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Awareness of Disease Transmission by Barbers in Abraka, Delta State, Nigeria.

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Abstract

Barbers provide services that are hygienic in nature. They cut,shave and trim males' hair. Males of different categories go to barbering salon to take care of their hair. Because of diverse clients that barbers attend to, the tools they use are laden with contaminants, which can pose serious health issues to the clients. It is therefore necessary that barbers be conscious of their client health, and prevent infection and transmission of infectious agents through barbing tools. This survey was conducted to investigate awareness of barbers in disease transmission while rendering services to their client. A survey of thirty barbers shop in Abraka was done by simple random sampling technique using a questionnaire, administered after due consent from the participants and 18 (60%) questionnaires were retrieved Frequency counts and precentages were used for analysis of data. Findings showed that most barbers 15 (83.3%) were aware of possibility of disease transmission through tools they use when rendering hair care, however, only 2(11.1%) disinfect their tools before and after use. Disinfecting agents mentioned used by barbers were petrol, methylated spirit, heat, kerosene, hydrogen peroxide and bleach. Time interval for disinfecting clippers was once in thirty seconds with chemical (petrol, methylated spirit, kerosene, hydrogen oeroxide, bleach), while others were five minutes with chemical only and one minute for chemical and heat. Barbers are aware of disease transmission during service rendering.

Key words: Awareness, barbers, disease transmission, Abraka.

Introduction

A barber is a person whose occupation is to cut, dress, style, and shave human hair (Enemour*et al*., 2011). Before the advancement of medicine and surgery barbers were influential in their communities. They performed surgery,enemas and tooth extraction, bloodletting and leeching, fire cupping(Wikipedia). Their shops also were site for gossip and were known as public place. Traditional barbers in developing world practice circumcision, uvulectomy and other surgical operations (Ijaduola 1981; Salami *et al*., 2006). Modern barbers focus on hair cut (Saami, *et al*., 2006). Barbershops are potential site for disease transmission including bacterial, fungal and viral origin. Most barbers are unaware of disease transmission through tools such as clippers, blades, combs, brushes and other

items used by them while rendering services to their clients. It is in this respect that questionnaire was administered to determine the extent of the knowledge of barbers on the possibility of transmitting diseases to their client when rendering their services.

Materials and Methods

A semi-structured questionnaire was administered to 30 barbers in Abraka town, Delta State, to determine the awareness of disease transmission to their client when rendering their services. The questionnaire was also to obtain information on tools possessed by these barbers. If the tools were disinfected, how often there were disinfected, disinfecting agentsused and time interval for clippers sanitization. Result are presented in simple percentages, analysis of data was done using SPSS package.

Results

Barber shops are potential site for unsuspecting members of the public to contract and transmit diseases. Table 1 shows the demographic information of barbers in Abraka. out of the thirty copies of questionnaires administered, 18 (60%) questionnaires were retrieved. Results showed that majority of the respondents were single and male (88.8%) and only one female and no response for 1(5.6%), the age ranged from 16-35years with about fifty percent (50%) within 26-30years. Educational status showed that most of them were secondary school certificate owners and 10(55.6%) attended post secondary school.Table 2 presentsthat the barbers render services to minimum of 10 customers weekly while maximum of 50 (33.3%).

Awareness of the possibility of transmitting disease while attending to their client is shown in Table 3 About 15(83.3) barbers were aware of disease transmission through tools and 3(16.7%) did not respond. Effort was made to determine if they knew the likely diseases that could be transmitted while rendering services. Diseases mentioned included 17(94.4%) head bumps, 13(72.2%) dandruff and ringworm, 11(61.1%) rashes and 15(83.3%) for lice and Acquired immunodeficiency syndrome.Measures put in place to reduce transmission included disinfect of tools everyday (72.2%) and very few, 2(11.15) disinfect before and after each customers.

Tools used in the barbering saloon included barber's clipper and towels 13 (72.22%) scissors and apron 11(61.11%) combs14(77.77%) brushes and blades 15(83.33%). Of these tools combs and brushes are commonly shared between customers so attempt was made to determine how often these tools were disinfected. Results showed that 6 (33.3%) disinfect theircombs and brushes once a day, 4(22%) 3 times a day and 7(38.9%) decontaminate their tools before and after every customer and1(5.6%) did not respond (table 4)

The disinfecting agents included petrol(72.2%) , methylated spirit and heat/flame 9(50.0%), heat alone, kerosene 3(16.7%), hydrogen peroxide 2(11.1) other sterilizing agent like hypo or jik were also mentioned. Time interval for disinfecting clippers was once every thirty seconds with

chemical 7 (38.9%), five minutes with chemical 2 (11.1%) and one minute for chemical and heat 6 (33.3%).

Discussion

Demographic information derived from respondents showed that majority of barbers were males and half of the respondents were adolescent most probably the reason many were not married. Also most were secondary school leavers thus conforming to findings of previous researchers. Emele*et al* ., (2015) found out that majority of the barbers were secondary school leaver**s**in Anambra, State. Also, Oyedunni andAdesoro, (2009) found similar age range by barbers thus showing that younger people are involved in the profession.

