

Research Article

Evaluation of Knowledge, Attitude and Practice of Hepatitis B Among Healthy Population of Lahore, Pakistan.

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Abstract

An investigational survey of knowledge, attitude and practice of the disease hepatitis B is conducted among the healthy population of Lahore (2016). Study questionnaire was adapted and distributed about 500 individuals. A descriptive and cross-sectional study was performed. SPSS was used for the analysis of data. The percentage of female about twice the male (65.3% and 33.9% respectively) between 18-39 age group. The overall knowledge regarding hepatitis B such as pathophysiology, source effects, signs and symptoms, possible treatment ways was high and satisfactory. Statistically positive correlation was observed between knowledge and attitude. 34.5% participants think they can get hepatitis B while 28.5% don't think so. 45.1% feel fear and 15% surprise if they found hepatitis. Mostly preferably want to go doctors and medical professionals if they got such disease or found any sign and symptoms. Mostly think it is costly (27.5%), somewhat expensive (27.8%), reasonable price (20.5%) and not sure where to go (22.3%) are the major and primary reasons that can't go to doctors and medical professionals. A positive correlation was also observed regarding the practice related to hepatitis B like screening, vaccination, treatment and health education programs. Results concluded from study that a positive attitude and practice can be achieved by better knowledge. This will further help in management and prevention.

Keywords: Hepatitis B, Health, Investigational Survey, Pathophysiology and Vaccination.

1. Introduction

Hepatitis is an inflammatory disorder of liver that can lead to fibrosis or liver cancer. It is basically a viral disease in the world. Other factors that can cause this disease includes; autoimmune disorders and toxic agents like alcohol and drugs [01]. The virus through which the disease is spread is Hepatitis B Virus (HBV). This virus is present in body fluids e.g. semen and urine or can also be transferred from lactating mothers to new born babies after birth. Symptoms include jaundice, fever, joint pain, nausea, vomiting and abdominal pain. Diagnosis of this disease is available in vaccines or the blood test can identify the severity of disease [02]. The risk factor of HBV includes HCC (hepatocellular carcinoma) in which the cytokines effects the liver cell proliferation [03]. Hepatitis B virus DNA also integrates into host cell DNA that inhibits gene expression that leads to cell proliferation and HCC [04]. In order to describe the HBV prevalence and epidemiology the study literature was collected from at least 30 countries world-wide. The variable prevalence of HBV was

notified 10% in Asians and 0.5% in US and Europe. 350 million individuals are reported to be infected with HBV [05].

In all these countries the routes of transmission observed were,

- Horizontal transmission (sanitary habits, bites)
- Vertical transmission (sanitary habits, mother to child contacts)
- Adult transmission (sex, IV drug usage) [06].

The global burden of the disease can be decreased by vaccination and is evident in developed countries. But unfortunately, the vaccination programs are not taken seriously and not implementing properly in the world. Hence the infected persons develop severe conditions like HCC and cirrhosis as well. Such patients require proper attention regarding treatment with best available therapeutic agents [05].

Pakistan is the world's most popular country that suffers the

highest burden of chronic conditions and thereby mortality as the cases of HCC and hepatic failure are more there than other countries. At national level it is categorized in intermediate class that suffers the high risk regarding this disease as reported by WHO [07].

Pakistan is considered the world's highest risk taker 4 births per woman. Also, the risks in USA (California) are larger than Turkey. All these studies are taken from four provinces of Pakistan i.e. Punjab, Sindh, NWFP and Baluchistan. Other areas include Islamabad (the capital of Pakistan) FATA and Kashmir. This huge population indicates the increase rates of deaths due to this disease. It is all explained with the help of over 13 years literature and study on prevalence of HBV and HCV in Pakistan especially four provinces [08]. Furthermore, the literature regarding risk factors including the mode of transmission of these viruses are also considered [09].

The prevalence of hepatitis B was reported 33% in Mediterranean region which is intermediate. 15% was reported Asia while 14% in USA and Europe. According to Blood Safety Surveillance and Health Care Acquired Infections Division Canada, 1.5 women out of 100, 00 suffers from the risks and 78% cases are found in Asia [07].

