

## AWARENESS AMONG BARBERS ABOUT HEALTH HAZARDS ASSOCIATED WITH THEIR PROFESSION

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**Background:** Barbers are important professionals of the community which are still owned, cared and financed by the community especially the rural one. Barbers besides performing duties in social events like marriage, circumcision etc is also responsible for hair and nail cutting. In urban settings they have developed their profession by incorporating facial massage and make-up. It is the need of their profession to utilize instruments like knife, blades etc. The objective of the study was to assess awareness among barbers regarding health hazards related to their profession and to identify professional practices linked with infection transmission. **Methods:** This descriptive cross sectional study was conducted in Kharian city of district Gujrat, located almost mid-way between Lahore and Islamabad, from June 2003 to September 2003. Sample of 50 barbers were selected by simple random sampling technique. Data was collected by using a semi-structured questionnaire and a checklist. Data was analyzed using SPSS 10. **Results:** The mean age of barbers interviewed was 33.3 years with  $SD \pm 8.3$ . It was found that 29 (58%) barbers denied about any health hazards associated with their profession whereas 21 (42%) had knew about hepatitis, AIDS; they also described the role of contaminated blades, clips, towels, apron, and combs in causing skin problems. It was observed that 90% of barbers did not wash hands, 80% did not change the apron, 66% did not change towel during barbering services to different customers. Besides 7 (14%) barbers were also performing minor surgeries like circumcision, in growing toe nail excision and abscess drainage. There was significant difference in level of awareness among barbers in respect of age; educational status and duration of working. Age group (15–25) had better knowledge about the health hazards than barbers in age group (26–50). There is a significant difference ( $p < 0.05$ ) in the awareness of those who got formal education. As for the effect of media on the knowledge of these workers, it was observed that 78% of them had the access to TV and out of these 69% had significant knowledge about health hazards related to barbering profession. **Conclusion:** The level of knowledge among barbers about health hazards associated with their profession is very poor. Majority of them do not have any perception of unhealthy working practices in barbering. Awareness about threat of receiving hazardous infection from their customers is also unsatisfactory.

**Keywords:** Barber's shop, Barbering health hazards, knowledge, Barbering Practices, Hepatitis B, Fungal infection, Hepatitis C, HIV Infection

### INTRODUCTION

Health has been declared as the fundamental human right.<sup>1</sup> Despite this recognition there is denial of this right to millions of people who are caught in the vicious circle of poverty and ill health. Health is a social and biological issue and reflects the extent and distribution of resources in a society. Healthcare is one of the most important aspects of all human endeavors to improve the quality of life, since sound health is essential for the strength and prosperity of a nation.

Infections remain the main cause of morbidity and mortality in man, particularly in underdeveloped areas where it is associated with poverty and overcrowding. In the developed world increasing prosperity, universal immunization and antibiotics have reduced the prevalence of infectious diseases. In the developing world infectious diseases cause nearly 25% of all human deaths. Infectious diseases kill more than 11 million people a year and diminish the lives of countless others.<sup>2</sup> Virtually all deaths due to infectious diseases occur in low and middle income countries.<sup>3</sup> In Pakistan, the estimated burden of disease due to infectious diseases

is 38.4%.<sup>4</sup> Many of the infectious diseases affecting developing countries are preventable or treatable, but continue to thrive owing to lack of personal and environmental hygiene, ignorance and poor political commitment. Important routes of transmission of infectious diseases include airborne spread, faeco-oral spread, vehicle spread, vector borne spread and direct spread either through person-to-person transmission or by direct inoculation and transplacental.<sup>4</sup>

