.9, the final sample size was calculated as a  $n = 150 \times 1.9 = 285$ .

For this study two stage sampling method was used; in the first stage all science colleges of public sectors were selected & in the second stage 285 students were selected by systematic random sampling. The attendance registers of students of every class was taken as a sampling frame, & every third student was selected to be interviewed. Only students of first year and second year (premedical & pre-engineering) were included in this study. Other groups such as commerce, arts were excluded from the study for reducing the bias inherent in comparing such information between science and other groups. Altogether 53 students were approached from 05 different colleges.

The students were interviewed on a pre-tested semi structured closed questionnaire in Urdu language after taking informed consent. First part of the questionnaire inquired about the demographic details. The second part of the questionnaire was rooted in the Health Belief Model of Baker and had four type of question regarding information on knowledge, perceived susceptibility, perceived severity and behavior. We measured the knowledge regarding Hepatitis its causative organism, mode of transmission and preventive method. Perceived susceptibility was measured by risk of acquiring infection at the time of injection at clinic or during shaving or hair cutting at barber shop and at the time of transfusion of blood. The third perceived severity was measured by posing a leading question, "if Hepatitis is not treated on on1, completion of 03 dose vaccination schedule against Hepatitis B2, using new syringe at the time of injection3, using new blade the time of shaving or hair cutting. The subjects who had received three doses of Hepatitis B vaccine we considered as fully immunized and those who had received no, one or two doses of vaccine were considered as not immunized or partially immunized respectively.

The data was collected and analyzed by using Statistical package SPSS version 17.0.

### **Results:**

Two hundred sixty-seven (n=285) students were approached for interviewed amongst these thirty-two students refused and remaining two hundred forty-three (n=243) students were in interviewed. The mean age of participants were 18 years, all were unmarried except two. All were enrolled in intermediate science group, among them 48% = (117) belonged to first year and remaining from second year 52% n= (126). In the present study 91% (n= 222) and 92% (n= 224) had ever heard Hepatitis B and Hepatitis C prior to this study respectively. Majority of them 95% (n= 232) mentioned that liver is affected by this disease. Only 10% (n= 25) respondents correctly identified that disease is caused by a Virus. 13% (n= 32) did not know the causative agent. Remaining 77% (n= 189) had misconception regarding causative agent as; 27% (n= 66) mention bacteria, 33% (n= 81) contaminated water, 17% (n= 42) contaminated food as causative agent. More than three quarter 84% (n= 206) agreed that it is transmitted from one person to another person. But they had inadequate knowledge regarding mode of transmission. 29% (n= 71) mention repeated use of reused syringe as a mode of transmission, 19% (n=47) unscreened blood transfusion, 18% (n=44) said that this disease can be transmitted by reuse of used blade and sexual intercourse. 10% (n= 25) attributed contaminated water and 7% (n= 18) hugging and kissing as mode of transmission. 45% (n=110) mention that this is preventable disease. Knowledge regarding preventive measures was found unsatisfactory. Practicing safe sex by 17% (n=42), vaccination against Hepatitis B by 15% (n=37) use of new disposable syringe by 12% (n=30) used of new blade by 10% (n=25) and screening of blood before transfusion by 8% (n=20) respondents were identified as preventive measures from Hepatitis B and C.

With regards to attitude 92% (n=224) reported insisting upon new syringe at the time of injection delivery and 81% (n=197) of subjects asked for a new blade at barber shop. Less than one fourth 17 % (n=42) of respondents had undergone blood screening for Hepatitis B and C and know their own serological status. 85% (n=207), 77% (n=188) and 30% (n=74) of subjects told that they may be on risk of acquiring infection at the time of injection at

clinic r during shaving or hair cutting at barber shop and at the time of transfusion of blood respectively. Various responses to the question about consequences if Hepatitis is not treated 35% n= (86) mentioned death 15% n= (37) cancer and filling of water in abdomen 10% n= (25) remaining 40% n (95) said that increase the disease

The practice of students for prevention was good. 71% (n=173) and 68% (n=166) respondents were insisting on using new and new blade at the time of injection and at the barber shop respectively. 75% Chart 1

