

**Evaluation of barbers knowledge, attitude and practice regarding Blood Transmitted Disease (Hepatitis B and HIV) In Shendi locality at Shendi town (Sudan)**

**Part -1 ( Medical Science )  
Chapter-IV  
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**Abstract:**

This study was done in Sudan in river Nile state in Shendi locality in Shendi town to evaluate barbers knowledge, attitude and practice regarding blood transmitted disease (Hepatitis B and HIV) in the period extended from March to the July 2014. The data was collected by structured questionnaires which composed of twenty one questions and check list. It analyzed by statistical package for social sciences (SPSS version16 (and simple manual statistical methods.

The study showed that, two third (66%) of the study group have good knowledge about blood disease (hepatitis B and HIV) and less than two third (64%) of study population know that sterilization is route of prevention of transmission of infectious disease.

All barbers have appositve attitude regarding sterilization and disinfection. Majority of them (88%, 92%) have appositve attitude regarding importance of daily cleaning of salon and necessity of equipment sterilization respectively. The practice shows the barbers have good environment in regular space, good earth, and presence of slaves'. ) 63.3% of barber's have-not source of water.

The study recommended that to establishment of barber union, provide regular program of health education to the barbers about blood transmitted disease. The health director in Shendi locality should establish the standard for barber's salon emphasis on good source of water.

**KEYWORDS:** Barbers - Sterilization - Hepatitis B& HIV – Practice - Knowledge

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**BACKGROUND**

Barbershop is one of the places where there is frequent use of some blades often without proper sterilization and the clients' face and skull skin can be scratched and may be cut by sharp equipment's during shaving of their hair (**Biadgelegnet al.2012**). In Sudan most of Premises are structurally unsuitable for the carrying out of hairdressing with lack of facilities that are adequate for the purpose of keeping hairdressing appliances and utensils clean.

HIV and other blood borne pathogens can be transmitted from one person to another through the use of non-sterile needles, syringes, and other skin piercing equipment like blade and invasive instruments (**WHO/UNAIDS.2006**). Accidental scratch by sharp equipment in barbershops may create an opportunity for microorganisms, mainly HIV and other blood borne pathogens, to enter to the body easily and cause serious health problems to the clients (**Monica C.2000**).

According to the World Health Organization (WHO) data, more than 2 billion people in the world have been infected with HBV, and more than 350-400 million of them have chronic hepatitis B (CHB). Every year, 320.000 people die from chronic hepatitis, cirrhosis and hepatocellular cancer due to HBV (**Lavanchy D.2004**).

Hepatitis B is a potentially life-threatening liver infection caused by the hepatitis B virus. It is a major global health problem. It can cause chronic infection and puts people at high risk of death from cirrhosis and liver cancer. Transmission of the virus may also occur through the reuse of needles and syringes either in health-care settings or among persons who inject drugs. In addition, through the use of razors and similar objects that are contaminated with infected blood (**WHO.2004** )

Other sources of HBV transmission are razor sharing, beauty treatments, tattooing, piercing, and manicures and other chiropody treatments. Many infections have been reported in South-East Asia, where barbers commonly share and reuse razors. Detection of HBV DNA in contaminated devices such as razor blades is important in the demonstration of transmission routes and indirect estimation of HBV prevalence in specific subpopulations such as barbershop client (Cafer, Eroglu.etal.2010)

**Material and Methods**

**3.1 Study design:**

The study was descriptive, cross sectional study, conducted in Shendi town to assess the barber’s knowledge, attitude and practice regarding blood transmitted disease hepatitis B and HIV among barbers.

**3.2 Study area:**

The study was conducted in Shendi town which is located 172km north to capital Khartoum, southern part of river Nile state, is bounded by Khartoum state to the south, Eddamer locality to the north, River Nile to the west and Kassala state to the east.

Culturally the population of Shendi is a mixture of the various cultures that occur in Sudan though the Northern tribes, particularly ElGaalien, are predominant. Shendi University was established in the early 1990s and includes (10) faculties in the locality (shendi, mattama, taybat elkhound).

The Shendi has university called Shendi University with different faculties and has two big hospital; teaching hospital and El Mek Nimer University Hospital. The Shendi has large shop and contain many type of salon for shaving. This study was conducted in Shendi shop salons which provide care of hair for citizens.

**3.3 Study population:**

This study involves all barbers in Shendi locality.

**3.4 Sample size and Sampling techniques:**

Out of (50) barbers in the area, (30) barbers shops were selected by non-probability method of sampling (simple random sampling). All barbers working in these shops were approached.

