

## ASSESSMENT OF OCCUPATIONAL HAZARDS AMONG BEAUTICIANS IN BENIN-CITY

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### SUMMARY

This cross-sectional study was carried out among randomly selected beauticians in Benin City to assess their awareness and exposure to occupational hazards and also evaluate the types and usage of protective clothing and devices. A total of 174 beauticians were studied with a mean age of 25 years + 6.6.

Sixty nine percent (69%) of the respondents did not know that their occupation had an effect on their health. Back pain and burns were the most commonly experienced illnesses. Majority of the workers worked for more than 8 hours a day. The availability and usage of protective clothing and devices was good.

It is recommended that health education campaigns be embarked on as this will improve awareness of hazards and encourage health promoting behaviour.

### INTRODUCTION

Work and health have negative as well as positive effects on one another and it is important to minimise or even totally eliminate the mutual negative effects while promoting the positive effects<sup>1</sup>.

Beauticians like other workers encounter hazards in their work place that may adversely affect their health. They are mostly self employed or engaged in smallscale salons where conditions of service are stringent and with no organised occupational health service.

There is scarcely any literature available on studies done on this group of workers in Africa. The few available published studies are those done in Europe and America and these centre mainly on chemical hazards<sup>2-5</sup>. Occupational health service in Nigeria can still be said to be rudimentary and workers have to be aware of the hazards they are exposed to so as to take the necessary preventive measures. Legge highlighted the need for this when developing the four very important axioms of occupational health<sup>6</sup>.

This study was embarked on to assess the awareness of beauticians on hazards they are exposed to, analyse these hazards and ascertain the preventive measures taken to safeguard their health.

### MATERIALS AND METHOD

A cross-sectional study was carried out among beauticians in Benin-City, capital of Edo State, which is one of the 36 states of Nigeria. The study population chosen from randomly selected areas (LGAs) in Benin city namely Oredo, Egor and Ikpoba Okha. From these LGAs, beauty salons were selected systematically from a list of salons registered with the hairdressers associations,

and lastly all the Beauticians in the selected salons were included in the sample. A total of 200 beauticians were selected, however, only 174 accepted to participate in the study. Information was obtained from the study respondents using pre-designed structured questionnaires and these were administered by researchers. Retrieved questionnaires were collated and analysed.

### RESULTS

A total of 174 beauticians were studied, these were made up of 164(94.2%) females and 10(5.8%) males. The age range was 15-45years with a mean age of 25 years 6.6 and the age groups of 25-29 years, 20-24 years, 15-19 years and the following frequencies of 64(36.8%), 46(26.4%), 28(16.1%) respectively.

Table 1: Morbidity Pattern of respondents (Total = 174)

Illness	Frequency
Skin problem	29(16.7%)
Cough	13(7.5%)
Catarrh	7(4.0%)
Asthma	2(1.1%)
Chest pain	30(17.2%)
Back pain	54(31.0%)
Upper limb pain	26(15.0%)
Itching eyes	7(4.0%)
Joint pain	42(24.1%)
Nail problems	34(19.5%)
Headaches	40(23.0%)
Burns	54(31.0%)
Electrical accidents	16(9.2%)
Cuts	24(13.8%)
Accidental ingestion of chemicals	9(5.2%)

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\* Multiple responses were recorded

One hundred and seventeen 117 (62.7%) of them were single 48(27.6%) married and 9(5.2%) either divorced or widowed.

When asked if they were aware their occupation had an effect on their health 43(24.7) said yes while majority of 120(69.0%) said no and 11(6.3%) had no idea. A list of the different illnesses respondents most commonly experienced is shown in table 1. Back pain occurs most frequently in 54(31.0%) of the respondents, followed by joint pain 42(24.1%), headache (23.0%).

The number of hours worked corresponding to the number of working days are presented in table 2. The minimum number of days worked in a week was three while maximum was 7. The table also shows that a greater number of respondents are exceeding the recommended working period of 8 hours per day with 57(32.8%) of them doing this for 6 days in a week.

