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Hepatitis Disease and Adoption of Control Measures by Farmers of Taluka Hala, District Matiari, Sindh

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Abstract

The primary purpose of the study was to determine the awareness level of hepatitis disease and its precautionary and protection measures adopted by the farming community of Taluka Hala. The sample size of the study was 100 respondents, 52% were female and 48% were male respondents which were randomly selected from the study area. The survey method was used and a questionnaire was developed for the data collection. It was found the overwhelming majority of respondents (99.0%) had heard about hepatitis, while 82.0% respondents had knowledge about hepatitis as a serious health problem, whereas 64.0% of the respondents had knowledge about hepatitis is viral disease. The study depicted that only 2.0% of respondents had knowledge that there are five types of hepatitis. The majority of respondents had awareness about hepatitis is curable or treatable, hepatitis transmitted by un-sterilized syringes, needles or any other surgical equipment and hepatitis transmitted by sharing razors, toothbrush, spoons/bowls for food etc. The majority of respondents had fully adopted the precautionary measures as particularly cooking food, clean themselves thoroughly if they come into contact with any type of body fluid from an infected person (such as blood and feces), hygienically dispose of blood stained items such as bandages and sanitary napkins, avoid sharing personal items, such as razors or toothbrushes, good hygiene practices, avoid un-necessary injections, cover cuts and scratches with appropriate dressings and vaccination against hepatitis immediately after birth. In addition, the majority of respondents had adopted the precautionary measures as take rest and stays hydrated, maintaining a healthy diet, clean and sterile equipment and avoid from sliced fruit that may have been washed in contaminated water. Majority of the respondents contacted consultant and visit hospital as effective sources of knowledge.

Keywords: Adoption, Diffusion, Hepatitis disease, precautionary and control measures

INTRODUCTION

Hepatitis is the inflammation of the liver which may cause of various infections. It can transfer from one to another person (Janbaz, 2011). Viral hepatitis is worldwide problem of the public health that affects millions of people yearly, which causes disability and death (WHO, 2012). The main reasons of hepatitis transmission through blood and other body fluids are known since long (Mahoney, 1999; Hillyer *et al*, 2013). Each year around

1 000, 000 people are dying (~2.7% of all deaths) from the major reasons of viral hepatitis, the most common liver disease is liver cancer which may be arisen from hepatitis (Who Executive board, 2009). Hepatocellular carcinoma (HCC), standout amongst the most lethal sorts of danger, is being expanded globally, confluence of its contributing elements, with high prevalence of hepatitis C infection (Saleh *et al*, 2014). Viral hepatitis is as irritation of the liver which incorporates from one to five infections, such as A, B, C, D and E. While all these infections influence the liver (WHO, 2012). The two infections, hepatitis A infection and Hepatitis E infection are water conceived and spread essentially through faeco-oral means, on the opposite side hepatitis B infection, hepatitis C infection and hepatitis D infection are blood borne and spread basically by contact to blood and its items, in spite of the fact that hepatitis B infection reliably spread by reuse of syringes, inappropriate sterilization of surgical and restorative consumables, needle stick wounds, pre-birth presentation and unprotected sex (WHO, 2009). They fluctuate altogether as for as the study of disease transmission, characteristic history, aversion, conclusion and treatment. Hepatitis B and C are the most familiar infections in Pakistan (Ali *et al*, 2011). The modes of transmission of Hepatitis are given in table 1.

Table-1.
Modes of Transmission of Hepatitis B and C

S. No	Modes for the Transmission of Hepatitis?	Definitely	Rarely
1	Unsafe sex practices	Hepatitis B	Hepatitis C
2	Mother to infant during birth and feeding	Hepatitis B	Hepatitis C
3	Sharing unsterilized injections/instruments	Hepatitis B, Hepatitis C	_
4	Transfusion of polluted blood	Hepatitis B, Hepatitis C	_

Awareness on Hepatitis among people

Awareness and adoption of agriculture technology is being studied widely. Various innovations in the field of agriculture are introduced from time to time which are viable to increase efficiency of farms and profitability of the farmers, however adoption of such practices is considered a complex process and major cause is the use of proper sources of information for such interventions (Kumar, et al., 2020). The research on awareness and adoption of various interventions and precautionary measures in human health is limited and is not being studied commonly. Awareness against the disease seems very low among the common people. Even healthcare workers have lacking knowledge and awareness about these infections (Institute of Medicine, 2010). It is worrying in Pakistan that 66% of total population is living in the rural areas (Shaikh, & Hatcher, 2004). where general public are at high risk and they carries the burden of the infection due to various misperceptions and malpractices.

