

To Assess the Knowledge, Attitude, And Practices of Barbers Regarding HIV and HCV Transmission in the Peshawar Region

HABIBULLAH¹, IHTISHAM KHAN², NAZISH BABAR³, KHALIDA KOUSAR⁴, GHAYAS UDDIN⁵, ZAHID ULLAH KHAN⁶

¹Islamabad Medical and Dental College, Islamabad, Pakistan.

²Department of Dialysis Technology, Institute of Paramedical Sciences, Khyber Medical University, Peshawar, Pakistan.

³Associate Professor of Microbiology and Head of Pathology Department, Gajju Khan Medical College, Swabi, Pakistan.

⁴Assistant Professor of Microbiology, Department of Pathology, Bacha Khan Medical College, Mardan, Pakistan.

⁵Assistant Professor, Lady Reading Hospital, Peshawar, Pakistan.

⁶Assistant Professor of Microbiology, Department of Pathology, Khyber Girls Medical College, Peshawar, Pakistan.

Corresponding author: Zahid Ullah Khan, Email: drzahidullah1978@gmail.com

ABSTRACT

Introduction/Objective: The primary goal of this study was to assess barbers' knowledge and practices regarding the spread of HIV and HCV infections.

Material and Methods: A cross-sectional survey about the knowledge, attitude, and practices of barbers regarding HIV and HCV was conducted in different union councils of Peshawar by selecting 70 hairdresser shops. The barbers were asked to fill out a questionnaire, which was comprised of questions related to their socio-demographic features, knowledge about HIV and HCV, and practices they exercise while providing their services.

Results: Most of the respondents were of the age group of 31-45 years (58.6%). 57% were workers while 42.9% were owners of shops. All the respondents were aware of HIV and HCV infections along with their sources and modes of transmission. The source of awareness was friends circle in the majority (45.7%) cases. 60% of the respondents knew about the organ/system targeted by these viruses while only 50% were aware of the progression and outcome of the disease. 70% of participants were aware of the measures to prevent the transmission of these infections. Spiritual personnel was revealed to be the best healers (47%) followed by medical doctors (30%). Only 20% of respondents accepted the use of gloves, aprons, and washing hands while all of the barbers revealed the use of new shaving blades and cleansing of razors and scissors by Dettol for every client.

Conclusion:

The majority of the barbers had adequate knowledge about HCV and HIV infections and their transmission but compliance with preventive measures was not strictly followed.

Keywords: HCV, HIV, Barbers, Knowledge, Attitudes, Practices.

INTRODUCTION

Blood-borne infections like Hepatitis B and C including HIV are the leading cause of mortality and morbidity. These diseases result in catastrophic health expenditure since the poor must face the costs of their care, leading to even greater poverty and suffering¹. Globally, 2 billion people are infected with HIV (HIV), with more than 350 million having long-term infections. An estimated 170 million people are chronically infected with the hepatitis C virus (HCV), and 3 to 4 million are newly infected each year². Although no new population-based estimates of the prevalence of HIV and HCV in Pakistan are available, previous research at Hafiz Abad and studies on blood donors suggest a significant prevalence of blood-borne diseases³.

HIV is a major global public health problem for most Asians. About 8-10% of the population of China and other East Asian countries is repeatedly infected with HIV. Over 80% of hepatocellular carcinomas worldwide are due to the interaction of chronic HIV and HCV infections. People with these infections are 20 to 100 times more likely to develop hepatocellular carcinoma than people without these viruses⁴. In Pakistan, the rate of transmission of HIV is 2.8-10%. Hepatitis C is a hepatocyte-targeting virus and is found globally. The results of acute and chronic hepatitis are thousands of deaths, cirrhosis, and hepatocellular carcinoma each year⁵.

Significant factors contributing to the transmission of HIV and HCV include the risky use of medicinal injections, blood transfusion, barber grooming equipment, tattoos, and unsafe sexual practises⁶. Hairdresser blade division and shave is a significant risk factor for HIV in Italy⁷ and between mental patients in Japan Sawayama,⁹ and Pakistan for HCV⁴. In Pakistan, therapeutic injections given in healthcare settings have been identified as a major and frequently discussed risk factor for HIV and HCV. Therapeutic injections, everyday facial shaving, and armpit shaving have all been recognized as HCV risk factors in Pakistan. Despite this, there is no evidence of a blood-borne virus outbreak or barber practices in Pakistan, and just a sliver from the rest of the world⁸. If early knowledge and barber practices are available, appropriate interferences can be led. In this study, we

investigated barbers' knowledge and practices regarding the risk of HIV and HCV transmission in two Pakistani cities.

