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AN EPIDEMIOLOGICAL STUDY OF OCCUPATIONAL HEALTH AND SAFETY PRACTICES AMONGST BARBERS IN A SLUM AREA OF MUMBAI

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ABSTRACT **Introduction:** Occupational health and safety among barbers need attention due to their impacts to the general public. Workers in this sector are exposed to variety of occupational health hazards and suffer from health problems. This business needs to meet and maintain high safety, health and hygiene standards. **Objective:** To determine the prevalence of occupational health hazards and safety practices among barbers. **Materials and methods:** A work place based cross-sectional study was conducted with 130 barbers. Data was collected by face to face interview using a semi-structured questionnaire. Analysis of data was done using descriptive statistics. **Results & Conclusion:** Barbers have long working hours. 63.8% barbers suffered from musculoskeletal problems. 45.4% suffered from work related ailments. 45.4% did not use protective devices while working. The sanitation and sterilization of equipment used in workplace were not satisfactory. There is potential threat of infection transmission to the customers from barbers and vice-a-versa.

KEYWORDS : health hazards, barbers, practices

Introduction

Occupational health include protection and promotion of health of the workers by preventing and controlling occupational diseases and accidents as well as eliminating factors hazardous to health and safety at work (WHO, 2001). Access to proper occupational health and safety services is one of the fundamental rights of each worker to the highest attainable standard of health as stipulated on the WHO constitution (1946), the Alma Ata Declaration of Primary Health Care (1978), the WHO strategy on occupational health for all (1994), and the ILO Occupational Safety and Health Convention, 1981 (No. 155). Despite of this, workers in Small Scale Industries such as barbers and hairdressers have been neglected and given low priority on occupational health and safety services.

A wide array of workplace hazards present risks to the health and safety of people at work. These include "chemicals, biological agents, physical factors, adverse ergonomic conditions, allergens, a complex network of safety risks," and a broad range of psychosocial risk factors. Barbers face problems like long working hours, prolonged standing, missed meals and poor posture. Work-related illness is a major contributor to injuries and disease worldwide, and covering all the main disease groupings. Much of that illness is avoidable by appropriate protection and training. In urban slums there is lack of space, ventilation, lighting and water facility. Such small shops can be a major source of communicable diseases and skin conditions 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, streptococcus, scabies (through contaminated towels, combs, and aprons) and Hepatitis B, hepatitis C, tetanus and AIDS (contaminated blades and clips).[7]

Until now this business has played a major role in generating employment for the less educated people as it is training based. However this business needs to meet and maintain high safety, health and hygiene standards. This study aims to determine the occupational practices influencing health status of barbers in slums of Malvani.

Objectives

- To assess health status and morbidity profile of barbers.
- To study patterns of occupational practices performed and measures adopted for same.

Material and Methods

Study was carried out in the field practice area of Urban Health Centre, Malvani, Malad between October 2015 and December 2015. There were 1-2 barbers in each plot of NCC (New Collector Compound). There were total of 72 plots and actual count of 130 barbers. All consenting barbers were included in the study. The barbers in the study area were interviewed at workplace. Informal discussion was done with the study subjects in order to build a rapport. The purpose of the study was explained and consent was obtained from each of the study subjects. Face to face interviews were taken and data was collected using semi-structured questionnaire. Confidentiality was assured. Questions were asked about socio-economic demographic characteristics, environmental factors and health hazards related to their profession. Data was entered in Microsoft Excel 2013 and analysed for descriptive statistics.

Results

Demographic & Socio-economic characteristics

A total of 130 male barbers working in 72 shops in field practice area of UHC, Malvani participated in the study. Respondents' age ranged from 18 to 55 with mean age of 28.9 years. 67 (51.5%) of respondents were migrants and 46 (68.7%) of these migrants resided in the same shop where they worked. All were Muslims. Average no of members in family were 6 (range 2-9). Mean total monthly income was Rs.15500 (range Rs.7500-25000). 66 (50.8%) were addicted of tobacco chewing 57 (86.4%), smoking 24 (36.3%) or alcohol 9 (13.6%). [Table 1]

Particulars	No. of workers	Percentage
Education		
Illiterate	17	13.1
Upto 4th	35	26.9
Upto 10th	78	60
Above 10th	0	0
Marital Status		
Single	71	54.6

Married	59	45.4
Residence		
Migrant	67	51.5
Permanent	63	48.5
Income		
<10000	13	10
10000-15000	60	46.2
>15000	57	43.8

Table 1: Socio demographic profile of Barbers

Workplace related issues

None of the barbers owned the shop. Average rent of shops was Rs.4000 (range 2700-8000). The area of shops was 10 X 10 feet. Average years of work experience was 6 years (range 4months- 40 years). Average number of working hours was 13.5 hours (11hrs-17hrs). They take 2 hours of rest on an average (range 0.5-3 hrs). Only four shop had a bathroom inside the shop. Only 29 (22.3%) shops had clean water facility that too intermittent water supply. Rest had to buy water at rate of 300-500/ month. None of the shops had toilets. Only 13.1% (17) shops had licence and only 4 had displayed it on the wall. Rest had no knowledge about licence. Only 8 (6.2%) had received vocational training from institute. Rest had learnt it while working under the owner. Wash basin was seen in 105 (80.8%) shops, 130 (100%) had sufficient lighting, 98 (75.4%) had adequate ventilation, 63 (48.5%) had waste bins.

