International Journal of Innovative Healthcare Research 13(1):86-95, Jan.-Mar., 2025

© SEAHI PUBLICATIONS, 2025 www.seahipublications.org **ISSN: 2354-2950**

doi:10.5281/zenodo.14980788

Knowledge of Occupational Hazards and Safety Practices among Painters in Obio/Akpor Local Government Area, Rivers State

Dr. Precious Friday AMADI[1*] & Hope-Benjamin Chinatu OKEMINI[2]

[1,2]Department of Human Kinetics, Health and Safety Practices
Ignatius, Ajuru University of Education, Port Harcourt, Nigeria
TEL +2347063842842
***Corresponding author: Dr. Precious Friday. AMADI**

ABSTRACT

This study aimed to investigate the knowledge of occupational hazards and safety practices among painters in Obio/Akpor Local government Area, Rivers State. A descriptive cross sectional survey design was adopted for the study with the population of painters in Obio/Akpor Local Government Area was estimated to be 5231. The sample size of this study 366 which was determine using Cochran formula with a two stage sampling techniques to select the sample. The instrument for eliciting information for this study was self-administered questionnaire titled Questionnaire on Knowledge of Occupational Hazards and Safety Practices among Painters (QKOHSPP). The Reliability coefficient value of 0.86 using Pearson Product Moment Correlation Coefficient. Collected data were coded and analyzed using Statistical Package for Service Solution (SPSS) version 25.0). The result of this study showed that the grand mean (3.45) is greater than the critical mean (2.5) which indicated that painters adopt safety practices among them. The result of this study showed the relationship is r= 0.166 which is low and positive. The coefficient of determination, r^2=0.028 which indicates that safety practices are 2.8 times more likely to prevent physical hazards. The result of this study showed that the relationship is r= 0.557 which is moderate and positive depicting that the coefficient of determination, r^2=0. 310 indicated that safety practice are 31times more likely to prevent chemical hazards. The result of this study revealed that the relationship is r= 0. .385 which was moderate and positive depicting that the coefficient of determination, r^2=0. 148 which indicates that safety practices are14.8 times more likely to prevent biological hazards among painters. The result depicted the relationship is r= 0.179 which was low and positive depicting that the coefficient of determination, r^2=0.032 which indicates that 3.2% of ergonomic hazards prevented by safety practices. The table revealed that the relationship is r= 0. 124 which was low and positive. The coefficient of determination, r^2=0.015 which indicates that 1.5 times of psychosocial hazards prevented by safety practices. The result illustrated that the relationship is r= 0.625a which is adequate and positive depicting that the coefficient of determination, r^2=0. 391 which indicates that 39.1times availability of protective devices to predict safety practices among painters. It was concluded that painters had good knowledge of occupational hazards and positive safety practices. Based on the findings of the study, recommendations were made, ministry of work and housing should organize training and workshop for painters and other artisans on innovative safety strategies to improve and promote of workers.

Keywords: safety practices, painters,

INTRODUCTION

Safety compliance is mostly organizational and non-organizational standards of hazards prevention. So many occupations today usually operated privately or individually than in organized setting which determine the extent of hazards exposure and use of safety devices. Occupational hazards associated with painting can vary depending on the type of painting (industrial, residential, artistic, etc.) and the materials being used. Achalu, (2022) defined hazards as anything, condition, situation, or behaviour that has the tendency to cause accidents and injury to workers in an occupation. Orisa-Ubi (2022) asserted that accidents exposure and injury are due to availability of hazards in the workplace which trigger occupational risks. It is pertinent to note that painters are exposed to different forms of occupational hazards such as physical, chemical, biological, ergonomic, psychosocial and mechanical hazards. Ashuro et al. (2021) reported that the prevalence of occupational hazards among painters was 55.9% and regional prevalence pooled 43.3% for slip and falls from height among painters.

