

# Knowledge, Attitude and Practice of Hepatitis C in Adolescents in Chennai, India

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**Abstract:** ***Aim:** The aim of this study is to assess and evaluate the knowledge of Hepatitis C in adolescents. **Objective:** This study is set out to establish awareness of hepatitis C among adolescents. **Background:** Hepatitis C is an infectious disease caused by the hepatitis C virus (HCV) that primarily affects the liver. During the initial infection people often have mild or no symptoms. Occasionally a fever, dark urine, abdominal pain, and yellow tinged skin occurs. HCV is spread primarily by blood-to-blood contact associated with intravenous drug use, poorly sterilized medical equipment, needlestick injuries in healthcare, and transfusions. It may also be spread from an infected mother to her baby during birth. It is not spread by superficial contact. It is one of five known hepatitis viruses: A, B, C, D, and E. **Diagnosis** is by blood testing to look for either antibodies to the virus or its RNA. Testing is recommended in all people who are at risk. There is no vaccine against hepatitis C. **Reason:** This study was embarked on to examine the awareness of hepatitis C in adolescents.*

**Keywords:** hepatitis C; Adolescents; awareness, Knowledge, attitude and practice of hepatitis C in adolescents in Chennai

## 1. Introduction

Hepatitis C disease is caused by hepatitis C virus in human. HCV infection has no effective vaccine[1]. According to a World Health Organization (WHO) estimate, two billion people in the world have serological evidence of prior HBV infection [2], and up to 3% (170 million) are infected with HCV [3]. Hepatitis C infections have a wide spectrum of clinical presentations ranging from asymptomatic carrier state to acute self-limiting hepatitis. Majority of HCV infections become chronic and may lead to liver scarring, cirrhosis, liver failure and hepatocellular carcinoma. A number of different agents can cause hepatitis, including infective agents (virus, bacteria, and other organisms), chemical poisons, drugs and alcohol or an immune response towards the organ itself (autoimmune hepatitis). Viral hepatitis refers to a set of at least 5 viruses that are known to cause hepatitis: hepatitis A (HAV), hepatitis B (HBV), hepatitis C (HCV), hepatitis D (HDV), and hepatitis E (HEV). It is widely assumed that there are other, as yet unidentified, hepatitis viruses.

The most common types of viral hepatitis are hepatitis A, B, and hepatitis C and in some parts of the world hepatitis E. Both hepatitis B and C can lead to serious, permanent liver damage, and sometimes acute liver failure and death. Chronic persistence of the virus is a major cause of cirrhosis and death, as well as liver failure or liver cell cancer. There are two primary modes of transmission of viral hepatitis: Water-food-borne and blood-borne. In the former case hepatitis A or E are implied which are spread through contaminated food and water. They do not cause chronic liver disease. By contrast, blood borne viral hepatitis, cause by the hepatitis B, C or D virus and may lead to long-term, persistent infections and chronic liver disease with potentially lethal consequences. The term 'Hepatitis' refers to inflammation of the liver. Inflammation is the local reaction of the body, in this case the liver, in response to a damaging agent. It leads to accumulation of inflammatory cells, swelling of tissue and

cells and eventually the death of cells. In case of chronic hepatitis, a compensatory response of the body may include the formation of scar tissue (fibrosis) and remodeling of the liver into nodules. The latter condition is called cirrhosis. HBV and HCV are generally transmitted by unsafe use of therapeutic injections,[4] blood transfusion,[5] shaving from barbers, tattooing,[6] mother to child transmission[7], unsafe sexual practices[8], infected instruments used for ear and nose piercing, intranasal cocaine use, poor personal hygiene[9]. All these behavioural factors are commonly observed in adolescents and have been suggested to place these individuals at higher risk for acquiring infections with bloodborne pathogens. Adolescence age is a period of challenges and opportunities for understanding oneself within social context. It is a transitional stage of physical and psychological development that generally occurs during the period from puberty to legal adulthood. At this particular time of age children take up characteristics of adults and behave like them even though they are not adults yet. It is because of volatile nature of this stage, they are mostly prone to many risks including drug use, smoking, drinking, unprotected sex and many other practices [10].

## 2. Materials and Method

A Knowledge, Attitude and Practices (KAP) survey that is conducted in a population which is a quantitative method (predefined questions formatted in standardized questionnaires) provides access to quantitative and qualitative information. KAP surveys reveal misconceptions or misunderstandings that may represent obstacles to the activities that we would like to implement and potential barriers to behaviour change.

The respondents in this study were school going adolescents and about 120 were selected and approached. But only 100 adolescents responded fully which is the sample size.

The self-administering questionnaire consists of 18 questions which were framed based on knowledge and attitude towards hepatitis C on online in survey planet app. The link was shared to about 120 adolescents in Chennai. But only 102 responded fully. They were explained about the purpose of the study. The questions were carefully studied and the corresponding answers were marked by them. The study population consisted of adolescents who were approximately 10-20 years of age. Results with p-value < 0.05 were accepted as statistically significant.