In Pakistan, the professional services of a hairdresser include haircuts, facial and scalp wipes, nail clippings, pedicures, manicures, and shampooing. Hairdressers provide facilities for circumcision and cutting/drainage, especially in rural and urban areas⁹. It is associated with the profession of a hairdresser, which poses a health risk, with a high potential of spreading infectious diseases and skin infections. Many infections, including HIV and HCV, can be transmitted in barbershops. The goal of this study was to assess hairdressers' and cosmetologists' knowledge of HIV and hepatitis C transmission and their prevention methods¹⁰.

HIV is a disease that assaults the immune system directly, whereas (HCV) is a severe and mutually contagious liver condition¹¹. Hepatitis C is estimated to infect over 2 billion people worldwide. In addition, 350 million of those 2 billion were harmed by lingering, persistent infection. Furthermore, 15-40% of chronic hepatitis C juggernauts were predicted to develop liver cirrhosis and hepatocellular cancer¹². Hepatitis C is a difficult infection that causes 0.6 million deaths per year⁹. Although hepatitis C is classified as a "priority disease," new cases are constantly being discovered around the world¹³. Furthermore, hepatitis C is frequent in the Asia Pacific region, with 10 to 15 million people affected by the disease⁶. According to reports from throughout the world, the prevalence of hepatitis C infection is on the rise in Pakistan¹¹. The prevalence of hepatitis C ranges from 7 to 20% in the Pakistani population and varies by region. Pakistan's health-care system includes both private and public sectors. The commercial health sector serves around 80% of the population, while the public sector contains over 10,000 health facilities ranging from elementary health units (BHUs) to tertiary referral institutions. Within this context, Peshawar is the biggest city and the capital of Khyber Pakhtunkhwa. The city is located approximately 40 kilometers from the Torkham Border with Afghanistan and is the only city with adequate health institutions and services¹⁴.

Major causes of HIV and HCV spread include irrational use of injectables, shaving from barbers, tattooing, blood transfusion, insecure sexual practices, and vertical mother-to-child

transmission, sharing Razors. Moreover, used injections, regular armpit, and facial shaves have also been acknowledged as founding aspects of HCV in Pakistan. Still, there is no proof of information regarding the spread of blood-borne illnesses in Pakistan, and barber practices are considerably different from the rest of the world. Proper invasions can be avoided if the information and barber practices are calculated early. In this study, the precise emphasis is on the calculation of knowledge and does of barbers from the principal city of Khyber Pakhtunkhwa which is Peshawar. This study aimed to measure the practices, knowledge, and attitudes of barbers about the spread risk of HIV and HCV viruses in Peshawar city.

MATERIALS AND METHODS

A cross-sectional study was carried out from July 2019 to January 2020 regarding the knowledge of barbers about HIV and HCV infections and the daily practices they exercise in the region of Peshawar. The study was conducted in different union councils of the Peshawar region: UC 10 (Gulbahar), UC 37 (Shaheen town), UC 41 (Palosi), UC 40 (Tehkal Bala), and UC 43 (Malkandher). Barber shops and hair saloons (gents) were included. Barber shops with fewer than two barbers were excluded.

Barbers of different areas (as mentioned) were interviewed in barbershops. Non- probability, convenient sampling technique was used for the selection of barbershops in the Peshawar region. A sample size of 70 was calculated using the formula. i.e. 95% confidence interval, 5 % margin of error and prevalence (0.1% for HIV and 4.8% for HCV) $n = z^2 p (1-p) / d^2$.

The study was conducted after taking approval from the Ethical board of Frontier institute of medical Sciences Abbottabad. Data was collected through a questionnaire from barbers in district Peshawar. The barbers were asked to fill out a questionnaire, which was comprised of 35 closed-ended questions related to their socio-demographic features, knowledge about HIV and HCV, and practices they exercise while providing their services. The data was collected in the predesigned proforma (attached in annexure).

