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## **Adoption of Safety Practices against Occupational Hazards among Building Construction Workers for Sustainable Development in Edo State, Nigeria**

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### **ABSTRACT**

This study analyzed the safety practices followed by building construction workers against occupational hazards to sustainable development in Edo State, Nigeria, using a descriptive research survey design. The analysis was motivated by three research questions and three null hypotheses. The study population consisted of 5,305 construction workers from 23 construction sites in the Oredo local government area of Edo State, Nigeria. The sample size of 530 respondents was selected for the analysis using a systematic random sampling technique that applied the Taro Yamane formula in drawing the sample size. The instrument used to collect data was a 10-item questionnaire built from the literature examined. The instrument has been tested by five experts. Spearman Brown rank correlation coefficient was used to determine the internal accuracy of the instrument and a correlation coefficient of .81 was obtained. In answering the research questions, the multiple regression statistics and the Pearson Product Moment Correlation was used to investigate the hypotheses at .05 level of significance. The results of the study found, among other things, that there exist low use of safety practices among construction workers in the Oredo local government area of Edo State; a significant relationship exists between the use of safety practices and years of experience; a significant relationship exists between the use of safety practices and the level of education among construction workers. Based on the results of this report, it was suggested, among other things, that the management team of the various construction sites should demonstrate a greater commitment to the provision and compliance of safety equipment among workers to ensure optimal prevention of occupational hazards that will ensure sustainable growth.

**Keywords:** Safety Practices, Occupational Hazards, Building Construction Workers, Sustainable Development

## INTRODUCTION

The technological inventions today have resulted in changes to human life and this is accompanied with major improvements of employee's lives in every organisation. This improvement in employee lives is linked to industrialisation, which results in a number of challenges such as work place hazards and industrial accidents for employees in such places of work. In today's workplaces, the issues of under-employment, employing women in factories, child labour and the need to increase productivity, with their consequences, have drawn the attention of researchers on how the working environment affects not just the workers but society also (Jadab, 2012). Reason (2010) argued that the increasing interest in research in the working environment is most fitting because the workplace, instead of the home environment, taking the largest portion of a workers time. Pingle (2012) stressed the necessity for researches in this area and proposed that surveys on safety at multiple levels are necessary in generating information on the type, depth and degree workers take reasonable action to avoid occupational hazards at their workplaces.

Many occupations expose employees to occupational hazards in the work place. These hazards results in injuries that cause substantial disability and even death the world over. The International Labour Organization (ILO) (n.d) stated that 270 million workplace accidents occur yearly. According to Abdelhamid and Everett (2000) in Izudi, Ninsiima and Alege (2017), construction workers have one in 300 (1:300) The chances of dying while at work and the probability of being disabled due to injury are much higher than in other nations. Accidents at construction sites can result in pain, discomfort, temporary or permanent injury or disability, reduced productivity, loss of time, reduced quality of life and loss of life. Alinaitwe, Mwakali and Hansson (2007) posited that building construction accidents that cause permanent disability reduce worker capacity by 37%. Thus, the need to address occupational hazards in the building construction sites.

Hazards in working place causes severe pain, sufferings as well as economic losses to victims, their families, the workplace and society at large (Oviawe, 2018). Occupational hazards are all areas of work settings, which might be harmful to the health of workers (McCormic & Ilegen, 2008). Oginyi (2010) defined occupational hazards as injuries, falls and any condition within the workplace that could lead to acquisition of diseases and/or death. The World Health Organization (WHO) (1997) identified industrial hazards as technical hazards; ergonomically unsafe working conditions; allergens; social hazards; environmental hazards; reproductive hazards; physical factors; biological agents. This categorization is becoming increasingly important because in developing countries such as Nigeria, employees may be exposed to workplace hazards without sufficient awareness of hazardous working conditions and effective steps to prevent the various hazards associated with their work environment (Asogwa, 2011). Workers in Nigerian face structural defects and mechanical injuries, musculoskeletal disability caused by heavy lifting and repeated movements, according to Omolulu (2010), physical stress caused by muscle injury, as well as hearing loss caused over time by prolonged exposure to noisy equipment without the use of earmuffs for hearing safety. This categorisation is becoming important because workers can be exposed to occupational hazards in developing countries such as Nigeria without adequate knowledge of hazardous working conditions and the appropriate measures to be taken to avoid the different risks associated with their work environment. The most fundamental human right is the right to life (Oviawe, 2018). These occupational hazards call for safety measures to ensure that the safety of building construction workers is guaranteed.

