

Knowledge, Attitude and Practices of Barbers about Hepatitis B and C and its Transmission in Larkana City, Pakistan

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ABSTRACT

Background: Blood borne diseases impose heavy burdens on national economies and individual families due to costs arising from acute and chronic morbidity and mortality. Globally, 2 billion people are infected with hepatitis B virus (HBV). An estimated 170 million persons are chronically infected with hepatitis C virus (HCV) and 3–4 million persons are newly infected each year.

Transmission of hepatitis B & C through infected needles, blades, etc. is well known. Barbers are the important parts of community, as almost every man needs at least monthly visit to barber for hair dressing or shaving. In Pakistan the prevalence of shaving by barbers is reported to be as high as 34%–49% of the male population and it is important to know how barbers perceive the risks in relation to prevention of transmission of hepatitis B & C

Objective: To assess the knowledge and attitude of barbers regarding HBV and HCV and find out practices among barbers which may be responsible for transmission of HBV and HCV.

Study Design: Cross-Sectional Study

Place and Duration of Study: This study was carried out in the Larkana city during the months of March 2010 to April 2012.

Material and methods: A list of the barbers was obtained from the union of barbers and sample was drawn from that sampling frame. There were 422 barbers shops in the city. For sampling purpose Larkana city was arbitrarily divided into five zones (East, West, Central, South & North) and then 10 shops randomly selected from each zone. There were 156 barbers available and eligible for interview. After informed verbal consent, 132 barbers agreed to participate in the study. Data was entered, analyzed by Statistical Program for Social Sciences (SPSS) version 13.

Results: A total 132 barbers were interviewed. The mean age of respondents was 28 ± 10 years, mean years of experience in barbering was 12.7 ± 10 . More than half (63.6%) respondents were married. Majority of the respondents (84.8%) were resident of urban areas. 64% barbers have had knowledge that hepatitis B & C can be transmitted through blood transfusion and sexual contact. Only 6.1% had been vaccinated against the hepatitis B. 70% of the barbers disposed of used blades in regular garbage. 82% washed hands before and after shaving each client, 92.4% cleaned their instruments with disinfectant after shaving the, 99.2% barbers change the blade for each client

Conclusion: The knowledge of barbers regarding the transmission of hepatitis B & C was fairly good but majority of the barbers were not vaccinated against Hepatitis B though they were knew that vaccine is available against the hepatitis B

Key Words: Barbers, Hepatitis B & C, Knowledge, Attitude. Practices.

INTRODUCTION

Hepatitis is an inflammation of the liver, most commonly caused by a viral infection. There are five main hepatitis viruses, referred to as types A, B, C, D and E. These five types are of greatest concern because of the burden of illness and death they cause and the potential for outbreaks and epidemic spread.¹

Hepatitis A and E viruses are transmitted typically by oro-fecal route. Hepatitis B, C and D viruses are usually transmitted by parenteral route, which include receipt of contaminated blood or blood products, invasive medical procedures using contaminated equipment, any skin injury with contaminated object, and for hepatitis B

transmission from mother to baby at birth (vertical transmission) and also by sexual contact.^{2,3}

Globally over 2 billion people have been infected with hepatitis B virus (HBV) and an estimated 170 million people are chronically infected with hepatitis C virus (HCV) ^{4,5}. In Pakistan specific estimates for the prevalence of both diseases range from 2–10%^{6,7}. Recently the rates of HBV infection in the country have been increasing, attributed to a lack of proper health facilities, low socioeconomic status and low public health awareness about the transmission of communicable diseases⁸.

HBV is 50 to 100 times more infectious than HIV, yet is transmitted by contact with blood or body fluids of an

infected person in the same way as HIV². Razor shaving by barbers has been identified as a key risk factor for transmission of HBV⁷ and HCV^{9,10}. In Turkey 39.8% of barbers were found to be HBV positive and many were infected during the course of employment.^{11,12} HBV and HCV infections have been implicated as an occupational hazard of the barbers' trade in several developing countries¹¹⁻¹². In Pakistan, daily facial shaving and armpit shaving from barbers has been identified as a risk factor for transmission of HBV and HCV¹³⁻¹⁴.

A very limited number of studies have been published in Pakistan regarding investigating knowledge, attitude and practices about hepatitis transmission among barbers¹⁵. Researcher therefore have designed the current study to assess the knowledge, attitudes and common practices of barbers in Larkana city, Sindh province regarding risk of transmission of HBV and HCV in their work. This information will help to guide the design and implementation of appropriate prevention and interventions strategies.

