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A Study Regarding Awareness and Spread of Hepatitis B and C among Barbers and Beauty Parlors Working in DG Khan

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ABSTRACT

Introduction: Hepatitis B and C virus infections are serious global health problems. Shaving by barbers and practices at beauty parlors has been identified as the key risk factors for the spread of HBV. Over 2 billion people have been infected with Hepatitis B virus and an estimated 170 million people are chronically infected with the Hepatitis C virus, In Pakistan specific estimates for the prevalence of both disease ranges from 2% to 10%.

Objectives of study: To know the awareness regarding transmission of hepatitis B and C among barbers and beauticians

To know the practices of barbers and beauticians regarding transmission of hepatitis B and C.

Materials and methods: We conducted a cross sectional survey of barbers and beauty parlors in DG Khan city Pakistan in 2014 to establish their knowledge and attitudes to the risk of HBV and HCV transmission and their working patterns. We visited 40 places, cases were selected randomly, all barbers and beauticians were approached, and knowledge was assessed by a pretested questionnaire which was filled up by researchers.

Results: Observation showed that 97.5% were their razors after each client with antiseptic. 77.55% use a new blade for every new client. 55% know the disease and 47.5% have knowledge regarding the transmission of disease only 22.5% were vaccinated against Hepatitis B. Strategies are required for raising awareness among barbers and beauty parlors practices.

Keywords: HBV; HCV; Barber; Hepatitis

Introduction

Over 2 billion people have been infected with Hepatitis B virus and an estimated 170 million people are chronically infected with the Hepatitis C virus, In Pakistan specific estimates for the prevalence of both disease range from 2% to 10%. Recently the rates of HBV infection in the country have been increasing attributed to a lack of proper health facilities, lower socioeconomic status and public health awareness about transmission of communicable diseases [1,2]. A significant proportion of those exposed to HBV become chronically infected and are at considerable risk of liver cancer chronic active hepatitis and cirrhosis [3]. These infected people may not be aware of their HBV status and are not clinically ill but are a source of infection to others [4].

Pakistan is in the category of moderately high prevalent countries with the prevalence range from 2.5%-10% [4]. Although in the past 20 years Hepatitis B incidence has declined significantly both in children and adults because of effective immunization and improved safe sexual practices. Still a large no of cases continue to occur among adults with high risk behaviors, unsafe sexual practices, unscreened blood and blood transfusions, needle sharing, dialysis and tattooing are established risk behaviors for transmission of hepatitis B [5]. In adult population studies conduct earlier both nationally and internationally have revealed that most of the barbers and beauticians were unaware about the risk of transmission of hepatitis B infection associated with their profession. Most of the barbers and beauticians reuse their instruments on multiple clients without proper disinfection [6]. Hepatitis C is known to be a major public health concern across the world [7]. HCV grading is mainly associated with sharing of toothbrush, razor and miswak [8]. A lack of knowledge regarding mode of transmission was studied to be responsible for spread of HCV according to the studies conducted in Germany and Netherland [9]. HBV and HCV spread occurs by different unhygienic measures as hazardous use of therapeutic injections, shaving from barbers, blood transfusion, mother to child transmission, tattooing and unsafe sexual practices, Shaving from barbers and sharing the razor is known to be a key risk factor for HBV spread in Italy and for HCV among psychiatric patients in Japan, Egypt and Pakistan [5,10,11]. In Pakistan, very few studies have been conducted on this issue and these studies were conducted in large cities. To know the knowledge regarding HBV transmission among barbers and beauticians of DG khan we conducted a cross sectional study.

Objectives of study

To know the awareness regarding transmission of hepatitis B and C among barbers and beauticians.

To know the practices of barbers and beauticians regarding trans-

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mission of hepatitis B and C.

Research methodology

Study design: Cross sectional descriptive study

Study area: DG Khan City Pakistan.

Study population: Barbers and beauty parlors.