Physical hazards refer to those objects, devices, conditions among others that has the tendency to cause accident and injury to painters in painting industry. Inhaling paint fumes can lead to respiratory irritation, dizziness, nausea, and headaches. Prolonged exposure may cause more severe health issues. Using spray paints without proper respiratory protection can lead to lung irritation and respiratory problems due to fine particulates in the air (National Institute for Occupational Safety and Health – NIOSH, 2021). Knowledge indicated the extent of familiarity and understanding of conditions, ideas and things due to prior experience which may directly or indirectly influence health and safety status. Painters are likely to be exposed to poor conditions such as harsh weather, injury from scraping devices which may lead to injury and damage. Kassy et al. (2021) revealed that good number of roadside painters (59.8%) and painters in organized (73.4%) sectors had poor knowledge of hazards of lead exposure. Study of Ojo et al. (2020) illustrated that good proportion of painters had good knowledge of hazards linked to their job and adhere to the safety measures. Additionally, Awodele et al. (2014) reported that good proportion of painters (75%) are aware of hazards associated with painting work and tends to comply with safety measures to reduce occupational risks.

Chemical hazards are one of the potential hazards that painters are highly exposed to. It is plausible that painters are likely to suffer for health threat due to higher extent of exposure to chemicals such as organic solvents, mixing solution that is hazardous to health of painters. Many paints contain solvents that can release volatile organic compounds (VOCs) into the air. Prolonged exposure to VOCs can lead to respiratory irritation and even long-term health effects which required the knowledge and compliance with safety practices for the purpose of prevention. However, painters who are not aware of hazards associated with painting activities. Akinyemi et al. (2019) indicated that good proportion of painters handling organic solvent had level of knowledge of chemical hazard was observed among 65% of the respondents. Amfo-Out et al. (2016) reported that chemical dangers such as asbestos and fumes are dangerous to the health status of painters. Awodele et al. (2014) Common factors affecting the use of PPE among furniture makers were lack of felt need, awareness and discomfort. None of the workshops inspected met the specifications stipulated for spray painting (Akinyemi et al., 2019). Prolonged contact with paints, especially those containing irritants or allergens, can cause skin irritation, dermatitis, and allergic reactions. Recently, Ojo et al. (2020) affirmed that painters who used PPE adequately are less likely to encountered skin diseases, dermatoses, excessive tear production, recurrent cough, among and prevalence of dry skin diseases and respiratory symptoms was high among painter without the use of safety protective device. Alao et al. (2020) revealed that fewer number of workers (25.7%) knew what PPE meant while 56% indicated that they had an understanding of protective devices. Some paints contain heavy metals like cadmium or chromium, which can pose health risks if inhaled or absorbed through the skin. Lead exposure can cause developmental and neurological issues, especially in children (Occupational Safety and Health Administration – OSHA, 2021).

Ergonomic hazards have been traceable to poor positioning, repetitive and awkward movement, prolong bending and standing, falls among others. Occupational Safety and Health Administration – OSHA, (2021) asserted that painters may engage in repetitive tasks like standing, scraping, or brush strokes,

which can lead to musculoskeletal disorders over time. Painters who are not aware of safety practices are more likely to develop ergonomic health problems such as musculoskeletal problems like pains at extremities. Kuffour (2020) reported that substantial amount of back discomfort was experienced by 96.4% of workers were the upper limbs (46%), followed by the waist and back (57%); 71.4% of workers were not using any work-related PPE. Akinyemi et al. (2019) reported that good proportion of painters develop and suffered for different musculoskeletal disorders such as back ache, wrist pains, muscular pains and contraction. Kassy, et al, (2021) added that prolong bending and twisting of extremities result into musculoskeletal pains. Kumar et al. (2013) indicated that good proportion of respondents (86%) who are aware of potential hazards are less likely to develop musculoskeletal disorders. Thangaraj and Shireen (2017) added that musculoskeletal diseases were the most common kind of injury experienced by painters (62%).

Psychosocial hazards such as work-related stress, workload, work ambiguity, poor communication among others may expose painters to accidents and injury. Lead-based paints, still present in older buildings, pose a significant risk if not handled properly. Lead exposure can cause developmental and neurological issues, especially in children. Biological hazards are obviously associated with painting activities. Painters are exposed to waste materials that may contain pathogens which can constitute occupational diseases. Mechanical hazards are likely to be associated with painting due to non-compliance with safety measures. Many paints are flammable, and improper storage, handling, or disposal can result in fire or explosion hazards (Occupational Safety and Health Administration – OSHA, 2021).

