



Be the Voice for Hepatitis B Awareness: A Community Based Report

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Abstract

Background: Among life threatening health problems Hepatitis B and C are on the rise and almost three to four hundred million carriers are present all around the world. It is estimated that nearly four million people in Pakistan have been exposed to hepatitis B virus. Hepatitis B has spread to alarming proportions with an estimated prevalence of 2.4% in the province of Punjab. Globally, only 11% of the population is aware that they are suffering from viral hepatitis. The aims were to determine the knowledge, attitude and behavior for Hepatitis B screening and vaccination in the community of Mochi gate and their awareness levels regarding transmission and vaccination of Hepatitis B.

Methods: A knowledge, attitude and behavior (KAB) survey was conducted among general population of UC 32 Mochi gate area Lahore. A sample of 117 were recruited using Convenience sampling. It included both men and women aged 18-64 years and been living at their place of residence for at least six months. A structured questionnaire after informed consent was used. Assured confidentiality. SPSS version 22 was used to analyze the data.

Results: Mean age of the sample was 35.16 ± 11.84 years. Out of the total of 117 participants, 58% were males and 42% females. Only 29.9% had knowledge about Hepatitis B and just 10.3% had been ever vaccinated for Hepatitis B. Those who had been screened for Hepatitis B were 20.5%, for Hepatitis C 13.7% and 7.7% for HIV. Only 15.4% were already diagnosed for Hepatitis B.

Conclusion: There is dire need to expand awareness so that the vulnerable population making up the majority of the nation can be protected. If the activities occur regularly and in focused manner, we can surely bring the behavior change in the community.

Keywords: Hepatitis B, Mochi Gate Lahore, vaccination, Awareness

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Introduction

Among life threatening health problems, Hepatitis B and C are on the rise and almost three to four hundred million carriers are present all around the world (1). Hepatitis B is a viral infection that can cause both acute and chronic disease. Diagnosis for acute hepatitis B is based on detection of hepatitis B surface antigen (HBsAg) and IgM antibodies to hepatitis B core antigen (anti-HBc) (2). It is estimated that nearly four million people in Pakistan have been exposed to hepatitis B virus (3).

Hepatitis B has spread to alarming proportions with an estimated prevalence of 2.4% in the province of Punjab (4). Hepatitis B and C cause significant morbidity and mortality in Pakistan. One of the most important reasons for increasing mortality is low diagnosis rate.

Globally, only 11% of people are aware that they are suffering from viral hepatitis. Only 6% of the people living with Hepatitis B are diagnosed in Eastern Mediterranean Region (5).

Hepatitis B and C cause significant morbidity and mortality in Pakistan. Hepatitis B is also an important

occupational hazard among health care workers. Needle stick injuries are the most common cause of acquiring the infection among the public and private hospital staff (6). Perinatal transmission also contributes to the overall prevalence of HBV (7). Males have higher prevalence of HBV as compared to females (8). A study conducted by World Bank (2012) showed that females are less exposed to risk factors associated with HBV, HCV and HIV as they are more confined to houses (9).

This purpose of this study is to assess awareness level and safety practices regarding Hepatitis B amongst the population of Mochi gate which is a densely populated area of Lahore with low literacy rate. This information can help in formulating a more focused approach to prevent the spread of the disease. The main aim of this survey is to determine the knowledge, attitude and behavior for Hepatitis B screening and vaccination in the community of Mochi gate and their awareness level about transmission and vaccination of Hepatitis B. This was followed by initiation of a community based awareness programme for reducing the burden of this disease.

Methodology

A cross sectional study was conducted to determine the level of knowledge and awareness on Hepatitis B among general population of UC 32 Mochi gate area Lahore (10). Data collection included both men and women aged 18-64 years, dwellings at their place of residence for at least six months were selected. A total of 117 participants were involved using convenient method of sampling. Structured questionnaire after informed verbal consent was used, which mostly had close ended questions except for socio-demographic data. It was not a validated questionnaire. Ethical approval was taken. All those who aged less than 18 years or more than 64 years, too frail and mentally unfit to participate in the study, those who are unable or unwilling to give informed consent and were not residents of Mochi gate and not mentally fit to answer the questions were excluded. The results were analyzed by frequency and percentages via graphical representations and charts and association was determined by chi square test of significance.

Results

Table 1 depicts the socio demographic profile of the respondents. Out of 117 participants, 58% were males with mean age of 31.66 ± 9.60 years and 42% were

females with mean age of 38.66 ± 14.08 years. The literacy level was 81% among the residents of Mochi gate. The average household income was PKR 32,392/month.

21% participants had been screened for Hepatitis B, 14% for Hepatitis C and 8% for HIV/AIDS. Out of the total, only 15% already knew their status for Hepatitis B and only 5% of them were taking treatment. 3% went to doctor for treatment followed by 1.7% to Hakeem and 0.9% to Homeopathic. The participants who gave history of blood transfusion were 23.1% out of which only 17.9% had screened blood transfusion.