The word 'barber' comes from the Latin word '*barba*' meaning beard. Barber is a person whose occupation is to cut any type of hair, give shaves, and trim beard. A barber differs from a hairdresser whose business is generally restricted to cutting and styling hair. Barbering is an ancient profession. The earliest records of barbers show that they were the foremost men of their tribe. They were the medicine men and the priests. They were also providing services for bloodletting, tooth drawing, cauterization and the tonsorial operations.<sup>5</sup> With the advancement of medicine, surgery and dentistry, the barbers became less and less capable of performing

the triple functions of barber-surgeon-dentist.<sup>5</sup> In Pakistan, barbering operations include hair cutting, face and scalp massaging, nail trimming, pedicure, manicure and shampooing/dyeing of hair. In addition barbers are also providing facilities for circumcision and incision /drainage of abscess especially in rural areas and urban slums.<sup>6</sup>

Several health hazards including communicable diseases and skin conditions are associated with barbers' profession to which their visitors are exposed. The diseases of primary importance linked to this profession are ringworm disease, (through direct contact), infestation of head louse, staphylococcal, Scabies (through contaminated towels, combs, and aprons) and Hepatitis B, hepatitis C, tetanus and AIDS (contaminated blades and clips). A large proportion of population is enjoying the services of barbers in our community and their place of work and profession may be a potential source of infectious diseases transmission silently in the community. Considering the grave consequences of infections especially Hepatitis B, C and AIDS, associated with this profession; awareness about these health hazards among barbers would play a vital part in prevention and control of these infections.<sup>7</sup>

The purpose of our study is to assess awareness among barbers regarding health hazards related to their profession and to identify practices linked with infection acquisition on barbershops. The results of this study will help the health educators and managers to understand the dynamics of disease transmission in relation to barbering profession.

## SUBJECTS AND METHODS

This study was conducted on barbers working in Kharian city district Gujrat. Kharian city was selected because of its small size (comprises estimated 300,000 individuals) and composition as it has clear urban, peri-urban and rural settlements. Population is uniformly scattered, stable, traditional and representative of typical small sized cities of Pakistan. Fifty out of 95 barbers working in Kharian city were selected by simple random technique by first preparing a sample frame and then using random number table. Data was collected from June 2006 to September 2006. A semi-structured questionnaire for knowledge assessment and a checklist for observing the practices at barbers' shops were developed. Questionnaire comprised three sections: personal characteristics, awareness about the health hazards linked with barbering and their practices. Personal characteristics included age, educational status, and monthly income, duration of profession as barber. Questions about awareness of common barbering related infections (hepatitis, AIDS and skin conditions) were included. In the third section

subjects were asked about their practices of personal hygiene, use of antiseptics, use of disposable razors, and cleanliness of instruments. Questionnaire was translated into Urdu. Pre-testing was carried out in Kot Khawaja Saeed Lahore. Necessary changes were made before the actual collection of data. Verbal consents were obtained before interviews. Data collection on checklist was carried out by observation of services provided to two clients at each shop. Data was compiled and analyzed using SPSS 10.0 version.

## RESULTS

Out of fifty barbers enrolled for the study, 50% of them were in age range 26–35, whereas 24% were in the range of 15–25 and 26% were above 40 years of age. Fifty-eight percent did not obtain any formal education whereas 24% received primary education and 18% were educated to middle and above. It was found that 46% of barbers were in the profession for the last 6–10 years, 22% for more than 10 years whereas 32% were having working experience of less than 5 years. Out of fifty barbers interviewed, 39 (78%) had access to television and 6 (12%) to newspaper. It was noted that 29 (58%) barbers showed ignorance about any health hazards associated with their profession whereas 21 (42%) had heard about hepatitis and AIDS. Moreover, they were aware of the role of contaminated blades, clips, towels, apron, and combs in causing skin problems. It was observed that 90% of barbers did not wash hands, 48% neither used new blades neither used sterilized instruments for next customer, 80% did not change the apron, 66% did not change towel during barbering services to different customers. Besides 7 (14%) barbers were also performing minor surgeries like circumcision, ingrowing toe nail excision and abscess drainage.

