

A Survey of the Students' Knowledge about Hepatitis in Shiraz University of Medical Sciences

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Background and Aims: Because of the importance of hepatitis and the prevalence of contamination with hepatitis virus, a survey of the students' knowledge about viral hepatitis was conducted in Shiraz University of Medical Sciences.

Methods: This is a descriptive study performed in cross-sectional method. Ten percent of the students enrolled in different courses were selected by stratified sampling method. A structured questionnaire was designed to obtain information about their knowledge of hepatitis.

Results: The mean scores were 41.3 ± 20.2 and 61 ± 34.5 of 100 regarding knowledge about hepatitis and prevention of the disease, respectively. Students had more information about hepatitis prevention than about other aspects of the disease such as mode of transmission and symptoms. There were statistically significant differences between the knowledge of hepatitis by age, semester and educational degree ($P < 0.001$). This study showed no significant association between knowledge of hepatitis and sex, job, parents' education and the place of residence ($P > 0.05$).

Conclusions: This study showed that students' knowledge of hepatitis was very weak. Their knowledge with respect to the prevention of the disease was higher than other aspects.

Keywords: Viral Hepatitis, Knowledge Rate, Shiraz University of Medical Sciences, Students

Introduction

Hepatitis can be manifested in acute form with jaundice, dark urine, anorexia, weakness, severe fatigue, pain and tender right upper quadrant (RUQ). Viral hepatitis is one of the five important infectious causes of premature death in the world. At least one million people die from hepatitis in the world yearly. About two billion patients are suffering from hepatitis B, and there are more than 350 million carriers in the world ⁽¹⁾.

Hepatitis is a preventable disease and the students of medical sciences have an effective role in its prevention. A study conducted by Al-jabar AA, et al. (2004) showed that the undergraduate medical students' knowledge about hepatitis is low ⁽²⁾.

The staff of health providing services should be familiar not only with treatment but also with epidemiological aspects of diseases such as transmission, prevention and control. Therefore, it is vital to study the level of information of this group in different fields including hepatitis, one of the most prevalent infectious diseases.

General knowledge of health staff about viral hepatitis and its transmission and prevention can stop the spread of this disease in hospitals and in society. Since medical students are in constant contact with

hepatitis patients during their studying and afterwards, they are in danger of acquiring viral hepatitis especially types B and C.

The aim of this study is to determine the knowledge of students of Shiraz University of Medical Sciences and educational problems involved. In case this group's level of information is low, they should be trained accordingly.

Materials and Methods

In an analytical cross-sectional study, 356 students in different fields from eight faculties were selected by proportional stratified random sampling method. The total number of students in different departments of Shiraz University of Medical Sciences was 4025. Of all these students, based on

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ratio of the number of students of that department to the total number of students of the whole university, a number of students were randomly chosen. This way the departments that had more students provided more samples.

A questionnaire containing 16 items about different aspects of hepatitis was distributed among students. The questions of the questionnaire were multiple choice and based on the most reliable books on infectious diseases. The questionnaire started with questions asking the sex, age, field of studies and the academic term. The rest of the questions were specific and related to hepatitis, its transmission, prevention and symptoms.

The questions in this study were about:

- 1- General knowledge about hepatitis
- 2- Knowledge about prevention, symptoms and transmission of hepatitis A, B, C, D and E .

The grades were calculated out of 100. The validity of the questionnaire was determined by specialists of infectious diseases, epidemiology and health education .The reliability (0.79) was determined by Cronbach alpha test. Data entry and statistical analysis were performed by SPSS 11.5 software. Analytic results were introduced by t-test, analysis of variance and Pearson and Spearman correlation coefficient.

Results

The mean age of the participants in this study was 22 ± 2.06 (Mean \pm SD). The maximum and minimum ages were 31 and 18, respectively. Descriptive results are presented in table 1.

The level of awareness of medical students was more than that of other groups, and this difference was statistically significant ($P < 0.001$). The knowledge score of college students and that of BSc undergraduate students was not statistically significant ($P > 0.05$). There was a significant difference between the mean scores in all aspects of hepatitis knowledge and different majors ($P < 0.001$). The knowledge of medical students about this disease was more than that of occupational health, nutrition, radiology and management students ($P < 0.001$). But their knowledge was the same as public health, nursing, dental and pharmacy students. Information level of lab science and nursing students in preventing the illness was more than that of students of other fields (72 ± 32).

There was a statistically significant correlation between students' knowledge by age and semester ($P < 0.001$). Therefore with increase in age and

Table 1. Descriptive results for sex, degree, semester and faculty.

Variables	Frequency	Score of knowledge	
		Mean \pm SD	P value
Sex			
Male	147 (41.8%)	42.5 \pm 22	(P>0.05)
Female	205 (58.2%)	40.3 \pm 18.8	
Degree			
Associate degree	37 (10.7%)	33.3 \pm 16	(P<0.001)
BSc	134 (38.2%)	36.5 \pm 19	
MD, PhD	181 (51.1%)	46.4 \pm 20.5	
Semester			
1-3	88 (25%)	32 \pm 18	(P<0.001)
4-6	65 (18.5%)	36.6 \pm 17.9	
7-9	44 (12.5%)	42.7 \pm 20	
10*	155 (44%)	59.1 \pm 15	
Faculty			
Medical	101 (28.6%)	49.2 \pm 21	(P<0.001)
Dentistry	46 (13%)	41.7 \pm 20.3	
Pharmacy	34 (9.6%)	44.6 \pm 17.8	
Nursing	68 (19.3%)	34.3 \pm 14	
Health	36 (10%)	38 \pm 15.5	
Paramedical	33 (10%)	35 \pm 13.5	
Management	18 (5%)	34 \pm 10.5	
Rehabilitation	16 (4.5%)	16 \pm 12.7	

educational terms, students' knowledge of hepatitis increased, too (table 2). Senior students' level of information was higher than that of others. Grade difference in the first to the third and the fourth to the sixth terms was not statistically significant

Table 2. Correlation between students' knowledge by age and semester.

