MEDICAL CHANNEL

Original Article

KNOWLEDGE AND PRACTICES OF BARBERS ABOUT HEPATITIS "B" TRANSMISSION IN DISTRICT SWAT OF KHYBER PAKHTOONKUAH PROVINCE OF PAKISTAN

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Barber's Knowledge about Hepatitis "B" in Swat

ABSTRACT

Background: Globally 240 million people are chronically infected with Hepatitis B virus (HBV) infection and more than half million people die each year from its complications. Recently along with already established modes of transmission, facial and armpit shaving by barbers has been identified as an important risk factor for transmission of HBV infection in developing countries including Pakistan.

Objectives: To know the awareness and practices of barbers regarding transmission of Hepatitis B in district Swat, KhyberPakhtoonKkhua province of Pakistan

Methodology: During July - August 2012, A cross sectional survey was conducted in Tehsil Babu Zai of District Swat. Out of 160 barber shops in the area, 81 shops were selected randomly. All barbers working in these shops were approached. Knowledge was assessed through a pretested questionnaire which was filled up by researcher themselves by interviewing the barbers. Two consecutive shaving clients of each barber were observed against pretested checklist. Data was analyzed by SPSS Version 16.

Results: Response rate was more than 90 %. Only 43 % percent barbers knew that hepatitis B can be transmitted through blade sharing. None of the barber was aware that infection can be transmitted through razor reuse. Reuse of blade was not observed but all of the barbers were reusing same razor on multiple clients.

Conclusions: Though all the barbers were using new blade for each client but all of them were reusing the old fashioned razor on multiple clients without proper disinfection.

Keywords: Hepatitis B transmission, Barbers, Awareness, Occupational hazard.

INTRODUCTION

Globally over 2 billion people have already been infected with Hepatitis B, two hundred and forty millions are chronically infected and 600,000 people die each year from its complications, mainly chronic active hepatitis, cirrhosis and liver cancer.[1] A part from risk of complications and death for themselves, these chronically infected persons are a major public health problem, as they are a potential source of transmission of infection to healthy individuals. HBV infection is still endemic in many developing countries, including China, India and Pakistan[2].

Pakistan is in the category of moderately high prevalent countries with a prevalence range from 2.5 to 10 % [3,4,5] High prevalence in Pakistan has been attributed to a lack of proper health facilities, low socioeconomic status and low public health awareness about the transmission of communicable diseases.[6,7] Although in past twenty years, Hepatitis B incidence has declined significantly both in children and adults because of effective immunization and improved safe sexual practices, still a large number of cases continue to occur among adults with high risk behaviours.[8] Unsafe sexual practices, unscreened blood & blood products transfusion, needle sharing, dialysis, acupuncture,

tattooing, are established risk behaviours for transmission of hepatitis B in adult population.

Recently in Pakistan and many other developing countries along with establishes risk behaviour, facial and armpit shaving by barbers has been identified as an important risk factor for transmission of HBV infection. [9,10,11,12].The prevalence of shaving by barbers in Pakistan is reported to be as high as 34%–49% of the male population [9]

Studies conducted earlier both internationally and nationally have revealed that most of the barbers were unaware about the risk of transmission of hepatitis B infection associated with their profession. Most of barbers reuse blades, razors and scissors on multiple clients without proper disinfection.[13,14]

In Pakistan very few studies have been conducted on this issue and these studies were conducted in large cities. To know the knowledge and practices of barbers of small cities and towns regarding HBV transmission we conducted a cross sectional study in Tehsil Babuzai of district Swat of KhyberPakhtoonKkhua province. Tehsil babuzai is located at the centre of Swat. It comprised of nine union councils with a population of 251407 as per 1998 census.[15] It comprised of both city and as well as rural area of Swat.

SUBJECTS AND METHODS

The study was approved by ethical committee for research, Hamdard University.

It was a descriptive cross sectional study conducted in Tehsil babuzai of district Swat, Khyber Pakhtoonkuha Province of Pakistan, during July - August 2012.

Tehsil Babuzai comprised of nine union councils. There were 160 barber shops in these nine union councils. Nine barber shops from each union council were selected through simple random sampling. Thus Eighty one barber shops were included in study. One hundred and eight (108) barbers were working in these shops. All of them were approached by two researchers, residing in Tehsil babuzai. Verbal consent was obtained and purpose of the study explained to each participant.

To assure the confidentiality name and addresses of study participants were not recorded in questionnaire. The knowledge about modes of transmission was evaluated by filling the questionnaire, by directly interviewing the barbers. To learn the practices and safety measures adopted by barbers, two consecutive clients of shaving for each barber were observed against a checklist on the same day. Data was entered in Microsoft excel and transferred to SPSS version 16 for analysis. Results were compiled in Personal computer using Microsoft word 2007.