There was significant difference in level of awareness among barbers in respect of age, educational status and work experience. Barbers in age group (15–25) had better knowledge about the health hazards than those in age group (26–50). A better knowledge and awareness regarding health hazards linked to their profession was observed in barbers that attended formal school (42%). It was noted that 67% of the barbers who had formal schooling were found to have better knowledge about the health hazards related to barbering, and there is a significant difference ( $p < 0.05$ ) in the knowledge from those who did not have formal education. Better knowledge and understanding was also noted in those (32%) who were in the profession for the last five years. With regard to the role of media in imparting knowledge and awareness, it was observed that 78% had access to TV and out of these 69% acquired significant knowledge about health hazards related to barbering profession.

**Table-1: Knowledge of barbers about health hazards associated with their Profession**

Variable	Total	No. with Satisfactory Knowledge	%	p-value
<b>Age</b>				
15-25 years	12	11	92.0	0.000067
26-50 years	38	10	26.0	
<b>Education</b>				
No Formal Education	29	7	24.0	0.002
School Education	21	14	67.0	
<b>Working Experience</b>				
1-5 Years	16	13	81.2	0.001
> 5 Years	34	8	23.5	
<b>Access To TV</b>				
Yes	39	27	69.2	0.01
No	11	3	27.2	

**DISCUSSION**

Current study was conducted to demonstrate the existing level of knowledge and awareness among barbers regarding health hazards associated with their profession. In barbershops, people could expose themselves not only to the infected instruments but also varied types of chemical and thermal hazards. Ringworm disease; a condition caused by several species of fungi that is easily transmitted by direct contact, or by contact with contaminated equipment and towels is of primary importance. Pediculosis; infestations of head lice also spreads in the same way. Scalp infections especially with methicillin resistant *Staphylococcus aureus* (MRSA) seems to be of greatest concern due to the fact that treatment through self-medication and are not often reported. A study conducted in prisons and jails in USA (Georgia, California, Texas and Mississippi and the Los Angeles County Jail) indicate an incidence of approximately 12 MRSA infections per 1000 person-years.<sup>8</sup>

If a towel or drape such as a sheet is used on an infected client and instruments such as clippers, combs and razors are used successively without proper cleaning and disinfection, the likelihood of spreading an infection or infestation is almost certain. The trade of traditional barber has continued to expose its practitioners and their customers to multiple infectious diseases. Many studies have supported this argument that these places are contributing to the spread of infectious diseases and allergic conditions including hepatitis B, hepatitis C, AIDS, Scabies, Ringworm infection and dermatitis. A cross-sectional epidemiologic survey in Casablanca region during 2001 among 150 barbers reported that the concept of infectious risk associated with blood was generally not well known, especially for hepatitis B and C; most were not vaccinated. Syphilis serology was positive for 7%. HBV was positive in 2% and HCV in 5%.<sup>9</sup> Similarly in another study in Karachi, Pakistan, it was found that those male adults were more at risk of receiving hepatitis C viral infection who had daily face (adjusted OR=5.1, 95% CI: 1.5–17.0) and armpit shaves (adjusted OR=2.9, 95% CI: 1.3–6.5) by a barber.<sup>10</sup>

Hepatitis B virus (HBV) and hepatitis C virus (HCV) infections are among the most devastating health problems in the world.<sup>11</sup> A study on knowledge and practices of barbers about hepatitis B and C in Rawalpindi and Islamabad was conducted by Janjua and Nizamy<sup>6</sup> of Agha Khan University Karachi. They identified that 13% of barbers knew that hepatitis was the disease of liver and could be transmitted by razors. In our study, 54% knew about Hepatitis B, 12% about Hepatitis C, 24% about Hepatitis B and C. Moreover 22% were aware of the transmission of disease through Razors.<sup>6</sup> This difference from our results may be due to small size sample in our study.