The collected data was validated through Cronbach's Alpha (a measure of internal consistency ranging from 0 to 1) to find out the reliability of the responses. Descriptive analysis was used to find out the awareness and practices of barbers regarding HIV and HCV spread and tables were constructed to demonstrate the responses obtained from 70 respondents.

RESULTS

The current study was carried out to determine the knowledge and practices of barbers regarding HIV and hepatitis C transmission in Peshawar city. For this purpose about 70 Barbers shops were selected from the city and were asked to fill out the questionnaire. The findings revealed that respondents had a high level of awareness and practice on hepatitis and HIV, routes of transmission, and risk factors, particularly razor reuse. All of the responders had heard of these infections.

Table 1 shows the age of respondents who worked in barbershops. The results revealed 3 respondents of age less than 18 years, 17 were in the age range from 18 to 30 years, 41 in 31 to 45 years, 8 in 46 to 55, and about 1 respondent aged 55 and above.

Table 1: Distribution of age of respondents

Age Range	Frequency (n)	Percent (%)
Less than 18	3	4.3
18-30	17	24.3
31-45	41	58.6
46-55	8	11.4
55 and above	1	1.4
Total	70	100.0

Of the total 70, 14 respondents were single and 56 were married. Table 2 shows the ownership status of respondents i.e. 30

respondents were the owner of their shops while 40 were workers in those shops.

Table 2: Table 1: Distribution of ownership status of respondents

Ownership status	Frequency (n)	Percent (%)
Owner	30	42.9
Worker	40	57.1
Total	70	100.0

Data regarding the duration of employment of the respondents as barbers revealed that 2 respondents worked for 1-2 years, 7 respondents had working experience of 3-5 years, 22 respondents had 6-10 years and 39 were having experience of more than 10 years. Table 3 shows the monthly income of the respondents who have been employed as a barber.

Table 3: Monthly income of the respondents

Monthly income (pkr)	Frequency	Percent
21000-40000	40	57.1
41000-60000	29	41.4
61000-100000	1	1.4
Total	70	100.0

When inquired from the respondent if they ever heard of a disease called Hepatitis C and HIV, all (100%) of the respondents knew about it. Respondents were asked about the source of information about Hepatitis and HIV i.e. 11 respondents heard about these infections from family, 32 respondents heard from friends, 11 respondents came to know from electronic media, only 1 respondent was informed by the doctor, and 15 respondents got information from print media. Upon inquiry about the source of infection, it was revealed that all (100%) of the respondents were aware of the major sources of these infections.

Table 4 shows the results of the question asked from the respondent about organs mainly affected by Hepatitis. 42 (60%) respondents told that the organ in the human body which is mainly affected by hepatitis is the liver.

Table 4: Distribution of responses about organs mainly affected by Hepatitis

Effected organ	Frequency (n)	Percent (%)
Kidney	10	14.3
Liver	42	60.0
Stomach	18	25.7
Total	70	100.0

All (100%) of the 70 respondents were aware of the fact that hepatitis C and HIV are infectious diseases that one can get from another infected person. All (100%) of the respondents were well aware of the mode of transmission of HIV and hepatitis C infections. They identified blood and sexual contact among other false options. They were also clear about the fact that these infections can not be spread by sharing food or clothes.

Upon enquiry, only 5 (7%) respondents knew about the fact that hepatitis C may lead to cancer. They knew it from their past disease history in the family/relatives. Query whether Hepatitis C can be transmitted through barbering tools like blades, Razor, surprisingly all (100%) the respondents responded in "Yes". They were well aware of the fact that using razors/sharps/blades of an infected person can spread this infection to non-infected ones.

Regarding the question of whether HIV can be transmitted through barbering tools like blades, and Razor, 40% of the respondents responded with "Yes". Remains believed that HIV is a sexually transmitted disease and using razors/sharps/blades of an infected person can not spread it.

Upon enquiry, it was found that all (100%) respondents were aware that HIV can not be transmitted by shaking hands with an infected person. But regarding hepatitis C, some (13%) individuals believed it to be transmissible through contact.

