

## A Study to Assess the Level of Knowledge on Hepatitis-B among Adolescents in Selected Rural Government Junior Colleges Tirupati

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### Abstract

Hepatitis B is a potentially life-threatening liver infection caused by the hepatitis B virus. It is a major global health problem and success in the prevention of this disease with its fatal consequence depends to a large extent on the public level of knowledge and their awareness about it. Therefore, a study was conducted to assess the knowledge on Hepatitis B among adolescents in selected rural government junior colleges. The setting was selected Rural government junior colleges of Tirupati (Chandragiri). A probability Stratified random sampling was used to select the 100 College students. A structured knowledge questionnaire to assess the knowledge and a checklist to assess knowledge on prevention of Hepatitis B were used. The collected data were analyzed by descriptive and inferential statistics. 57% adolescent students had moderate knowledge followed by 23% had inadequate and 20% had adequate knowledge. Chi-square test was computed for association of demographic variables with knowledge regarding Hepatitis- B. The findings showed significant association in Hepatitis B knowledge among adolescent students with regard to Gender ( $\chi^2 = 0.001^{**}$ ) at 0.01 level of significance. No significant association was found with other demographic variables. The findings of the study revealed that most of the adolescent students had moderate knowledge regarding Hepatitis B.

**Keywords:** Hepatitis B; Adolescent students; Knowledge.

### Background

Hepatitis is known as “inflammation of the liver” due to viral infections, caused by the Hepatitis B virus (HBV). There are five main hepatitis viruses, referred to as types A, B, C, D and E. These five types are of greatest concern because of the burden of illness and death they cause and the potential for outbreaks and epidemic spread. In particular type B lead to chronic disease in hundreds of millions of people and is the most common cause of liver cirrhosis and cancer.[4]

### Objectives

1. To assess the level of knowledge on Hepatitis-B among adolescent students.
2. To determine the association between the level of knowledge on Hepatitis-B among adolescent students with their selected socio demographic variables.
3. To develop and distribution of information booklet for adolescent students regarding Hepatitis B.

### Need for the Study

Hepatitis B is a major health risk in most of developed and developing countries. Among all groups Adolescent represent important portion of the

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overall population because during this stage development of sexuality, relations, and peer pressure will be there, along with that lack of knowledge and awareness regarding Hepatitis B, high risk behavior is more. So they are at high risk for acquiring Hepatitis B which is a sexually transmittable disease.

About 2000 million people have been infected (1 out of 3 people) with hepatitis B virus worldwide, of whom more than 400 million are chronically infected, 10-30 million will become infected each year and an estimated 1 million people die each year from hepatitis B and its complications. Approximately 2 people die each minute from hepatitis B. About 15-25% of HBsAg carriers are likely to suffer from cirrhosis and liver cancer and may die prematurely. Unfortunately most of the individuals are unaware of their infection.[2]

## Methodology

### Research Approach

Non-Experimental approach was selected.

### Research Design

Descriptive survey design was used.

### Sample and Sample Size

In this study sample consisted of 100 adolescent students.

### Setting

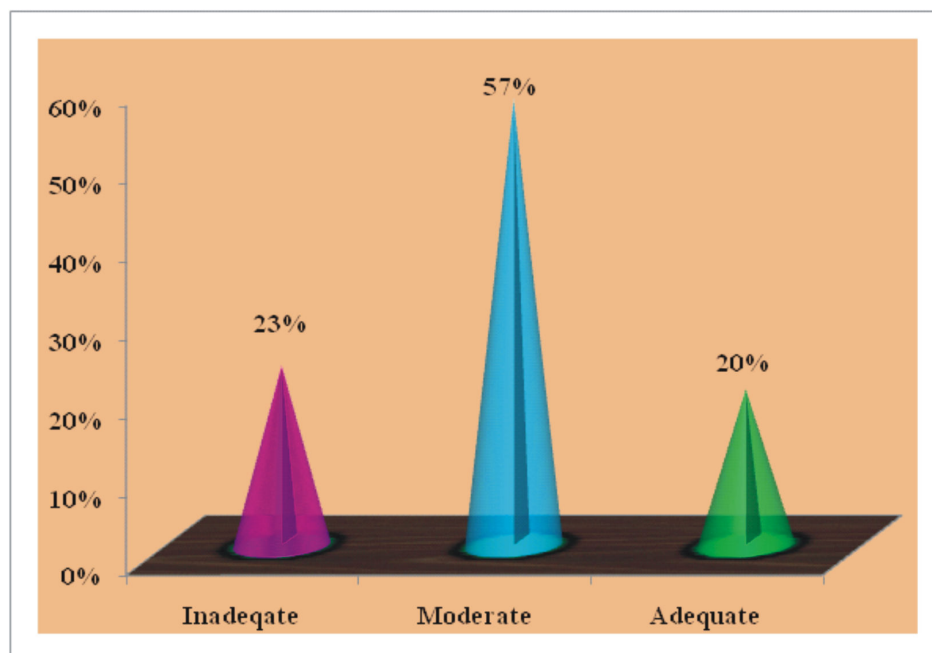
The study was conducted in Selected rural government junior colleges of Tirupati (Chandragiri).