The rural areas are lacking the proper health care delivery system, unscreened blood transfusions, poverty, less education, and above all, rural people are on self-medication like drugs. Thus, such threatening condition has intensive implications on patients, healthcare professionals, families and the overall society (Akram, & Khan, 2007). People with formal education had better knowledge about health risks as compared to those who did receive formal education (Fleming *et al*, 2006). Unfortunately, the literacy ratio of Pakistan is low. And the majority of population is unknown from the basic knowledge of the transmission of hepatitis. The sources of knowledge such as magazine, newspapers, banners, radio, pamphlets and television are not used efficaciously, either due to

language differences all over the country or illiteracy among the population. Thus, the illiteracy phenomenon are deep, even potentially life-alarming (Riaz *et al*, 2011). Health problems are increasing day by day in the Sindh province. There is a particular increase in the patients of hepatitis particularly farmers and their families who are suffering from it. However; no firm action has yet been taken to stop the disease from spreading in the region. In the absence of awareness this disease can be life-alarming so various efforts are made to aware farming community people of Taluka Hala about the disease, and its pre-cautionary measure, and control. However it is not known how farming community understands the disease and its pre-cautionary measures. Thus a knowledge gap exists which requires to investigate the awareness level as well as adoption of pre-cautionary and protection measures against Hepatitis. Following objectives were set-forth to achieve the purpose of the study.

In order to address the issue and the research gap following objectives were set forth for the study:

- To study the awareness level of farmers and their families regarding Hepatitis.
- To analysis the pre-cautionary and protection measures against Hepatitis as adopted by farmers and their families.
- To determine the level of effectiveness of various sources of information involved in dissemination of pre-cautionary and control measures of Hepatitis in the study area.

METHODOLOGY

The research was descriptive in nature. Descriptive research involves multiple choice type questions asked from the respondents. Responses were then reported and tabulated.

Following methods and procedures were used in the present study.

Population and Sample

The study was conducted in the year 2022 under which primary data were collected, using the cluster sampling method, from the farming households of Taluka Hala. The five union councils of Taluka Hala, District Matiari were selected. From each union council, 02 villages were chosen for selection of respondents randomly. Hence 10 villages were taken randomly from Taluka Hala. The total sample size was 100 farming household respondents, selecting 10 households from each village.

Data Collection and Analysis

Data collection was carried out using a self-structured multiple choice of questions. Questionnaire carried the basic knowledge of Hepatitis and its pre-cautionary and protection measures which an individual is expected to know. Explanations were given to the respondents to help them to answering the questionnaire. Statistical Package for Social Sciences (SPSS) was used to analyze the results statistically.

RESULTS

Selected Demographic Profile

Table 2 presents the data regarding selected demographic profile which indicated that 61 percent of the respondents were young (upto 35 years of age), 52 percent were male

and 48 percent were female, a majority (47 percent) of the respondents had no formal education and 45 percent had upto intermediate level of education, and the majority had a facility of health at the distance of 5 k.m

Table 2.
Selected Demographic Profile

Age	Percentage
Up to 35 years	61.0
36 to 50 years	34.0
51 and above years	5.0
Gender	
Male	48.0
Female	52.0
Education Level	
No formal education	47.0
Upto Intermediate	45.0
Graduate	7.0
Post Graduate	1.0
Distance to hospital	
Upto 05 k.m.	84.0
6 to15 k.m.	16.0

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Awareness about the Hepatitis

Another important aspect of the study was to identify the awareness level about the Hepatitis disease. Results are presented in table 3 which indicated that the overwhelming majority of participants (99.0%) heard about hepatitis. A vast majority had knowledge about hepatitis as a serious health problem, hepatitis has laboratory test and there are the signs/symptoms of hepatitis. Whereas 64.0% respondents had knowledge about hepatitis as a viral disease, while 60.0% respondents had received hepatitis blood test respectively. In addition, 98.0% respondents had no accessibility on hepatitis related pamphlets/brochures etc. 73.0% respondents were not ever vaccinated against hepatitis, while 69.0% did not know about farmers get hepatitis from genes (heredity), and 64.0% respondents and their family members were not diagnosed as hepatitis carrier respectively.

