



SOCIO-DEMOGRAPHIC INFLUENCE OF SAFETY PRACTICES AMONG HEALTHCARE WORKERS IN PORT HARCOURT METROPOLIS, RIVERS STATE

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Abstract

This study examined the socio-demographic influence of safety practices among healthcare workers in the Port Harcourt metropolis, Rivers State. To achieve this study, four objectives and three hypotheses were formulated to guide the study. A descriptive cross-sectional design was adopted for the study with a population of 629 in the Port Harcourt metropolis. The sample size of 245 was drawn from the entire population using the Taro Yamane formula. The instrument for this study was a structured questionnaire titled: Health Workers Occupational Hazards and Safety Practices Questionnaire (HWOHSPQ). The instrument for the study was validated for content and face validity by experts in Public Health, Health Education and Statistics. The validated instrument had a reliability coefficient of 0.87 indicating that the instrument was reliable for the study. The questionnaire was administered to the health workers by the researcher and three research assistants. The data collected from this study were collated and analyzed using Statistical Product and Service Solutions (SPSS). The result of the study that there was no significant difference in the safety practices among healthcare workers in primary healthcare facilities based on gender was rejected ($p = 0.00$). The result showed that there was no significant difference ($p = 0.330$). Also, the result of the findings depicted that there was no significant difference in the safety practices among healthcare workers in primary healthcare facilities in Port Harcourt Metropolis based on years of work experience was not rejected ($p = 0.970$). The result of the study stated that there was no significant difference in the safety practices among healthcare workers in primary healthcare facilities in Port Harcourt Metropolis based on age was not rejected. The study concluded that safety practices were good and differed in socio-demographic factors such as age, gender, and work experience. It was recommended that the government through the ministry of health should ensure that safety devices and wear are supplied to the primary healthcare facilities so that healthcare workers will be able to have access to and utilize it to reduce exposure to hazards.

Keywords: Facility, Health Care Workers, Protective Equipment, Safety, Practices, Socio-Demographic Factors,

Introduction

Safety practices are the global means of preventing injury in the workplace. Healthcare workers are workers or personnel in health facilities whose intent is to save human life. They also have the potential for exposure to patients and/or infective materials, body substances, contaminated equipment, supplies, and environmental surfaces. The use of Personal Protective Equipment (PPE) by healthcare professionals should not be disregarded as a safety precaution, particularly when fluids and chemicals are present. Occupational-related risks don't seem to be well reported because of insufficient research. Due to a lack of resources to handle them, sub-Saharan Africa and Asia suffer from a large number of occupational ailments and injuries. Health care in underdeveloped nations is at very high risk due to the management of medical waste (Nimbalkar, 2018). These include poor handling, collection, sorting, segregation, and disposal of medical devices, blood, and body tissues. Compared to their counterparts in affluent nations, healthcare workers in developing nations face increased occupational dangers. Studies by Dabholkar et al. (2020), on healthcare professionals (HCPs) infected with COVID-19 in a variety of settings in a tertiary care hospital, showed that 57.5% reported favourable results for many psychological characteristics, including anxiety, fear, anger, irritability, and insomnia. 42.5% of those who tested positive for psychological counselling did not receive it. These incidents bring to light the challenges faced in terms of the

risks of transmission to patients and colleagues, the isolation of connections in departments leading to an almost total breakdown of services, and the psychological stress experienced by healthcare professionals. They also highlight the dangers of COVID-19 exposure at work for healthcare professionals. Similarly, studies by Similarly, studies of Denford et al. (2021) on occupational safety and health status of medical laboratory scientists revealed that safety practices were poor among health care workers. Additionally, Nwankwo et al. (2017) assessed compliance with occupational health and safety measures among health workers. The result of this study on adherence to safety rules revealed that 219 (88%) adhere to careful handling and disposal of sharp objects during and after procedures had shown was 219 (88%, 95% C.I=83.25-91.72), and 211 (84.7%, 95% C.I=79.66-88.97) practice immediate hand washing and other skin surface washing after contact with blood. A total of 117 (47%, 95% C.I=40.66-53.39) replies showed that exposed healthcare workers were not reevaluated within 72 hours. A high level of hazard prevention techniques and occupational health and safety knowledge was present in 48.5% of the participants. Akagbo et al. (2017) carried out a study on safe injection practices among healthcare professionals in a tertiary care hospital in Delhi reported that unsafe practices were observed.