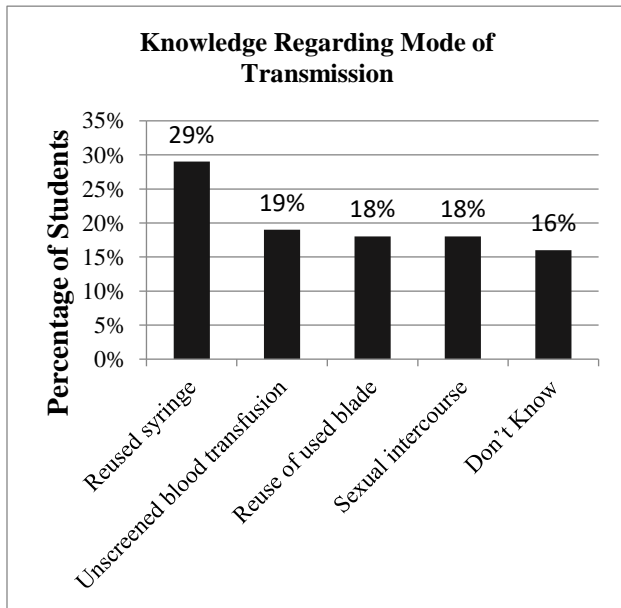
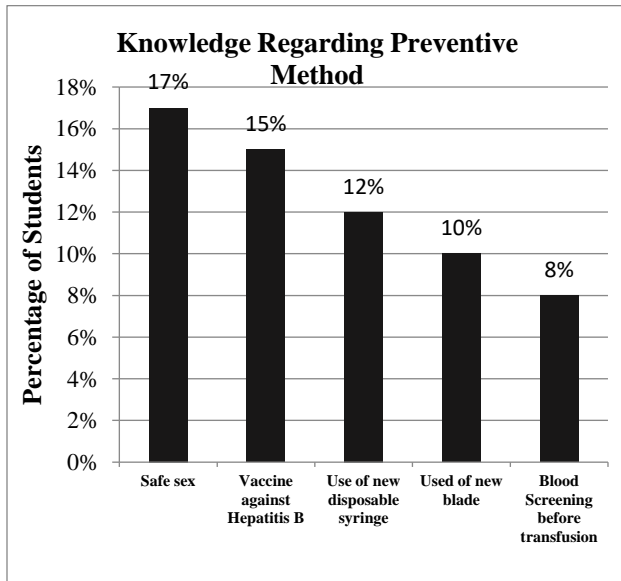


Chart 2



(n=183) students mentions that they had injections 1-3 times in previous three month.

In our study only 29% (n=71) were vaccinated against Hepatitis B out of which only 19% (n=47) were fully immunized and 10% (n=25) were partially vaccinated. When students were inquired regarding source of information on Hepatitis 50% (n=122) mentioned Television, 17% (n=42) Radio, 13% (n=32) newspaper, 12% (n=30) Family and friends and remaining 8% (n=20) said that they got information from the doctors.

**Table 01:** Attitude, Practices of Students & Source of Information

	Information variable	Frequency (N=243)	Percentage
Attitude of Students	insist for new syringe	224	92%
	insist for new Blade	197	81%
Practices of students.	Used new syringe	173	71%
	Used new blade	166	68%
	Vaccinated against Hepatitis B	71	29%
	Fully Vaccinated	47	19%
	Partially vaccinated	25	10%
Source of Information	Television	122	50%
	Radio	42	17%
	News paper	32	13%
	Family and friends	30	12%
	Doctors	20	8%

**Discussion:**

Hepatitis B and hepatitis C are major health problems globally casting an enormous burden on health care system and major source of patient's misery<sup>8,9</sup>. These are important causes of hepatocellular carcinoma and are likely to remain a serious health problem resulting in substantial morbidity and mortality for several decades to come<sup>10</sup>. Individual or community knowledge regarding safety precaution, causative agent, and mode of transmission, risk perception and disease severity about common infectious disease such as Hepatitis B & C helps in stopping further spread of this disease in the community and will reduce the burden of disease of on health system of country.