Table 2: Number of hours worked/working days by respondents

Working days Per week	Average Number of Hours worked per day			Total
	0-8hrs	>8hrs	No response	
3	2(1.1%)	1(0.6%)	-	3(1.7%)
4	-	2(1.1%)	-	2(1.1%)
5	-	4(2.3%)	-	4(2.3%)
6	29(16.7%)	57(32.8%)	-	86(49.5%)
7	21(12.1%)	52(29.9%)	-	73(42.5%)
No response	-	-	6	6(3.4%)
Total	52(29.9%)	116(66.7%)	6(3.4%)	174(100%)

Table 3a and 3b show the usage of protective clothings and devices. The most used was hand gloves by 162(93.1%) of the respondents followed by apron among 48(27.6%) of them.

Table 3a: Protective clothing used (Total = 174)

Protective clothings	Frequency of usage
Hand gloves	162(93.1%)
Face mask	13(7.5%)
Apron	48(27.6%)

Table 3b: Protective devices present in salons

Protective Devices	Frequency
Fire extinguisher	8(4.5%)
First Aid Box	40(23.0%)

Table 4 reveals that the usage of protective clothings and safety devices is associated with the availability with a chi-squared

value of 116.1 (Yates correction)  $df = 9$  and  $p < 0.05$  this shows that the usage of protective clothing depends on its availability.

Table 4: Availability of devices and their usage by respondents

Frequency of usage	Frequency of availability				Total response
	always	sometimes	never	no	
Always	108(62.1%)	5(2.9%)	(0.6%)	3(1.7%)	116(60.6%)
Sometimes	18(10.3%)	30(17.2%)	-	-	48(28.0%)
Never	0	3(1.7%)	1(0.6)	-	4(2.3%)
No response	2(1.2%)	1(0.6%)	-	3(1.7%)	6(3.0%)
Total	128(73.6%)	39(22.4%)	1(0.6%)	6(3.4%)	174(100%)

$\chi^2 = 116.1$ , (with Yates correction)  $df = 9$   $p < 0.05$

## DISCUSSION

The beauty industry is one of those industries that is thriving in the country with development and usually majority of the workers are females and single as this study has shown.

Results show that majority of the workers (69.9%) had a poor awareness of the hazards they are exposed to, this situation can be improved by health education which will raise general awareness of occupational hazards as recommended by Legge<sup>6</sup>.

Respondents (87.4%) suffered from pains at various sites. This could be attributed to the prolonged hours of work. In many parts of the world, back pain is reported to be a major occupational health problem<sup>7</sup>. In the United States of America, it is reported to constitute a massive problem. An estimated 55% of all work related disability claims were attributed to backache<sup>8</sup>. Skin problem as revealed in this study is a commonly documented problem of beauticians<sup>9,10</sup>. Cough, catarrh, asthma also reported in this study could also be related to products used by these beauticians as reported in an earlier study which can be either irritants, allergens or sensitizers<sup>11</sup>. Good et al<sup>13</sup> showed that hair sprays are associated with pulmonary problems and that those aerosols contain carcinogenic agents which alter the flora of the respiratory tract.

Results clearly showed that workers stayed at work for long hours. This is an unhealthy practice that could predispose the workers to accidents and John et al found an association between spontaneous abortion and the number of hours worked per day<sup>13</sup>.

Personal protection of workers using protective clothing and devices is one of the various ways of preventing occupational diseases and injuries. Ideally their use should be the last line of defence as engineering control measures are more reliable, however, it has been shown that they are needed and often times used as the method of choice in the control of occupational hazards in workplaces<sup>14</sup>. This is more applicable to smallscale industries like beauty salons, where engineering control measures are not affordable. Personal protective clothing and devices have a better chance of being used if they are provided by the

management of the workplaces who should incorporate a programme of administration and training of the workforce in their usage<sup>15,16</sup>. Results of our study showed that the protective clothing were always available and were always used by majority of the respondents, this will augur well for their effectiveness in preventing occupational hazards. However, those that did not always use these clothings and devices would benefit from health education campaigns as these will increase awareness of hazards and encourage behaviour that promote health, prevent illness, cure diseases and facilitate rehabilitation<sup>17</sup>.

It is recommended that a regulatory body be created in the local government authorities for beauty salons to ensure adherence to adequate working hours, enforce use and availability of protective clothings and devices. An occupational health programme should be incooperated into the already existing primary health programmes to take care of their health.

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