The situation is not unique to Nigeria, according to Oluwagbemi (2011), who stated that the country's health facilities have grown in number over the past thirty years despite challenges in maintaining the best safety protocols and providing medical staff with the right equipment to carry out high-risk clinical procedures. The apparent inadequacy of protective gear, facilities, and a lack of health professionals that may improve best practices in Rivers State increases the exposure of healthcare professionals to workplace dangers. Consequently, the study examined the safety practices and socio-demographic factors affecting healthcare professionals

Aim and objectives of the study

This study aimed to investigate the safety practices and socio-demographic influences among healthcare workers in the Port Harcourt metropolis, Rivers State. Precisely, this study sought to;

1. identify safety practices that can be utilized to prevent occupational hazards among health care workers in primary health care facilities in Port Harcourt Metropolis;
2. determine the extent to which the age of health workers influences their safety practices in primary health care facilities in Port Harcourt Metropolis;
3. ascertain the extent to which the gender of health workers influences their safety practices in primary health care facilities in Port Harcourt Metropolis;
4. assess the extent to which the work experience of health care workers influences their safety practices in primary health care facilities in Port Harcourt Metropolis;

Hypotheses

The following null hypotheses were formulated and tested at 0.05 significance level.

1. There is no significant relationship between the age of health care workers and their occupational safety practices in primary health care facilities in Port Harcourt Metropolis;
2. There is no significant relationship between the gender of health care workers and their occupational safety practices in primary health care facilities in Port Harcourt Metropolis;
3. There is no significant relationship between the working experience of health workers and their occupational safety practices in primary health care facilities in Port Harcourt Metropolis;

Materials and Methods

The study adopted the descriptive cross-sectional survey research design. The population of healthcare workers was 629 in the Port Harcourt metropolis. The sample size of 245 was drawn from their entire population using the Taro Yamane method. The instrument for this study was a structured questionnaire titled, Health Workers Occupational Hazards and Safety Practices Questionnaire (HWOHSPQ). The instrument for the study was validated for content and face validity by experts in Public Health, Health Education and Statistics. The validated instrument had a reliability coefficient of 0.87 using the test-retest and Pearson Product Moment Correlation Coefficient indicating that the instrument was reliable for the study. The questionnaire was administered to the health workers by the researcher and three research assistants. Completed copies of the questionnaire were retrieved for analysis. The data collected from this study were collated and analyzed using the Statistical Product and Service Solutions (SPSS) version 23.

Results

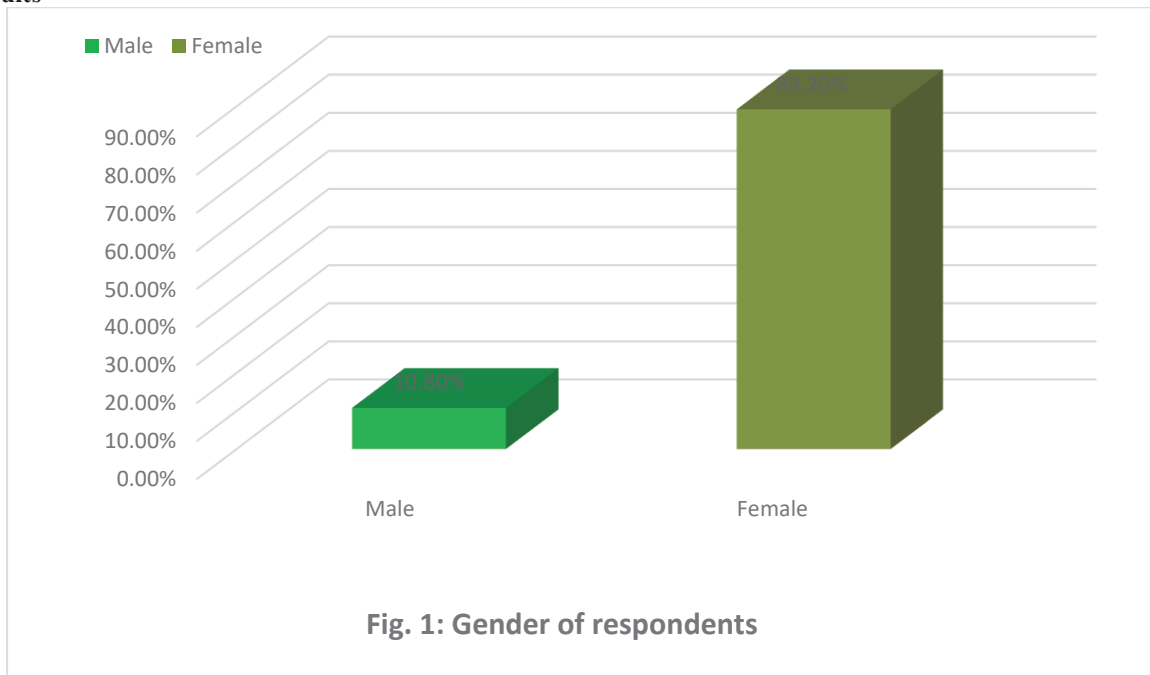


Fig 1 showed the percentage distribution of the gender of the respondents. The result showed that the majority, 240 (89.2%) of the respondents were females while 29(10.8%) were males.

