

ASSESSMENT OF KNOWLEDGE AND PRACTICE OF BARBERS & BEAUTICIANS REGARDING HEPATITIS B AND C

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ABSTRACT

Background: Barbers and beauticians can spread hepatitis B and C. The aim of this study was to assess the knowledge and practice of barbers and beauticians regarding Hepatitis B & C. **Methods:** This descriptive study was conducted from 1st September 2009 to 31st December 2009, on barbers and beauticians in Bahawalpur City. Fifty barbers and beauticians were selected by convenient sampling. Data was collected by a semi-structured questionnaire for knowledge assessment and a checklist for observing the practices at barbers/beautician's shops. The questionnaire comprised of three sections. First section formulated to get the personal data and introduction of barbers/beauticians, second to assess the knowledge and practices, and the third was composed of checklist to notify the practices through observation. Data analysed using SPSS version 16. **Results:** It was noted that younger subjects were having good knowledge as compared to older. Education of even minimal level can contribute good knowledge about hepatitis B & C, as illiterates were having less knowledge. More experienced subjects showed poor knowledge as compared to less experienced. Out of 50 subjects 12(24%) were vaccinated against hepatitis B, and only 15(30%) had screening. Regarding practice only 4% were using autoclave and boiling of instruments performed by only 20%. Antiseptics were used by 64% subjects. Both barbers & beauticians were not properly cleaning instruments, the percentage was 36% and 35% respectively. Use of separate instruments for all clients was not seen except disposable blades used both by barbers and beauticians in 98% and 90% respectively. **Conclusion:** The level of knowledge and healthy practice is poor in both barbers and beauticians and an urgent awareness program must be started to stop the hazardous practice in this profession.

KEY WORDS: Barbers, Beauticians, Hepatitis B, Hepatitis C.

INTRODUCTION

Epidemic of blood-borne pathogens is spreading throughout developing world. These diseases are causing heavy burdens on national economies and individual families due to costs associated with high morbidity and mortality. Globally, 2 billion people are infected with the hepatitis B virus, of which more than 350 million have chronic infections.¹ Another 170 million persons are chronically infected with hepatitis C virus and 3 to 4 million persons are newly infected each year.² In Pakistan no population based estimation of prevalence of Hepatitis B & C has been done but in a study conducted in Punjab and studies on blood donors showed that the prevalence of both diseases ranged from 2-10%.^{3,4}

Hepatitis is an inflammation of the liver cells and is found in all parts of the world. Acute and chronic hepatitis results in thousands of deaths annually, cirrhosis and hepatocellular carcinoma. Hepatitis B and C are the major viruses

causing chronic hepatitis and hepatocellular carcinoma.⁵

Hepatitis B is a major public health problem throughout the World particularly in Asian population. Approximately 8-10% of the population in China and other East Asian countries are chronically infected with Hepatitis B.⁶ Over 80% of Hepatocellular carcinoma worldwide is attributable to the combined effects of chronic hepatitis B and C infections. People with these infections have a 20 to 100-fold increased risk of developing Hepatocellular carcinoma relative to those without these infections.⁷ In Pakistan the carrier Rate of Hepatitis B virus is from 2.8% to 10%.⁸

Important factors contributing to HBV and HCV spread include unsafe use of therapeutic injections, blood transfusion, shaving from barbers, tattooing, mother to child transmission and unsafe sexual practices.⁹⁻¹⁴ Razor sharing and shave from the barbers has been identified as a key risk factor for HBV spread in Italy and for HCV among

psychiatric patients in Japan, Egypt and Pakistan.¹⁵⁻¹⁸ In Pakistan, therapeutic injections administered in healthcare settings have been identified as major and consistently reported risk factors for HBV and HCV.^{19,20} Besides therapeutic injections, daily facial shave and armpit shave have also been identified as risk factors for HCV in Pakistan.¹⁸ However, there is no information on knowledge regarding the spread of blood-borne pathogens and practices of barbers from Pakistan and very little from the rest of the world.²¹

In Pakistan barbering profession includes hair cutting, face and scalp massaging, nail trimming, pedicure, manicure and shampooing /dyeing. In addition barbers are also providing facilities for circumcision and incision /drainage of abscess especially in rural areas and urban slums.²² Several health hazards including communicable diseases and skin infections are associated with barber's profession to which their visitors are exposed. In barbershops, people could be exposed to many diseases among these diseases hepatitis B and C are of primary importance.

