

Knowledge, Attitude and Practices of General Population Regarding Hepatitis A & E Prevention and Control

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ABSTRACT

Aims: To assess the knowledge and attitude of general population, regarding Hepatitis A & E. and practices of study participants to adopt healthy lifestyle for the preclusion of hepatitis A & E.

Study Design: Cross sectional study.

Place and Duration of Study: Shaikh Zayed Medical Complex, Lahore, and Mayo Hospital Lahore from 1st November 2021 to May 2022.

Methodology: Two hundred and fifty individuals were enrolled. A face to face interview of all study participants was conducted and a questionnaire was filled.

Results: There were 98 (39.2%) males and 152 (60.8%) females. Majority of the subjects were more than 30 years old. Two hundred and seventeen (87%) and 212 (85%) had correct knowledge about causative agent and treatment of hepatitis A and E respectively. Two hundred and fifty (100%), 213 (85.2%), 190 (76%) and 165 (66%) were having good practices of washing hands after using toilet, good food hygiene, washing fruits and vegetables before eating and avoid contact with person infected with hepatitis A & E respectively. It was observed that age ≥ 30 years ($P=0.000$), higher education ($P=0.016$) and good practices ($P=0.000$) were significantly associated with good knowledge of participants regarding hepatitis A and E.

Conclusion: The participants having better awareness regarding spread and transmission of hepatitis A and E can improve practices regarding prevention and control of disease. The awareness and prevention control programs should be initiated and guidelines regarding personal hygienic practices should be developed and disseminated through mass media.

Keywords: KAP study, Hepatitis A, Hepatitis E, Prevention of hepatitis, Control of hepatitis

INTRODUCTION

Hepatitis A virus (HAV) and hepatitis E virus (HEV) are both acute viral infections of the liver. This condition may be self-limiting or it can progress to liver scarring, cirrhosis, or, in rare cases, liver failure. ¹ HEV is usually a self-limiting illness, but some patients may progress to acute liver failure. HEV has a higher case-mortality rate in pregnant women. A vaccine to prevent HEV infection has been developed and is licenced in China, but is not yet available in most other countries. ² Hepatitis E is found worldwide, but the prevalence is highest in Eastern and South Asian countries. It was estimated that more than 21,000 cases of hepatitis A occurred in the United States and 1.4 million cases occurred worldwide. ³

Hepatitis A and E are both generally transmitted by the fecal-oral route, and they are usually caused by the consumption of contaminated water or food, which is the main source of infection that leads to outbreaks in developing countries. In contrast to the hepatitis A virus and other enteric viruses, human-to-human transmission of HEV is rare. ⁴ Alternative transmission routes or sources, such as transfusions and vertical transmission, are becoming more relevant as more cases are reported each year. Transmission through blood transfusion has become one of the main sources of transmission in developed nations. ⁵

Efforts to prevent HAV and HEV infections are being made by providing adequate supplies of safe drinking water and a proper disposal system for sewage within communities to improve the sanitary status in developing nations. It can also be reduced by limiting the chances of drinking water contamination by infected materials. ⁶ Most of all, it is very important that the population at risk have awareness regarding basic lifestyle modifications and strategies that can be adopted to prevent hepatitis A and E. Poor socioeconomic status and a lack of or no education are the primary causes of a lack of knowledge about disease prevention in developing countries such as Pakistan. In Pakistan, there is a lack of awareness programs that should be run to educate people regarding the prevention of different communicable diseases. In Pakistan, there is scarce data available that can highlight the knowledge and practices of the general population regarding the

prevention of hepatitis A and E. This is important for planning future policies for the control of outbreaks of hepatitis A and E. The current study was conducted to assess the knowledge and attitude of the general population regarding Hepatitis A and E and the practices of study participants to adopt healthy lifestyles for the prevention of Hepatitis A and E.