Exposure to occupational hazards were due to lack of knowledge and failure to comply with safety protective devices. Non-compliance with safety practice exposes painters to different forms of hazards traceable to lack of understanding and awareness of safety devices. It is pertinent to note that death of painter, fractures, impairments and deformity were reported due to falls from height, poor and non-use of scaffolds, ladder and awkward positioning among others as a result of non-familiarity with safety measures. The exposure to occupational hazards are traceable to poor knowledge of hazards and poor safety practices. Nothing has been done to improve the health and safety status of painters and workers in unorganized setting which calls for this study. To this extent, there is no safety standard and regulations developed to control the activities of workers in unorganized setting like painters. It is against this backdrop that this study examines the knowledge of occupational hazards and safety practices among painters in Obio/Akpor Local government Area, Rivers State.

Aim of the Study

The aim of this study was to investigate the knowledge of occupational hazards and safety practices among painters in Obio/Akpor Local government Area, Rivers State.

Hypotheses

In regards to this study, the following hypotheses were postulated and tested at 0.5 level of significance.

1. There is no significant relationship between physical hazards and safety practices among painters in Obio/Akpor Local government Area, Rivers State.
2. There is no significant relationship between chemical hazards and safety practices among painters in Obio/Akpor Local government Area, Rivers State.
3. There is no significant relationship between biological hazards and safety practices among painters in Obio/Akpor Local government Area, Rivers State.
4. There is no significant relationship between ergonomic hazards and safety practices among painters in Obio/Akpor Local government Area, Rivers State.
5. There is no significant relationship between psychosocial hazards and safety practices among painters in Obio/Akpor Local government Area, Rivers State.
6. There is no significant relationship between availability of protective device and safety practices among painters in Obio/Akpor Local government Area, Rivers State.

RESEARCH METHODS

Research Design: A descriptive cross sectional survey design was adopted for the study.

Population of the Study: The population of the study comprised of all painters in Obio/Akpor Local Government Area, Rivers State.

Sample and Sampling Techniques

The sample size of this study 366 which was determine using Cochran formula. This is because there was specific population of painters that can required for this study.

Formula

$n=p(1-p)z^2/e^2$

n= sample size

p=the proportion of the population which is the statistical power (0.20)

e= acceptable sampling error (e=0.05)

z= value at reliability level based on the differences in prevalent rate from prior study of Akinyemi et al. (2019) of knowledge of chemical hazard was 54% or significance 95% for 1.96 at 0.05 level of significance (1.96-54) Z=52.04.

A multi-stage sampling procedure was adopted for the study which was presented in three stages in order to select the sample for the study.

Stage one: Simple random sampling technique was used to select painters in Obio/Akpor Local Government Area by balloting without replacement.

Stage two: purpose sampling technique was adopted selected painters at different location. Painting is an unorganized occupation, hence, painters were randomly selected and met at their point of duty.

Instrument for Data Collection: The instrument for eliciting information for this study was self-administered questionnaire titled Questionnaire on Knowledge of Occupational Hazards and Safety Practices among Painters (QKOHSPP). It has two sections A and B. While in section A revealed the information on the knowledge of occupational hazards with the response item of Yes and No; section B illustrated the safety practices with the response options such as Always, Sometimes, Rarely, and Never respectively.

Reliability of the Instrument

A test retest method was employed to determine the reliability coefficient of the instrument. 30 copies of the instrument were administered to painters in Eleme Local Government Area of Rivers State and after two weeks the same copies were re-administered because of their homogenous characteristics. The Reliability coefficient value of 0.86 for knowledge of occupational hazards using Pearson Product Moment Correlation Coefficient. Hence the instrument was reliable and used for the study.

Method for Data Analysis: Collected data were coded and analyzed using Statistical Package for Service Solution (SPSS) version 25.0). The data analysis was based on 99% of the instrument were retrieved and returned on spot for sorting and data analysis.

Hypotheses

H_{01}: There is no significant relationship between physical hazards and safety practices among painters in Obio/Akpor Local Government Area, Rivers State.

Table 1: Summary of Regression Analysis on the relationship between physical hazards and safety practices among painters in Obio/Akpor Local Government Area, Rivers State

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.166[a]	.028	.025	.26195

a. Predictors: (Constant), safety practices

Regression

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.693	1	.693	10.105	.002[b]
	Residual	24.497	357	.069		
	Total	25.190	358			

a. Dependent Variable: physical

b. Predictors: (Constant), safety practices

The table 1 reveals that shows that the relationship is r= 0.166 which is low and positive. The coefficient of determination, r^2=0.028 which indicates that 2.8% of physical hazards predicted by safety practices. The result indicates that the physical hazards and safety practices among painters in Obio/Akpor Local Government Area, Rivers State are slightly related.