Knowledge attitude and practice studies are helpful to assess individual or community behavior for this disease.

In this study 91% and 92% had ever heard Hepatitis B and Hepatitis C which is comparable to a study conducted in 2006 in CMH Sargodha which reports that 96% of young healthy male had Hepatitis B and C<sup>11</sup>. The knowledge regarding causative agent was poor only 10% respondent correctly identify that this disease is caused by Virus. This result showed that low level of awareness was present in our study population as compared to women attending Gynaec and Obs OPD of ISRA University<sup>12</sup> and population of village of District Nowshera<sup>13</sup>, where 67.76% and 17.6% respectively have knowledge regarding causative agent. Knowledge regarding mode of transmission play important role for prevention of disease. In our study more than one cause are reported for transmission of Hepatitis B and C. However, the most frequent responses were repeated use of infected syringes Reuses of blades, Sexual intercourse. The level of knowledge that Hepatitis can be transmitted through sexual intercourse is high from study done at boys' colleges of Islamabad<sup>14</sup> where only 3.5% known that this disease can be transmitted through sexual contact. The knowledge regarding other mode of transmission is low from the study conducted in private medical college<sup>15</sup> study and Sargodha<sup>11</sup>. Barber in Islamabad mentioned that sharing razor a key factor for transmission of Hepatitis<sup>16</sup>. Some researcher has reported that viral Hepatitis is commonly transmitted through prenatal route, needle stick injuries, sexual contact and vertical transmissions<sup>17</sup>. The culture of scavenging dumps containing used syringe, razor and other sharp materials reported to cause spread of viral Hepatitis in some studies<sup>18</sup>. Seventeen percent of population in our study has misconception 10% contaminated water and 07% hugging and kissing same type of misconception also find in study in Nigeria<sup>19</sup> and study conducted in Sunjawan Jammu<sup>20</sup>. Other type of misconception for transmission of disease also find in the private medical college study conducted in the Karachi, such as sharing of a room 10%, sharing eating utensil 21%, touch 0.6%, swimming pool sharing 14.6% and kissing 26%

The level of awareness regarding preventive measures of Hepatitis B and C such as vaccination against Hepatitis B, Used of new syringe, Used of new blade, and screening of blood before

transfusion is identical to a study conducted in New Delhi<sup>21</sup> among medical students. But low from the study conducted in EPI Vaccinator of Karachi<sup>22</sup> where 34% , 30% and 13% of vaccinator have knowledge that this Hepatitis B can be prevented by vaccination, by used of new syringe, and by used of sterilized instrument respectively only 6.5% known that practicing safe sex as preventive method. With regards to attitude 92% and 81% of subjects force for new syringe and new blade at the time of injection and shaving respectively these findings are high variance from the study conducted in CMH Sargodha where attitude was 23% regarding for syringe and 38% for new blade. This result gives conclusion that respondents of this study have more positive attitude for prevention of disease as comparable to young male adults. The rate of vaccination against Hepatitis B is very low as comparable to study conducted in Nigeria where rate of vaccination is 70% among them 63% were completed their vaccination schedule and study in Orthopedics where vaccination rate was 74%. 75% students mention that they were used to injection 1-3 times in previous three month<sup>23</sup>. Pakistan has the highest frequency of injection in the world. The average number of injections per person is 8.5% and 45% of patients receive injection at their first clinical visit. In addition to the unnecessary injection are not safe in the country when students were inquired regarding source of information majority of students 50% mention Television as the main source of information<sup>24</sup>; this type of result also find in the study in Nowshera and study in female colleges.

#### **Conclusion:**

This study revealed that the knowledge regarding Hepatitis B and C among male students were low and there some misconception regarding etiology and mode of transmission but their attitude and practices for prevention of diseases were good which indicate that factors other than known play role. This apparent knowledge-practice paradox is resulting from the state-run health promotion and education campaigns on the media. The targeted health education messages have improved the practices without increased the knowledge. Television is the most important source of information among the mass media which are present in the country. Student paid attention health education messages run on television. Radio and Newspaper are other source of information

Friends, family members and doctors are pay least contribution in health education campaign

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