MATERIALS AND METHODS

This cross sectional survey was conducted in Shaikh Zayed Hospital and Mayo Hospital Lahore, from November 2021 to May 2022. The study comprised 250 participants including both gender and having age 20 to 65 years selected from general public coming as visitors in outdoor and indoor units of department of Medicine and Gastroenterology. The study was submitted to IRB for ethical clearance and got approved by the IRB. An informed consent was taken from each participating individual. A standardized pre-tested questionnaire was designed to collect information from each participant. All participants were interviewed to fill up the questionnaire. The first part of the questionnaire comprised questions on demographics, including age, gender, marital status, education status. The second part of questionnaire was designed to assess the knowledge of participants regarding hepatitis A & E. Third part of questionnaire was regarding practices for the prevention of hepatitis A & E. The participants, who correctly answered less than 5 questions out of 10, were considered to have poor knowledge whereas participants who have responded 5 or more than 5 questions correctly were considered as having good knowledge. Out of total 9 questions regarding preventive practices, those who correctly answered 5 or more than 5 practice questions were considered to have good practice and those who correctly answered less than 5 practice questions were considered as having bad practice. Data was entered and analyzed on the SPSS-22. The association of good knowledge with gender, age, education level and marital status was determined using Chi square test. A p-value less than 0.05 considered as significant.

RESULTS

There were 98 (39.2%) males and 152 (60.8%) females. Majority of the subjects were more than 30 years old. Out of 250 study participants, 22(8.8%) were illiterate, 16 (6.4%) were under matric, 53(21.2%) were matric and these three groups were considered as having no or low education. Whereas 63(25.2%) had got certificate of intermediate and 96(38.4%) participants got their graduation or higher degree and these two groups were considered as having higher education. Most of the participants were married 157(62.8%) whereas 78(31.2%) were unmarried (Table 1). Two hundred and seventeen (87%) and 212 (85%) had correct knowledge about causative agent and treatment of hepatitis A and E respectively. However only few participants 55 (22%), 53 (21%) and 95 (38%) had correct knowledge about mode of transmission of virus, prevention of infection and availability of vaccine for hepatitis A respectively. Sufficient number of participants 103 (41.3%) had correct knowledge about the signs and symptoms of disease caused by hepatitis A and E virus (Fig. 1). Two hundred and fifty (100%), 213(85.2%), 190(76%) and 165(66%) were having good practices of washing hands after using toilet, good food hygiene, washing fruits and vegetables before eating and avoid contact with person infected with hepatitis A & E respectively. However only few people 118(47.2%), 55(22%), 67(27%) and 43(17%) were having bad practices of eating street food, not being screened for hepatitis A & E, not been involved in any education program for the prevention of disease and not been vaccinated for hepatitis A respectively (Fig. 2).

Table 1: Demographic characteristics of study participants

Variable	No.	%
Gender		
Male	98	39.2
Female	152	60.8
Age (years)		
<30	110	44.0
30 - 40	57	22.8
40 - 50	42	16.8
50 - 60	37	14.8
> 60	4	1.6
Education		
Illiterate	22	8.8
Under matric	16	6.4
Matric	53	21.2
Intermediate	63	25.2
Graduation	96	38.4
Marital status		
Unmarried	78	31.2
Married	157	62.8
Divorced	2	0.8
Widow	13	5.2

Table 2: Association of demographic characteristics with knowledge of study participants

Variable	Good Knowledge (n= 96)	Poor Knowledge (n=154)	χ^2 Value	P value
Gender				
Male	39 (39.8%)	59 (60.2%)	0.133	0.716
Female	57 (37.5%)	95 (62.5%)		
Age (years)				
< 30	46 (41.8%)	64 (58.2%)	12.535	0.000
≥30	90 (64.3%)	50 (35.7%)		
Education				
No/ Low education	26 (28.6%)	65 (71.4%)	5.843	0.016
High education	70 (44.0%)	89 (56.0%)		
Marital status				
Unmarried	35 (44.9%)	43 (55.1%)	2.007	0.157
Ever-married	61 (35.5%)	111 (64.5%)		
Practices				
Good	71 (52.2%)	65 (47.8%)	24.032	0.000
Bad	25 (21.9%)	89 (78.1%)		

The participants, who correctly answered less than 5 questions out of 10, were considered to have poor knowledge whereas participants who have responded 5 or more than 5 questions correctly were considered as having good knowledge. It was observed that age ≥30 years (P=0.000), higher education (P=0.016) and good practices (P=0.000) were significantly associated with good knowledge of participants regarding hepatitis A and E, whereas gender (P=0.716) and marital status (P=0.157) was not associated with knowledge of hepatitis A and E among participants (Table 2).

