



Socio-Demographic Determinants of Knowledge of Occupational Hazards among Hairdressers in Rivers East Senatorial District, Rivers State, Nigeria.

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ABSTRACT

The study investigated the socio-demographic determinants of knowledge of occupational hazards among hairdressers in Rivers East Senatorial District, Rivers State. Two (2) objectives, two (2) research questions and two (2) hypotheses were formulated to guide the study. The descriptive correlational research design was adopted for the study. The population for the study consisted of all the hairdressers in Rivers East Senatorial, Rivers State estimated to be 12,224, the sample size used for the study was 1,200. 1062 questionnaire were properly filled and returned giving a return rate of 88.5%. The instrument for data collection was a validated standardized questionnaire with a reliability of 0.81. Data collected were analyzed with Statistical Product and Service Solutions (SPSS) 23.0 version using some statistical tools such as frequency, percentage and regression. The findings of the study revealed that good knowledge of occupational hazards was found more among those aged 30-39 years (93.0%) and those who had 6 or more years of work experience (91.9%). Conclusions were made that knowledge based on age and work experiences was good. Based on the findings of the study, recommendations were made that owners/management of hairdressing salons and the Government health agencies should give more enlightenment and training to hairdressers on hazards associated with their job and hairdressers should continue to maximize the use of media so as to become more knowledgeable health wise.

Keywords: Socio-Demographic, Determinants, Knowledge, Occupational hazards, Hairdressers, Rivers East Senatorial District.

INTRODUCTION

Hairdressing which is the art of washing, cutting, stretching, dyeing, plaiting, weaving and styling hair is associated with exposure to a variety of harmful elements, agents or substances within the working environment. These substances are associated with respiratory, reproductive, musculoskeletal and skin disorders. Hair dressers are exposed to numerous potential hazards within the work environment including vapours, solvents, perfumes and dust. Due to the nature of this occupation, salon operators are exposed to harmful chemicals/substances from hair dyes, bleaches, shampoos, hair conditioners, hair relaxers, permanent wave solutions, detergents, hairsprays, perfumes and dust (Nemer et al, 2015; De-Gennaro et al, 2014 in Moda & King, 2019).

According to International Labour Office of Statistics (2015), 120 million injuries occur annually at workplaces worldwide. Of this figure, 210, 000 are fatal injuries. The World Health Organization (WHO) (2014) recently estimated that 20-50% of the workers are exposed to hazards at work worldwide and this proposition is likely to be higher in the developing countries. It has been estimated that, 960,000 or even

more workers get injured and 5,330 die on daily basis because of work related diseases (Mekgodathil et al, 2016 in Roberts & Achalu, 2021). Occupational hazards are the risks or dangers as a consequence of the working conditions of a particular work (Smith & Kdjaruna, 2014).

Knowledge refers to information, facts, skills and understanding gained through learning or experience. It is a powerful concept that is true and justified (Okeke et al, 2021). Sanni et al, (2021) defined knowledge as understanding of someone or something such as facts, information, description or skills which is acquired through expertise or education by perceiving, discovering or learning. Knowledge is conceptualized in this study as the amount of information hairdressers in Rivers East senatorial district have about the hazards associated with their trade. The Socio-demographics of the individuals also determine the outcome of their knowledge. Theoretical knowledge is informed by and contributes to empirical practice (Raju, 2018). Most hairdressers are not taught sufficiently on the hazards associated with their job so they become prone or vulnerable to workplace accidents and occupational diseases. Merriam Webster dictionary (2022) defined age as the length of an existence extending from the beginning to any given time.

Ferreira (2013) in a study in Brazil, revealed a lack of consciousness to use protective equipment on the part of hairdressers such as gloves, and handling a range of chemicals were noticed which may be as a result of insufficient knowledge. Wakjira (2017) in a study conducted in South Ethiopia revealed that only 34.5% of beauty salon workers knew that their profession exposes them to HIV infection. More so, Muhindo (2019) conducted a research on knowledge, attitude and practice of hair salon operators on infection and prevention measures in salons in Kampala District, Uganda and revealed that hairdressers knowledge on common infections that could be spread include; HIV/AIDS (28%), fungal scalp infections (7.0%) and Hepatitis B and C (6.0%); furthermore, it was revealed that hair salon operators with inadequate knowledge on infection and prevention measures in salon were found with poorer infection prevention practices.