Duration of study: One month.

Sampling size: 40 places.

Sampling technique: Non probability convenient sampling.

Tools of data collection: Questionnaires were designed to get relevant information.

Data analysis: SPSS 16.0 version. MS EXCELL for creation of tables.

Materials and Methods

We visited 40 places 20 barber shops and 20 beauty parlors which are mainly located in new model town, Block 36 and Khayaban e sarwer. All of them were approached by a team of 5 researchers. Verbal consent was taken and the purpose of study was explained to each participant. The knowledge about the mode of transmission was evaluated by filling the questionnaire which was filled by the researcher by directly interviewing the barbers and the beauticians. Shops were selected by random sampling.

Results

The study results showed that total study places were 40. Table 1 shows that the frequency distribution of literate was (95%) and illiterate (5%). Table 2 shows frequency distribution of knowledge about hepatitis B and C among 40 persons 55% have knowledge about disease, 10% know to some extent and 35% have no idea. Table 3 shows 47.5% have knowledge about way of transmission of disease, 7.5% know to some extent and 45% have no idea. Out of 40 persons 82.5% have knowledge that razors and instruments transmit the disease while 17.5% have no idea about it (Table 4). Conclusion showed 85% agreed that their profession play a role in spreading of the disease while 15% not accept it (Table 5). 31% change their blades while 7.5% not. Was shown in Table 6. Out of 40 persons 52.5% use antiseptic, 17.5% after shave lotion, 12.5% toner, 2.5% uses medicated and cotton, 5% use phulkari and 7.5% use nothing (Table 7). 100% practice municipal waste (Table 8). Results showed that 22.5% are vaccinated and 12.5% are partially while 65% are not vaccinated (Table 9). 97.5% washed instruments and 2.5% not (Table 10). Greater percentage (97.5%) don't perform minor surgeries (Table 11). 82.5% have idea that they are at high risk of Hepatitis B and C and 17.5% have no idea about it (Table 12).

Variable	Frequency	Percentage
Literate	38	95%
illiterate	2	5%

Table 1: Frequency distribution table about literacy of surveyed barbers and beauty parlors

Variable	Frequency	Percentage
Yes	22	55%
No	14	35%
To some extent	4	10%

Table 2: Frequency distribution table of knowledge about Hepatitis B and C

Variable	Frequency	Percentage
Yes	19	47.50%
No	18	45%

Table 3: Frequency distribution table of knowledge about way of transmission of hepatitis B and C

Variable	frequency	percentage
Yes	33	82.50%
No	7	17.50%

Table 4: Frequency distribution table of knowledge that Hepatitis B and C transmit through razors and other instruments

Variable	frequency	percentage
Yes	33	82.50%
No	7	17.50%

Table 5: Frequency distribution table of barbers and beauticians, do they agree that their profession play a role in spreading of disease?

variable	frequency	percentage
yes	31	77.50%
no	3	7.50%
To some extent	2	5%
Not applicable	4	10%

Table 6: Frequency distribution table of barbers and beauticians either they change their blade for every new client

variable	frequency	percentage
antiseptic	21	52.50%
medicated	1	2.50%
Toner/powder	5	12.50%
After shave lotion	7	17.50%
cotton	1	2.50%
phathkari	2	5%
No use	3	7.50%

Table 7: Frequency distribution table about management after a cut by razor

variable	frequency	percentage
Municipal waste	40	100%
Any special method	0	0%

Table 8: Frequency distribution table about disposal of waste

variable	frequency	percentage
Yes	9	22.50%
No	26	65%
To some extent	5	12.50%

Table 9: Frequency distribution table barbers and beauty parlors about vaccination against Hepatitis B and C

variable	frequency	percentage
yes	39	97.50%
no	1	2.50%

Table 10: Frequency distribution table about washing instruments with disinfectant

variable	frequency	percentage
regular	0	0%
no	39	97.50%
sometime	1	2.50%

Table 11: Frequency distribution table about either they perform minor surgeries (incision and drainage of abcess, circumcision)

variable	frequency	percentage
yes	33	82.50%
no	7	17.50%

Table 12: Frequency distribution table about knowledge that they are at high risk of hepatitis B and C