State.

H_{02}: There is no significant relationship between chemical hazards and safety practices among painters in Obio/Akpor Local Government Area, Rivers State.

Table 2: Summary of Regression Analysis on the relationship between chemical hazards and safety practices among painters in Obio/Akpor Local Government Area, Rivers State

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.557[a]	.310	.308	.55295

a. Predictors: (Constant), safety practices

Regression

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	49.108	1	49.108	160.615	.000[b]
	Residual	109.152	357	.306		
	Total	158.260	358			

a. Dependent Variable: chemical hazards

b. Predictors: (Constant), safety practices

Table 2 reveals that shows that the relationship is r= 0. 557a which is moderate and positive. The coefficient of determination, r^2=0. .310 which indicates that 31% of chemical hazards predicted by safety practices. The result indicates that the chemical hazards and safety practices among painters in Obio/Akpor Local Government Area, Rivers State are related.

H_{03}: There is no significant relationship between biological hazards and safety practices among painters in Obio/Akpor Local Government Area, Rivers State.

Table 3: Summary of Regression Analysis on the relationship between biological hazards and safety practices among painters in Obio/Akpor Local government Area, Rivers State

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.385[a]	.148	.145	.61461

a. Predictors: (Constant), safety practices

Regression

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	23.404	1	23.404	61.958	.000[b]
	Residual	134.856	357	.378		
	Total	158.260	358			

a. Dependent Variable: biological hazards

b. Predictors: (Constant), safety practices

Table 3 reveals that shows that the relationship is r= 0. .385 which is moderate and positive. The coefficient of determination, r^2=0. 148 which indicates that 14.8% of biological hazards prevented by safety practices. The result indicates that the biological hazards and safety practices among painters in Obio/Akpor Local Government Area, Rivers State are related.

H_{04}: There is no significant relationship between ergonomic hazards and safety practices among painters in Obio/Akpor Local Government Area, Rivers State.

Table 4: Summary of Regression Analysis on the relationship between ergonomic hazards and safety practices among painters in Obio/Akpor Local Government Area, Rivers State

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.179[a]	.032	.029	.65509

a. Predictors: (Constant), safety practices

Regression

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	5.058	1	5.058	11.785	.001[b]
	Residual	153.203	357	.429		
	Total	158.260	358			

a. Dependent Variable: ergonomic hazards

b. Predictors: (Constant), safety practices

Table 4 reveals that the relationship is r= 0.179 which is low and positive. The coefficient of determination, r^2=0.032 which indicates that 3.2% of ergonomic hazards prevented by safety practices. The result indicates that the ergonomic hazards and safety practices among painters in Obio/Akpor Local Government Area, Rivers State are related.

H_{05}: There is no significant relationship between psychosocial hazards and safety practices among painters in Obio/Akpor Local Government Area, Rivers State.

Table 5: Summary of Regression Analysis on the relationship between psychosocial hazards and safety practices among painters in Obio/Akpor Local Government Area, Rivers State

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.124[a]	.015	.013	.66071

a. Predictors: (Constant), safety practices

Regression

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2.416	1	2.416	5.534	.019[b]
	Residual	155.844	357	.437		
	Total	158.260	358			

a. Dependent Variable: psychosocial hazards

b. Predictors: (Constant), safety practices

Table 5 shows that the relationship is r= 0. 124 which is low and positive. The coefficient of determination, r^2=0.015 which indicates that 1.5% of psychosocial hazards prevented by safety practices.

The result indicates that the psychosocial hazards and safety practices among painters in Obio/Akpor Local Government Area, Rivers State are related.

H_{06}: There is no significant relationship between availability of protective devices and safety practices among painters in Obio/Akpor Local Government Area, Rivers State.