Health Hazards and Safety Practices

None of the barbers used disposable razors. But all used new blade for each client. Majority used new blade for each shave as a protocol. 5 changed as customers demanded for new blade. All disinfected the razor after use. 73.8% (96) disinfected the razor after every shave. Most used soap and water for disinfection. 77.7% (101) washed combs and brushes with soap and water. 87% (113) barbers used the same set of towels for all the clients. Only 35.3% (46) washed the towels daily. All barbers applied alum for cuts after shave. Same cake was used for all clients but washed it before use. 54.6% (71) used protective devices while working. Only 32.3% (42) were aware that diseases could be spread by this profession. Among these only 33 (25.4%) had knowledge about blood-borne infections. [Table 2]

Particulars	No. of workers	Percentage
New Blade for each Client	130	100
Reason for using new Blade		
Protocol	70	53.8
Risk of blood borne infection	21	16.2
Risk of other infections	34	26.1
Customer Demand	5	3.9
Disinfection of razor		
Soap and water	80	61.5
Antiseptic solution	34	26.1
Burning over flame	16	12.4
Use of towels		
Same towel for all clients	113	87
Different towel for different client	17	13
Washed towels everyday	46	32.3
Washed towel once in 2-3 days	84	67.7
Use of protective gears while working		
Aprons only	54	41.5
Aprons and Gloves	17	13.1
None	59	45.4

Table 2: Safety practices followed by barbers

Waste Management

None of the barbers had training in waste management. Only 29.2% (38) disposed the cut hair in dustbins in their shop whereas rest collected them in a plastic bag. Only 32.3% (42) collected the blades in puncture proof containers. 90% (117) barbers disposed the hair and blades in BMC garbage bins. 61.5% (80) disposed the liquid waste in washbasin. Rest emptied it in open drainage.

Morbidity profile and health seeking behaviour

83 (63.8%) barbers suffered from musculoskeletal problems. 45.4% (59) suffered from work related ailments. 75 (57.7%) took treatment from private medical practitioners. 87% (113) suffered from injury to hands by scissors or blade in past 1 year. These injuries were treated by Band aid (71), washing wound with soap and water (67), alum (46) and antiseptic (13). Only 51.5% (67) had received tetanus toxoid though all had knowledge about the same. None had knowledge about or received Hepatitis B vaccine. [Table 3]

Particulars	No. of workers*	Percentage
Joint pain		
Neck	38	29.2
Back	21	16.2
Leg	71	54.6
Elbow	4	3.1
Wrist	8	6.2
Work related Ailments		
URTI/Allergy	8	6.2
Nasal Irritation	29	22.3
Eye Irritation	8	6.2
Skin Allergy	21	16.2
Skin Ds	21	16.2
Injuries	113	86.9
Treatment of Injuries		
Wash Wound	71	54.6
Antiseptic	67	51.5
Bandaid	46	35.4
Alum	13	10

*multiple responses

Table 3: Morbidity Profile

Discussion

Barbers in the slums of Malvani are mainly young and middle aged, most of them educated till 8th standard. Sedhain & Adhikari [1] too had similar findings with mean age of 27.70 years. Half of them are migrants staying in the shop where they work. They work for long hours in bad working conditions. They have no licence. They are semiskilled workers without formal training. Use of new blade for each client is a good practice. Disinfection of razors, combs and brushes with soap and water daily cannot be considered sufficient for microbe's eradication. Similar observations are were found by Waheed et.al [3], in Pakistan and a survey conducted at Nagpur, India [6]. Use of same set of towels for all clients causes the risk of transmission of infestations like lice and itch mite. Though alum has astringent properties use of same cake on multiple clients might be a risk factor for transmission of infections like hepatitis C. These findings were confirmed by Waheed et.al [3]. Most of the

barbershops enrolled in this study disposed used blades unsafely either in municipal dustbin or outside the city posing a major risk for sweepers and garbage handlers. Only few were aware regarding diseases transmitted by their profession and their practice which can lead to disease transmission. Sedhain & Adhikari [1] and Wazir et all [5] had similar findings.

Many barbers had musculoskeletal symptoms mainly leg pains. High level of musculoskeletal problems and aches were also reported by L. Bradshaw et al.[7] Along with this, barbers suffered from work related ailments like nasal irritation, skin allergy and skin diseases. Study shows that barbers do not pay attention to protective clothing and gloves which are highly important for skin protection and exposure prevention. Coiffeurs in Izmir [2] also had similar findings. Most barbers get injuries while working with scissors or changing blades but take home based treatment for same. Many were not immunised with tetanus toxoid while none were immunised with Hepatitis B vaccine.

Conclusion

The sanitation and sterilization of equipment used in workplace and the wearing of protective clothing are not satisfactory and barbers did not follow appropriate protection against blood-borne infections. Thus there is threat of hazardous infection to the customers and the risk of barbers getting infection from their customers. The working conditions for barbers make them vulnerable to occupational hazards.

Recommendations

A behavioural change communication campaign should be initiated to protect the health of these workers and of the general population. Barbers should be trained in safety practices and waste management. Better structural ergonomics' design at workplace may be helpful. Designated rest period after certain hours of work is needed. Promotion of health screening should be motivated. Need to increase awareness of work related aliments and risk of getting infection from their customers. An OPD dedicated for occupational health problems can be started at the UHC. A regulatory body can be created in the local government authorities for barbers to ensure adherence to working hours, enforce use and availability of protective clothing and devices.

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