Safety is a fundamental concern for the industrial and health workers and employers in business organization (Oviawe, 2018). This probably explained why earlier posited that the safety and health in the workplace have become an integral component to the viability of business for employers, labour unions, governments, and environmentalists in general (Macintosh & Gough, 2004 in Oviawe, 2018). To this end, Oviawe (2018) argued that the right to life is the most basic right and that workers are completely entitled to the protection of their lives and wellbeing. ILO (n.d) stressed that, irrespective of the sector of the economy, the size of the business or the form of assignment and occupation, every worker has the right to access occupational health and safety services. In some cases, when employees are involved in accidents, they lose their lives and this could impair the economy of then organization.

According to ILO (2013) 2.34 million men and women are deprived of that right by occupational accidents and work related diseases.

Research (Benedky & Minister, 2010; Dawodu & Omoti, 2010) has shown that a significant number of Nigerian workers still face safety and environmental challenges, despite a range of initiatives aimed at raising awareness of occupational hazards among all stakeholders and reducing risks at the workplace in Nigeria. This research aimed to define the protection practices followed by construction workers against workplace hazards, acknowledging that quarry workers, like others in Nigeria, are at risk of injury and disease in the course of their employment. Safety practices are activities aimed at preventing or minimizing injuries at the workplace (Malek, Adel, Amal & James, 2010). They are structured ways of monitoring all potential hazards that could lead to dangerous conditions for employees and employers in the workplace. Two types of safety practices prevalent in work organizations have been described by Forst (2000): individual and organizational. Individual safety practices include individual awareness of work behaviors, attitudes and habits relevant to the adverse effects of chemicals and objects used in the workplace's manufacturing and physical setting. Organizational safety practices are steps taken by businesses to reduce risks at the workplace, such as training of workers and providing up-to-date safety equipment and gadgets. An integral part of safety practices in the building construction site is the use of personal protective equipment (PPE) such as face masks, hand gloves, hard hats to protect the head, face shields and goggles, ear muffs and plugs, overalls, and safety boots. According to the United States Department of Labor (n.d) face shields such as safety goggles, protective glasses and nose masks, cover the face and eyes, ear muffs and ear plugs protect the ears, right sized hand gloves protect the hands, slick and puncture resistant soles protect the soles, face and head protection. Workers in the building construction sites ought to have adequate knowledge of occupational hazards and ways of protecting themselves through application of safety practices to avert accidents, injuries and other forms of danger associated with occupational hazards.

Igbokwe, Dibia and Igbokwe (2015) defined practice as the actual performance or application of knowledge. Practice is any customary action or proceeding regarded as individuals habit (Funk & Wagnalls, 2013). It implies that someone does something frequently as a product of knowledge. Knowledge is information given to a person and when the person becomes grounded and start applying and putting into use the knowledge he/she has acquired, the person is said to practice what he/she has learnt (Stuart & Acheterberg, 2014). According to WHO (2017), knowledge and practice is a complete cycle. If one of the two is not there, the cycle is incomplete. To apply safety practices and measures through the use of PPE by quarry workers will guarantee optimal safety for them. Optimal safety will engender sustainable development for the workers, employers and the nation in general. Nigeria on the 25<sup>th</sup> of September 2015 joined other members of the United Nation to adopt the 2030 Sustainable Development Goals (SDGs) designed to achieve a better and more sustainable present and future for all generations. SDGs have 17 goals, goal eight deals on the 'promotion of sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all'. It emphasized 'decent work and economic growth' and is intended to compliment goals one and two which addresses 'no poverty and zero hunger' is of particular interest in this study. The refusal of workers in building construction sites located in Edo State to apply safety practices through the utilization of personal protective equipment (PPE) exposes them to occupational hazards and the consequences are occupational related injuries which could be temporary or permanent or even death. The resultant effect could be reduction in productivity, hindrances to sustainable development and decent work and economic growth, which goal eight of the SDGs stands for. This study interested in the adoption of safety practices (PPE) in the building construction workplaces, to encourage the use of safety practices by workers in the building construction sites, imbibe the culture of safety practices through the application of personal protective equipment.