The results of our study also clearly indicate that much effort has to be put in our public health activities for sensitizing both customers and service providers at barbershops to reduce the likelihood of acquiring diseases there. Majority (58%) of the barbers did not have any concept of the infections, which were transmitted not only to the customers but to themselves too during their work. The barbers belonging to relatively young age group (15–25 years) were better aware of the hazards in comparison to the old ones. This may be attributed to the access of media especially television in recent times which is constantly providing information relating to their work. Moreover, the customers are also sensitized to these dangers so contributing to improve the barber’s knowledge. The other factors, which are significantly associated with good knowledge, and practices include the educational status and working experience. Those with even primary education had better understanding of the hazards than those who did not have any formal education. One interesting finding was that the barbers with less working experience were more aware of health hazards than the ones who had been in this field for more than five years. This shows that old habits die hard.

AIDS is becoming a huge public health problem in our part of the world. Pakistan is a high-risk low endemic area. There are many studies implicating the barber shops as one of the important places for its transmission. In a study carried out in Nagpur India Knowledge and practices about HIV transmission among barbers were investigated. It was found that a significantly large proportion of the roadside barbers were ignorant about modes of transmission of HIV, particularly through the blades and the practices observed by barber’s were found to be favorable for transmission of HIV.<sup>12</sup> In our study only 7% barbers were aware of the disease and re-use of blades as potential risk of its transmission whereas 93% had no knowledge whatsoever which is a very gloomy picture. In addition to this, it was also observed that 90% of barbers did not wash hands, 80% did not change the customer’s apron, and 66% did not change the customer’s towel during barbering services. Many were using a same piece of alum for all customers

on razor cuts. Besides, 14% admitted that they also performed minor surgery like circumcision, in growing toe nail and abscess drainage.

Of great importance among various minor surgical procedures carried out by the barbers is the circumcision. Circumcision is a very important religious procedure completed during early infancy especially in rural areas and urban slums. The risk of developing chronic HBV infection is high if the infection is acquired in early age. Of the children who acquire HBV infection during perinatal period more than 90% will develop chronic HBV infection. Similarly of those infected between 1–5 years, 25–50% will land up with chronic HBV infection. Chronic HBV infection will eventually develop HBV related hepatocellular carcinoma or cirrhosis in 25% of infants and children who live with chronic HBV infection.<sup>13</sup>

Certain beauty treatments play an important role in the spread of Hepatitis B and Hepatitis C Viral infections. A study was carried out in Istituto Superiore di Sanita, Rome in order to evaluate the role of beauty treatments in the spread of acute viral hepatitis B (HBV) and acute viral hepatitis C (HCV) in Italy. Beauty treatments were associated with acute HBV (OR=1.8; CI 95%=1.5–2.1) and acute HCV (OR=1.7; CI 95%=1.2–2.3). The strongest association was found with barber shop shaving for HBV (OR=1.8; CI 95%=1.5–2.2) and with tattooing for HCV cases (OR=5.6; CI 95%=2.8–11.0).<sup>14</sup>

Barbers themselves may often be exposed accidentally to the blood and bodily fluids of their customers. Candan *et al* in their study of Prevalence of hepatitis B and C virus infection in barbers of Sivas region of Turkey concluded that both Hepatitis B and Hepatitis C Viral infections might constitute occupational hazards for the barbers and the sources of infection could be not only such personal risk factors as 'sharps' injuries and scissor cuts, but may also include other unknown factors.<sup>15</sup>

It is essential and urgent to promote awareness of these risks among all, especially the public authorities, and to formally ban barbers from the illegal practice of medicine for their own protection. Although it will be a huge task for public health practitioners to bring about the behavior change towards unhealthy practices but they have to accept this challenge in order to protect the community at large.

## CONCLUSION

The level of knowledge among barbers about health hazards associated with their profession is very poor. Majority of them do not have any perception of unhealthy working practices in barbering and threat of hazardous infection to the customers. They are also not aware of risk of getting infection from their customers. A behavior change communication (BCC) campaign should be initiated without delay to protect the health of these workers and of the general population.

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