



## HEALTH CHALLENGES FACING CONSTRUCTION INDUSTRY WORKFORCE IN NIGERIA.

by

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### ABSTRACT

*Health is the basis upon which wealth can be created and the created wealth is as a result of human productivity in several aspects of a country's economy. Construction and construction management is a vital part of an economy and it is inevitable because of its importance to human lives and safety. However, construction is found to be one of the most dangerous on health criteria, particularly in Nigeria. This paper determines the importance of integrating and improving health and safety standards within construction project management in Nigeria, investigates the extent health and safety influences the construction project performance, creates a model that will assist construction project organizations to assess the possible outcomes of their health level. The possible health challenges in the construction site were identified and survey was carried out on few construction sites in Port Harcourt and it was observed that the site workers experienced low back pain, Stress, Dizziness, Migraine amongst others. Hence, the use of PPEs and frequent medical checks are being advised to be adhered to.*

### INTRODUCTION

Health is the basis upon which wealth can be created and the created wealth is as a result of human productivity in several aspects of a country's economy. Construction and construction management is a vital part of an economy and it is inevitable because of its importance to human lives and safety. However, construction is found to be one of the most dangerous on health criteria, particularly in Nigeria. Efforts made to address this problem have been futile as a result of impractical policies and negligence from the policy making bodies. Although little efforts have been made by the government and private sectors in recent years, the results have been far from satisfactory, as construction accidents and health challenges continue to dominate the overall construction industry. Despite the programs implemented by government authorities and measures introduced by companies themselves, the number of construction accidents and health challenges remain alarmingly high.

The principal aim of this research is to determine the importance of integrating and improving health and safety standards within construction project management in Nigeria, to investigate the extent health and safety influence the construction project performance and finally to develop a model that will assist construction project organizations to assess, in terms of performance, the possible outcomes of their health level.

The study begins with a detailed literature review on health in the construction industry focusing firstly on the nature of the scope of the construction industry and the most activities that involve perilous and dangerous operations. Subsequently an overview of the dramatic level of occupational injuries and fatalities

occurring throughout the word is highlighted in order to point out the huge importance of managing health performance. Thereafter the focus would be on the need to improve the process of health in the construction project taking into account the factors responsible for major causes of health challenges to workers on site with the effect of globalization aspect and cultural issues which are also analyzed. Finally the challenge faced by Nigeria is in implementing effectively health and safety procedures.

### **1.1. DEFINITION OF TERMS**

**Health** is the protection of the bodies and minds of people from illness resulting from the materials, processes or procedures used in the workplace.

**Welfare** is the provision of facilities to maintain the health and well-being of individuals at the workplace.

**Environmental protection** is the arrangements to cover those activities in the workplace which affect the environment (in the form of flora, fauna, water, air and soil) and, possibly, the health and safety of employees and others. Such activities include waste and effluent disposal and atmospheric pollution.

**Hazard and risk** (Keng, 2004) is the potential of a substance, activity or process to cause harm. Hazards take many forms including, for example, chemicals, electricity and working from a ladder. A hazard can be ranked relative to other hazards or to a possible level of danger. A risk is the likelihood of a substance, activity or process to cause harm. A risk can be reduced and the hazard controlled by good management.

### **1.2. SCOPE OF THE CONSTRUCTION INDUSTRY AND GENERAL HEALTH PROBLEM DESCRIPTION**

The construction industry plays a vital role in the social and economic development of all countries. Its scope is very wide from larger civil engineering projects such as road and bridge, building, water supply and sewerage schemes and river and canal work etc. construction works are also needed in agriculture, industry, education, health and other service industries. It is classified into various segments industrial, housing, commercial, utilities and infrastructure work. Thus the construction industry is a mixture of different organizations, which directly and indirectly influence the construction process. These organizations include property developers, architects, engineers, quantity surveyors, accountants, lawyers, civil engineering contractors, engineering contractors, management contractors, laborers, subcontractors and specialist trades. The construction industry's importance has been confirmed by several studies (Coble and Haupt, 1999). Some possible health challenges in the construction site are;

Parkinson disease, Hymenia, Frequent fever, Dizziness, Dermatitis, Stress, Low back pain, Migraine, Distress, Vibration disease, Hearing loss, Neck pain, Arthritis.