Table 1. Socio-demographic Profile

Gender:	Frequency n	Percentage %
Male	68	58
Female	49	42
Marital status:		
Unmarried	21	18
Married	88	75
Widowed	7	6
Divorced	1	1
EDUCATION		
Illiterate	19	16
Under Matric	31	27
Matric	31	27
Post Matric	29	25
Postgraduate	7	6
Employment status		
Housewife/ Unemployed	59	50
Office worker	14	12
Manual worker	16	14
Business	28	24
Total	117	100

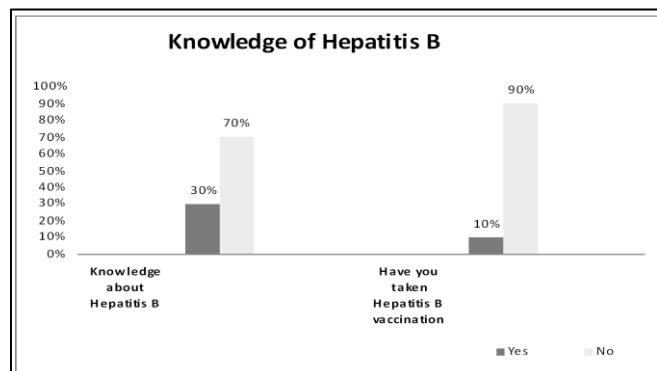


Figure 1. Knowledge of Hepatitis B

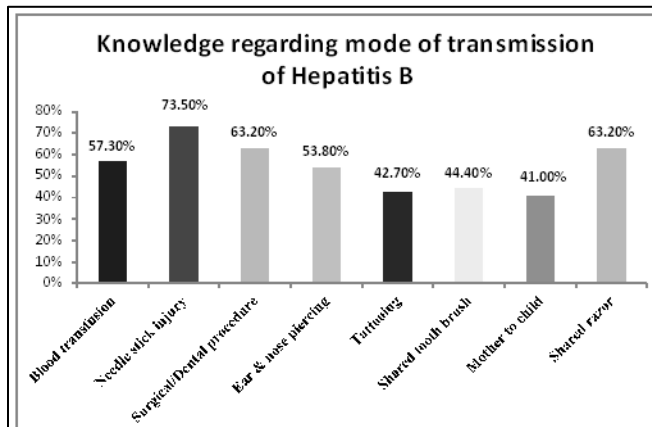


Figure 2. Knowledge regarding mode of transmission of Hepatitis B

Table 2. Attitude & Behavior towards Hepatitis B

Possible exposure of infection before Hepatitis B diagnosis	Frequency	Percentage
Quacks	1	0.9%
Blood transfusion	0	0%
Ear piercing	2	1.7%
Tattooing	0	0%
I/V drugs	1	0.9%
Shared needles	0	0%
Dental extraction	3	2.6%
Organ transplant	1	0.9%
Occupational exposure	0	0%
Multiple sex partner	0	0%

Regarding the possible exposure of Hepatitis B infection, 2.6% of the respondents had dental extraction, 1.7% had ear piercing and 0.9% of the respondents went to quack and 0.9% had I/V drugs. (Table 2)

Table 3. Relation between Knowledge of transmission and vaccination status

Knowledge of Hepatitis B transmission from blood transfusion	Hepatitis B vaccination status		
	Yes	No	Total
Yes	12 (100%)	55 (52.4%)	67 (57.3%)
No	0 (0%)	50 (47.6%)	50 (42.7%)
Total	12 (100%)	105 (100%)	117 (100%)

(χ^2 : 9.979^a, df: 1, p=0.002)

The relationship regarding the knowledge of Hepatitis B transmission from blood transfusion and vaccination status is statistically significant by using chi-square test. (p=0.002) (Table 3)

Discussion

Hepatitis B is a vaccine preventable disease. According to WHO, an estimated 3.3% of general population is infected with Hepatitis B in Eastern Mediterranean Region (11). The mean age for females in our study is 38.66±14 and for males it is 31.66±9. Our results showed male predominance i.e 58% as compared to female's i.e 42% and these results are similar to a study conducted in Karachi, Pakistan (12). This study showed 83.7% literate individuals while 16.2% were illiterate, which are in contrast to the results of a study conducted in 2010 (13).

Our study respondents who had knowledge about Hepatitis B were 30% and only 20.5% had been tested for Hepatitis B. These results are in contrast with a study conducted in Khyber Pakhtunkhwa in which 99% had knowledge about Hepatitis B and 42% were tested or screened (14).