Table-3.
Distribution of respondents according to their knowledge about Hepatitis

S. No	Knowledge about Hepatitis	Yes		No		Don't Know	
		F	P	F	P	F	P
1	Accessibility on hepatitis related pamphlets/brochures etc	2	2.0	98	98.0	0	0.0
2	Ever heard about Hepatitis before	99	99.0	1	1.0	0	0.0
3	People get Hepatitis from genes (heredity)	14	14.0	69	69.0	17	17.0
4	Ever received blood test	60	60.0	40	40.0	0	0.0
5	You and your family member diagnosed as a Hepatitis carrier	36	36.0	64	64.0	0	0.0

6	Hepatitis is serious health problem	82	82.0	14	14.0	4	4.0
7	Ever got vaccination against Hepatitis	27	27.0	73	73.0	0	0.0
8	Hepatitis has laboratory test	90	90.0	4	4.0	6	6.0
9	Hepatitis is viral disease	64	64.0	30	30.0	6	6.0
10	Any sign/symptoms against Hepatitis	89	89.0	3	3.0	8	8.0

Table 4 indicates that 29.0% respondents said that there are three types of hepatitis, while 27.0% said that there are two types of hepatitis, whereas 12.0% respondents said that there are four types of hepatitis, while 4.0% respondents said that there are more than five types of hepatitis. However, only 2.0% of respondents gave right answer that there are five types of hepatitis, whereas 25.0% respondents had no knowledge about it.

Table 4.
Distribution of knowledge of respondents regarding the types of Hepatitis

Types of Hepatitis according to your knowledge	Frequency	Percent
One	1	1.0
Two	27	27.0
Three	29	29.0
Four	12	12.0
Five	2	2.0
More than Five	4	4.0
I don't know	25	25.0
Total	100	100.0

Results in Table 5 show that the overwhelming majority of respondents (98.0%) had no knowledge about chronic viral hepatitis, while only 2.0% respondents had knowledge about hepatitis C is the commonest cause of chronic viral hepatitis.

Table-5.
Distribution of respondents according to their understanding about chronic viral Hepatitis

Commonest cause of chronic viral Hepatitis	Frequency	Percent
Hepatitis A	0	0.0
Hepatitis B	0	0.0
Hepatitis C	2	2.0
Hepatitis D	0	0.0
Hepatitis E	0	0.0
Don't know	98	98.0
Total	100	100.0

Table 6 reveals that the overwhelming majority (99.0%) of the respondents were not aware from the conditions which are arisen from chronic hepatitis, whereas only 1.0% respondents said that liver failure condition has been arisen from chronic hepatitis.

Table 6.
Distribution of respondents according to conditions arisen from chronic Hepatitis

Chronic hepatitis	Frequency	Percent
Liver cirrhosis	0	0.0
Liver cancer	0	0.0
Liver failure	1	1.0
Don't know	99	99.0
Total	100	100.0

Table 7 reveals that the majority of respondents (4.57%) were strongly agreed that hepatitis is curable or treatable, hepatitis transmitted by un-sterilized syringes, needles or any other surgical equipment and hepatitis transmitted by sharing razors, toothbrush, spoons/bowls for food etc. Whereas, the majority of respondents were agreed that hepatitis transmitted from infected mother to baby in pregnancy, hepatitis affects liver, hepatitis affects at the time of birth and hepatitis transmitted through blood/blood products. In addition, the majority of respondents were strongly disagreed that treatment against hepatitis is too expensive.

Table 7.
Distribution of respondents according to their awareness level about Hepatitis

S. No	Awareness Level regarding Hepatitis of Farming Community People of Hala	Mean	Std. Deviation
1	Hepatitis transmitted through blood/blood product	3.60	1.21
2	Hepatitis transmitted through injecting drugs	2.73	1.31
3	Hepatitis transmitted through shaking hands	1.53	0.70
4	Hepatitis transmitted from infected mother to baby in pregnancy	4.18	0.89
5	Hepatitis transmitted by sharing razors, toothbrush, spoons/bowls for food etc	4.04	1.29
6	Hepatitis transferred through un-sterilized syringes, needles or any other surgical equipments	4.51	0.88
7	Hepatitis affects through air (coughing or staying in same room)	2.63	1.34
8	Hepatitis affects liver	4.17	0.73
9	Hepatitis affects other organ other than liver	2.78	1.32
10	Hepatitis cause liver cancer	2.67	1.43
11	Hepatitis affects at the time of birth	4.03	0.50
12	Hepatitis curable or treatable	4.57	0.65
13	Treatment against hepatitis is too expensive	4.06	1.67

Scale: 0= Don't know, 1= Strongly disagree, 2= Disagree, 3= Satisfactory, 4= Agree, 5= Strongly agree

Adoption of Pre-cautionary Measures

Another important aspect of the study was to know the frequency of adoption about various pre-cautionary measures recommended by the experts in the field. Results are presented in table 8. Table 8 reveals that the majority of respondents had "always" adopted most of the precautionary measures. In addition, the majority of respondents had "almost always" adopted the precautionary measures such as take rest and stays hydrated, maintaining a healthy diet, clean and sterile equipment and avoid from sliced fruits which may be washed from polluted water.