Hair dressers pose particular public health risks if they are not conducted in a safe and hygienic manner. These group of individuals have a high prevalence of occupational disorders, many of which have both individual and public health implications if not addressed. These individuals receive little or no training on the commencement of their job. Also a lot of hairdressers and customers are not even aware of specific chemicals in the products they use leaving them unprotected from potentially dangerous toxins. More so, many of those running these salons have minimal training and are unaware of the health problems which may arise in the hair salon.

The need for this study is to ascertain the socio-demographic determinants of occupational hazards among hairdressers in Rivers East Senatorial District, Rivers State.

This research is also relevant to ascertain the knowledge of occupational hazards among hairdressers in Rivers East Senatorial District, Rivers State.

Aim and Objectives of the Study

The aim of this study was to investigate the Socio-demographic determinants of knowledge of occupational hazards among hairdressers in Rivers East Senatorial District, Rivers State. Specifically the objectives of the study were to:

- i. Ascertain the knowledge of occupational hazards among hairdressers in Rivers East Senatorial District, Rivers State based on age.
- ii. Ascertain the knowledge of occupational hazards among hairdressers in Rivers East Senatorial District, Rivers State based on years of work experience.

Research Questions

The following research questions were answered:

1. What is the knowledge of occupational hazards among hairdressers in Rivers East Senatorial District, Rivers State based on age?
2. What is the knowledge of occupational hazards among hairdressers in Rivers East Senatorial District, Rivers State based on years of work experience?

Hypotheses

The following hypotheses postulated were tested at 0.05 level of significance:

1. There is no significant relationship between age and knowledge of occupational hazards among hairdressers in Rivers East Senatorial District.
2. There is no significant relationship between years of work experience and knowledge of occupational hazards among hairdressers in Rivers East Senatorial District.

Occupational hazards

Occupational hazards can be traced back to the 18th century when Bernadino Ramazzini, who is referred to as the father of occupational medicine, recognized the role of occupation in the dynamic of health and diseases (Moen & Bjorvatn, 2017). Occupational hazards which are workplace threat to life and property can cause serious health challenges to workers. Onumbu (2018) affirmed that occupational hazards to be work place or work-related dangers, conditions or systems which have the potential of causing stress, injury or loss to the workers or employers or both of them.

Physical Hazard: These are forms of energy that can harm the body if exposed. Okoye (2018) asserted that exposure of workers to physical hazards may lead to injuries, poor service delivery and accidents. Work safe (2011) stated that physical hazard radiations (ionizing and non-ionizing) can cause cancer, heating, skin burns and eye damage while extreme heat can lead to Oedema, rashes, spasms, exhaustion, syncope, stroke and hyper-pyrexia. Canadian Centre for Occupational Health and Safety {CCOHS} (2021), posited that physical hazards of hair dressers can be noise and vibration due to equipment used, hairdryers or people in the salon.

Chemical Hazards: These hazards occur basically from chemical substances and can take the form of solids, liquids, vapours, gases dust, fumes and mist. Exposure to chemicals such as aerosols and hair care solutions, cosmetics and cleaning products including the risk of some products may cause cancer to hairdressers. Opeyemi and Unadike (2020) stated that the chemical environment is one of the most rapidly expanding components of the work environment because new chemicals and solutions are being introduced regularly and many of these chemicals are among those whose health effects may not be known and may pose health problems taking years to manifest.

Biological Hazards: these include bacteria, viruses, fungi and other living organisms can cause acute and chronic infections by entering the body either directly or indirectly through breaks in the skin. These organisms from the environment get into their body system (European Agency for Safety and Health at Work, 2014). Some salons are located in very dirty, flooded and unhygienic areas and both the hair stylist and clients become vulnerable. Eyayo (2014), Achalu (2000) and WHO (2001) opined that diseases that arise from biological hazard are hepatitis, tuberculosis, asthma plus parasitic diseases as a result of exposure to bacteria, viruses, rickettsia, fungi, yeast, spores, parasites, allergens, blood-borne pathogens and bodily fluids, sewage, animal/pest waste, pandemic/ influenza. CCOHS (2021) affirmed that biological hazards include risk of contracting infectious diseases. Hairdressers contact these occupational diseases from exposure to these microbial agents in the environment since majority of them are without any form of protection.