The aim of this study was to assess the knowledge of barbers and beauticians regarding hepatitis B and C transmission and their practice to prevent the transmission of hepatitis.

MATERIAL AND METHODS

This descriptive cross-sectional study was conducted on barbers and beauticians working in Bahawalpur City. Population of this city is estimated to be 41, 9477 and it has clear urban, peri-urban and rural settlements. Population is uniformly scat-

tered, stable, traditional and representative of a typical medium sized Pakistani city. Sampling technique was simple random. The study was conducted for four months from September 2009 to December 2009. Fifty barbers and beauticians were selected by simple random sampling. Data was collected by a semi-structured questionnaire for knowledge assessment and a checklist for observing the practices at barbers/beautician's shop. The questionnaire comprised of three sections. First section was formulated to get the personal data and introduction of barbers/beauticians. Second section was to assess the knowledge and practices of barbers/beauticians. The third and the last section was composed of the checklist to notify the practices of barbers/beauticians through observation.

Questionnaire was translated into the language spoken by the individuals. Pretesting was carried out first and necessary changes were made before the actual collection of data. Verbal as well as written consent were obtained before interview. Data was compiled and analysed using SPSS version 16.

RESULTS

Out of 50 subjects, 30 were barbers and 20 beauticians. In 50 subjects there were 22 (44%) of 15-35years of age and 28 (56%) of 36-50 years. There was a significant difference of level of knowledge about hepatitis B and C among these two groups of age as shown in Table 1.

Regarding the educational status, out of 50 illiterates were 22 (44%) and those with some level

Table 1: Knowledge of barbers and beauticians regarding hepatitis B & C.

Variables	Yes	No	Total	p- value
Age.				
15—35 years	19	3	22	< 0.05
36—50 years	17	11	28	
Total	36	14	50	
Education.				
Illiterate	11	11	22	< 0.05
Having	25	3	28	
Total	36	14	50	
Experience.				
Up to 10 years	18	5	23	< 0.05
> 10 years	13	14	27	
Total	31	19	50	

of school education were 28 (56%). These two groups showed significant difference in the level of knowledge about hepatitis B and C. Among the illiterates 11 (50%) out of 22 were having significant knowledge & 11 (50%) out of 22 were having no knowledge about hepatitis B and C. On the contrary subjects having school education of primary or above were totally 28 (56%) and they showed a significant level of difference in knowledge about hepatitis B and C. Out of 28, 25 (89.3%) were having knowledge about hepatitis B and C where as only 3 (10.7%) were not having knowledge. This result is significant as shown in the Table-1.

Regarding duration of services, the results were significant & the group which contained subjects from 1-10 years of experience were 23 (46%)

out of 50. Among these 23 subjects, 18 (78.26%) were having knowledge about hepatitis B and C & 5 (21.73%) were not having knowledge about hepatitis B and C where as the group having the experience of greater than 10 years were 27 (54%) and out of these 27, 13(48.15) were having knowledge about hepatitis B and C were as 14 (51.85%) were not having knowledge about hepatitis B and C. This result was significant as shown in Table 1.

Regarding the practice the first thing which was noted was whether they had vaccinated themselves or not and whether they had screened themselves for hepatitis B and C or not. It was noted that out of 50 only 12 (24%) were vaccinated for hepatitis B and 38 (76%) were not vaccinated, which is significant statistically ($p < 0.05$). Out of

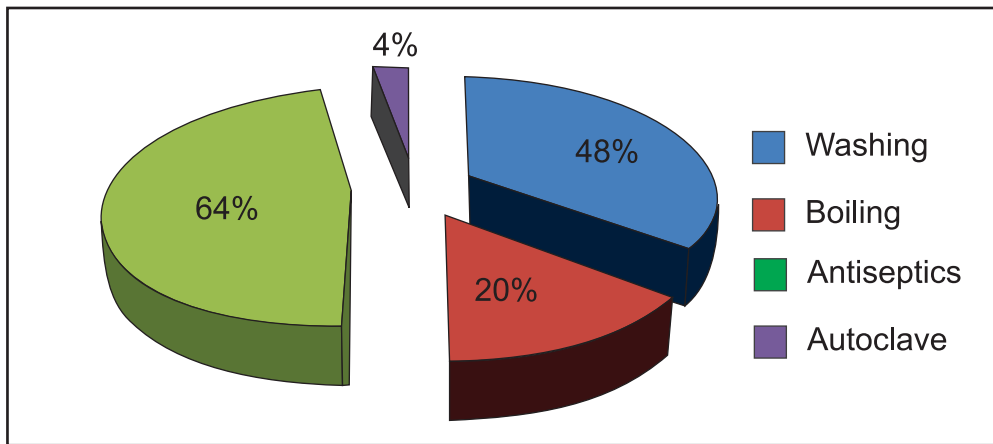


Fig. 1: Measures adopted by the barbers and beauticians.