Lincoln (2000) reported that workers are not aware of the severity of the risks and danger associated with their job, they tend to take less preventive measures in the course of performing their jobs. Similarly, Margauart, Van-Drooge, Greenewold and Van-Hermmen (2003) asserted that when workers were told production substances were harmful, they took more precaution than the control. The need to raise awareness, emphasize and promote the implementation of safety practices in construction sites in

the Edo State. If the building construction workers imbibe the culture of safety practices they will attain optimal productivity, prevent accidents and avert danger which will endure sustainable growth and development (UN, 2017).

## **LITERATURE REVIEW**

According to Aigbokhaode, Isa and Isara (2001), it is estimated that in the United States of America, more than one million quarry workers are exposed to occupational hazards due to the inhalation of silica dusts. In Nigeria, the number exposed to occupational hazards from building construction sites and the application of safety practices is unknown because most of the workers are migrant workers. It is against this background that this study examined building construction workers' level of education, marital status and job experience within the context of safety practices. They take action against workplace hazards. In the context of this report, seasoned employees are those who have worked in the building construction sites for 10 years and beyond, whereas all workers whose years of employment are less than 10 years of experience are seen as novice workers.

The topic of educational level, work experience and marital status is critical in predicting protection behaviors followed by workers against occupational hazards. Mital and Ghahramani (2011) studied the injury profiles of the main communications company in Canada to resolve the problem of work experience and found that novice workers took more risk in their work than seasoned employees. The effect of personal variables on accident avoidance among British workers was analyzed by Donald and Young (2012) and found that inexperienced staff had more accidents than their experienced counterparts. Doos and Backstrom (2000) concluded that the majority of employee accidents are due to machine activity, while incidents are caused by a lack of proper use of safety equipment by novice workers. Conversely, Fine (2010) reported in an earlier study of 3,122 Canadian employees that experienced staff made more mistakes and as a result, suffered more injuries than inexperienced workers. For Hansen (2009), experience has shown that employees have experienced more injuries than inexperienced staff in the performance of their duties. Hansen added that the majority of accidents involving seasoned workers were due to error of action (steps in procedures that may be inappropriately implemented). On marital status, Harm-Ring-dahl (2009) recorded that single workers were more vulnerable to food industry accidents in India than married workers. In the same vein, Merler, Evcolonelli and Deklerk (2000) conducted a study on Italian migrants in Wittenon and found that single workers were more susceptible to work-related injuries than married workers. On the contrary, Lupton (2008), Vojakavic and Gordon (2010) reported that more precautionary steps were taken by single employees than by their married counterparts. However, no major weaknesses in the protection of married and single employees against workplace hazards were noted by Bonde and Giwerzman (2000).

The above literature has shown that in a number of professions there have been real attempts by researchers to consciously investigate workplace hazards. The literature review, however, revealed a lack of literature on safety practices adopted by building construction workers in Edo State against occupational risks, Nigeria. Looking at the results of the literature studied, which refer to other employees whose working environment may not be the same as that of the Nigerian climate, and that the findings made in other cultural settings cannot be completely translated into Nigerian industrial settings, it is reasonable to carry out a safety practice study by staff at risk.