Effectiveness of the sources of information about Hepatitis disease and its precautionary and control measures.

Respondents were asked about the effectiveness of the sources of information involved in dissemination of knowledge about hepatitis and its precautionary and control measures. Table 9 reveals the distribution of respondents according to effectiveness of the sources of knowledge. Majority of the respondents perceived contact consultant and hospital visit as effective sources of knowledge, while magazine perceived as not an effective source of knowledge.

Table 8.

Distribution of respondents according to adoption of pre-cautionary measures

S. No	Adoption of Pre-cautionary Measures	Mean	Std. Deviation
1	Vaccination against hepatitis immediately after birth	4.19	1.56
2	Vaccination against hepatitis at any of age	1.18	1.00
3	Proper hand washing before eating or handling food or after going to toilet etc.	4.83	0.38
4	Take rest and stay hydrated	3.93	0.67
5	Maintaining a healthy diet	3.82	0.70
6	Maintaining a good level of physical fitness	1.08	0.34
7	Cover cuts and scratches with appropriate dressings	4.47	0.83
8	Good hygiene practices	4.58	0.59
9	Particularly cooking food	4.85	0.39
10	Clean and sterile equipment	3.80	0.82
11	Blood-stained items is disposed hygienically such as sanitary napkins and bandages	4.70	0.52
12	Clean yourself if you have been come near with any type of body liquid from an infected person (such as blood and feces)	4.71	0.59
13	Go to reputable shop for tattoos and body piercing	1.00	0.00
14	Avoid dairy products	2.89	1.74
15	Avoid un-necessary injections	4.55	0.64
16	Avoid sharing personal items, such as razors or toothbrushes	4.60	0.67
17	Escaping of raw and unpeeled food	2.11	1.24
18	Avoid to buy food from street vendors	2.06	1.19
19	Avoid from sliced fruits which may be washed from polluted water	3.10	1.48

Scale: 1= Never, 2= Sometimes, 3= Often, 4= Almost always, 5= Always

Table 9.

Distribution of respondents according to effectiveness of the sources of knowledge

S. No	Effectiveness of the Source of Knowledge	Mean	Std. Deviation
1	Television (TV)	2.62	1.35
2	FM Radio	2.50	1.36
3	Newspaper	2.14	1.29
4	Magazine	1.95	1.25
5	Healthcare Worker	3.21	0.58
6	Medical Camp	2.00	
7	Medical Seminar	2.00	
8	WHO Reports		
9	Contact Consultant	4.43	0.57
10	Hospital Visit	4.43	0.57
11	Hepatitis Affected Person	3.12	0.98
12	Pamphlets/Brochures		

Scale: 1= Not effective, 2= Somewhat ineffective, 3= Somewhat effective, 4= Effective, 5= Very effective

Note: Missing cases are not included in above table.

CONCLUSIONS AND RECOMMENDATIONS

Hepatitis infections are the serious public health issue in Sindh province which can be transmitted from person to person. It may lead to permanent liver damage and ultimately led to death. The main purpose of the study was to explore awareness level of Hepatitis and its pre-cautionary and protection measures. It was found that the farmers of taluka Hala have basic knowledge regarding hepatitis. The majority of respondents were aware about hepatitis as curable or treatable disease. Respondents were aware about the transmission of hepatitis by un-sterilized syringes, needles or any other surgical equipment and transmitted by sharing razors, toothbrush, spoons/bowls for food etc. The majority of

respondents had fully adopted the basic precautionary measures. Majority of the respondents had opinion that contact consultant and hospital visit are effective sources of knowledge. On the other hand, magazine was not considered as effective sources of knowledge in study area. Therefore, following recommendations were made.

- It was found that respondents were vaccinated against the Hepatitis disease. However, there is a need to communicate regarding the disease and its pre-cautionary and control measures through various networks/communication channels at the mass level. In addition, the Government should take efforts to provide free home service vaccination program as in the case of polio program in all over the country.

- Public and Private organizations should take efforts to effectively use the medical seminars, medical camps etc. at the grass-root level for the awareness of common farmers in Pakistan.

- There should be a well-planned and clear policies for screening the disease and its free diagnosis checkups of hepatitis.

- Study should be conducted in major effected areas of Sindh Province for the validation of the study.

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