



## KNOWLEDGE, ATTITUDE AND PREVENTIVE PRACTICES OF HAIRDRESSERS AND BEAUTICIANS ON THE TRANSMISSION OF HIV/AIDS IN KINTAMPO MUNICIPALITY

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### ABSTRACT

Most occupation is associated with risk that may affect the life and wellbeing of the workers and even their client's involved. The prevention of transmissible diseases during working hours constitutes a public health burden in most of beautician's workshops. The study therefore determined the knowledge, attitude and preventive practices of hairdressers and beauticians on transmission of HIV/AIDS in Kintampo Municipality. A quantitative cross-sectional study design was used for the study. Data was collected using structured questionnaires and results were presented in tables. Findings from the study revealed that; most participants (91.2%) were below the ages of 30 while about 8.8% of participants were within the age group of 31-50. The study showed most respondents are aware of HIV virus (94.4%), even though, 91.53% of the respondents did not know how the virus is transmitted. Also, 96.61% of the respondents know the causes of HIV/AIDS and admitted that HIV is caused by virus. Findings further showed that, 82.2% respondents had knowledge on sterilization processes with only 63.2% sterilizing using UV light between one customer and another. Also only a small percentage do sterilize once daily using other means. The findings revealed, 36.0% of the respondents' finds the use of gloves as inconvenient, 29.6% as not inconvenient, 34.4% of the respondents do not know anything about using hand gloves. In terms of using same razor /clippers on customers, majority (82.4%) believe that it is a bad practice and can aid in the spread of the diseases. Participants have a good knowledge regarding HIV/AIDS. Health strategies such as support supervision and training are needed to facilitate effective preventive measures against HIV disease among beauty salon and barbers workers.

**KEYWORDS:** Sterilization, Transmissible Disease, Hair Dressers, Beauticians, HIV/Aids And Health Strategies.

### INTRODUCTION

Hairdressers and beauticians are individuals trained and certified to provide cosmetic treatments to the hair, skin, and nails to enhance beauty and keep the body hygienic (Chand et al., 2022; Kezic et al., 2022). It is a trade that may potentially expose its practitioners and their customers to infections in many instances. The unsafe practices such as hairdressing, tattooing, piercing, manicure, pedicure and barber shop shaving may expose individuals to a varied types of infections. Barbers for instance undertake skin-piercing practices involving re-useable sharp instruments, which may present risks of transmission of HIV and other blood-borne pathogens from one client to the other (Jokhio et al., 2010; Quarm et al., 2021a). Many health problems including communicable and skin infections are associated with

this profession (Abd et al., 2020; Amodio et al., 2010; Nath et al., 2013). Report from previous research finding revealed infectious diseases remain prevalent and rapidly transmitted to people through non-sexual routes such as beauty salons and barbering as well as sexual routes in both developed and developing countries with prevalence rates are as follows: HIV 2.2% to 28%, HBV 6.826%, and HCV 2.2 to 4.8% (Abd et al., 2020; Mudawi, 2008). Instruments from this shops more especially clipper blades and others become contaminated when not properly cleaned before or after use poses a significant risk to its operator and the clients due to accident (Arulogun & Adesoro, 2009; Chand et al., 2022; Kezic et al., 2022). Contact between contaminated blood or body and instruments, cuts, sores or broken skin, can trigger infection (Abd et al., 2020;

Amodio *et al.*, 2010; State, 2019). Proper, effective and consistent decontamination of barbing instruments is important in preventing most transmissible infections at beautician and barbing shops (Quarm *et al.*, 2021a). The Ghana Demographic Health Survey in 2020, indicated 20% of young women and 27% of young men have knowledge on HIV/AIDS prevention strategies (Nath *et al.*, 2013). Also, research conducted by the Ghana AIDS Commission (GAC), showed Ahafo Region recorded the highest prevalence of 2.66%, with the North East Region recording the lowest prevalence of 0.39 % (Na & Hipertensiva, n.d.; *National Report on the Follow-up to the United Nations Ghana AIDS Commission*, 2005; Nketiah-Amponsah & Afful-Mensah, 2013). HIV/AIDS infections remain on the increase despite the sensitization, awareness creation and education going (*National Report on the Follow-up to the United Nations Ghana AIDS Commission*, 2005). However, not much effort has been focused on the prevention of HIV spread through contaminated sharp materials such as those used by hairdressers and beauticians (Abd *et al.*, 2020; Jokhio *et al.*, 2010; Quarm *et al.*, 2021b). The proper, effective and consistent decontamination of barbing instruments is important in preventing HIV and other transmission in barbing shops (Quarm *et al.*, 2021b). Despite persons infected being asymptomatic, are infective at all stages of HIV/AIDS infection. Therefore, barbers' instruments must always be disinfected and sterilized to minimize the risk of HIV transmission (Abd *et al.*, 2020; Kezic *et al.*, 2022). It is therefore necessary to conduct a research within these occupations to determine whether the hairdressers and beauticians are part of the many factors contributing to high prevalence of HIV transmission in the Kintampo Municipality. The study therefore investigate the knowledge, attitude and the preventive practices of hair dressers and beautician on HIV/AIDS transmission. The findings from this study would help to develop appropriate interventional programmes that could help solve the problem of rising prevalence rate of the HIV/AIDS transmission.