### **1.0. METHODOLOGY**

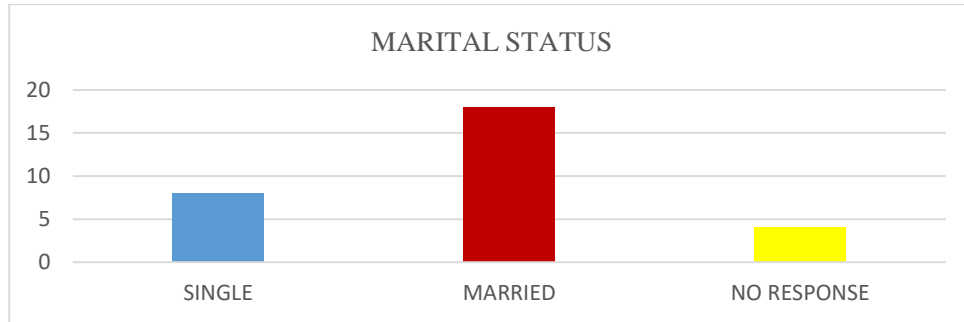
This chapter presents the methodology adopted in this research. Construction sites situated in Nigeria were selected as research study. The study research was conducted through questionnaires surveys and was distributed to a number of construction sites. The designed questionnaires consists of some of the variables helpful in identifying health challenges of the building construction work force in Nigeria.

At the end of this research, the primary data collected for the study would be analyzed using the quantitative research methods of data analysis. The qualitative data would be analyzed logically to ensure completeness, legibility and consistency. The questionnaire would be analyzed using SPSS (Statistical Package for Social Sciences), a descriptive statistic of frequency analysis for quantitative data or alternative analysis programs. This enhances a basic understanding of the key variables and concepts used in the study.

## 2.0. FINDINGS AND DISCUSSIONS

Two major construction sites were visited; the Marine Engineering department construction site at Rivers State University and the Judges' quarters at new GRA Port Harcourt. The analysis below addresses univariate and bivariate variables. The quantitative research is done mainly on **MEASUREMENT AND CAUSALITY** and the findings are expressed below with the use of charts.

### *Marital status of workers*



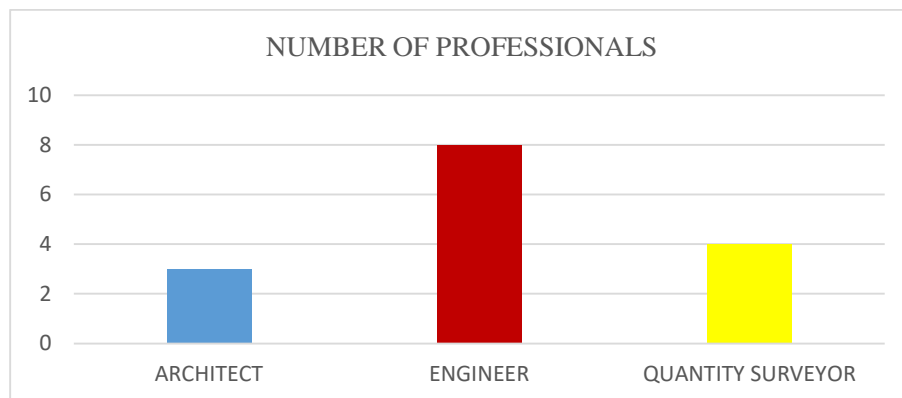
The chart above shows graphically that 8 of the respondents were single, 18 were married while 4 did not give any responses.