## **THEORETICAL FRAMEWORK**

Some theories have indicated how individuals view their environment, which in turn can affect the type and degree of precautions taken. The theory of Rational Behavior (RA) formulated by Fisher and Fisher (1992) is one of these theories. Theoretically, one of the determinants of the prevention of accidents and workplace hazards is the belief in their harmful effects on human health and their magnitude. It is believed that individuals likely adopt health habits if they believe they are vulnerable to such diseases,

threat, and injury; that the effects of infection are significant and/or that an effective cure exists. In this research, it was concluded that building construction workers likely take one or more protection practices or measures if they consider the work environment full of potential hazards (hazards); the effects of such hazards on the individual's life are serious; and effective measures to prevent such situations exist.

### **Statement of the Problem**

Despite the risk associated with building construction and the concomitant occupational hazards that comes along with it in the form injuries and possible death, building construction workers refuse to apply safety practices for the prevention of occupational hazards. Oviawe (2018) asserted that the level of awareness on the issue is still low. Anaele, Adelakun and Olumoko(2014) asserted that safety measures and practices in Nigerian appear to fall below expectation. Several industries are presently battling with huge occupational accidents especially in developing countries including Nigeria. Countries worldwide are expected to change the lives of her populace and device ways to condense-relentless cases of work accidents and its attendant effects (Oviawe, 2018). To this end, Adebisi (2006) stated that there is higher incidence of fatal work-related injuries in developing world than in the developed ones despite attempts by succeeding government and administrations to salvage the situation through the enactment of laws and its enforcement. Oginyi (2010) asserted that though the awareness level of occupational hazards is high in construction industries, the refusal of the workers to willingly accept the use of PPE remains a major issue. The researchers also observed during the visits to the different building construction sites in Edo State that most of the workers do not wear PPE and are at the risk of exposure to occupational hazards and injuries; and they are in a hurry to commerce work for daily because they want to make more money as they can. This lack-lustre behaviour is capable of exposing these workers to occupational hazards. Both the employers and the workers seem not to have the willingness to enforce or implement the application of safety measures by the building construction workers. This refusal to use the PPE may lead to exposure of the workers to occupational hazards with adverse occupational consequences such as injuries, diseases, illness and even death.

When these workers come up with any of these conditions their productivity will most likely be affected; more hours will be lost, the victim's will suffer pains and his/her family will feel the impact of this consequences, and in extreme cases death could occur. Development and the associated socio-economic growth is reduced for the particular worker, the family, society and the industry itself. It is against this background that this study sought to identify the safety practices (PPE) adopted by building construction workers against occupational hazards for sustainable development in Edo State based on three variables of level of education, years of experience and marital status.

## **METHODOLOGY**

### **Research Design**

The study adopted the descriptive survey research design to examine the relationship between levels of education, marital status and Years of experience in the use of safety practices against occupational hazards among construction workers for sustainable development in the Edo State. In this type of research design, the researcher is interested in determining the influence of the independent variables on the dependent variables without necessarily manipulating the independent variables.

### **Population, Sample and Sampling Technique for the Study**

The population for the study comprised of 15,305 building construction workers from 33 construction sites where government construction projects were executed in the three Senatorial districts of Edo State, Nigeria. The sample size for this study was made up of 530 building construction workers selected through a systematic random sampling technique. All the building construction workers were listed and thereafter, a Nth number was chosen to represent the 10<sup>th</sup> person in the list. Then every 10<sup>th</sup> percent

was selected to enter the study until 530 respondents were selected. This is based on the suggestion of Uzoagulu (2011) that is the population is large and known, the sample can be drawn applying the Taro Yamane formula which is adequate to represent the entire population. Out of the 530 building construction workers used for this study, 322 had worked for 10 years and above, while 208 of them had worked for less than 10 years in the building construction industry. A total of 306 of respondents were married while 224 were single. Furthermore, 309 of the workers were educated (possessed OND and above) while 221 were less educated.