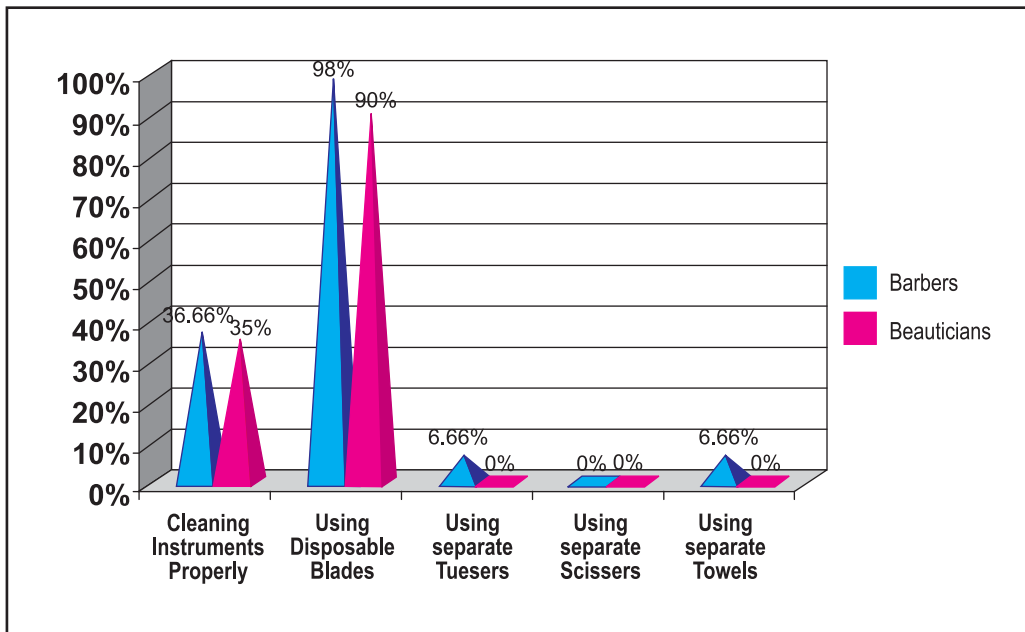


Fig. 2: Healthy practice performed by barbers and beauticians.

50, only 15 (30%) had screened themselves, whereas 35 (70%) had no screening ($p < 0.05$).

Majority of the barbers and beauticians were using antiseptic solutions to sterilize the instruments, out of 50, 32 (64%) were using antiseptic solution to sterilize the instruments. Next 10 (20%) were washing, using antiseptic solutions & boiling the instruments as well. Lastly autoclave which is the best way to sterilize the instruments in addition to washing, boiling, using antiseptic solution was used by only 2 (4%). (Fig. 1)

In the last sitting we studied healthy practice performed by the barbers & beauticians. We studied the practice separately in both barbers & beauticians. It was judged by watching the actual practice of the barbers & beauticians between two clients. It was seen that among 30 barbers 11 (37%) were cleaning the instruments properly. About 28 (98%) barbers among 30 were using disposable blade. We seen only 2 barbers (6.66%) were using separate tussers for separate customers. It was seen than no barbers were using separate scissors for their customers. & lastly only 2 (6.66%) barbers were using separate towel for their customers, as shown in Fig. 2.

Among beauticians it was seen that 7 (35%) out of 20 were cleaning the instruments properly. 18 (90%) beauticians were using disposable blades. It was seen that none of the beautician in our study were using separate tuesers, separate scissors and separate towel as shown in Fig. 2.