RESULTS

Out of one hundred and eight barbers, seven barbers did not agree to participate. For the sake of simplicity results for knowledge about mode of transmission were compiled from information obtained by one hundred barbers. The results about practices were compiled by observing 200 clients of facial shaving (Two clients of each barber)

All participants were male with mean age 30 years. Thirty eight percent (38%) had no formal school education. Seventy one percent were married. Mean work experience was 12 years. Mean monthly income was 5000 rupees.(Table. 1)

Ninety two percent had access to television at home/shop or both. Eighty five percent had at least one news paper in shop.

TABLE NO: 1
SOCIO DEMOGRAPHIC PROFILE OF BARBERS

AGE	**FREQUENCY**
1. Less than 25 years	18%
2. 25-50 years	77%
3. More than 50 years	05%
WORKING EXPERIENCE	
Less than 5 years	6%
5-10 years	56%
More than 10 Years	38%
EDUCATIONAL STATUS	
1. No formal schooling	38 %
2. Up to primary	33 %
3. lower secondary to secondary	27 %
4. Higher secondary	2 %
MONTHLY INCOME	
1. Less than 5000 PKR	20 %
2. 5000-10000 PKR	47 %
3. 10,000-20,000 PKR	26 %
4. More than 20,000 PKR	07 %
NIMBER OF SHAVING CLIENTS PER DAY	
1. Up to 10 clients	23 %
2. 10-20 clients	41 %
3. 21-30 clients	36 %

TABLE: 2
KNOWLEDGE OF BARBERS ABOUT MODES OF TRANSMISSION

QUESTIONS ABOUT MODE OF TRANSMISSION	RESPONSES		
Is infection transmitted through?	**YES**	**NO**	**NO IDEA**
Water	39%	12%	49%
Food items	33%	23 %	44%
By touch	9%	52%	39%
Sharing things of each other	44%	5%	51%
Reuse of syringes for injection	54%	0%	46%
Through reuse of shaving blade	43%	1%	56%
Through shaving razor	00	76%	14%
Man to woman through sexual contact	62%	00	38%
Woman to man through sexual contact	62%	00	38%
Through blood transfusion	62%	00	48%
Is vaccination helpful to prevent the disease?	58%	1%	41%

TABLE NO 3
OBSERVED PRACTICES OF BARBERS

Total observations : 200 shaving clients

CHECK LIST	OBSERVATION			
	YES		**NO**	
Overall cleanliness of shop	124	62 %	76	(38%)
T.V at shop	136	68%)	64	(32%)
News Paper at shop	170	85%)	30	(15%)
Hand wash before /after shaving the client	000		200	(100%)
Use of Glove	000		200	(100%)
Use of New blade for each customer	200		000	
Use of new razor for clients	000		200	(100%)
Cleaned the razor before using on new client	200		000	
Cleaned the face of client after shaving				
Mixture of water and Detol	96 (48%)		000	
Tap Water	38 (19%)			
Potash alum	66 (33%)			
Use Separate dust bin for disposal of blade and sharps	000		200	(100%)
Barbers covering himself	000		200	(100%)
Barbers covering the client	200 (100%)		000	

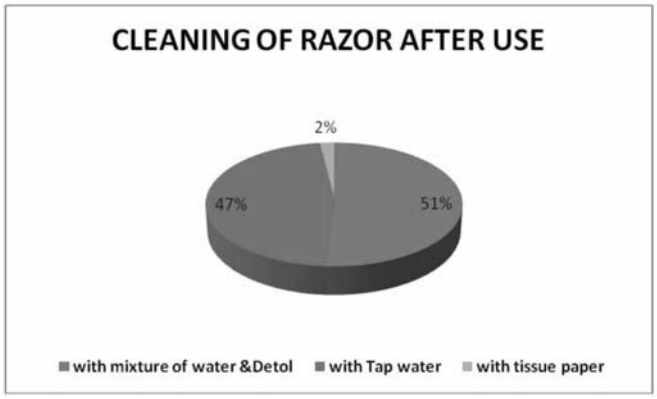
Only thirty six percent (36%) barbers remembered any TV advertisement about hepatitis B. Thirty five percent had no idea about the organ involved by hepatitis. Fifty one (51%) thought that it is not the problem of Pakistan. Though more than 50 % barbers knew that Hepatitis B is transmitted through sexual contact, blood transfusion and reuse of syringes , but none of the barber knew that infection can be transmitted by reusing razors on multiple clients. (Table2).