MATERIALS AND METHODS

This cross-sectional study was carried out during the months of march- April 2012 in the Larkana city, which is the fourth largest city in the north-western part of Sindh Province, with a total area of 17 km², with population of 2.6 million (2009).¹⁶ A list of the barbers was obtained from the union of barbers and sample was drawn from that sampling frame.

Sample technique: The target population of study was people working in the barber shops and practicing hair-cutting and shaving. There were 422 barbers shops in the city. For sampling purpose Larkana city was arbitrarily divided into five zones (East, West, Central, South & North) and then 10 shops randomly selected from each zone. From the selected 50 shops, there were 156 barbers available and eligible for interview. After informed verbal consent, 132 barbers agreed to participate in the study.

Data collection: This cross-sectional survey was conducted during the months of March – April 2012. Trained medical students of final year visited the selected barber's shops. Face – to – face interviews were conducted with the barbers who willing to participate in the study. One of the students, not involved in data collection, observed the barbers and assessed his instruments use practices with the clients. The questionnaire collected data about personal characteristics such as age, education, marital status and area of residence. In the knowledge section different knowledge based questions such as different modes of transmission of hepatitis and risk of transmission of the disease due reusing of blades and razors, were asked. In the attitude section questions like media they use for information, their knowledge about the vaccination

against the disease, their vaccination status and how many doses they have received. While considering the practices, barbers were observed for hand washing before each client, sterilization of instruments and reuse of blades. Check list was used to record all these observations.

Analysis: Data were entered and analyzed by using the SPSS version 14. Percentages and frequencies were calculated for categorical variables and means and standard deviations for continuous variables.

RESULTS

A total 132 barbers were interviewed; their demographic characteristics are shown in table 1. The mean age of respondents was 28 ± 10 years, mean years of experience in barbering was 12.7 ± 10 . Twenty eight percent (37) barbers were illiterate, 32% (43) completed their primary education, and 41% had education up to intermediate and only 11% completed their higher education. More than half (63.6%) respondents were married. Majority of the respondents (84.8%) were resident of urban areas.

Table No.1: Demographic characteristics of participating barbers

Mean age (years) 28 ± 10
Mean years of experience In barbering 12.7 ± 10 .

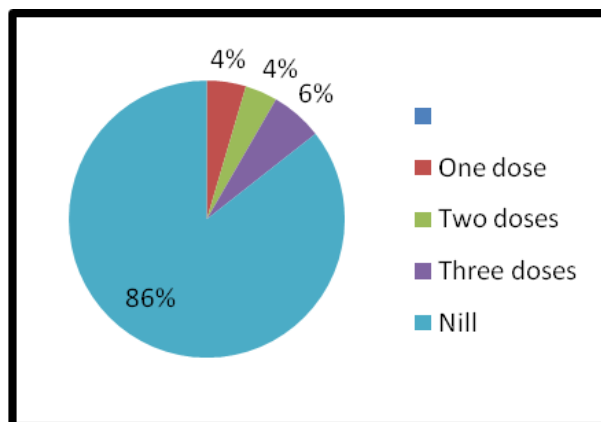
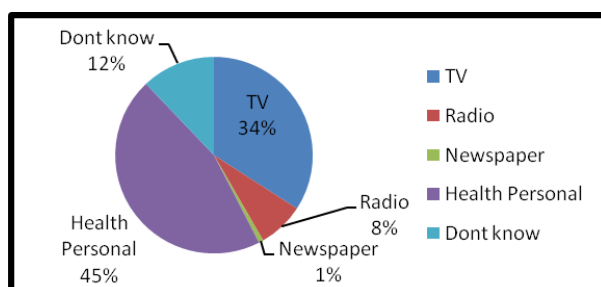
Educational status	No	Percent
Illiterate	37	29
Primary	43	32.6
Secondary	41	31.1
Higher	11	8.3
Residence		
Urban	112	84.8
Rural	20	15.2
Marital Status		
Married	84	63.6
Unmarried	48	36.4

Knowledge: Responses to the knowledge based questions showed that majority of the barbers (79.5%) were aware about the hepatitis B & C. Regarding the knowledge about the modes of transmission of the disease was good, 63% of the respondents knew about its transmission through barbers' instruments. About 64% barbers have had knowledge that hepatitis B & C can be transmitted through blood transfusion and sexual contact. Half (50%) of the respondents were knew that vaccine is available for the hepatitis B.