DISCUSSION

In our study we noted the relationship between age and the knowledge of the subject. We divided them into two groups. A group containing subjects between 15-35 years of age and another group containing subjects between 36-50 years of age. We noted that in the first group of 22 subjects 86.36% were having knowledge about Hepatitis B & C. While in the other group containing subjects of 36-50 years of age with 28 subjects, only 60.71% were having knowledge about Hepatitis B & C. This result is significant and show that new generation had better knowledge about Hepatitis B & C. This is actually because of new generation's keen interest in TV programs and in reading newspapers and magazines which are a good source of knowledge. Similar results were seen in a study carried out by Wazir & Mehmood.²³ A study conducted by Amodio & Antonella in Palermo City of Italy,²⁴ also suggested that young age subjects were having more knowledge about Hepatitis B & C as compared to older ones.

The second thing studied was the educational status of the subjects. Again two groups

were formed; illiterates and others with some school education. In the second group all those having primary, middle and matric or above were included. It was seen that out of 22 subjects, 50% were having knowledge about Hepatitis B & C. The other group which contained individuals with some level of education were 28, out of these 89.28% were having knowledge about Hepatitis B & C, whereas only 10.72% were not having knowledge about Hepatitis B & C. This result is significant and showed that education of even minimal level gives enough knowledge for health related issues. Similar results were seen in a study carried out by Wazir et al.²³ and another study conducted by Amodio et al.²⁴

The next thing which was seen and studied was the relationship between duration of services and knowledge about Hepatitis B & C. The sample was divided in to two groups. One group containing subjects having the experience of 1-10 years and second group containing the subjects having experience more than 10 years. The first group who were having experience of 1-10 years were 23. Out of these, 78.2% were having knowledge about Hepatitis B & C, whereas 21.73% were not having knowledge about Hepatitis B & C. In contrast the other group contained subjects having experience of more than 10 years were 27, out of whom 48.14% were having knowledge about Hepatitis B & C and 51.86% were not having knowledge about Hepatitis B & C. This result is significant and tells that old habits die hard. Similar results were seen in the study by Wazir et al.²³

Regarding practice, the first thing was whether they have vaccinated themselves or not. It was seen that 20% barber and 30% beautician were vaccinated. In total about 24% were vaccinated against HBV and 76%) were not vaccinated. Further it was seen that only 12 (40%) barbers out of 30, 3 (15%) of beauticians out of 20 have screened themselves for Hepatitis B & C. In total 15 (30%) of subjects have screened themselves for Hepatitis B & C & 35 (70%) were not screened for Hepatitis B & C. These results are significant & show the negligence of hairdressers about the health related hazards related to their profession. It might be due to two reasons, first the socio-economic status of majority of subjects do not allow them to perform the expensive screening tests of Hepatitis B & C & then to do vaccination for themselves. Secondly in our country just like other developing countries there are no rules & regulatory authority for many business industries & this allow majority of the barbers & beauticians to be not screened & vaccinated for such a disease which is one of the health hazard related to their profession. Our results for vaccination of hairdressers were nearer

to another study conducted by Zahraoui-Mehadji M, Baakrim MZ in Morocco²⁵.

In assessing the practice of barbers & beauticians it was seen in our study that 64% of them were using the antiseptic solution for cleaning the instruments. This result was different from another study carried out by Shalaby et al in Egypt in 2007.²⁶ This difference is due to fact that we have also included road side barbers in our study who were having poor hygienic conditions & most of them were reluctant to use antiseptic solutions and thus contributed to this difference in our study, this may also be due to small sample size in our study.

Micro trauma caused during a shave can contaminate the razor & the reuse of such razors may result in transmission of viruses. The probability of transmission increases with the frequency of reuse. The dynamics of blood borne pathogen transmission can be considered similar to that of therapeutic injection. However the dose of exposure in therapeutic injection may be high but frequency of exposure is low while in case of daily shaving the frequency of exposure is high.²⁷ In a study conducted by Janjua and Nizamy in Rawalpindi it was seen that half of the barbers interviewed in that study reused the blades.²² Similar results were seen in another study conducted in India by Khandait et al.²⁷ Our results were in contrast to both of these studies. It was seen in our study that 98% of barbers and 90% of beauticians used to change the blades after use. This difference is due to fact that both these studies were done 10 years back & in recent years there is increased awareness in both barbers and clients about transmission of disease through blades, therefore our results were good as compare to these two studies.

CONCLUSION

The level of knowledge and good healthy practice is very poor among barbers. It requires an urgent awareness programs among public and authorities to ban the hazardous practice of barbers. A behavior change communication campaign may play a positive role to protect the health of these workers & of the general population.

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