## MATERIALS AND METHODS

### 2.0 Introduction

#### 2.1 Study Area

The study was conducted in Kintampo Municipality of the Bono East region, Ghana. The population of Kintampo Municipality, according to the 2010 Population and Housing Census, is 95,480 representing 4.1 percent of the region's total population. Males constitute 49.6 percent and females represent 50.4 percent. About 56.8 percent of the population lives in urban localities. Out of the population 11 years and above, 60.7 percent are literate and 39.3 percent are non-literate. The proportion of literate males is higher (67.4 %) than that of females (54.2%). About seven out of ten people (55.2%) indicated they could speak and write both English and Ghanaian languages. Out of the population aged 3 years and above (86,583) in the Municipality, 34.3 percent has never attended school, 40.9 percent are currently attending and 24.8 percent

have attended in the past. About 74.8 percent of the population aged 15 years and older are economically active while 25.2 per cent are economically not active. In terms of the economy, active population, 96.7 percent are employed while 3.3 percent are unemployed. For those who are economically not active, a larger percentage of them are students (55.8%) and 21.6% perform household duties. Again, about 65.6 percent of the unemployed are seeking work for the first and available for work. Of the employed population, about 54.2 percent are engaged as skilled agricultural, forestry and fishery workers, 18.7 percent in service and sales and 10.8 percent in craft and related trade. About 7.3 percent are engaged as managers, professionals, and technicians. The housing stock of Kintampo Municipality is 13,167 representing 4.0 percent of the total number of houses in the Brong-Ahafo Region. The average number of persons per house is 7.2.

#### 2.2 Study Design

The design for the study was a quantitative cross-sectional. The design allowed for possible inference to be made on the population drawn for the study.

#### 2.3 Study Population and Sampling Technique and Sample Size

The study included all hairdressers and beauticians in the Kintampo Municipality. A structured questionnaire was used to collect data from the study participants. A total sample of 125 Hairdressers and beauticians in the Kintampo Municipal were selected for the study. Those with permanent place of work shops were considered for the study. Road Hairdressers and beautician's side was excluded because; they work as casual laborers on the road side especially on market days making it very difficult to trace them if needed.

#### 2.4 Data Collection Tool and Technique

Data was collected using a structured questionnaire which was pretested for accuracy. Trained interviewers described the purpose and process of the survey to the participants and responses were recorded each participant. Each of the selected saloons had performed at least one hair-cutting session or pedicure under the observation of investigators. Reusable haircutting and body piercing instruments were observed while in use in one of the two sessions of work. For the purpose of ensuring keen observation, only one session was observed if more than one session was going on concurrently in the same saloon and the first session is only accept when it started in the presence of the researchers

#### 2.5 Data Analysis

Data was entered into Epi Data Version 3 and exported into STATA Version12 for analysis. Data was represented using tables. Descriptive statistics including percentages, and frequencies were calculated and presented in tables.

## 2.6 Quality Control

Questions from Ghana Demographic and Health Survey (2014) was adopted and modified to suit the purpose of this study. Research assistants were recruited to collect data that was relevant for the study. A Municipality with similar characteristics as Kintampo was selected and used for a pre-test. The pretesting was good for the research team the opportunity to fine-tune the data collection instruments before the actual data collection is carried out. Data collected was checked each day to ensure that errors and ambiguous information are corrected. Errors and omission detected during data collection was discussed with respective research assistance and when necessary asked to re-administer the questionnaire and make necessary corrections

## 2.7 Limitation of the Study

The exact figure of HIV prevalence rate and number of peoples living with HIV/AIDS recently are not known in the Kintampo municipality. Qualitative study was not done to give explanations to the figures shown in chapter four of the study. Shortage of budget and time also affected the study.

## 2.8 Ethical Consideration

Description of study subjects:

The study consisted of hairdressers and beauticians in the Kintampo municipality. Ethics approval was sought from Ghana Health Service Ethics Review Committee. Permission was also sought from the Kintampo Municipal Health Directorate. A written consent was sought from all respondents before enrolment in the study.