### Tool

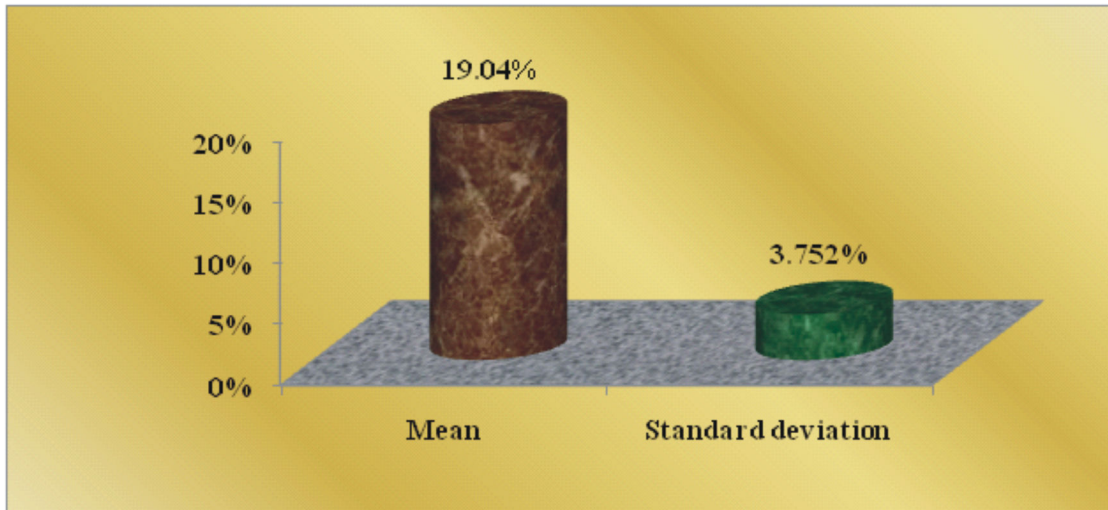
Tool consists of three sections, section-I includes demographic variables. Section II contains self administered questionnaire with 21 questions, section III contains observational checklist with 13 items.

Tool was found to be highly reliable and valid. Pilot study was conducted before the main study to assess the feasibility. Data was collected from adolescent students of selected government junior colleges of Tirupati (chandragiri) by taking permission from the District vocational and educational officer of Tirupati, and written consent from the adolescent students. Finally all the respondents were thanked for their co-operation and given information booklet as a self instructional module for creating awareness regarding hepatitis B among adolescent students.

**Fig 1: Percentage Distribution of Level of Knowledge on Hepatitis B**



**Fig 2: Mean and Standard Deviation for Level of Knowledge on Hepatitis B among Adolescent Students**



*Findings*

*Section I: Distribution of Demographic Variables among Adolescent Students.*

The data have been analysed using descriptive and inferential statistics. The main findings of the study were: Most of the subjects (54%) are between the age group of 16-17 years of age. 61 were females and 39 were males. 92% belongs to Hindu religion, 40% were illiterates, 45% were practicing agriculture, 80% of them belongs to nuclear family.

*Section II: Distribution of Level of Knowledge on Hepatitis – B among Adolescent Students*

*Section III: Mean and Standard Deviation for Level of Knowledge on Hepatitis – B among Adolescent Students*

knowledge levels on Hepatitis –B among adolescent students.

Chi-square test was computed for association of demographic variables with knowledge regarding Hepatitis-B. The findings showed significant association in Hepatitis B knowledge among adolescent students with regard to Gender ( $\chi^2 = 0.001^{**}$ ) at 0.01 level of significance. No significant association was found with other demographic variables.

**Discussion**

Hence the Null hypothesis formulated in the study was Rejected that there is significant relationship between the level of knowledge on Hepatitis B with

**Table 1: Significance of Association between Demographic Variables with Knowledge Level Using Chi-square**

Demographic variables	Chi-square ( $\chi^2$ )	Degree of freedom	P value
Age	0.646	2	0.724
Gender	15.080	2	0.001**
Religion	3.576	4	0.466
Educational status of the mother	10.895	12	0.538
Occupational status of the mother	3.661	8	0.886
Education of the father	16.590	12	0.166
Occupational status of the father	12.752	8	0.121
Type of family	0.137	2	0.934
Family income	2.071	4	0.723

Note:\*\* Significant at ( $p < 0.001$ )

selected demographic variables of Adolescent students.