### **Instrument for Data Collection**

The instrument used for data collection was a nine-item questionnaire titled: Occupational Hazards Safety Practices Questionnaire (OHSPQ) developed from literature reviewed. The instrument was made up of two sections, A and B. Section A comprised of demographic variables of level of education, years of marital status and job experience; while section B consisted of nine items that addressed the research questions. These items are: face shields and safety glasses/goggles are worn when working with concrete, nails and other harmful substances; eye and face protectors; wearing of face mask can stop sickness and injuries; use of respirators/task-appropriate respiratory protection can stop inhalation of dust particles; safety-toed boots is worn to protect crushed toes when working around falling objects and heavy equipment; unintentional head contact with hazards; Hand gloves can avoid workplace hazards; wearing hard hats/safety helmets/head covers where there is a risk for debris falling from above, head bumps from fixed objects, or slip-resistant footwear and puncture-resistant sole shoes; and use ear protection muffs/earplugs in high noise work areas. The respondents were to respond to the items using a five-point Likert type scale of Always (AL) -4; Almost Always (AA) - 3; Sometimes (SM) - 2; Seldomly (S) - 1; and Never (N) - 0.

### **Validity and Reliability of the Instrument**

Three experts from the Department of Vocational and Technical Education, Ambrose Alli University, Ekpoma, Edo State face validated the instrument. 50 copies of the instrument were administered to the construction workers in the neighboring Delta State to determine the reliability of the instrument. The collected data was evaluated using the Pearson Correlation Coefficient for Product Moment, which calculated the system's half-shared reliability. The half-reliability of .81 was achieved. This was corrected by the Spearman Brown formula, =.90, in order to estimate the validity of the instrument.

### **Method of Data Collection**

The method of data collection was the questionnaire, distributed along with a introductory letter to the heads of the different construction sites explaining the purpose of the study and requested permission from them. The researcher, with the aid of three well-informed research assistants, administered the instrument to subjects at various construction sites. 530 questionnaire were distributed to construction workers via the construction site heads. The time given to fill out the questionnaire was 35 minutes and they were finished and collected immediately. A 100% rate of return has been reached.

### **Method of Data Analysis**

The data derived in the study was analyzed using the Pearson Product moment correlation to provide solutions to questions raised. Also, the multiple regression technique was used to test the hypotheses at .05 significance level. All the analyses were done with a computer using SPSS version 16.0. The null hypotheses were discarded when the calculated value is greater than the tabulated value at .05 level of relevant and acceptable degree of freedom, and the null hypotheses were maintained when the calculated value is less than the tabulated value at .05 level of significance and an appropriate degree of freedom.

## FINDINGS

**Research Question 1:** What is the relationship between safety practices (PPE) adopted by building construction workers and their level of education in Edo State?

Table 1.

*Pearson's Product Moment Correlation analysis of the relationship between safety practices (PPE) and education level among building construction workers in Edo State*

Variable	X	SD	N	r	R <sup>2</sup>
Safety practices (PPE)	2.99	.68530	.69	.48	
Education level	2.98	.90			

R<sup>2</sup> = coefficient of determination

Table 1 present the data on the relationship between the safety practices (use of PPE) and the education level of building construction workers in Edo State. The result in Table 1 showsthe correlation coefficient obtained was .69 (calculated r value = .69). This means that there is a medium direct positive relationship between safety practices (use of PPE) and the level of education among construction workers in the Oredo local government area of the Edo State. The R2 of.48 indicates that the relationship has a medium predictive value of 48%. Hypothesis 1 was evaluated at .05 significance level using regression analysis to determine the magnitude of the correlation.

**Hypothesis 1:** There is no significant relationship between the safety practices (PPE)and education level among building construction workers in Edo State.

Table 2.

*Regression Analysis of safety practices (PPE) and education level among building construction workers*

Model	Sum of Squares	df	Mean of Square	F	Sig	Remarks
Regression	34.199	1	34.199	45.016	.000 <sup>a</sup>	Rejected
Residual	532.560528	.760				
Total	566.760	529				

Table 2 shows that the measured F value is 45,016 with an associated correct probability value of 0.000. The exact probability value of .000 was less than the.05 level (P<.05) of significance set as a benchmark for the test of the hypothesis and was considered to be significant. The null hypothesis is also denied. The conclusion is that the relationship between the level of education and the use of safety practices (PPE) is significant among construction workers in the Oredo local government area of the Edo State.