## RESULTS AND DISCUSSION

### 3. Introduction

This chapter present the results from the responses on "Knowledge, Attitude and Preventive Practices of

Hairdressers and Beauticians on HIV/AIDS Transmission in Kintampo Municipality. In order of the analysis, each research question was basically recognized and questionnaire item measured for every single question.

### 3.1 Socio-Demographic Characteristics of Respondent

Table 1 presents results on socio-demographic characteristics of then study respondent. A total of 125 participants were surveyed after they have consented to be part of the study. Most participants (91.2%) were below the ages of 30 while about 8.8% of participants were within the age group of 31-50. Apart from six (4.8%) participants who reported having primary level of education, the remaining had either senior high or tertiary education. Among the various levels of education reported, majority of the participants (56%) attained at least senior high education. Regarding the religious affiliation of the participants, more than half of them (81.6%) reported being of the Christian faith, followed by the Islamic faith (18.4%). The respondents reported belonging to certified association were only (29.6%). Majority of the respondents (84%) reported been in the beautician and hairdresser's service for at least ten years. The findings of the study also revealed majority of the respondents 87.2% were males with only about 12.8% been females as shown in table 1 below. This is slightly indifferent from a studies conducted on Assessment on Knowledge, Attitude and Practice with Regard to the transmission and Prevention of HIV/AIDS among Barbers and Beauty Salon Workers that indicated half of the participants 50.6% were male and both sexes are observed when giving services in both barbers and beauty salons (Arulogun & Adesoro, 2009; Jain et al., 2023; Quarm et al., 2021a). This major difference might be due to culture and religious difference in the study area.

**Table 1: Socio-Demographic Characteristics of Respondents.**

Variable	Frequency(N=125)	Percentage (100%)
<b>Age (years)</b>		
10-20	15	12.0
21-30	99	79.2
31-40	09	7.2
41-50	02	1.6
<b>Sex</b>		
Male	109	87.2
Female	16	12.8
<b>Marriage status</b>		
Single	32	25.6
Marriage	75	60.0
Divorced	18	14.4
<b>EDUCATIONAL LEVEL</b>		
Primary	06	4.8
Junior high	28	22.4
Senior high	70	56.0
Tertiary	17	13.6
others	04	3.2
<b>NATIONALITY</b>		

Ghanaian	119	95.2
Other Anglophone	02	1.6
Francophone	04	3.2
<b>RELIGION</b>		
Traditional	0	0.0
Muslim	23	18.4
Christian	102	81.6
<b>YEARS IN THIS JOB</b>		
1-10 yrs	105	84.0
11-20yrs	17	13.6
21-30yrs	03	2.4
<b>NUMBER OF WORKERS IN THE</b>		
SHOP 1	72	57.6
SHOP 2	31	24.8
SHOP 3	18	14.4
SHOP 4	4	3.2
<b>CUSTOMERS SERVED DAILY</b>		
1-10	117	93.6
11-20	08	6.4
<b>MEMBER OF ASSOCIATION</b>		
Yes	37	29.6
No	88	70.4
<b>CERTIFIED BEAUTICIAN OR HAIR DRESSERS</b>		
Yes	37	29.6
No	88	70.4

### 3.2 Knowledge of Respondents on HIV/AIDS

The knowledge regarding HIV/AIDS has a greater potential in minimizing the spread among people. Table 4.2 present respondents' views on awareness of HIV/AIDS infections transmission. The study showed most respondents were aware of HIV virus (94.4%), even though, 91.53% of the respondents did not know how the virus is transmitted. Also, 96.61% of the respondents know the causes of HIV/AIDS and admitted that HIV is caused by virus. Most respondents (81.36%) accepted their profession could contribute to the spread of HIV. About 66.95% of the participants reported that HIV is Sexually Transmitted Diseases. More so, respondents (91.53%) were of the view that, HIV/AIDS can be prevented through different ways. Findings showed that, 82.2% respondents stated they had adequate knowledge on sterilization processes (use of ultraviolet light), only 63.2% of them sterilized using UV light

between one customer and another; furthermore, only a small percentage do sterilize once daily using other means. This is asserted by a study that concluded that; 90% respondents stated they had adequate sterilization processes (use of ultraviolet light), only 70 of them sterilized the instruments between one clients to another (Amodio *et al.*, 2010). This study is line with findings of another conducted in Uyo.Akwa Ibom State, Nigeria by (Eyo & Ukpe, 2016; Jain *et al.*, 2023) also stated that quite a large number of participants have good knowledge of diseases associated with their work which showed significant level on hypothesis tested and their attitude are also good towards the prevention of transmissible diseases. Some other participants (51.2%) use methylated spirit as their main disinfectant. While the awareness of HIV/AIDS is necessary, a good knowledge of its transmission and prevention is important for an effective policy intervention.