2. Materials and Methods

2.1. Study Design: The study of knowledge, attitude and practice for Hepatitis B was done by analyzing the cross-sectional prospective questionnaire [10]. Healthy Population of Lahore was selected for study.

2.2. Study Location: The data was collected from common places like educational institutes, households, shopping malls and medical universities etc. in Lahore.

2.3. Study Duration: The study was conducted from January 2019 to May 2020.

2.4. Inclusion and Exclusion Criteria: Individuals of 18 years or above without any mental and physical disorder, abstaining from any medication and knowing the national language of Pakistan (Urdu) were included. While those individuals that did not fulfilled the inclusion, criteria were excluded.

2.5. Ethical Approval: Ethical standards were marked necessary for the approval of study for research purpose. The study protocol was approved Punjab University College of Pharmacy Research and Ethics Committee. The respondents were also provided with informed consents before the starting the research.

2.6. Statistical Analysis: The demographics of individuals were explained by statistical analysis. Two types of variables were measured i.e. continuous variables were measured as mean S.D while categorical variables were measured as percentage. The nature of data distribution was measured by K. Smirnov test. Inferential statistics were also applied to detect the relationship between study variables. Statistical Package for Social Sciences (SPSS) V. 20.0 was used for analyzing the data.

3. Results

Characteristics of the Study Respondent

It basically includes the bio data of individuals regarding their age, gender, education, occupation, income and locality etc. as described below according to statistical analysis.

Characteristics	Frequency (N)	Percentage (%)
Age		
18-28	447	89.2
29-39	54	10.08
Gender		
Male	169	33.9
Female	325	65.3
Education		
Nil	15	3.0
Primary	20	4.0
F.A/F.Sc	75	15.0
Post-graduation	67	13.4
Religious only	7	1.4
S.Sc	9	1.8
Graduation	308	61.5
Occupation		
Government	58	11.6
Self employed	27	5.4

Private	46	9.2
Unemployed	370	73.9
Income		
<5000	274	54.7
10000-25000	43	17.6
5000-10000	88	8.6
>25000	96	19.2
Locality		
Urban	469	93.6
Rural	27	5.4
Source of Hep.B Information		
Newspaper & magazine	59	11.8
Radio	9	1.8
TV	34	6.8
Billboard	5	1.0
Brochures, posters	7	1.4
Health worker	47	9.4
Family/friend/neighbours	227	45.3
Religious leader	3	0.6
Teacher	83	16.6
Other	27	5.4

Knowledge of Hepatitis B

All the relevant information regarding Hepatitis B like patho-physiology, sources, effects, sign and symptoms and possible

treatment ways as collected from individuals is described below that demonstrates the knowledge of the disease in population.

Table 2: Knowledge of Hepatitis B among the Study Participants

Knowledge Questions	Yes (N %)	No (N %)
Have you ever heard about Hepatitis?	471 (95.3)	18 (3.6)
Have you ever heard about Hepatitis B?	469 (94.9)	25 (5.1)
Is Hep.B a viral disease?	462 (92.2)	16 (3.2)
Can Hep.B affect liver function?	443 (88.4)	23 (4.6)
Can Hep.B cause liver cancer?	352(71.3)	83 (16.8)
Can Hep.B affect any age group?	342 (70.5)	76 (15.7)
The early symptoms of disease are like cold and flu?	153 (31.5)	176 (36.3)
Is jaundice (yellow coloration of skin) is the symptom of Hep.B?	346 (69.1)	99 (19.7)
Are nausea, vomiting and loss of appetite common symptoms?	356 (72.1)	25 (5.1)
Is there no symptoms of disease in some of the patients?	254 (51.6)	146 (29.7)
Can Hep.B be transmitted by unsterilized syringes, needles and surgical instruments?	401 (80.0)	72 (14.4)
Can Hep.B be transmitted by contaminated blood and products?	425 (84.8)	64 (12.8)
Can it be transmitted by using blades of barber, ear or nose pricking?	430 (86.3)	47 (9.4)
Can Hep.B be transmitted by unsafe sex?	368 (73.5)	95 (19.0)
Can Hep.B be transmitted from mother to child?	397 (80.4)	72 (14.6)
Can it be transmitted by contaminated water or food prepared by the person suffering with these infections?	369 (73.7)	97 (19.4)
Can Hep.B be cured?	387 (78.3)	65 (13.2)
Can Hep.B be self-cured?	139 (27.7)	273 (54.5)
Is any vaccination available for this?	365 (72.9)	53 (10.6)
Is specific diet required for the treatment of Hep.B?	381 (76.0)	32 (6.4)