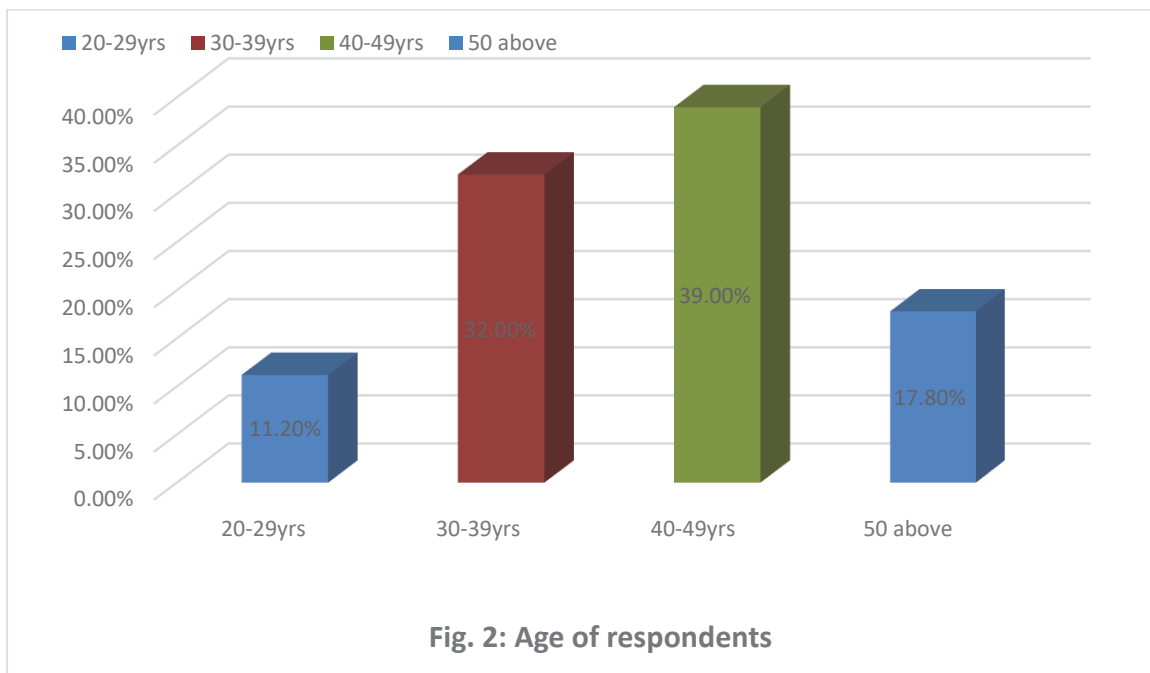


Fig 2 showed the percentage distribution of the age of the respondents. The result showed that, more of the respondents 105(39.0%) were within the age range of 40-49 years, 86(32.0%) were aged 30-39 years, 48(17.8%)

were aged 50 years and above while the fewest 30(11.2%) were aged 20-29 years with a mean of 40.80±8.56 years.