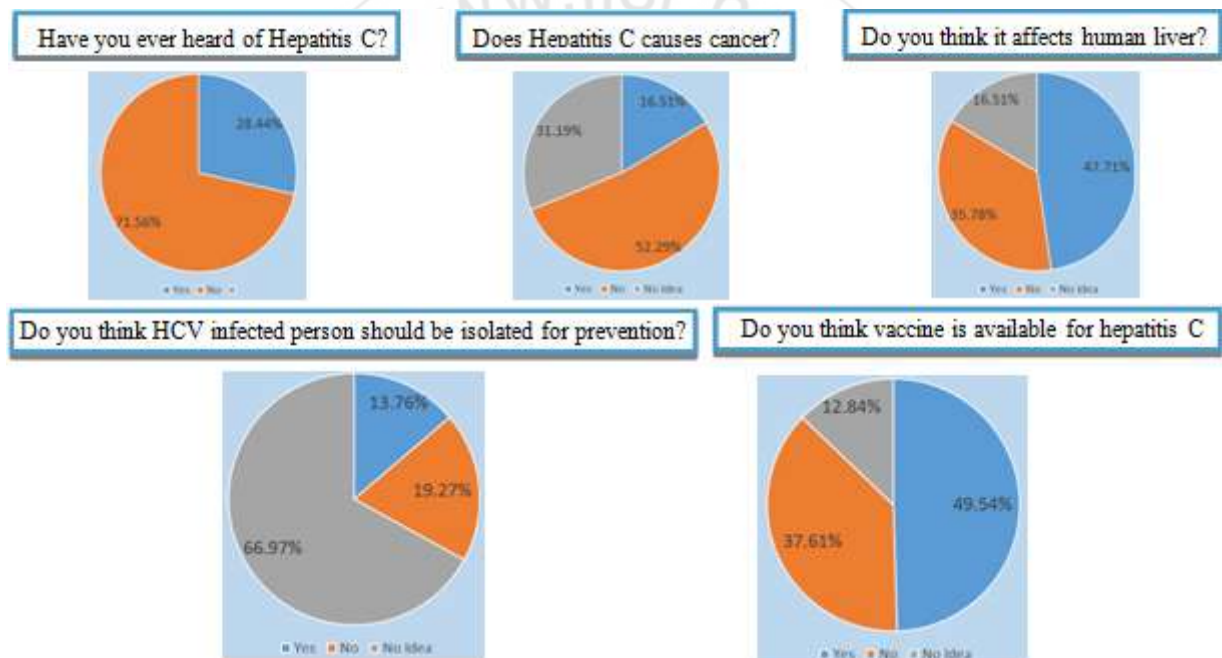
### 3. Result

The mean age of the all the participating adolescents was 19 years (range = 11-20 years). The patients were asked if they had heard of HCV before acquiring the disease and 28.44% were found to have heard of hepatitis C, however 71.5% had not heard of the disease.

On being inquired regarding the source of knowledge regarding HCV, the popular source identified was relatives by

39.8% of the respondents, followed by health professionals by 33.5% and television and radio were identified by 1.1% and 0.6% patients respectively.

The knowledge of HCV patients regarding hepatitis C was ascertained through questions regarding the etiological agent of the disease, its mode of transmission, prevention and control aspects and complications associated with it. The responses of the patients which show that 41.4% of the respondents were unaware of a virus being the cause of hepatitis C, 52% have answered that HCV does not affect liver. The ways that the responders think the virus can be transmitted—toothbrush (45.1%); food and water (29.4%); contaminated blood (46.1%); unsterilized syringes (43.3%); infected blades in barber shop (53.9%); infected needle for tattooing and piercing (42.8%); open wounds/cuts (44.2%); mother to baby during pregnancy (54.1%). Regarding the attitude among adolescents, about 30.2% of the study population answered that the HCV+ve persons should be isolated for prevention. 36.3% answered that it isn't safe to visit HCV+ve people.



### 4. Discussion

According to WHO, Hepatitis C is a blood borne infection which is a significant health problem, affecting 130-150 million people all over the world. This study was done to assess the knowledge and attitude of adolescents towards hepatitis C and HCV+ve patients.

Knowledge of the correct transmission route of HCV was unsatisfactory in most of the participants. Knowledge is produced by interaction with own environment where persons themselves build their understanding of world through experience. Human knowledge comes generally with communication processes and knowledge plays key role in prevention.

A cross-sectional study conducted in Australia to assess secondary school student's level of knowledge about sexually

transmitted infections in rural and urban localities, it was found that rural students were more knowledgeable about issues of sexually transmitted infections compared to their urban peers. A survey of rural Canadian student's sexually transmitted diseases knowledge discovered high levels of knowledge among both rural and urban students in Canada. Another KAP study was conducted in United States of America to determine adolescent's level of HIV knowledge in low risk rural areas and high risk urban areas and study observed that rural students had better knowledge of HIV and risk reduction strategies than their urban counterparts [11,12]. Above mentioned knowledge surveys showed opposite findings when compared to this study and this could be because of context and social structure of the society. An individual's behaviour can be predicted by using strength and consistency of their attitude. Thus any intervention that is aimed at changing behaviour of an individual must initially have enough information about his or her attitudes and

later employ methods which will help for changing attitudes. Knowledge does not necessarily influence an individual's attitude; people may be knowledgeable about particular risk behaviour but still practice it. Adolescents think they are free and growing, its age of struggle for self identity. In this period of life tattooing and piercing is fashion and adolescents are highly motivated to practice these kind of fashion because they usually not receive much criticisms from society. Hence the adolescents particularly, should be aware of transmission ways of hepatitis C.

## 5. Conclusion

Psychologist identified that adolescents are highly exposed to risk taking behaviour and several studies shown that male's adolescents are more risky than female [13]. Knowledge, attitudes and practice about hepatitis C among adolescents was totally unsatisfactory. Results of this study highlight the lack of understanding about basics of infection control and prevention of hepatitis C transmission. Hence critical level of public awareness, especially among adolescents is essential to decrease burden of hepatitis C infection. This can be done by organising sensitizing awareness programmes with audio and visuals, outdoor advertisements, distributing literatures and pamphlets based on attitude towards HCV+ve patients. This issue can be addresses by first identifying its root cause. Thus all these measures, if taken up seriously, can have a positive impact on the knowledge and attitude of hepatitis C among adolescents and many other people.

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