Attitude towards Hepatitis B

The attitude of individuals regarding the disease has been described as follow that explains that either the people are

aware of Hepatitis B or not. And if they are suffering from the disease then what will be their attitude and reaction.

Table 3: Attitude towards Hepatitis B among Study Participants

Attitude questions	N	%
Do you think you can get Hepatitis B?		
Yes	173	34.5
No	143	28.5
What would be your reaction, if you were found that you have Hep.B?		
Fear	226	45.1
Surprise	75	15.0
Other	67	13.4
Shame	114	0.8
Sadness	119	76.2
Who would you talk to about your illness if you had Hep.B?		
Doctors and medical workers	323	64.5
Spouse	27	5.4
Parents	107	21.4
Children	7	1.4
Other family members	16	3.2
Close friends	14	2.8
No one	7	1.4
What would you do if you thought you had symptoms?		
Go to health facility	391	78.0
Go to medical store	26	5.2
Go to traditional healer	20	4.0
Go to Hakeem	11	2.2
Go to homeopathy	9	1.8
other	39	7.8
If you had symptoms, at what point you go to health facility?		
When treatment of my own doesn't work	94	22.0
When symptoms last for more than 3-4 weeks	32	7.5
As soon as I realize that my symptoms are related to Hep.B	253	59.1
I would go to doctor	46	0.7
If you would not go to the doctor, what is the reason?		
Not sure where to go	100	22.3
Cost	123	27.5
Transport difficulty	66	14.7
Don't like attitude of medical workers	33	7.4
Can't leave work	33	7.4
Don't want to find out that something is really wrong	44	9.8
Other	49	10.9
How expensive do you think Hepatitis B treatment in Lahore?		
Its free of charge	59	12.0
It reasonable price	101	20.5
It's somewhat expensive	141	28.7
It's expensive	94	19.1
Don't know	83	16.9

Practice Related to Hepatitis B

The aim to collect information regarding disease practice is to find out the sense, thoughts and preventive measure that

people actually consider. Following statistical analysis explains the height of aim.

Table 4: Practice related to Hepatitis B among Study Participants

Hepatitis B practice items	Yes (N %)	No (N %)
Have you ever thought for Hep.B screening?	282 (57.1)	199 (40.3)
Have you yourself got vaccinated against the disease?	280 (55.9)	186 (37.1)
Have you asked medical staff to use new syringe when requires for you?	381 (78.9)	67 (13.9)
Will you ask for screening against Hep.B of blood before transfusion?	420 (83.8)	73 (14.6)
If you found positive for Hep.B, would you like to have further investigation and treatment?	435 (86.8)	50 (10.0)
Would you like to get vaccinated for Hepatitis B free of cost?	416 (83.0)	60 (12.0)
Have you asked barber to change the blade for shaving or cutting hair?	374 (75.7)	99 (20.0)
Have you ever participated in health education program related to Hepatitis B?	172 (34.8)	303 (61.3)

Vaccination Status of Hepatitis B

By vaccination information provided from individuals given below, we are concluded with the epidemiology of disease.