**Research Question 2:** What is the relationship between the use of safety practices (PPE) and years of experience among building construction workers in Oredo local government area of Edo State?

Table 3.

*Pearson's Product Moment Correlation analysis of the relationship between the use of safety practices (PPE) and years of experience among building construction workers in Edo State*

Variable	X	SD	N	r	R <sup>2</sup>
Safety practices (PPE)	2.99	.68530	.42	.18	
Years of experience	2.46	.98			

R<sup>2</sup> = coefficient of determination

To answer research question 2, building construction workers use of safety practices (PPE) was correlated with their years of experience mean score. The result in Table 3 showed that the value of the coefficient of correlation obtained was .42 ( $r = .42$ ). This suggests that there is a strong, medium-term positive relationship between the use of safety practices (PPE) and the years of experience of construction workers in the Oredo local government region of the state of Edo. Table 3 also reveals that the coefficient of determination ( $R^2$ ) associated with the correlation coefficient of .42 was .18, implying that the relationship had a very low predictive value (18%). Hypothesis 2 was tested at .05 degree of significance using a regression analysis to determine the magnitude of the correlation.

**Hypothesis 2:** There is no significant relationship between the use of safety practices (PPE) by building construction workers and their years of experience in Oredo local government area of Edo State.

Table 4.

*Regression Analysis on the use of safety practices (PPE) and years of experience among building construction workers*

Model	Sum of Squares	df	Mean of Square	F	Sig	Remarks
Regression	117.584	1	117.584	149.637	.000 <sup>a</sup>	Rejected
Residual	550.560	520	.786			
Total	566.760	529				

The result in Table 4 shows that the F calculated value is 149.584 with associated exact probability value of .000. This accurate probability value of .000 was less than the .05 level of significance set as a benchmark for the assessment of the hypothesis and was considered to be significant. The null hypothesis was therefore dismissed and it was concluded that there was a significant relationship between the number of years of experience and the use of safety practices (PPE) among construction workers in the Oredo local government area of the Edo State.

**Research Question 3:** What is the relationship between safety practices (PPE) and marital status among building construction workers in Edo State?

Table 5.

*Pearson's Product Moment Correlation analysis of the relationship between safety practices (PPE) and marital status among building construction workers in Edo State*

Variable	X	SD	N	r	R <sup>2</sup>
Safety practices (PPE)	2.99	.68	530	.45	.21
Marital status	2.18	.99			

R<sup>2</sup> = coefficient of determination

To answer the research question, building construction workers use of safety practices was correlated with their marital status. The result in Table 5 showed that the correlation coefficient obtained was .45. This suggests that there is a positive medium-term correlation between the use of protective practices by construction workers and their marital status. The coefficient of determination ( $R^2$ ) of .21 indicates that the relationship has a predictive value of 21%. Hypothesis 3 was evaluated at .05 degree of significance using a regression analysis to determine the magnitude of the correlation.

**Hypothesis 3:** There is no significant relationship between the use of safety practices (PPE) and marital status among building construction workers in Oredo local government of Edo State.

Table 6.

*Regression Analysis of the use of safety practices (PPE) and marital status among building construction workers*

Model	Sum of Squares	df	Mean of Square	F	Sig	Remarks
Regression	143.227	1	143.227	181.169	.000 <sup>a</sup>	Rejected
Residual	554.190	528	.791			
Total	697.417	529				

The result in Table 6 reveals the calculated F-value of 181.17 with associated exact probability value of .000. This accurate probability value of .000 was less than the .05 level of significance set as a benchmark for the assessment of the hypothesis and was considered to be significant. The null hypothesis was thus dismissed and the conclusion was drawn that there was a major association between the use of protective practices by construction workers and their marital status.