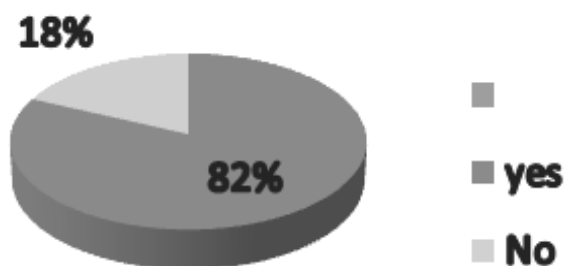
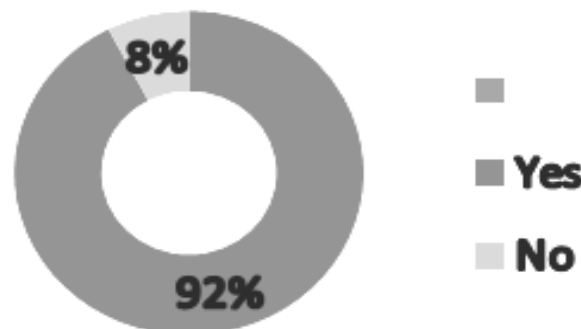
Attitude: The vaccination status of respondents was very poor, only 6.1% had been vaccinated against the hepatitis B. Main source of information regarding hepatitis B & C was health personal and TV (45.5% & 34% respectively), 70% of the barbers disposed of used blades in regular garbage.

Table No. 2: knowledge of the barbers regarding transmission of hepatitis B&C

Knowledge Item	Yes		No	
	No	%	No	%
General awareness				
Have heard about liver diseases	128	97	4	3
Have heard about HB&C virus	120	91	12	9
Mode of transmission				
Contaminated water	70	53	62	47
Contaminated food	81	61.4	51	38.6
Blood transfusion	84	63.7	48	36.3
Sexual contact	85	64.4	47	33.6
Reused needles	95	72	3.7	28
Barbers instruments	83	63	49	37
Vaccine available				
Against HBV	72	54.5	60	45.5
Against HCV	46	35	86	85

**Graph No.1: Vaccination status of participants****Graph No.2: Source of information**

Practices: While observing the barber's practices, it was observed that 82% washed hands before and after shaving each client, 92.4% cleaned their instruments with disinfectant after shaving the, 99.2% barbers change the blade for each client

**Graph No.3: Wash hands before and after each client****Graph No. 4: Disinfect instruments between clients**

DISCUSSION

Barbers shop is the place where blade can act as a vehicle to transmit hepatitis B & C from one customer to another through sharing of blades between customers, which is common practice in Pakistani saloons. Moreover during rush period the chances of successful transmission of disease increase through reduction in the time between customers.^{17,18}

This study was conducted to assess the knowledge, attitude and practices of the barbers about the transmission of the hepatitis B & C. The results show good awareness about the different modes of transmission of hepatitis B & C diseases. The majority of the participants were aware that disease can be transmitted through blood transfusion, sexual contact, reuse of needles and barbers instruments (63%, 64%, 72% and 70% respectively). This is better to another study conducted in Hyderabad Pakistan in 2007, which reported 29%, 36%, 31% and 36.6% respectively.¹⁹ Knowledge about different modes of transmission of hepatitis in the barbers of Gharbia governorate, Egypt was better than our study which reported 94. 2%, 70.5%, 93.8 and 82.5% transmission of disease through blood transfusion, sexual contact, reuse of needles and barbers instruments respectively.¹⁹

In our study only one barber (0.8%) was observed to reuse the blade on different client compared to 4.3% of barbers of above mentioned study. Another study conducted in Turkey reveals that 9.4% barbers were reusing the needles on different clients. In our study this may be because barbers were aware being observed

during data collection and majority of the barbers were not disposing the used blades in bins may have been intending reuse them later on.

Our study revealed that large proportion (85.6%) of barbers were ignorant regarding the vaccine against HBV only 6.1% barbers have had got all three doses of vaccine. The finding is in similar line with earlier reports.²⁰

CONCLUSION

The present study was carried out in Larkana city to assess knowledge, attitude and practices regarding hepatitis B & C transmission in barbers. 132 barbers participated in study, selected randomly after dividing the city in to five arbitrarily zones.

A large proportion of the barbers were aware about the different modes of transmission of hepatitis B & C, particularly through blood transfusion, sexual contact reused needles and barbers instruments. While observing the practices of barbers, it was found that majority of the barbers washed their hands and instruments before and after each client. Although most of barbers were aware that vaccine against hepatitis B is available but only small number of barbers were fully vaccinated against the hepatitis B and there is a scope for educational intervention in this regard.

Recommendations:

At present, cure to HBV is a distant dream while treatment of HCV is available but it is very costly so the only cost effective measure is prevention as the only choice, through increasing awareness among people in general and particularly in people working in occupations where there is increased risk of transmission of HBV & HCV. Barbers occupation is probably one such occupation and has scope for educational intervention

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