Table 5: Vaccination related Hepatitis B among Study Population

Vaccination Questions	N	%
Have you ever vaccinated for Hepatitis B?		
Yes	222	44.7
No	203	40.8
Don't know	72	14.5
How many people are you in your family?		
2-4	84	16.8
4-6	206	41.1
6-8	148	29.5
8-10	60	12.0
> 10	3	0.6
How many times have you vaccinated against Hepatitis B?		
2 times	98	19.6
4 times	23	4.6
> 4 times	78	15.6
Don't know	253	50.5
Just children have been vaccinated	49	9.8

4. Discussion

The purpose of study is to detect and understand the knowledge, attitude and behaviour of Hepatitis B in population students (considering inclusion and exclusion criteria). The consequences regarding knowledge, attitude and behaviour are satisfactory. Transmission of disease is satisfactorily known by the respondents. Hepatitis B frequency will be rise if there is lack of knowledge. The percentage of individuals that are sure that the disease can cause liver cancer is found to be 71%. The information was collected primarily by residence of area including friends and family members, newspapers, magazines and TV etc. During the past years i.e. 2011-2016, all the results are compared with other studies reported from other areas of Pakistan especially Sindh

and Baluchistan are found to be unsatisfactory [11, 12]. Similarly, the same study has been performed all around the world [13-20]. On the other hand, in 2007, an Egyptian analyst Shalaby et al. reported the satisfactory knowledge and awareness of individuals for Hepatitis B with respect to its sign and symptoms, pathophysiology, transmission, treatment and vaccination [21]. Whereas in Quetta-Pakistan (2012), a cross sectional study for KAP in healthy population was found poor. The reason of such best results may be the appropriate methods free of biasness applied for study including the study location, study tools and study population.

Attitude towards hepatitis B in population is found to be somewhat acceptable. Most of the participants know about

the treatment remedies and therapies if they are infected with the disease. The majority (78%) supported to go to health facility. Homeopathic treatment is considered last choice according to them. It is also considered that the delay in treatment leads to spread of infection. This attitude can be best understood by Health Belief Model that also tells about the health behavior of people [22]. Health care barriers and benefits also play a significant role to achieve better therapeutic outcomes.

The current study indicates that the majority of the general population assesses its health care independently. Medical pluralism results when we support different health care systems like homeopathic, ayurvedic and spiritual healing system. It results to complications and improper information in population regarding practice towards Hepatitis B. unofficial systems are also introduced in population of Pakistan. To overcome such hazards, the population should be told and well educated on all aspects of the disease. It should be organized by medical professionals, social researchers and health care members announced officially by the Government of Pakistan. The barriers of treatment may also involve poverty as majority of the population considers it costly, illness severity and cultural beliefs as well. The patients usually go to traditional healers due to high cost of treatment and also consider it economical rather than to go to health facility. This is the major drawback in all other developing countries like Pakistan.

The study respondents showed good practice towards Hepatitis B. more than 50% of the individuals got vaccinated against the disease. More than 70% take hygienic measures i.e. use of new sterile syringe, screening before blood transfusion etc. but unfortunately less than 35% are not interested to participate in educating illiterate population for prevention and cure. In 2010, Razi from Pakistan and Kabir from Iran reported the poor practices of participants related to the knowledge and familiarity of Hepatitis B infection [23, 24]. But Shalaby et al. (Egypt) reported the good practice for hepatitis B and satisfactory knowledge as well and hence lower prevalence of infection [21].

The main factor that imparted in the significance of mean score was area (locality i.e. urban or rural). But throughout the literature review, the relation between locality and mean score was not found. In 2005 and 2007, Cheung et al. and Wu et al. respectively detected the significant factor i.e. education level for mean score [25]. However, in this study the relationship between knowledge, attitude and behavior of the disease is re-affirmed by positive correlations among knowledge and practice, knowledge and attitude and between attitude and practice as well. presented positive attitude in good practice by sufficient knowledge [26].

5. Conclusion

By analyzing all the data regarding this study as described above, we conclude that there should be health education campaign which should provide understanding to population to prevent the transmission of disease in the population especially in rural areas. Along with preventive measures,

basic knowledge should also be provided to general population for infectious control. For this purpose, health care professionals and health care staff especially pharmacist should play a vital role in providing education for hepatitis B. At least one member from each family should be sufficiently aware of all parameters of disease like transmission, hazards, severity, sign and symptoms, infectious control, preventive measures and treatment. In this way, the health care system will be supported efficiently and can manage such campaigns more easily.

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