Fifty eight percent knew that there is a vaccine for prevention of hepatitis "B" but none of them was vaccinated for hepatitis B. None of the barber had formal training for barber profession. All of them learned it from their seniors. Regarding practices all barbers used a new blade for each client but all of them were reusing the old fashioned razor on multiple clients without proper cleaning/disinfection.(Table 3) It was also noted that used blades and other waste were collected on the same dustbin. On inquiry all of the barbers told that they throw the waste in an open place or to common municipal bin.

DISCUSSION

Knowledge of barbers regarding sexual and parental modes of transmission is much better in our study than earlier studies. In our study 62 % barbers knew that HBV infection can be transmitted through sexual contact and by transfusion of blood as compared to study conducted by A.H.Jokhio in Hyderabad where only less than 40 % barbers knew that HBV infection can be

FIGURE NO:1
PRACTICE OF CLEANING RAZOR



transmitted by unsafe sexual practices and blood transfusion. This improvement in knowledge may be because our participants had better access to Electronic and print media than before, and in preceding years electronic media especially television has brought a positive and significant change in awareness about HIV/AIDS and Hepatitis transmission and prevention.

Previously a number of studies, both internationally and nationally have highlighted "barbers occupation" a risk factor for transmission of hepatitis B in the community. This risk has been attributed to poor knowledge and inadequate safety measures adopted by barbers. In our study none of the barber knew that hepatitis B can be transmitted through razor reuse. Earlier in a study conducted in 1998 by N.Z. Jangua[16] up to 85 % barbers did not know that hepatitis B can be transmitted through razor reuse. A study in 2001 in Moroco[17] and in Hyderabad Pakistan[18] during 2007 also had more or less similar results. Considering blade sharing as a mode of transmission of HBV infection, only 43% of our study participants knew that HBV infection can be transmitted through "Blade sharing" on multiple clients, while in a study by Yasir waheed in 2010 in Pakistan[19] more than 90% barbers knew that HBV infection can be transmitted through blade sharing. Poor knowledge of our study participants about blade sharing and razor reuse, as a possible mode of transmission may be due to the fact that our study participants belonged to relatively less developed geographical area while earlier studies were conducted in large cities. Large city inhabitants typically have better knowledge and life style because in addition to local media, they also have access to international media through internet and social net working.

Regarding blade ruse practices, studies conducted in late Nineties in Pakistan[16] as well as in India[13] revealed that a large number of barbers were reusing the same blade on multiple clients. But studies conducted during last 15 year[19,20] as well as in our study, this practice of blade sharing has entirely revolutionized as none of the barber were reusing the blade. In spite of the fact that most of the barbers did not know that HBV infection can be transmitted through blade sharing, this improved practices may be due to improved life style and overall increased awareness about hygiene and health behaviour, over past two decades.

It is observed that razor reuse practices have not been changed at all, as all of the barbers in our study as well as in earlier studies conducted were reusing the same old fashioned razor on multiple clients. Delima is that razor was reused without proper disinfection. Micro trauma caused during a shave can contaminate the razor, and reuse of such a razor can result in transmission of the HBVas well as HCV and HIV viruses' infection.

Unfortunately hand washing practices are still very poor in our study as none of the barber was washing their hand before or after shaving a client. All of them were cleaning hand by tissue paper or a towel which has been used so many times. Barbers in earlier studies also had poor practices of hand washing. Ninety percent (90%) of barbers were not washing their hands in a recent study in paksitan[20] and more than 65% of barber in Yemen did not washed their hands [21.] This reflect the poor hand washing practices in our society, even up to 90% of doctors and paramedics in public sector hospital did not wash their hand after attending the patients [22]

Practices of waste disposal also did not change over time. All of the barbers in earlier studies and as well as in our study were collecting the used blades and other waste in a common dust bin which is ultimately to be thrown to open plot or common municipality bin. Our barbers belong to a society where culture of throwing waste in open plots is very common, even most of the municipality bins are open and overloaded. This irresponsible behaviour is because of lack of social and legal accountability. The practices of throwing waste in open plots impose a significant risk to unemployed children and adolescents who search food and valuable things from waste. Due to risk of injury by blades, the chances of Hepatitis B as well as Hepatitis C transmission increases many folds through the cuts on hand.

CONCLUSION

Knowledge about sexual and parental modes of transmission has significantly improved over two decades. Still majority of barbers did not know that HBV infection can be transmitted through reuse of razor and blade. Though blade sharing is not practiced but reuse of razor without proper disinfection is still prevalent. Poor hand washing practices, unlawful disposal of blades and other waste in open places or common municipality bin, are the aspects still need to be improved. Educational and motivational programs through media, focusing on use of disposable shaving kit in barber's shops, can decrease the risk of transmission of HBV infection through barbers.

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