Table 6: Summary of Regression Analysis on the relationship between mechanical hazards and safety practices among painters in Obio/Akpor Local Government Area, Rivers State.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.625[a]	.391	.390	.51949

a. Predictors: (Constant), availability of protective devices

Regression

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	61.915	1	61.915	229.423	.000[b]
	Residual	96.345	357	.270		
	Total	158.260	358			

a. Dependent Variable: safety practices

b. Predictors: (Constant), availability of protective devices

Table 6 reveals that shows that the relationship is r= 0.625 which is adequate and positive. The coefficient of determination, r^2=0. 391which indicates that 39.1% of safety practices is predicted by availability of protective devices. The result indicates that the availability of protective devices and safety practices among painters in Obio/Akpor Local Government Area, Rivers State are related.

DISCUSSION OF FINDINGS

The result of this study showed the relationship is r= 0.166 which is low and positive. The coefficient of determination, r^2=0.028 which indicates that safety practices are 2.8times more likely to prevent physical hazards. The result indicates that the physical hazards and safety practices among painters in Obio/Akpor Local Government Area, Rivers State are slightly related. The result of this study is expected because painters are likely to be exposed to poor conditions such as harsh weather, injury from scraping devices which may lead to injury and damage of which safety practices reduces the extent of exposure. The result of this study is in credence with findings of Kassy et al. (2021) revealed that good number of roadside painters (59.8%) and painters in organized (73.4%) sectors had poor knowledge of hazards of lead exposure. Studies of Ojo et al. (2020) illustrated that good proportion of painters had good knowledge of hazards linked to their job and adhere to the safety measures. Awodele et al. (2014) affirmed that good proportion of painters (75%) are aware of hazards associated with painting work and tends to comply with safety measures to reduce occupational risks. It is pertinent to note painters in any organization are exposure to physical hazards and tends to have requisite knowledge and awareness of risk attached with their work. As at the time of this study, there was prior finding that contradict with the outcome of this study. Hence, painters had good knowledge of physical hazards which was determine by compliance with safety practices.

The outcome of this study showed that the relationship is r= 0. 557 which is moderate and positive. The coefficient of determination, r^2=0. .310 which indicated that safety practice are 31times more likely to prevent chemical hazards. The result indicates that the chemical hazards and safety practices among painters in Obio/Akpor Local Government Area, Rivers State are related. The result of this study is in consonance with findings of Kwon and Lee (2015) assessed the level of awareness of occupational

hazards and the use of personal protective equipment (PPE) among Korean painters. The findings showed that painters had a moderate level of knowledge about occupational hazards, with relatively low awareness of the long-term health effects associated with chemical exposure (Kwon & Lee (2015). The outcome of this study is in agreement with findings of Akinyemi et al. (2019) indicated that good proportion of painters handling organic solvent had level of knowledge of chemical hazard was observed among 65% of the respondents. Amfo-Out et al. (2016) chemical dangers such as asbestos and fumes are dangerous to the health status of painters. Awodele et al. (2014) Common factors affecting the use of PPE among furniture makers were lack of felt need, awareness and discomfort. None of the workshops inspected met the specifications stipulated for spray painting (Akinyemi et al. 2019). Prolonged contact with paints, especially those containing irritants or allergens, can cause skin irritation, dermatitis, and allergic reactions. Recently, Ojo et al. (2020) affirmed that painters who used PPE adequately are less likely to encountered skin diseases, dermatoses, excessive tear production, recurrent cough, among and prevalence of dry skin diseases and respiratory symptoms was high among painter without the use of safety protective device. Studies of Alao et al. (2020) which revealed that fewer number of workers (25.7%) knew what PPE meant while 56% indicated that they had an understanding of protective devices. Some paints contain heavy metals like cadmium or chromium, which can pose health risks if inhaled or absorbed through the skin.

The result of this study revealed that the relationship is r= 0. .385 which is moderate and positive. The coefficient of determination, r^2=0. 148 which indicates that safety practices are14.8 times more likely to prevent biological hazards among painters. The result indicates that the biological hazards and safety practices among painters in Obio/Akpor Local Government Area, Rivers State are related. The result of this study is in agreement with findings of Agnarsson, and Thorhallsson, (2013) which examine Icelandic house painters' understanding of occupational hazards and was significantly associated with knowledge of biological hazards. It was reported that the painters generally had limited knowledge about hazards associated with the use of paint products, such as chemicals in paints and solvents.