Table 5 shows the results of the question that who they believe are best to approach to treat Hepatitis and HIV. The

majority (47.1) of respondents identified spiritual personnel followed by medical doctors by some respondents (30%).

Table 5: Distribution of healers/health care providers

Treatment By:	Frequency (n)	Percent (%)
Hakim	16	22.9
Spiritual Person	33	47.1
Doctor	21	30.0
Total	70	100

Only 20% of respondents accepted the use of gloves, aprons, and washing hands while providing services to their clients. Moreover, the majority revealed that they didn't know the advantages of wearing gloves and aprons. All of the barbers revealed that they use new shaving blades in razors and scissors for every client. All of the barbers admitted that they don't use disposable razors and scissors but 50% revealed that they do soak them in Dettol water to disinfect them after entertaining every client.

Table 6 shows the results of the question How frequently do they change the blades of razors after barbering clients? All of the respondents mentioned that they make sure to change of blade after entertaining the client which is highly appreciated. But they do admit that sometimes new workers forget to replace them unintentionally due to lack of experience.

Table 6: Frequency of changing blades after barbering client

Frequency of blade replacement	Number	Percent
After 1 Client	70	100.0
After 2-3 Clients	0	0
After 4-5 Clients	0	0
Till sharpness of the blade	0	0
Total	70	100.0

DISCUSSION

The current study was conducted to learn more about barbers' HIV and HCV transmission knowledge and practices in Peshawar city and for this purpose, about 70 respondents were selected from the city and were asked to fill the questionnaire. The results showed that the knowledge of the respondents about hepatitis and HIV, modes of its transmission, and risk factors were quite satisfactory. Some respondents were not well aware of the transmission of HIV. All of the respondents were found to use new blades for every client but other tools were used by improper means of cleansing i.e. sterilization or autoclave. Barbering methods like this can enhance disease transfer from infected to healthy people. Similar studies were undertaken in other Pakistani cities such as Rawalpindi and Islamabad, but their level of awareness about hepatitis and the risks of transmission was quite poor, resulting in the misuse of blades on several clients and the spread of illnesses.

In contrast to our findings, a survey of barbers in India revealed that blade reuse was prevalent¹⁵. This significantly higher compliance may be due to improved awareness of specific information on the danger of HIV and HCV transmission, which may have a stronger impact on their practises¹⁶. By organizing a successful campaign, these procedures will be improved even more. Messages against the spread of diseases by razors should be included in media campaigns, and efforts to improve health education and regulate barbershop practices should be stepped up¹⁶. Other factors, such as stringent government legislation requiring the use of a new blade for every customer and an environment receptive to behavioral change, are essential for health education to effectively translate into positive behavioral changes¹⁷.

One of the study's flaws worth addressing is the small sample size and convenience sampling technique, which may lead to selection bias. Furthermore, several key criteria, including barber circumcision, incision, and drainage procedures, as well as appropriate therapies, are not included in this study. To research the repercussions of the multiple variables that influence HIV and HCV virus transmission, a large-scale, well-planned study is necessary¹⁸.

CONCLUSION

Health is the basic unit of life, but due to some unconventional reasons, our population can be ill without taking proper precautions. HIV and HCV are among the leading infectious diseases. In our study, it is concluded that regarding knowledge the barbers of district Peshawar are well aware of Hepatitis C and HIV but this awareness is not reflected in their attitude and daily routine practices as seen in developed countries. There is a lot of scope for improvement by implementing strict legislation and surveillance to prevent the spread of these blood-borne infections.

All the following recommendations are based on this study because the use of contaminated shaving blades, razors, and other equipment can adversely affect the health of the community.

- 1) All the barber shops/salons should check by the government official for their service quality after every three months.
- 2) Government should provide extra funds to the barbers for the provision of hygienic equipment to control the spread of viral infections.
- 3) There should be a proper committee for checking the hygiene of the environment including water and instruments.
- 4) The Government official should initiate awareness session programs to engage/inform them about different infectious and contagious diseases.
- 5) Proper disposal of disposable equipment should be ensured in commercial areas.
- 6) Strict disciplinary actions like imposing heavy fines, imprisonment, etc. should be taken against those who are found guilty.

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