Aspects of hepatitis	Variables	Correlation	P value
General knowledge	Age	0.422	P<0.001
	Semester	0.43	
Hepatitis A	Age	0.445	P<0.001
	Semester	0.436	
Hepatitis E	Age	0.453	P<0.001
	Semester	0.392	
Hepatitis B	Age	0.328	P<0.001
	Semester	0.322	
Hepatitis C	Age	0.25	P<0.001
	Semester	0.354	
Hepatitis D	Age	0.326	P<0.001
	Semester	0.427	
Prevention	Age	0.194	P<0.001
	Semester	0.234	

($P>0.05$), but there was a significant difference between the fourth to the sixth and the 10th terms.

There was no significant correlation between sex and knowledge of students about hepatitis. The knowledge of students about hepatitis B, C and D was more than that about hepatitis A (Table 3).

Table 3. The mean scores of students by sex.

Aspects of hepatitis	Sex	Mean±SD	P value
General knowledge	Male	42.6±22.1	0.323
	Female	40.4±18.8	
Hepatitis A	Male	33.1±22.5	0.245
	Female	29.2±17.4	
Hepatitis E	Male	53±42.5	0.151
	Female	47.5±20.3	
Hepatitis B	Male	74.3±32.5	0.558
	Female	73.2±32.3	
Hepatitis C	Male	60.2±34.3	0.467
	Female	56.7±25.7	
Hepatitis D	Male	48.3±19.2	0.981
	Female	49.1±21.5	
Prevention	Male	36.2±22.1	0.435
	Female	34.5±18.3	

There was no significant difference between knowledge rate of hepatitis B, C, D and educational degree ($P=0.29$). But in other aspects of hepatitis such as symptoms, prevention and mode of transmission, there was a significant difference in educational degrees ($P<0.001$) (Table 4).

No significant difference was observed between education of the students' parents and their knowledge about hepatitis ($P>0.05$).

Table 4. The mean scores of students by educational degree.

Aspects of hepatitis	Associate degree mean±SD	Bachelor (BSc) mean±SD	Medical Doctors (M.D) mean±SD	P value
General knowledge	33.4±16	36.6±19.2	46.4±20.5	$P<0.001$
Hepatitis A, E	19.7±25.4	33.8±29.7	49.3±32.8	$P<0.001$
Hepatitis B, C, D	53.5±36.8	60.3±36.2	63±32.7	$P=0.293$
Prevention	32.7±15.9	29.9±18.2	39.7±21	$P<0.001$

Discussion

The results of this study show that the knowledge of students of medical sciences with respect to the type of hepatitis (A, B, C, D and E) was very weak. Their knowledge with respect to the prevention of disease was higher than other aspects. This study shows that there was a significant relationship between knowledge of hepatitis and age, educational level and major. There was no significant difference between sex, marital status and knowledge of hepatitis.

In a study conducted by Ayyat, et al (2000) done on all the nursing students and nurses of Bilharz hospital in Theodore showed that they needed to be educated in washing their hands, avoiding common syringe in order to control hepatitis B, C (3). In the same study in Taiwan, it was shown that knowledge of hepatitis B and C in dental students was 80% and 75%, respectively, which is much higher than that in medical students (4). The knowledge of hepatitis B was more than that of other types of hepatitis in medical students. But the knowledge of hepatitis B, C and D is equal among all the students. A study done on junior and senior high school students of Australia showed that they had very little information about hepatitis C and could not differentiate between the three types A, B, C (5).

In a study conducted by Habra, et al (2005) on medical students of Delhi to measure their level of information about hepatitis A and B, a questionnaire including information on hepatitis B vaccine, its transmission, symptoms and prevention, was distributed among the first, third and last year students. The results showed that senior students had the highest level of information compared with other two groups (6). On the whole, however, they had little information about vaccine dose, transmission via personal objects and precautions and prevention. This result is identical to the results we have obtained in our study.

Billinger and Stoke (1992) believe that the following can influence health habits of individuals: age, occupation, race, socio-economic status, information about the disease and the level of health education that an individual receives (7).

All of the students in our survey had heard about hepatitis, but compared to other students, medical, pharmacy, and dentistry students had the most and students of rehabilitation and management had the least information about hepatitis. Information level of the students in higher semesters was much more than that of the students in lower semesters. On the whole, all of the students surveyed were more familiar with hepatitis B than with other types of

this disease.

Since the students of medical sciences play an important role in prevention of this disease, it is essential that medical universities pay more attention to informing and educating them. Although educational system of all the medical schools in Iran is the same and they all use the same syllabus, it is essential that the information level of students be studied to give them more training and to design new methods for them. Another research is needed to study the reason(s) why information level of the students of medical sciences is low, so that suitable ways are chosen to increase this level.

The best measure to take is to have a better system of education and to increase the training hours related to epidemiology of prevalent infectious diseases.

Furthermore, ordinary people who have very little knowledge of the disease should also be educated. Therefore, a good public education program must be designed to meet the objectives.

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