### *Nature of work*



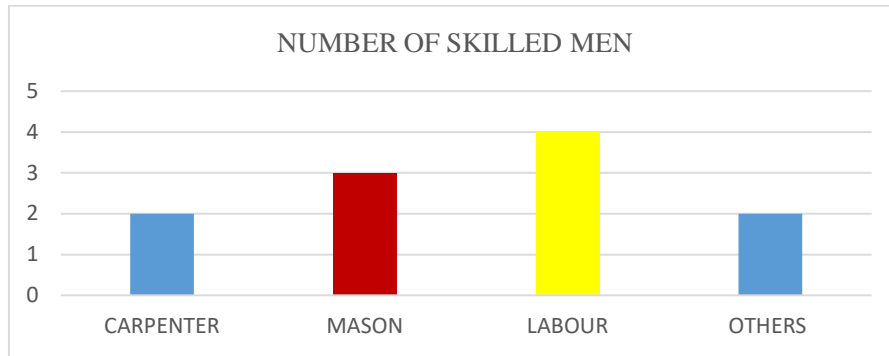
The chart above shows graphically that 15 of the respondents are professionals, 11 of the respondents are skilled workers while 4 of the respondents did not attempt responding to the tab in the questionnaire.

### *Number of professionals*



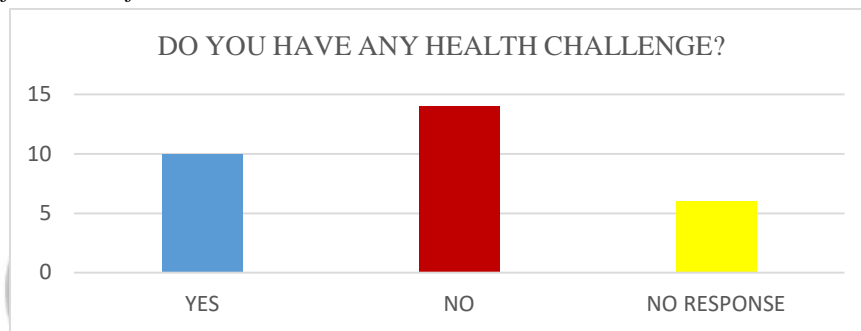
The chart above shows graphically that there were 3 architects, 8 engineers, 4 quantity surveyors and no Project Managers that responded to the questionnaires.

*Number of skilled men*



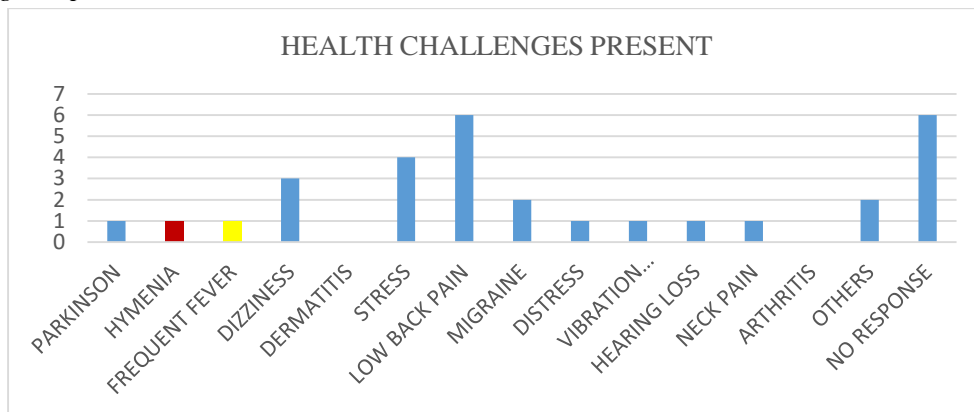
The chart above shows graphically that there were 2 Carpenters, no Iron benders, 3 Masons, no Electricians, no Painters, 4 Laborers and 2 others who responded to the questionnaires.