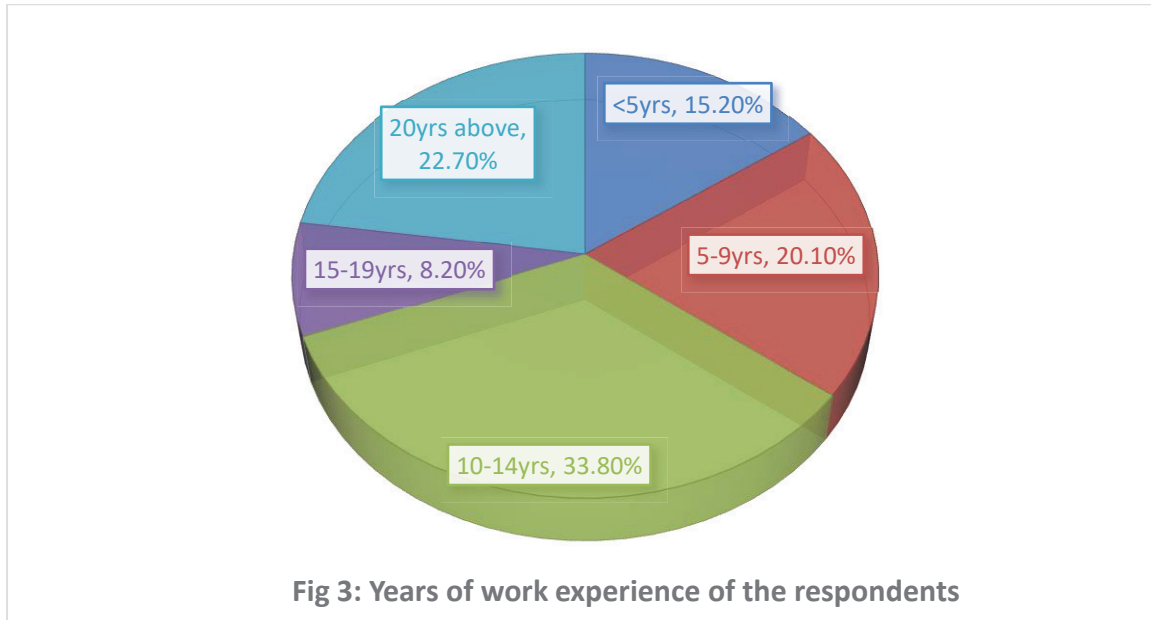


Fig 3 showed the years of work experience of the respondents. The result showed that more than 91(33.8%) had 10-14 years of work experience, 61(22.7%) had 20 years above, 54(20.1%) had 5-9 years, 41(15.2%) had <5 years while 22(8.2%) had 15-19 years

H₀:There is no significant difference in the safety practices of the healthcare workers in primary healthcare facilities in Port Harcourt Metropolis based on age.

Table 1: Analysis of Variance (ANOVA) showing significant differences in occupational hazards exposure among healthcare workers based on age

Sources of variance	Sum of squares	df	Mean sum of squares	F-value	p-value	Decision
Between group	.089	3	.030	.970	.407	H ₀ Not Rejected
Within group	8.129	265	.031			
Total	8.218	268				

*Not Significant, p>0.05

Table 1 showed the Analysis of the Variance of significant differences in safety practices among healthcare workers based on age. There was no discernible change, according to the findings [F(3,265) = 0.407; p = 0.970]. Therefore, the null hypothesis, which claimed that there is no discernible age difference in the safety practices of healthcare workers at basic healthcare institutions in Port Harcourt Metropolis, was not rejected.

H₀₂ There is no significant difference in the safety practices of the healthcare workers in primary healthcare facilities in Port Harcourt Metropolis based on gender.

Table 2: Summary of the z-test result showing the significant difference in the safety practices of the healthcare workers in primary healthcare facilities in Port Harcourt Metropolis based on gender

Group	N	Mean	SD	df	z-cal	p-value	Decision
Male	29	2.97	.12	267	137.94	0.00	H ₀ Rejected
Female	240	3.08	.17				

Significant, P<0.05

Table 2 showed the z-test result of significant differences in safety practices among healthcare workers in primary healthcare facilities based on gender. The outcome indicated a significant difference because the p-value was less than 0.05 (z-cal = 137.94, df = 267, p = 0.00). Thus, the null hypothesis that there were no gender-based differences in primary healthcare institutions' healthcare employees' safety procedures was rejected.

H₀₃:There is no significant difference in the safety practices of the healthcare workers in primary healthcare facilities in Port Harcourt Metropolis based on years of work experience

Table 3: Analysis of Variance (ANOVA) showing significant differences in occupational hazards exposure among healthcare workers based on years of work experience

Sources of variance	Sum of squares	df	Mean sum of squares	F-value	p-value	Decision
Between group	.142	4	.035	1.157	.330	H ₀ Not rejected
Within group	8.076	264	.031			
Total	8.218	268				

*Not Significant, p>0.05

Table 4 showed the Analysis of the Variance of significant differences in safety practices among healthcare workers based on years of work experience. The outcome indicated that there was no difference that was statistically significant [F(4,264) = 0.1.157; p = 0.330]. As a result, the null hypothesis, which claimed that based on years of work experience, there are no significant differences in safety procedures among healthcare professionals at primary healthcare institutions in Port Harcourt Metropolis, was not rejected.