The result of this study depicted the relationship is r= 0.179a which is low and positive. The coefficient of determination, r^2=0.032 which indicates that 3.2% of ergonomic hazards prevented by safety practices. The result indicates that the ergonomic hazards and safety practices among painters in Obio/Akpor Local Government Area, Rivers State are related. The result of this study is in line with report from Occupational Safety and Health Administration – OSHA, (2021) asserted that painters may engage in repetitive tasks like standing, scraping, or brush strokes, which can lead to musculoskeletal disorders over time. Painters who are not aware of safety practices are more likely to develop ergonomic health problems such as musculoskeletal problems like pains at extremities. Kuffour (2020) added that substantial amount of back discomfort was experienced by 96.4% of workers were the upper limbs (46%), followed by the waist and back 57%, 71.4% of workers were not using any work-related safety device. Akinyemi, et al, (2019) reported that good proportion of painters develop and suffered for different musculoskeletal disorders such as back ache, wrist pains, muscular pains and contraction. Kassy et al. (2021) added that prolong bending and twisting of extremities result into musculoskeletal pains. Findings of Kumar et al (2013) indicated that good proportion of respondents (86%) who are aware of potential hazards are less likely to develop musculoskeletal disorders. Thangaraj and Shireen (2017) affirmed that musculoskeletal diseases were the most common kind of injury experienced by painters (62%).

The table revealed that the relationship is r= 0. 124a which was low and positive. The coefficient of determination, r^2=0.015 which indicates that 1.5 times of psychosocial hazards prevented by safety practices. The result indicates that the psychosocial hazards and safety practices among painters in Obio/Akpor Local Government Area, Rivers State are related. The result of this study is keepings with findings of Amfo-Out et al. (2016) who discovered a number of health risks and unsafe working practices among car painters in the informal sector such as psycho-social dangers due to hurt from unpaid jobs. Kuffour (2020) affirmed that good proportion of painters are likely to suffer for psychosocial hazards such as absenteeism due to dangerous environment that affect job performance. Tamene et al. (2020) added that psychosocial hazards such as job stress are 4.5 times more likely to suffer job stress due to lack

of knowledge. Philip and colleagues (2014) indicated that 47% of workers are expose to stress due to their jobs as a results of occupational hazards. The nature of painting working exposes them to job stress and social issues which can be control with total compliance and adherence with safety practices. Painters are exposed to waste materials that may contain pathogens which can constitute occupational diseases.

The table illustrated that the relationship was r= 0.625 which is adequate and positive. The coefficient of determination, r^2=0. 391 which indicates that 39.1times availability of protective devices to predict safety practices among painters. The result indicates that the availability of protective devices and safety practices among painters in Obio/Akpor Local Government Area, Rivers State are related. The result of this study is in credence with Alemu et al. (2020) which indicated painters with available safety protective devices are 2.8 times more likely to predict hazards prevention. Studies of Sehsah et al. (2020) buttressed that the use of safety devices and practices are 2.4 times more likely to predict accident and hazards prevention, the prevalence of occupational hazards depends on the availability of protective devices. Alemu et al. (2020) reported that lack of utilization of safety protective devices were due to poor knowledge and awareness traceable to absence of orientation.

CONCLUSION

In regards to this study, it was concluded that painters in Obio/Akpor Local Government Area had good knowledge of occupational hazards and positive safety practices. The increase in safety practices among painters were dependent on availability of protective devices and extent of exposure to different forms of occupational hazards.

RECOMMENDATIONS

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

1. Ministry of work and housing should organize training and workshop for painters and other artisans on innovative safety strategies to improve and promote of workers. This in turn can increase the knowledge about hazards.
2. Occupational health expert should organize health education in health and safety as necessary for the workforce in order to maintain both health and productivity.
3. Painters should use of personal protective equipment (PPE), occupational safety training, and frequent monitoring all contribute in reducing the number of designing worker
4. Painters should make safety devices available and suitable for their job to enable them demonstrate safety practices. This in turn may reduce the extent of exposure to occupational injury and risks.
5. Painters should form an organization or association to regulate the activities and review the service of workers so as checkmate their health and safety welfare. This will enable building workers to liaise with others non-government organization and professional bodies to improve the standard of workplace safety.
6. Safety professional bodies and managers should organize safety training programme for building construction workers so as to provide them with basic knowledge about safety tips to promote and maintain good health as they apply for contract.

REFERENCES

Achalu, E.O. (2022). *Fundamentals of occupational health and safety*. Simarch press Port Harcourt.