**Table 2: Knowledge of Respondents on HIV/AIDS Transmission.**

Variable	Frequency(125)	Percentage (100)
<b>Aware of HIV/AIDS</b>		
No	07	5.6
Yes	118	94.4
<b>Cause of HIV/AIDS</b>		
Viruses	114	96.61
Bacteria	04	3.39
Witchcraft	0.0	0.00
<b>Clients at risk of HIV transmission</b>		
Yes	96	81.36
No	22	18.64

**How is HIV transmitted?**

Blood transfusion	08	6.78
Contaminated instruments use	11	9.32
Sexually	79	66.95
All the above	10	8.47
Don't know	10	8.47
<b>Is HIV preventable?</b>		
Yes	108	91.53
No	10	8.47
<b>Sterilization of equipment's prevents HIV infections.</b>		
Yes	97	82.2
No	21	17.8
<b>Method for sterilization of equipment</b>		
Under UV light	79	63.2
Cleaning with soap and water	06	4.8
Use brush to remove hair only	40	32.0
<b>Type of disinfectant used</b>		
Methylated spirit	64	51.2
Spirit and jik	17	13.6
Spirit & shampoo/savlon	28	22.4
Spirit and oil	16	12.8
<b>How often do you change your UV light?</b>		
Every week	21	16.8
Every month	12	9.6
Every year	18	14.4
Have not changed	06	4.8
Don't know	68	54.5

### 3.3 Attitude of Respondents towards HIV/ AIDS Transmission

The study sought to find out respondents' attitude towards the transmission of HIV/AIDs in the area as shown in Table 3. The findings revealed, 36.0% of the respondents' finds the use of gloves as inconvenient, 29.6% as not inconvenient, 34.4% of the respondents do not know anything about using hand gloves. In terms of using same razor /clippers on customers, majority (82.4%) believe that it is a bad practice and can aid in the spread of the diseases. Respondents were asked whether it was appropriate for regular inspections by the necessary authorities. Finding revealed some respondents (49.6%) do not feel comfortable having their shops inspected regularly by authorities while 43.2% felt they were comfortable. Furthermore, findings from the study also revealed that, 84.8% of the respondents purchased disinfectant that are affordable for use in their hairdressers' saloons. Regarding hand wash practices, 60.0% of the study respondents wash their hands

between clients, 24% said on the first client and 19% occasionally. Findings further revealed 24.0% use water only, and 36.8% do not wash hands at all when offering services. About (61.6%) of respondents have water available at their various shops through bucket water tap. In terms of the saloons having both hot and cold water source, majority (67.2%) of the respondents admitted having both source in the saloons. The most effective way to limit the risk of HIV infection is to use universal precautions for example washing hands and wearing protective barriers (gloves, aprons, goggles) and the same stands true for the beauticians as well, since the HIV status of the customer is unknown and the risk of injury always there (Agyeman & Ofori-Asenso, 2016; Jain et al., 2023; Nath et al., 2013). The current finding is contrary to a study conducted in HO, which indicated attitudes of the participants were generally favorable as the majority of barbers had good attitudes regarding HIV/AIDS (Agyeman & Ofori-Asenso, 2016; Quarm et al., 2021b).

**Table 3: Attitude of Respondents on HIV/ AIDS Transmission.**

Variable	Frequency (125)	Percentage (100%)
<b>Opinion about using same razor/clipper for all clients</b>		
Not bad practice	08	6.4
Bad practice	103	82.4
I don't know	14	11.2
<b>Opinion about changing of gloves between clients</b>		
Not inconveniencing	37.0	29.6
Inconveniencing	45.0	36.0
I don't know	43.0	34.4
<b>How do you feel when inspected regularly for personal</b>		

<b>and quality assurance issues</b>		
Good and supported	54.0	43.2
Bad and worried	09.0	7.2
Don't like it	62.0	49.6
<b>What is your opinion of buying a better disinfectant than methylated spirit</b>		
I will buy if affordable	106.0	84.8
I won't buy	05.0	04
Don't know	14.0	11.2
<b>When do you wash your hands</b>		
On the first client	18.0	24
Between clients	45.0	60
Occasionally	12.0	16
<b>How do you wash your hands</b>		
Use warm water and soap	28.0	22.4
Use water only	30.0	24.0
Use disinfectant when on water	21.0	16.8
Don't wash	46.0	36.8
<b>How water is made available for use in these shops?</b>		
Piped	30.0	24
Bucket water tab	77.0	61.6
Jerri can and basin	18.0	14.4
<b>Does the shop have both hot and cold-water source?</b>		
Yes	84	67.2
No	41	32.8