Discussion

Safety practice and age of health care workers

The result of this study showed that there was no significant difference in safety practices among healthcare workers in primary healthcare facilities in Port Harcourt Metropolis based on age (p=0.970). This indicates that healthcare employees' safety practices are consistent regardless of their age group. Age does not affect how safety procedures are used by healthcare professionals. The findings of this study are consistent with those of Adegoke et al. (2008), who reported that practitioners over the age of 45 were at an increased risk for musculoskeletal disorders. More than 40 patients were seen by healthcare professionals each day, and many reported experiencing musculoskeletal complaints (Owie & Apanga, 2016). Age is a factor in these ailments that were linked to extended standing positions, constant activity, and the usage of technologies provided at work. The result of this study is in agreement with studies of Dathini et al. (2014), which showed that 80 (46.0%) were within the age range of 20-29, 64 (36.8%) were exposed to safety practices at the health care setting. Workers may be very enthusiastic to carry out safety practices even during pandemic events. Mbaisi et al. (2013) buttressed that safety parameters were found to be significantly associated with percutaneous injuries including having received training and age below 40 years. Safety practices among healthcare workers are essential for effective medical proceedings which all workers irrespective of age are fully expected to adapt. As of the time of the study, there was no difference between the previous study and the outcome of the current study but the variation was due to the population of the study, location, sample size, and duration of the study.

Safety practices and gender of health care workers

The result of this study indicated that safety practices among healthcare workers in primary healthcare facilities were significant with gender. The result showed that there was a significant difference in the safety practices

among healthcare workers in primary healthcare facilities based on gender with a p-value lesser than 0.05. The utilization of safety measures showed a variation among male and female healthcare workers because of their level of external and internal reactions towards occupational hazards in the workplace. That is, female healthcare workers showed more concern about safety and are likely to comply with safety practices as compared with their male counterparts. The result of this study is in line with studies of Aluko et al. (2016), who reported that (93.8%) of respondents practice safe disposal of injection needles and sharps of which 55.5 % were females and 52.1% of respondents reported to always complying with standard occupational safety precautions. The result of this study is in credence with studies of Douglas and Peterside (2016), that about 94% of workers engaged in safety practices such as the use of personal protective equipment. Nwankwo et al. (2017), affirmed that hazard knowledge was not significantly related to compliance with safety regulations ($p=0.426$) regarding the gender of workers especially those who work in healthcare facilities. Recently, studies by Al-Hanawi et al. (2020) revealed that men have less knowledge, less optimistic attitudes, and less good practice toward COVID-19 than women. Most healthcare workers react positively to safety practices depending on the understanding and awareness acquired during the service. The response to safety measures could not be the same among male and female healthcare workers which might create chances of being free from danger or risk at work.

Safety Practices and Work experience of Healthcare workers

The result of this showed that there was no significant difference in the safety practices among healthcare workers in primary healthcare facilities in Port Harcourt Metropolis based on work experience ($p=0.330$). This means that adherence to safety practices among healthcare workers does not depend on their work experience. Irrespective of their level of work experience healthcare workers are likely to observe safety practices. Workers who have over 10 years of work experience are aware of safety and are more likely to adopt safety measures in line with the principles of the job because they are familiar with safety devices. The findings of this study are consistent with those of Al-Hanawi et al. (2020), studies which found that younger, less experienced nurses reported higher levels of stress compared to older, senior-level nurses. They also suggested that many nurses may not view protective measures as useful coping mechanisms. This is possible because most people who are older learnt from experience and are mature in taking positive decisions concerning safety practices or compliance. Dabholkar et al. (2020), buttressed that health workers with less experience or newly employed do not see the need for not compromise safety at the workplace as compared with the older staff. Olum et al. (2020), added that experienced healthcare workers are more likely to comply with safety measures even during a disease pandemic like COVID-19. It is plausible that most healthcare workers that utilized safety apparatus have experience in their job especially when it has to do with healthcare services. To this extent, the use of safety measures or compliance with safety parameters shows no variation with the year of experience. The use of safety measures to combat occupational hazards could be accompanied by the level of experience or year in service. There were no previous studies that posed a contrary opinion against these current findings.

Conclusion

The study concluded that healthcare workers' safety practices were good at the facilities and safety practices should be seen as the priority to promote and maintain quality healthcare delivery. This study added that safety apparatus should be made available and accessible to health workers, especially during the onset of a pandemic disease.

Recommendations

Regarding the result of the study, the following recommendations were made;

1. The government through the ministry of health should ensure that safety devices and wear are supplied to the primary healthcare facility so that health workers will be able to have access to and utilize it to reduce exposure to hazards.
2. The primary health care management board should form a hazard assessment, health supervision and monitoring team to checkmate the level of adherence to safety measures among health workers and make records for plans.
3. Primary health care workers should prioritize the use of safety devices as a day-to-day practice to enable them to get fit with utilization.

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