The findings was supported by a study conducted by B. Ramakrishna Goud (2014). A total of 128 responses were received during the survey to assess the awareness regarding hepatitis among the young college girls aged between 18 to 25 years of a Bangalore city women's college, India. Majority of students possessed adequate knowledge regarding hepatitis transmission, high-risk behavior and disease prevention. However, the students were lacking knowledge in some key areas of viral hepatitis; misconceptions still exist regarding certain aspects of viral hepatitis, which reflect an inaccurate perception of the disease among students. Finally author concluded that Strategies need to be developed towards creating awareness for viral hepatitis in India.[1]

In relation to Association between demographic variables and knowledge levels a similar study was conducted by Nadar Roushan (2013) on 18 years old adolescents according to stratified cluster random sampling in the Iran, results showed that Higher levels of education, living in rural areas, marriage and female gender were associated with better knowledge.[3]

#### *Limitations*

The present study is limited to

- Selected areas only.
- those who understand Telugu and English.
- those who are willing to participate.
- age group between 15-18 yrs.

#### *Implications*

The implications drawn from the present study is of vital concern to health teams including Nursing practice, Nursing education, Nursing administration, Nursing Research and so on.

#### *Nursing Practice*

- In the community, small teaching sessions can be conducted regarding Hepatitis B to adopt healthy life style practices by adolescents and to bring down the incidence of highly prevailing Hepatitis B infection.

- Planned Health teaching programs are to be scheduled in the higher secondary schools, intermediate and vocational junior colleges on fixed days for adolescent students regarding preventive practices of Hepatitis B infection.
- Nurses working in the community have to realize their responsibility in giving health education to the adolescents regarding Hepatitis B.
- Nurses can take active part in conducting mass health awareness programs regarding Hepatitis B to adopt healthy practices to prevent Hepatitis B infection.

#### *Nursing Education*

- The community health nursing curriculum needs to be strengthened to enable nursing students with knowledge on causes, transmission, risk factors, signs and symptoms, management and prevention of hepatitis B.
- Community health nurse educators should plan and conduct in-service education and continuing education programs on prevention of Hepatitis B for nurses.
- Community health nurses can develop educational material for teaching the adolescent students regarding Hepatitis B to adopt healthy practices in their daily life, which brings down the incidence of highly prevailing Hepatitis B infection.

#### *Nursing Administration*

- Conduct regular screening camps on Hepatitis B infection in the schools, colleges and in the community to initiate health programs in order to prevent Hepatitis B infection.
- Administration policies should allow for conducting training workshops for nurses on prevention of Hepatitis B and to put knowledge on Hepatitis B into practice.
- Administration policies should allow for conducting routine medical examination for adolescent students by health officers in the development of strategic plans towards the prevention of Hepatitis B.

### *Nursing Research*

- More research is needed on different strategies in prevention of Hepatitis B infection and adoption of healthy practices regarding Hepatitis B among adolescent students.
- The nurses and nursing students should be encouraged to do research in the field of interest regarding Hepatitis B among adolescent students.
- Utilization of research findings in clinical practice has to be encouraged.

### *Limitations*

- The study was confined to a specific geographical area (selected areas) which obviously limits to any larger generalization.
- Sample size of the study was small which imposed a limit on generalization.
- No attempt was made to do the assessment of knowledge of adolescent students regarding Hepatitis B after issuing the booklet.

### *Recommendations*

- A comparative study can be conducted to assess knowledge on Hepatitis B among adolescent students in urban and rural government junior colleges.
- A study can be conducted to assess the effectiveness of structured teaching program on evaluation of knowledge regarding Hepatitis B.
- A large scale survey can be conducted to assess the incidence of Hepatitis B infection in the community.
- A similar study can be conducted to assess knowledge regarding hepatitis B among all personnel in Tirupati.
- A similar study can be conducted on large sample for better generalization.
- The study can be replicated in different community settings
- Manuals, information booklets and self-instructional module can be prepared and distributed in community to create awareness.

### **Conclusion**

In this study most of the adolescent students had inadequate and moderate knowledge regarding Hepatitis B. There was a Significant association between the Demographic variable that is Gender and the level of knowledge at  $P < 0.01$  level. These findings suggested extensive health education programs were needed to improve the knowledge regarding causes, transmission, risk factors, signs and symptoms and prevention of Hepatitis B among adolescent students to bring out healthy community.

### **Acknowledgement**

I express my heartfelt gratitude to Mrs. M. Sreelatha, M.Sc. Nursing, Ph.D, Assistant Professor, Community Health Nursing, College of Nursing, SVIMS, Tirupati for her expert guidance, valuable and thought provoking suggestions & constructive criticism.

I would like to express my sincere, whole hearted gratitude to the good administrator, empathetic and dynamic Principal I/C, Dr. P. Sudha Rani [M.Sc. (N), Ph.D,] Professor, for her altruism and humane approach that saw me through ever since the days of experiencing my teaching troubles.

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