Mechanical hazards: these are moving or unguarded devices, machines, engines or tools that may cause loss or harm to persons or their properties while at work or in a work-related area (Onumbu, 2018). Workers can injure themselves in a number of ways like cutting of finger tips, crushing of limbs, injury due to flying splinters, fall from great heights, tangling by rapidly rotating machine parts. For hairdressers, these materials may be hair stretchers, rollers, needles, scissors, clippers and so on. They are devices put in motion by these hairdressers in order to get hair styles done and in the process, they are harmed or injured due to a fault in a part of the machine. For example: blunt edges, loosening of screws, falling parts, sharp and rough edges, rusted surfaces and so on.

Ergonomic Hazards: These refer to workplace conditions that constitute risk to the musculoskeletal system of a person (The University of Chicago Environmental Health Safety, 2016). According to Jacobson and Hensten (2016) ergonomic hazard in the workplace is any condition which has the potential to cause harm to a worker's musculoskeletal system. Nwachukwu (2014) affirmed that ergonomic hazards

may be referred to as ergonomic risk factors or biomechanical stressors. A lot of hairdressers take a wrong body position while working, some stand for long hours without taking breaks. They twist, stretch, scrub hair and so on which strains their muscles affecting their musculoskeletal systems. Hairdressers do a lot of lifting, bending, rolling and so on which puts them at risk for varicose veins and for injuries including sprains, pulled muscles, wrist, neck, shoulder and back injuries.

Psychosocial hazards: These are hazards that affect the mental well-being or mental health of the worker by overwhelming individual coping mechanisms and impacting the worker’s ability to work healthily and safely. These are aspects of work environment and the ways that work are organized that are associated with mental disorders or physical injury or illness (Opeyemi & Unadike, 2020). Achalu (2019) asserted that psychosocial hazards are psychological and social factors that affect health such as work organization and relationship at the work place, leadership styles, poor communication and workers participation, insecurity, work pressures, boredom, fatigue and mental illness. Psychosocial hazards in the hairdressing sector can be as a result of struggling to meet up with customers’ demand, trying to cope with the many jobs signed up for, trying to meet companies target and in the process these hairdressers are harassed, bullied, scolded, fatigued or stressed by the work demand from employer or clients.

METHODOLOGY

This study was a descriptive correlational research. The population for the study consisted of all the hairdressers in Rivers East senatorial district, Rivers State which was estimated to be 12,224. Sample size used for the study was 1200. The multi-stage sampling procedure was used for this study to select the respondents. The instrument for data collection was a questionnaire titled ‘Socio-demographic Determinants of Knowledge of Occupational Hazards among Hairdressers in Rivers East Senatorial District, Rivers State’. The questionnaire contained the following subtitles; Socio-demographic data such as age and years of work experience; knowledge of occupational hazards which was subdivided into physical, chemical, biological, mechanical, ergonomic and psychosocial hazards. Information was derived from 1200 hairdressers drawn from the eight Local Government Areas in Rivers East Senatorial District, Rivers State. To ensure validity of the instrument, the face and content validity of the instrument was established by showing the questionnaire to experts in the Department of Human Kinetics, Health and Safety Studies, Ignatius Ajuru University of Education, Port Harcourt whose inputs and corrections gave rise to the final draft of the instrument. The reliability of the instrument was determined through a test–retest method using Kuder-Richardson 21. The reliability co-efficient of the instrument was calculated to be 0.81. The descriptive statistics of frequency was used to answer the research questions while regression used to test the hypothesis at 0.05 alpha level.