Barbering procedure carry high risk of disease transmission. One way hepatitis B, Acquired immunodeficiency syndrome (AIDS)are transmitted have been reported to be associated with barbering procedures (Ibraham, *et al*., 2007; Biadegelegn*et al.*, 2012). Potentials risk of ringworm infection has also been reported since etiological agents of ringworm have been isolated from barbering tools (Emele *et al*.,2015; Chidi-Onuorah, 2017). The Infected customers, barbers and environment serve as sources of the organisms found in combs and brushes andother barber's tools. From Tables 3 and 4, results showed that barbers were aware that tools carry potential risk of disease transmission and could also be sources of microorganisms. Measures to reduce transmission involved the use of disinfecting agents. Petrol, methylated spirit and heat/flame were the mostly widely used disinfecting agents. Similar findings was observe by Emele*et al.*, (2015). In their research, methylated spirit, bleach and petrol with flaming were mostly used for decontaminating tools used in barbering salon in Anambra State, Nigeria. These researchers found out that bleach inhibited the growth of fungal spores, in this study however, only few respondent acknowledge the use of bleach maybe due to the effects it has on metallic tools (clippers and blades). Heat and chemical were seldomly used by these barbers, the reason for this is not known, however, heat and flame have been mentioned not to have decontaminating effect on clippers due to the lesser time of exposure (Emele*et al*., 2015).

In this study, the time of exposure of barbers clippers were five minutes with chemical only one minute with heat while more respondent decontaminated within thirty seconds with chemicals only. Previous workers have reported the failure of methylated spirit in disinfecting tools especially against fungal infection (Uslu*et al*., 2008, Emele, *et al*., 2015, Onuorah *et al.*, 2017).Kerosene as agent of decontamination were used by only a few barbers unlike other barbers in Ibadan, Oyo Statewhere many barbers use this agent (Oyedunni and Adesoro, 2009). Hydrogen peroxide acts as an oxidant which produces hydroxyl free radicals and destroys lipids, proteins and DNAand not toxic to barber tools (Emele*et al*., 2015, McDonnell and Russel 1999),the use of hydrogen peroxide is recommended for barbers but the exposure time should be increased so that bacteria and even fungal spores can be destroyed. Most of the

respondents in this study use petrol as sanitizer on clippers, however the effect on barbers clipper and the time of exposure maybe too short, thus rendering this sanitizing agent ineffective. Investigating effect of petrol as decontaminating agent will lend a definitive statement in this regard However, this study was not to determine the effect of barbers disinfecting agents on tools rather to know if barbers are aware of transmitting diseases during servicerendering with their tools and ways barbers decontaminate their tool as a way of preventing/ reducing transmission of pathogenic organism though tools.

Heat is another method used by barbers to inactivate microorganisms from tools. Though heat is able to destroy the viable organism by coagulating proteins. Spores are not destroyed by dry heat. This fact was buttressed by the findings of Emele*et al*., (2015), who discovered that fungal spores were not inactivated and destroyed after exposure to heat. Bacterial spores are more resistant than fungal spores. Thus showing that even bacterial spore may not be destroyed by dry heat which may remain in barbers clipper even after disinfection.

Conclusion

Barbers were aware of possibility of transmitting disease causing agents while rendering services. However, there exist poor altitude of barbers to disinfection of tools during barbering procedures as only 2(11.11%) disinfect tools before and after use for every customer.Barbers need to be educated on the types of disinfectants to use, time of exposure of barbering tools and possible ways to decontaminate tools to prevent transmission of microorganisms that cause diseases while rendering barbering services

Table 1: Demographic Information of Barbers in Abraka

Demographic Information Of Respondents (N=18)		
Properties	**Frequency n-18**	**Percentages (%)**
Sex		
Male	16	88.9
Female	1	5.6
No response	1	5.6
Marital status		
Single	16	88.9
Married	1	5.6
No response	1	5.6

Educational status		
Seconday	10	55.6
Post secondary	8	44.4
Age		
16-20	2	11.1
21-25	5	27.8
26-30	9	50.0
31-35	2	11.1
36-40	0	0

Table 2: Number of Customers Attended to Weekly by Barbers In Abraka

Customers	**Number**	**Percentages (%)**
10	2	11.1
20	4	22.2
30-40	3	16.7
50	6	33.3
100	2	11.1
120	1	5.6

Table 3:Awareness of disease transmission with barbering tools in Abraka

Awareness of disease transmission with barbering tools, barbering tools		
Characteristics	**Frequency n-18**	**Percentages (%)**
Are you aware that barber's tools transmit infectious diseases		
Yes	15	83.3
No	0	0
No response	3	16.7
Do you disinfect your tools ?		
Yes	14	77.8
No	3	16.7
No response	1	5.6

Diseases transmitted		
Dandruff	13	72.2
Rashes	11	61.1
Lice	15	83.3
Head Bumps	17	94.4
HIV	15	83.3
Ringworm	13	72.2
How often do you disinfect tools?		
Everyday	13	72.2
After a customer	2	11.1
Before and after use	2	11.1
No response	1	5.6

Table 4: Table 4: Tools , Disinfectants and Time interval for disinfection

Tools , Disinfectants/Sanitizers and Time interval for disinfection		
Tools		
Characteristics	Frequency n=18	Percentages (%)
Barber clipper	13	72.2
Scissors	11	61.1
Brushes	12	66.7
Combs	14	77.7
Blades	15	83.3
Towels	13	72.2
Aprons	11	61.1
How often do you disinfect Combs and Brushes		
Once a day	6	33.3
3 times a day	4	22.2
Before and after every customer	7	38.9
Response	1	5.6
Disinfecting agents		
Petrol	13	72.2
Methylated spirit	9	50
Hydrogen peroxide	2	11.1
Heat	9	50
Heat and chemical	3	16.7

Kerosene	3	16.7
Time Interval for disinfecting/sanitizing Barber's Clippers before use		
One minute chemical and heat	6	33.3
Thirty seconds with chemical only	7	38.9
Five minutes with chemical only	2	11.1
No response	3	16.7

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