**3.5 Tools of Data Collection:**

The data was collected by using questionnaire and checklist designed by researcher based on reviewing of literature , the questionnaire consist of 21 question from1-3 personal data question,4-6 working qualification question,7-11knowledge about blood transmission diseases12-17 sterilization and disinfection questions 18-21attitude questions and the check list involve three parts the first one sterilization and disinfection procedures, second part assessing of assisting finding and the third part about environmental condition.

**3.6 Data collection technique:**

Data was collected by structured closed ended questionnaire and each questionnaire was filled by barber, every questionnaire takes 3-5 min.

**3.7 Data analysis:**

The data was analyzed by using statistical package of social sciences (SPSS) and simple manual statistical method. And the results presented in form of tables and figures.

**3.8 Ethical considerations:**

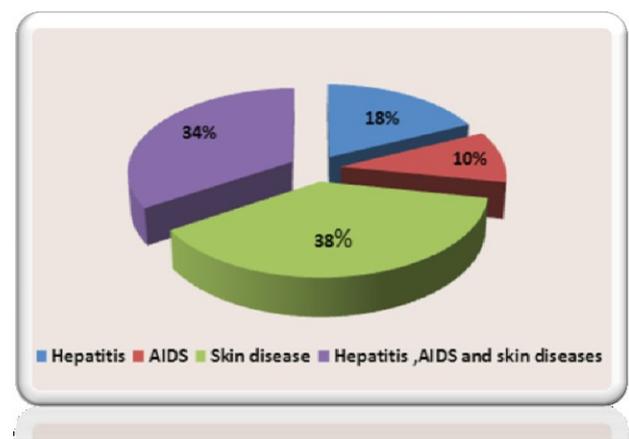
The study was approved by ethical committee of research in the faculty of nursing science before conducting the study; verbal permission was taken from barbers. The purpose of study was explained to each one of barbers and am assured them that the data collected from the questionnaire will remain confidential and it’s not allowed for any person to identify it .

**Result**

**Table (1) Distribution of study population according to their knowledge about hepatitis and HIV (disease, causes, route of transmission, prevention and aids affect):**

Item	Frequency	Percentage
<b>Knowledge about blood disease</b>		
Yes	33	66.0%
No	17	34.0%
<b>Total</b>	<b>50</b>	<b>100%</b>
<b>Causes of AIDS and Hepatitis</b>		
Virus	34	68.0%
Bacteria	14	28.0%
Fungi	2	4.0%
<b>Route of transmission</b>		
Unsterile equipment	42	84.0%
Repeated use of equipment	5	10.0%
Un right use of solution	3	6.0%
<b>Prevention of transmission</b>		
Sterilization	32	64.0%
Use of apron	17	34.0%
Others	1	2.0%
<b>Total</b>	<b>50</b>	<b>100%</b>

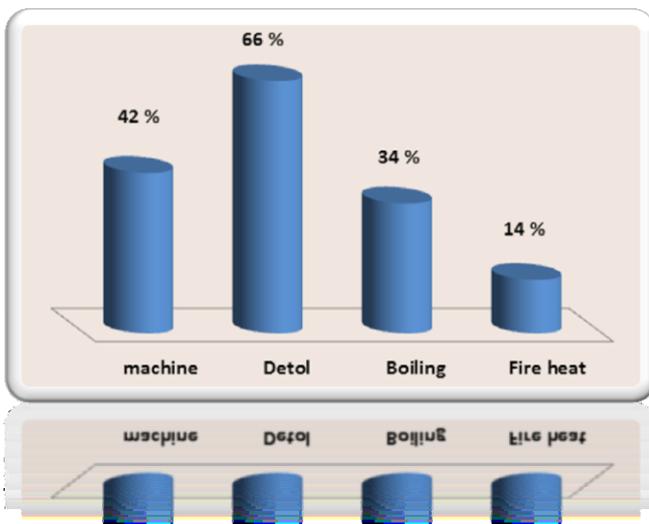
**Figure (1) Distribution of study population according to their knowledge about disease that can transmitted by unsterile equipment**



**Table (2) Attitude of study population regarding sterilization:**

Item	Frequency	Percentage
<b>Importance of daily Cleaning of salon</b>		
Agree	4	8.0%
Strong agree	44	88.0%
Disagree	1	2.0%
Strong disagree	1	2.0%
Total	50	100%
<b>Necessity of equipment Sterilization</b>		
Agree	3	6.0%
Strong agree	46	92.0%
Disagree	1	2.0%
Strong disagree	0	0%
Total	50	100%