RESULTS

Research Question 1: *What is the knowledge of occupational hazards among hairdressers in Rivers East Senatorial District, Rivers State based on age?*

Table 1: knowledge of occupational hazards based on age

Socio-demographic characteristics	Knowledge		Total
	Good F(%)	Poor F(%)	
Age			
<20 years	90(87.4)	13(12.6)	103(100)
20-29 years	520(87.1)	77(12.9)	597(100)
30-39 years	293(93.0)	22(7.0)	315(100)
40-49 years	40(85.1)	7(14.9)	47(100)
Total	943(88.8)	119(11.2)	1062(100)

Table 1 showed the knowledge of occupational hazards among hair dressers in Rivers East Senatorial District, Rivers State based on age. The result showed that good knowledge of occupational hazards was

found more among those aged 30-39 years (93.0%), followed by age group <20years (87.4%), followed by age group 20-29 years (87.1%) and age group 40 -49 years (85.1%). Thus, good knowledge of occupational hazards was found more among the older hairdressers.

Table 2: Knowledge of occupational hazards based on years of work experience

Socio-demographic characteristics Years of work Experience	Knowledge		Total
	Good F(%)	Poor F(%)	
1-2 years	239(86.9)	37(13.4)	276(100)
3-5 years	476(88.6)	61(11.4)	537(100)
≥ 6year above	228(91.9)	21(8.1)	248(100)
Total	943(88.8)	119(11.2)	1062(100)

Table 2 showed the knowledge of occupational hazards among hair dressers in Rivers East Senatorial District, Rivers State based on years of work experience. The result showed that good knowledge of occupational hazards was found more among those who had 6 or more years of work experience. (91.9%), followed by those who had worked for 3-5 years (88.6%), followed by those who had worked 1-2years (86.9%). Thus good knowledge of occupational hazards was found more among those with longer years of work experience

Test of hypothesis

Hypothesis 1: There is no significant relationship between age and knowledge of occupational hazards among hairdressers in Rivers East Senatorial District, Rivers State.

Table 3: Binary Logistic Regression analysis showing relationship between age and knowledge of occupational hazards among hairdressers in Rivers East Senatorial District

Age	Knowledge		Total	Df	χ^2	p-value	Odds Ratio (OR)	95%CI	
	HE F(%)	LE F(%)						Lower	Upper
<20yrs	90(87.4)	13(12.6)	103(100)	3	671.3	0.00*	Ref		
20-29yrs	520(87.1)	77(12.9)	597(100)				1.14	0.11 - 1.18	
30-39yrs	293(93.0)	22(7.0)	315(100)				1.07	0.04 – 1.11	
40-49yrs	40(85.1)	7(14.9)	47(100)				1.17	0.07 – 1.39	

***Significant. p<0.05**

Table 3 showed the binary logistic regression of relationship between age and knowledge of occupational hazards among hairdressers. On bivariate analysis, the findings of the study showed a significant relationship between age and knowledge of occupational hazards (p<0.05).The result showed that best knowledge was found among those aged 30-39years (93.0%). The result also showed that those who were aged 20-29 years were 1.14times more likely to have good knowledge of occupational hazards(OR = 1.14, 95%CI: 0.11-1.18) compared to those aged <20 years. Those who were aged 40-49 years were 1.17 times more likely to have good knowledge of occupational hazards(OR= 1.17, 95%CI: 0.07 – 1.39) compared to those aged <20 years. Thus, the null hypothesis which stated that there is no significant relationship between age and knowledge of occupational hazards among hairdressers in Rivers East Senatorial District was rejected.

Hypothesis 2: There is no significant relationship between years of work experience and knowledge of occupational hazards among hairdressers in Rivers East Senatorial District, Rivers State.

Table 4: Binary Logistic Regression showing relationship between years of work experience and knowledge of occupational hazards among hairdressers

Years of work experience	Knowledge		Total	df	χ^2	p-value	Odds Ratio (OR)	95%CI	
	Good F(%)	Poor F(%)						Lower	Upper
1-2 years	239(86.9)	37(13.4)	276(100)	2	8.358	0.03*	Ref		
3-5 years	476(88.6)	61(11.4)	537(100)				1.12	0.09 - 1.17	
≥6yrs	228(91.9)	21(8.1)	248(100)				1.08	0.06 – 1.14	