Discussion

The results of this study showed that 38 persons are literate and 2 are illiterate. 22 peoples know about hepatitis B and C 4 know to some extent and 14 have no idea about it. Only 19 (47.5%) have knowledge about the way of transmission of hepatitis B and C, 18 persons (45%) don't know and 3 (7.5%) know to some extent. 33 (82.5%) know that razors and other instruments can be the cause of transmission while 7 (17.5%) don't know. 34 persons agreed that their profession can be the cause of transmission while rest 6 persons don't agree with it. 31 changes blades for every new client 3 don't change and 2 occasionally change it 4 don't use it. All of them (40) dispose of their waste in municipal waste. 9 (22.5%) are vaccinated 26 (65%) are not vaccinated and 5 are incompletely vaccinated. 39 wash their instruments and 1 not. 39 don't perform minor surgeries while 1 do on and off. 33 know that they are at high risk and 7 don't know.

Another study was conducted about the same issue in district Swat of Khyber Pakhtonkuah province of Pakistan out of 100 barbers, all were male, and 38 were illiterate. 50% barbers know that Hepatitis B is transmitted through sexual contact, blood transfusion and reuse of syringes but none of them barbers knew that it is transmitted by using the same razors on multiple clients. 58% knew that there is a vaccine for prevention of hepatitis B but none of them was vaccinated for Hepatitis B. regarding practices all barbers use new blade for each client regarding practices but all of them were reusing old fashioned razors on multiple clients without proper cleaning or disinfection. It was also noted that used blades and other wasted were collected in a same dustbin. On inquiry all of barbers told that they through the wastes in open place or to common municipal wastes. all of them were reusing old fashioned razors on multiple clients without proper cleaning or disinfection. Another study showed the awareness of barbers about hepatitis B and C. They knew a little about hepatitis, its risk factors, mode of transmission especially reuse of razors. Most interviewees had some information about AIDS. Reuse of blades on multiple customers without sterilization was common among half of the barbers interviewed. Such unhygienic measures are increasing the risk of pathogen spread from one to another person [5]. Such issue of blade reuse has also been reported from a survey of barbers in India [12]. Another survey of hairdressers in Izmir, Turkey (2011) and Span (2010) showed that their knowledge of HCV and HCV prevention was not sufficient [13,14]. Nearly 10 million people have been infected with HCV in Pakistan because of unhygienic measures and no prevention and control. Most of the HCV affected were of 40 to 50 years. Chronic HCV infection leads to liver failure and hepatocellular carcinoma and its rate are estimated to be increased in coming years [15]. Another study showed that Occurrence of HCV infection (77.6%) was more in low socioeconomic status and in illiterate 53% vs. 8.1% (P<0.0001) 29. On the other hand educated communities had awareness about HCV risk factors and prevention [16].

Conclusion

After reviewing the findings of study it is concluded that 97.5% wash their razors after each client with antiseptic. 77.5% use new blade for every new client. 55% know the disease and 47.5% have knowledge regarding transmission of disease only 22.5% were vaccinated against hepatitis B. strategies are required for raising awareness among barbers and beauty parlors practices.

Recommendations

- Campaigning through NGOs, electronic media.
- Use of gloves.
- Use of new blades for each customer.
- Use of separate dustbins for disposal of blades and sharps.
- Barber covering himself.
- Barber covering the client.

Limitation

This research is done in limited areas of DG khan.

- It couldn't include whole barbers and beauticians of DG khan.
- It is not applicable to any other city even not whole DG khan.

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There is no funding source for this study.

Competing interests

The authors declare that they have no competing interest.

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