Agnarsson, B. A., & Thorhallsson, E. M. (2013). Icelandic house painters' understanding of occupational hazards. *Safety Science, 60*, 235-239.

Akinyemi, P.A., Adegbenro, C.A., & Ojo, T. O., & Elugbaju, O., (2019). Knowledge of chemical hazards and safety practices among furniture makers exposed to organic solvents in Ile-Ife Nigeria. *Texila International Journal of Public Health, 7*(1).

Alao, M. A., Durodola, A. O., Ibrahim, O. R., & Asinobi, O. A., (2020). Assessment of health workers' knowledge, belief, attitudes, and use of personal protective equipment for prevention of COVID-19 infection in low-resource settings. *Advancing in Public Health,* 4(6), 19-24.

Alemu A. A., Yitayew, M., Azazeh, A., & Kebede S. (2020). Utilization of personal protective equipment and associated factors among building construction workers in Addis Ababa, Ethiopia. *BMC Public Health, 27*(1), 788-794.

Amfo-Otu, R., & Agyemang, K. J. (2016). Occupational health hazards and safety practices among the informal sector auto *Me*chanics. *Applied Research Journal, 1*(4), 59-69.

Ashuro, Z., Zele, Y. T., Kabthymer, R. H., Diriba, K., Tesfaw, A., & Alamneh, A. A. (2021). Prevalence of work-related injury and its determinants among construction workers in Ethiopia: A Systematic Review and Meta-Analysis. *Journal of Environmental and Public Health, 9*(9), 54-84.

Awodele, O., Popoola, T. D., Ogbudu, B. S., Akinyede, A., Coker, H. A. B., & Akintonwa, A., (2014). Occupational hazards and safety measures amongst the paint factory workers in Lagos, Nigeria. *Safety Health Work, 5*(2): 106–111. doi: 10.1016.

Kassy, C. W., Ochie, N. C., Ogugua, I. J., Aniemenam, C.R., Aniwada, C. E., & Aguwa,E. (2021). Comparison of knowledge of occupational hazards of lead exposure and blood lead estimation among roadside and organized panel beaters in Enugu metropolis, Nigeria. *Pan African Medical Journal, 40*:47, doi: 10.11604

Kumar S. G.,, Dharanipriya, A, & Kar, S. S, (2013). Awareness of occupational injuries and utilization of safety measures among welders in coastal South India. *International Journal of Occupational Environmental Medicine, 4*(4), 172-177.

Kuffour, R. A., (2020). Occupational health and safety challenges facing sanitary workers in Sekyere Central District in Ghana. *Journal of environmental and occupational science, 10* (2), 17–Kumar et al. (2013)

Kwon, O. S., & Lee, J. H. (2015). Awareness of occupational hazards and the use of personal protective equipment among Korean painters. S*afety and Health at Work, 6*(3), 232-236.

National Institute for Occupational Safety and Health –NIOSH (2021). *Art Hazards*. https://www.cdc.gov/niosh/topics/arts/default.html

Occupational Safety and Health Administration (2021). *OSHA - "Safety and Health Topics*: Hazard Communication": https://www.osha.gov/hazard-communication

Ojo, T.O., Onayade, A. A., Afolabi, O.T., Ijadunola, M. Y., Esan, O. T., Akinyemi, P. A., & Awe, O. O.,. (2020). Work Practices and health problems of spray painters exposed to organic solvents in Ile-Ife, Nigeria. *Journal of Health Pollution, 10*(28): 201208. doi: 10.5696.

Orisa-Ubi, C., (2022). *Occupational health and safety concepts in industrial and non-industrial settings.* Emmanest publication. Port Harcourt.

Sehsah, R., El-Gilany A. H., & Ibrahim A. M. (2020).Personal protective equipment (PPE) use and its relation to accidents among construction workers. *Medical Laboratory,* 111(4), 285-295.

Tamene, A., Mulugeta, H., Ashenafi, T., & Thygerson, S. M. (2020). Musculoskeletal disorders and associated factors among vehicle repair workers in Hawassa City, Southern Ethiopia. *Journal of Environmental Public Health,* 9472357.

Thangaraj, S., & Shireen, N., (2017). Occupational health hazards among automobile mechanics working in an urban area of Bangalore a cross sectional *study. International Journal of Medical Science and Public Health, 6*(1), 3-4.