***Significant. p<0.05**

Table 4 showed the binary logistic regression of relationship between years of work experience and knowledge of occupational hazards among hairdressers. On bivariate analysis, the findings of the study showed a significant relationship between years of work experience and knowledge of occupational hazards ($p < 0.05$). The result showed that those who had worked for >6years had best knowledge of occupational hazards. More so, those who were 3-5 years were 1.12 times more likely to have good knowledge (OR = 1.12, 95%CI: 0.09 – 1.17) compared to those who worked for 1-2 years. Those who had worked for 6 or more years were 1.08 times more likely to have good knowledge of occupational hazards (OR= 1.08, 95%CI: 0.06 – 1.14) compared to those who had 1-2 years of experience. Thus, the null hypothesis which stated that there is no significant relationship between years of work experience and knowledge of occupational hazards among hairdressers in Rivers East Senatorial District was rejected.

DISCUSSION OF FINDINGS

The findings of this study in table 1 showed a significant relationship between age and knowledge of occupational hazards ($P < 0.05$). The results showed that good knowledge of occupational hazards was found more among those aged 30 – 39 years (93.0%). This present study is similar to the study conducted by Omokhodion et al (2009) in Nigeria which revealed that those who participated in the study were ages 15 – 49 years. Those with mean 29 + 6.9 had good knowledge of occupational hazards. The study findings also supports that of Tsegay et al (2021) in Northern Ethiopia which revealed that hairdressers had mean age of 25.3 + 4.1 years and had prevalence of low back pain of 47% with 95% CI(41.8-53.1). This showed that hairdressers were knowledgeable of occupational hazards hence the low prevalence. In contrast with the present study findings is that of Archibong et al. (2018) in Nigeria which revealed that the highest frequency was among persons aged 30-39 years with means age of 36.10 + 8.24 and 68.13% accounted for having occupational skin disorders. The present study findings is also at variance with the study findings of Bigambo (2017) in Kinondoni, Tanzania which reported that majority of hairdressers were age group 19 – 24 years (36.36%) and also had musculoskeletal disorders (88.64%).

The study findings in table 2 showed a significant relationship between years of work experience and knowledge of occupational hazards ($P < 0.05$). Those who had 6 or more years of work experience (91.9%) were more knowledgeable of occupational hazards. The present study findings is in line with the study findings of Tsegay et al (2021) in Northern Ethiopia whose findings revealed that hairdressers had served less than 5 years with a median of 3 years minimum and maximum of 1 and 16 years and recorded 47.5% of hairdressers with low back pain showing that hairdressers with years of work knew the occupational hazards in their work environment. The present study findings is in line with that of Deschamps et al (2014) in France which revealed that the number of working years hair dressers had was over 20 years and reported low occupational hazards. At variance with the present study findings is that of Bradshaw et al (2011) in Buxton, UK, which revealed that hairdressers had < 10 years of experience did not result in awareness of potential workplace health risks. The present study findings is also in contrast with that of Bigambo (2017) in Tanzania which reported that almost all the hairdressers had worked for 3-

5 years (45.54%) others worked for 1-2 years, 20.45% had worked for more than 5 years and 4.55% had worked for less than one year and 88.64% (n=234) affected by musculoskeletal disorders, 82.58% (n = 218) physical injuries, dermatitis 73.86% (n = 195), fungal infection 61.36% and so on. Hairdressers had poor knowledge of hazards despite the years of work experience gained.

CONCLUSION

Based on the findings of this study, it was concluded that the knowledge of occupational hazards among hairdressers in Rivers East Senatorial District were age and years of work experience. Good knowledge of occupational hazards based on socio-demographic characteristics was found more among age group 30-39 and those with 6 or more years of work experience were more knowledgeable. Holistically good knowledge was found among hairdressers.

RECOMMENDATIONS

Based on the findings of the study, the following recommendations were made:

1. The government through its health agencies and information agencies like the Ministry of health and National Orientation Agency, should partner with owners of hairdressing salons to consistently organize training, enlightenment programs for hairdressers on hazards associated with the hairdressing.
2. Hairdressers should maximize the use of mass media to keep updating and upgrading their knowledge concerning their job.
3. Owners/management of hairdressing salons should paste charts, pictures and posters displaying information on health and safety on the walls of their salons to health educate/ inform both hairdressers and customers so as to minimize hazards within the work environment.

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