### 3.4 Preventive Practices of Respondents on HIV Transmission

Contamination of instruments used by beauticians can pose a great risk to clients. The study also reveal the preventive practices among hairdresser owners towards the prevention of HIV/AIDs. A few of the respondents (9.6%) stated they use brush to remove hair only, 60.8% of the respondents said they use disinfectant to disinfect instruments. In terms of instruments used in shaving beards/trimming, majority (45.6%) of respondents uses either clippers or powder in offering that service, and a few (9.6%) use razor blades. Most of the respondents (85.6%) clean their tools at regular intervals between clients, 14.4% clean tools after using

it on several clients. In the case of towel usage, majority (64.8%) of the respondents use towels in their working hours whilst only (35.2%) do not use towels when offering services. Again (56.82%) of participants responded that they use one towel for clients. In terms of sharps usage, (100%) of respondents agreed they use sharps such as blade and scissors etc. when offering services. However, more than half (64.0%) of the participants indicated that they usually put used sharps into non-sharp container prior to final disposal, but about (33.6%) of respondents indicated that these used sharps are sometimes re-used by different professionals.

**Table 4: Preventive Practices of Respondents on HIV Transmission.**

Variable	Frequency (125)	Percentage (100%)
<b>How do you clean your instruments?</b>		
Disinfect only	76.0	60.8
Clean and disinfect	25.0	20
Wipe with dry cotton	02.0	1.6
Use water and soap	10.0	0.8
Use brush to remove hair only	12.0	9.6
<b>What do you use to clean your instruments?</b>		
Water and disinfectant	71.0	56.8
Cotton soaked in a disinfectant	37.0	29.6
Water and soap	17.0	13.6
<b>What do you usually use for shaving beards/trimming hairlines?</b>		
Clippers	30.0	24
New razor blades	12.0	9.6
Either 1or 2 or powder	57.0	45.6
Not applicable	26.0	20.8
<b>When do you clean your tools for use?</b>		

Immediately after use on one client	107.0	85.6
After use on several clients	18.0	14.4
Never clean them	0.00	0.00
<b>What disinfectant(s) is/are commonly used here?</b>		
Methylated spirit	108	84
Jik and spirit	04	3.2
2& shampoo	08	6.4
Spirit & shampoo/savlon	04	3.2
Spirit and oil	04	3.2
<b>Do you use towels in this business?</b>		
Yes	81	64.8
No	44	35.2
<b>How many towels do you use in a day?</b>		
One per client	25	56.82
One or two per day	19	43.18
<b>Do you wash your hands when offering this service</b>		
No	50	40
Yes	75	60
<b>What types do use?</b>		
Disposable and not sterile	16	35.56
Disposable and latex	29	64.44
<b>Do you use sharps such as razor blades, needles in this salon?</b>		
<b>Stigmatization if screen</b>		
Yes	125	100.0
No	0.00	0.00
<b>If yes, how do you dispose of them?</b>		
Dropped directly into sharp container	03	2.4
Put into non- sharp container prior to disposal	80	64
Re-use of the used sharp.	42	33.6

## CONCLUSION

Based on the findings of the study, it was concluded that hairdressers have adequate knowledge on HIV/AIDS transmission associated with their work and good practice to prevent them. However, the influences of attitude on practices of hand washing among hairdressers is not significant. Most especially, hairdressers in the study area has the risk for HIV transmission through the use of non- potent disinfection methods and improper handling of sharp instruments.

## RECOMMENDATION

The municipal assembly should ensure that all barbers and beauticians in the Kintampo North Municipality are certified to increase adherence to HIV/AIDS preventive measures. Also, HIV prevention strategies for hairdressers and beauticians' salons should be planned and implemented to effectively reduce the level of infections among operators and clients. More so, attention should be given to poor hygienic practices in these Salon shops especially hand washing and the use disposal hand gloves through routine supervision and monitoring by respective authority in charge. Lastly, the disease prevention units in the Ghana health service secretariat in the Kintampo municipality should educate and give appropriate Training for hairdressers and beauticians salons workers. Effective and extensive Health Education on HIV/AIDS should be given to

hairdressers and beauticians salons workers by Responsible Authorities.

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## Conflict Of Interest

The authors declare that there is no conflict of interest.

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