**Figure (2) Sterilization methods used by barbers**



Disagree	6	12.0%
Strong disagree	6	12.0%
Total	50	100%
<b>Disease transmission by Unsterile blade</b>		
Agree	6	12.0%
Strong agree	41	82.0%
Disagree	2	4.0%
Strong disagree	1	2.0%
Total	50	100%

**Table (4) Observational at site of work place (practice of barbers) n=30**

Item	Available		Not available	
	Frequency	Percentage	Frequency	Percentage
Presence of sterilization	23	76.7%	7	23.3%
Presence of disinfection	24	80%	6	20%
Proper disinfection	15	50%	15	50%
<b>Assistance finding</b>				
Sheet	25	83.3%	5	16.7%
Sinks	22	73.3%	8	26.7%
Source of water	11	36.7%	19	63.3%
First aid kit	16	53.3%	14	46.7%

**Table (5) Environmental condition of barbers shops n=30**

Environment				
Regular space	26	86.7%	4	13.3%
Good earth	29	96.7%	1	3.3%
Presence of slaves, tables and chairs	27	90%	3	10%
Good light	29	96.7%	1	3.3%
Good ventilation	29	96.7%	1	3.3%
Use of apron	25	83.3%	5	16.7%
Storage place	29	96.7%	1	3.3%

**Discussion**

This study was done in Shendi town shop to assess barbers knowledge, attitude and practice regarding blood transmitted disease (Hepatitis B and AIDS) in period extended from March to July 2014.

Knowledge about blood transmitted disease is the major role that aiding in prevention of prevalence of infectious disease between customers and barbers during shaving.

The studies revealed that more than half (56%) of barbers their experience range between 5-10 years, this result indicate most of barbers are young. This finding is consistent with the study done in Pakistan which shows it was also noted that barbers with more than five years of experience had better knowledge about infectious hepatitis as compared to those with less experience. (Mahboob K.etal.2014).And this will enable them to improve their knowledge about blood transmitted diseases.

This study showed that two third of study group (66%) have knowledge about Blood disease, 68% of them show the causes of AIDS and hepatitis are virus. From the present study majority (84%) of them showed the route of transmission in barber salon is the use of un sterile equipment and less than two third (64%) of them show that prevention of transmission by sterilization. this result is inconsistent with study done Pakistan which stated that 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 (Ahmed I. S. et al: 2013).

This study clarify less than two third (64%) of study population show sterilization mean complete removal of microbes, all of them show sterilization and disinfection are important in salon. this result clarify that barbers have good knowledge about sterilization less than disinfection. In spite of above findings. More than two third (78%) of them show disinfection is effective than sterilization.

This study showed that more than third ( 38%) of them said that the diseases which caused by un sterile equipment is the skin diseases. while 34% of them mentioned skin , hepatitis and AIDS diseases are the most common. This result reveal the barbers have good knowledge about disease of un sterile equipment while need more education about equipment must be sterile emphasis on machine which the most common use in shaving.

Majority of them (88%,92%) have appositve attitude regarding importance of daily cleaning of salon and necessity of equipment's sterilization, respectively. more than two third of study group (72%) have appositve attitude regarding prevention of transmission by disinfection. majority of them (82%) have appositve attitude regarding disease that can be transmitted by un sterile equipment's .This study reveal that the available method for sterilization is Dettol solution because it is inexpensive and they thought to be it is effective.

Regarding barbers practice the study showed that 76.7%, of study population have sterilization and about 80% have disinfection procedure. The practice showed that 83%, 73% of the barbers have wiper and sinks consequently while 63.3% of them have-no source of water in their salons this bad indicator lead to spread of diseases among both barbers and clients.

The environmental condition of the barbers shops have good environment in regular space, good earth, and presence of shelves, tables and chair. Also showed that have good ventilation, good light, use of apron and storage place.

### Conclusion

Based on the finding of present study it was concluded that: Most of study population have good knowledge about blood disease (hepatitis and aids) in route of transmission and method of prevention by sterilization and disinfection.

The study reveal all barbers have appositve attitude regarding cleaning, sterilization and disinfection are method to prevent transmission of infectious disease.

The study result about observation of practice clarify that all barbers do sterilization and disinfection procedure and have good environment with all component but less than two third of them haven't source of water .

### Recommendations

Based on the study finding and conclusion the following recommendation:

- ❖ Establishment of barber union to provide good monitoring and enhance responsibility of barbers about working
- ❖ Provide regular program of health education to barbers about blood disease
- ❖ Provide medical test of barbers that decrease chance of transmission of infectious disease.
- ❖ The health director in Shendi locality should establish standard for barber's salon emphasis on good source water.

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