## DISCUSSION OF FINDINGS

The findings in Tables 1 and 2 revealed that there is a significant relationship between education level of building construction workers and their use of safety practices (PPE) in Edo State. This finding is in line with that of Babatunde, Ayodele, Elegbede, Babatunde, Ojo, Alawade, Atoyebi and Aibnuomo (2013) who conducted a study in South West Nigeria and reported that workers with higher level of education appeared to use more protective devices. The findings from Table 3 and 4 revealed that there is significant relationship between the years of experience and the use of safety practices (PPE) among building construction workers in Oredo local government area of Edo State. This finding indicates that building construction workers who spent more years on the job pay less attention and apply Laissez-Faire behaviour to the use of safety practices (PPE). This finding is supported by earlier finding of Oginyi (2010) who reported that the more years workers stayed on the job, the less the practice of safety practices (use of PPE). Ahmad, Aziah, Zahila and Baharadin (2013) reported poor utilization of PPE by workers in North Eastern Malaysia to support the finding of this study.

Perhaps these workers are fatigued by the use of PPE or simply feel that if nothing had happened to them for all these years nothing may probably happen to them now or later. Similarly, the finding of this study is in line with earlier findings of Marguart, Van-Drooge, Groenewold and Van-Hermmen (2003) who reported that when workers are aware that some production substances have harmful effects, they took more precautionary measures in performing their jobs. The finding could be explained that both experienced and inexperienced building construction workers may have encountered or observed others encounter the risk inherent in such hazards that may have served as a deterrent to the building construction workers, increasing their levels of use of safety practices (PPE) while performing their jobs. This finding was supported by the anchor theory of Fisher and Fisher (1992) which argued that workers follow safety practices against any given danger when they assume that the hazard exists and has a negative impact on their health. The results of this study are consistent with those of Mital and Ghahramani (2011) and Donald and Young (2012), who discovered that their jobs were taken more care of by seasoned employees than by novice workers. This result, however, contradicts that of Keyserlin (2012), who claimed that in their careers, experienced workers had more accidents and injuries than experienced employees.

The results in Tables 5 and 6 indicate that there is a substantial relationship in the Edo State between the use of protective practices against occupational hazards by married and single construction workers.

This finding is consistent with that of Harm-Ring-Dal (2009), who suggested that single employees in their work environment were more vulnerable to injuries and diseases, suggesting that married employees had more protective practices (PPE) than single employees. This result is also consistent with the hypothesis of Fisher and Fisher's (1992) Anchor's Reasoned Action (RA) that workers are likely to take protective measures if they feel vulnerable to disease and injuries. It could be that by the use of PPE, a married employee could perceive a greater risk of illness and injury than a single employee. In addition, married workers value their work more than single employees, as the loss of employment will not only impact them, but will spread to their dependent members of the family as well. However the results of this study contradict the finding by Bonde and Hansen (2009) that there was no substantial difference in the usage of protective practices by married and single employees in relation to their occupational hazards. Similarly, Vojakavic and Gordon (2010) stated that the results of this study did not agree with single employees taking more precautionary measures than married workers.

## CONCLUSION AND RECOMMENDATIONS

The findings of this study revealed that there is a high level of awareness among building construction workers in Oredo Local Government Area of Edo State, the level of utilization of PPE is poor. This exposes the building construction workers to occupational hazards, a practice which if left unabated could lead to injuries and death. It also reduces sustainable growth and development of the building construction workers if the use of safety practices (PPE) is not promoted. The findings also revealed that a significant relationship existed between the use of PPE; educational level, years of experience and marital status of building construction workers. Based on the findings of this study, the following recommendations are made:

1. Workshops, workshops, training and retraining programs on safety practices should be organized for all construction staff, in particular those who are less qualified, inexperienced and self-employed, in order to reduce their risk-taking practices and increase awareness of the need to use the EPP to ensure optimum safety and ensure sustainable development.
2. Government agencies and its officials should enforce the use PPE in all its building construction sites.

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