*Health challenges of the work force*



The chart above shows graphically that 10 respondents had health challenge, 14 respondents did not have and 6 respondents did not specify if they had health challenge or not.

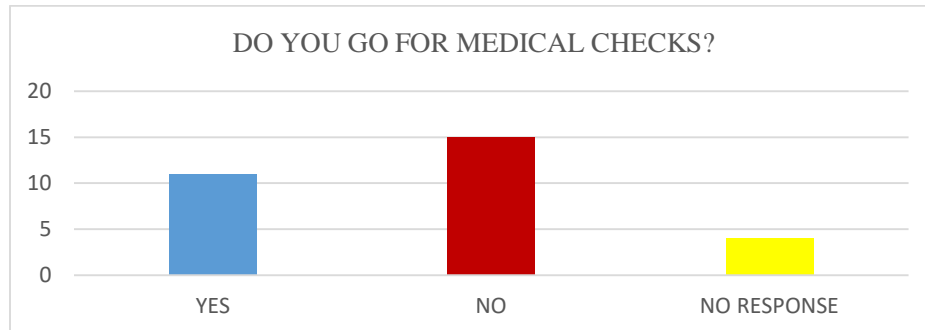
*Health challenges experienced*



The chart above shows graphically that 1 respondent had Parkinson disease, 1 person had hymenia, 1 person experienced frequent fever, 3 people experienced dizziness, no respondent experienced dermatitis, 4 respondents experienced stress, 6 respondents experienced low back pain, 2 respondents experienced migraine, 1 respondent experienced distress, 1 respondent experienced vibration disease, 1 respondent experienced hearing loss, 1 respondent experienced neck pain, no respondent experienced arthritis, 2

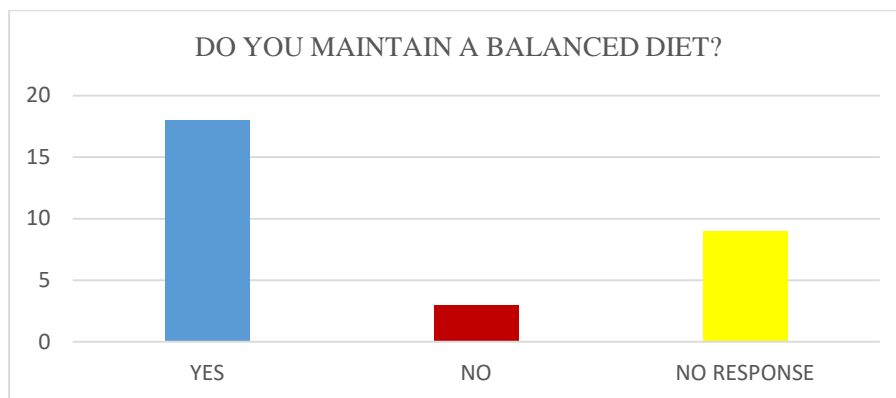
respondents experienced other health challenges and 6 respondents did not specify what their health challenges were.

*Do you go for medical checks?*



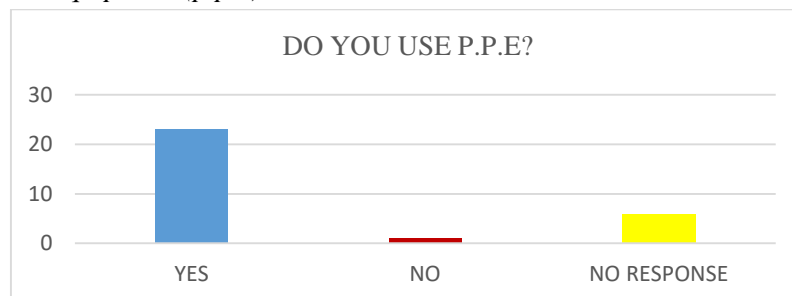
The chart above shows graphically that 15 respondents go for regular medical checks, 11 respondents do not go for regular medical checks while 4 respondents were unresponsive.