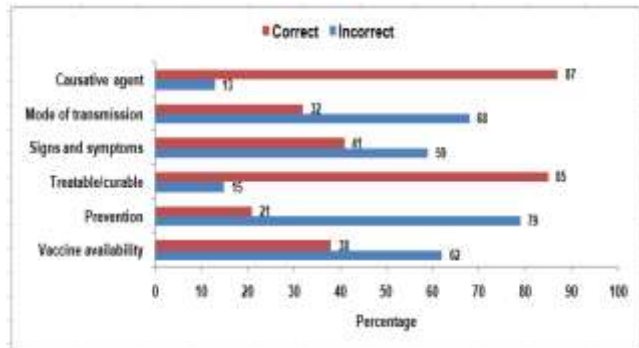


Fig. 1: Awareness of study participants regarding hepatitis A & E

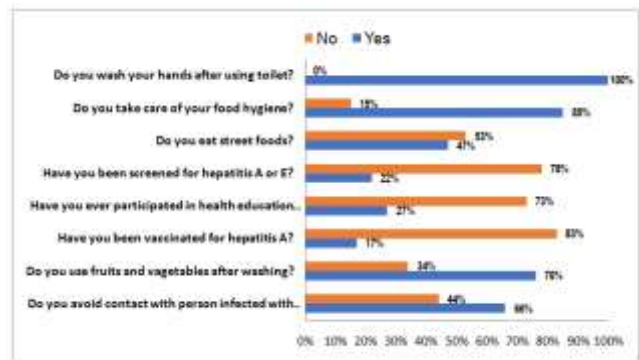


Fig. 2: Practices of study participants for the prevention of hepatitis A & E

DISCUSSION

Hepatitis A & E are the most common worldwide health problem. HAV is a contagious short-term liver infection, caused by eating contaminated polluted water and unhygienic conditions like tattoos, and alcohol. Many cases have little or no symptoms and others have symptoms that occur after 8 weeks after the virus entered and can cause infection which may include nausea, vomiting, diarrhea, and can indicate abdominal pain. Severe cases of hepatitis A leads to complication (cholestatic hepatitis, relapsing, and autoimmune hepatitis. Rarely hepatitis A leads to acute liver failure. While HEV is the inflammation of the liver caused by the HEV has a fecal-oral route showing symptoms of nausea, fatigue, and jaundice while in most cases it is asymptomatic.^{5,6}

The current study was done on the knowledge, and practice regarding the prevention of HAV & HEV. There were 98 (39.2%) males and 152 (60.8%) females. 22(8.8%) were illiterate, 16 (6.4%) were under matric, 53(21.2%) were matric and these three groups were considered as having no or low education, whereas 63(25.2%) had got certificate of intermediate and 96 (38.4%) participants got their graduation or higher degree and these two groups were considered as having higher education. Most of the participants were married 157(62.8%) whereas 78(31.2%) were unmarried. Following socio-economic development and public health improvements, the global incidence or prevalence of HAV infectious disease has been decreasing. However, an increasing

number of individuals are infected in their older ages, leading to more severe clinical manifestations and a greater disease burden.⁷

Improving sanitations and providing access to safe drinking water will help to reduce Hepatitis A transmission. However, many people in this region do not have access to have safe drinking water. Hygiene plays an important role in the protection, maintenance of health, and improvement of lifestyle spread of hepatitis can be reduced by safe drinking water, clean hygienic food, regard regular hand washing before meals, and after going to the toilet, and the proper disposal of sewage within communities. In this study, most, of the participants take care of their hygiene.⁸

Food safety and hygiene are most important for health protection and prevention of hepatitis A and E infection. Health care programs provide knowledge and awareness to the population regarding health and leading infectious diseases and provide protocols to the general population for the prevention of health hazards.⁹ In addition to Risk factors related to the exposure to HEV infection, several pre-existing conditions were strongly associated with Hepatitis E. It was founded in other studies that it is higher in men than in women.^{10,11} While other studies have shown no clear gender predilection for the occurrence of hepatitis E.¹² For both hepatitis A and acute hepatitis E, the majority of reports require no specific treatment. The minority of patients who develop fulminant hepatic failure should admit aggressive supportive therapy and be considered for liver transplantation. HEV infection can also be prevented with an effectual mortal immunization program.¹³

CONCLUSION

The participants having better awareness regarding spread and transmission of hepatitis A and E can improve practices regarding prevention and control of disease. The awareness and prevention control programs should be initiated and guidelines regarding personal hygienic practices should be developed and disseminated through mass media so that the residents can enjoy their healthy lifestyle.

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