Hepatitis B and C infections are blood borne and are transmitted through unscreened blood transfusions, inadequately sterilized invasive medical devices and re use of syringes. Our results depict that knowledge regarding the mode of transmission of Hepatitis B through Needle stick injuries was 73.5%, through shared razor was 63.2% while the knowledge of vertical transmission was 41% in our respondents. These results are in contrast to a study conducted in (14) Khyber Pakhtunkhwa and an international study conducted among Korean American parents which showed the low knowledge among their respondents (15).

In this study, 23.1% reported history of blood transfusion out of which 17.9% had transfusion after screening. This study demonstrates that only 10.3% were vaccinated for Hepatitis B while 89.7% were not vaccinated which is somewhat similar to a study conducted in India in 2017 where only 20% were vaccinated (16).

This study revealed that only 5.9% participants were taking treatment for Hepatitis B of which 3.4% took treatment from doctors, 1.7% from hakeem and 0.9% preferred homeopathic treatment. This data shows lack of knowledge among the community even though now very effective and safe anti-viral treatments are available.

Conclusion

There is dire need to expand awareness so that the vulnerable population making up the majority of the nation can be protected. If the activities occur regularly and in focused manner, we can surely bring the behavior change in the community.

The strength of this study is the fact that it is community-based survey, involving both male and female healthy population which have been screened for Hepatitis B.

Limitations: The results cannot be generalized due to convenience sampling method.

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References

1. Akhtar H, Badshah Y, Akhtar S, Hassan F, Faisal M, Qadri I. Prevalence of hepatitis B and hepatitis C Virus infections among male to female (MFT) transgender in Rawalpindi (Pakistan). *ALS*. 2018 Feb 25; 5[2]:46-55.
2. Apps.who.int. [cited 15 January 2020]. Available from: https://apps.who.int/iris/bitstream/handle/10665/154590/9789241549059_eng.pdf
3. Expanded Program on Immunization, Pakistan [Internet]. Epi.gov.pk. 2020 [cited 15 January 2020]. Available from: <http://epi.gov.pk>
4. Hepatitis control program [cited 15 January 2020]. Available from: <http://www.pshealth.punjab.gov.pk/VerticalProgramHepatitis>
5. 6. 290 million worldwide unaware they are living with deadly virus [Internet]. 2020 [cited 16 January 2020]. Available from: <https://www.worldhepatitisalliance.org/news/jul-2018/290-million-worldwide-unaware-they-are-living-deadly-virus>
6. Hassnain S, Hassan Z, Amjad S, Zulqarnain M, Arshad K, Zain Z. Needle stick injuries among nurses of two tertiary care hospitals of Lahore: A KAP study. *JPMA*. 2017 Dec; 67[12]:1874-78.
7. Bosan A, Qureshi H, Bile KM, Ahmad I, Hafiz R. A review of hepatitis viral infections in Pakistan. *JPMA*. 2010 Dec 1; 60[12]:1045.
8. Tosun S, Aygün O, Özdemir HÖ, Korkmaz E, Özdemir D. The impact of economic and social factors on the prevalence of hepatitis B in Turkey. *BMC public health*. 2018 Dec; 18[1]:649.
9. Zaheer HA, Saeed U, Waheed Y, Karimi S, Waheed U. Prevalence and trends of hepatitis B, hepatitis C and human immunodeficiency viruses among blood donors in Islamabad, Pakistan 2005-2013. *J Blood Disorders Transf*. 2014;5[217]:2.
10. Lahore.punjab.gov.pk. 2020. *Geographical Boundaries of Lahore*. [online] Available at: <https://lahore.punjab.gov.pk/constituencies> [Accessed 19 August 2020].
11. Apps.who.int. 2020 [cited 15 January 2020]. Available from: https://apps.who.int/iris/bitstream/handle/10665/154590/9789241549059_eng.pdf
12. Ali M, Imtiaz F, Khan MA, Ahmad B, Umer M, Akhtar S, Malhi TN. Hepatitis B Virus And Undergraduate Students: A Study On Levels Of Awareness In Universities Across Karachi. *PJPH*. 2018 Aug 5;8[2]:75-9.
13. Qureshi H, Bile KM, Jooma R, Alam SE, Afrid HU. Prevalence of hepatitis B and C viral infections in Pakistan: findings of a national survey appealing for effective prevention and control measures. *EMHJ*, Vol. 16, 2010
14. Ahmed M, Malik N, Ashraf F, Rehman MU, Rashid A. Awareness of Hepatitis' B Among People of Khyber Pakhtunkhwa Province of Pakistan. *JCPSP*. 2016 May 1;26[5]:443-4.
15. Hyun S, Lee S, Ventura WR, McMenamin J. Knowledge, awareness, and prevention of hepatitis B virus infection among Korean American Parents. *J Immigr Health*. 2018 Aug 1;20[4]:943-50.
16. Yasobant S, Trivedi P, Saxena D, Puwar T, Vora K, Patel M. Knowledge of hepatitis B among healthy population: A community-based survey from two districts of Gujarat, India. *JFMPC*. 2017 Jul;6[3]:589.