*Balanced diet intake*



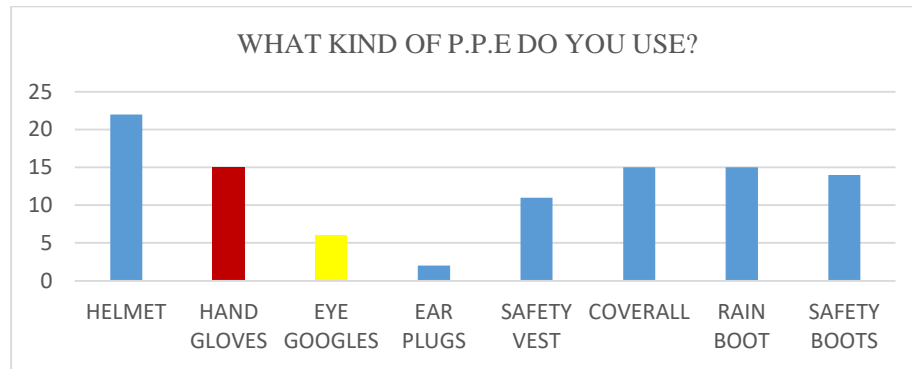
The chart above shows graphically that 18 of the respondents maintain a balanced diet, 3 of the respondents do not see it as necessary while 9 respondents had no response to the tab in the questionnaire, and hence, they are uncertain.

*Use of personal protective equipment (p.p.e)*



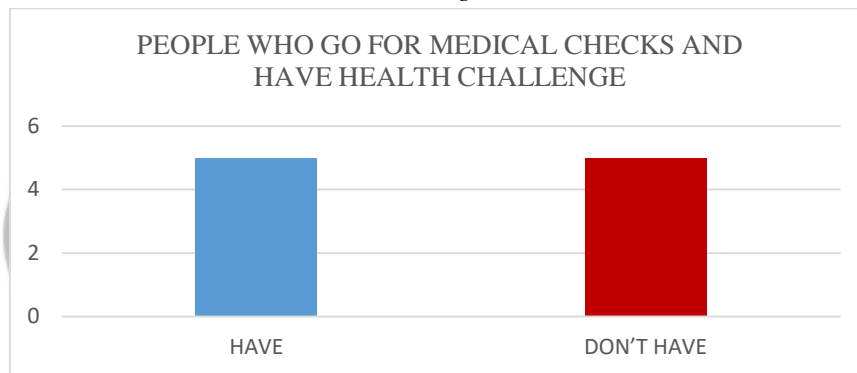
The chart above shows graphically that 23 respondents make good use of their PPEs and these PPEs are helpful to them in working and prevents them from health challenges that may occur outside the work area, 1 respondent does not make use of PPEs while no responses were gotten from 6 other respondents.

*What kind of p.p.e do you use?*



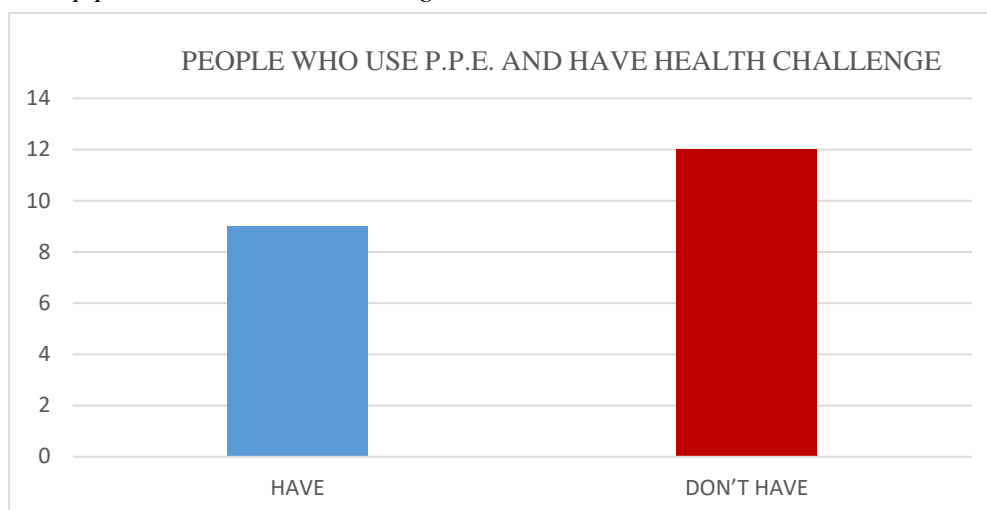
The chart above shows graphically that 22 respondents make good use of their helmet, 15 respondents make good use of their hand gloves, 6 respondents make good use of their eye Google, 2 make good use of their ear plugs, 11 make good use of their safety vests, 15 make good use of their coveralls, 15 make good use of their rain boots and 14 make good use of their safety boots.

*People who go for medical checks and have health challenge*



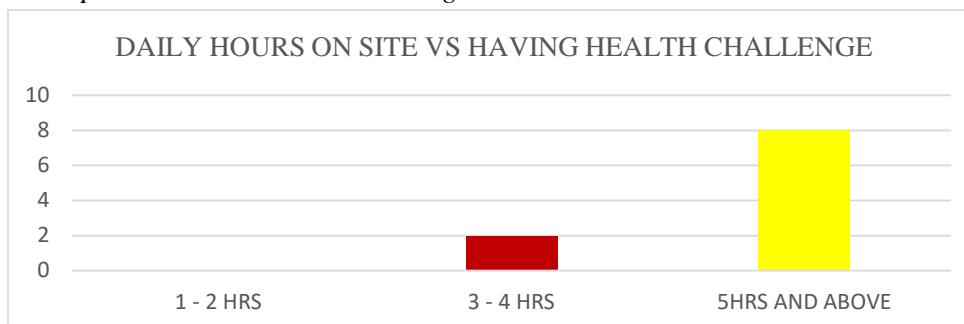
The chart above shows graphically that 5 respondents who go for medical checkups regularly who do not have health challenges while 5 respondents go for medical checkup and have health challenges.

*People who use p.p.e and have health challenge*



The chart above shows graphically that there are 12 respondents who use their PPEs regularly who do not have health challenges while 9 respondents use their PPEs and have health challenges.

#### *Relating daily hours spent on site and health challenges*



The above shows graphically that no respondents spend less than 3 hours on site daily. The least hours spent on site is 3 hours by 2 respondents while 8 respondents spend 5 hours and beyond on site daily. Hence, the amount of hours spent on site affects their state of health over a long period of time and the degree of the challenge is perceived to be as a result of the nature of the work done by these workers.

### **3.0. CONCLUSION AND RECOMMENDATIONS**

Having observed the site workers and reviewed all possible variables relating to their health challenges. Some conclusions can be drawn.

The most common health challenge faced by the building construction workforce in Nigeria is **low back pain** (with **25%** of those that had health challenges from the questionnaire). The second most common challenge is **Stress (16.7%)**. The third most common challenge is **Dizziness (12.5%)**. The fourth most common health challenge is **Migraine (8.3%)**. All the other challenges fall below 8%.

P.P.E is a very important factor to consider in the work force. From the analysis, we can see that most people who use P.P.E experience little or no health challenge. The percentage of people that use P.P.E and have health challenges is 42.6%. The percentage of people that use P.P.E and don't have health challenge is 57.1%.

The more time spent on site, the greater tendency to have a health challenge. People that spend 5 or more hours on site responded the most to having health challenges (80%) seconded by those that spend at least two hours (20%).

Lastly, from the analysis, an observation was taken that if adequate working tools and equipment are being provided for site workers it will improve their working conditions and ultimately reduce the number of health challenges faced by the construction workforce in Nigeria.

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