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STATEMENT OF THE PROBLEM

OBJECTIVES

HYPOTHESES

RESEARCH METHODOLOGY

RESULTS & DISCUSSION

FINDINGS

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WORKER CHARACTERISTICS AND COMPLIANCE TO OCCUPATIONAL HEALTH AND SAFETY OF WOOD WORKERS IN NAJA DAVID WOOD INDUSTRY LIMITED IN KUMASI, GHANA

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ABSTRACT

Research reports indicate that wood workers in Ghana are exposed to various types and degrees of occupational hazards ranging from bacterial, viral and chemical infections to physical injury and accidents. It is also a known fact that there is no comprehensive national policy on occupational health and safety (OHS) except Act 651 of the Labour Act 2003 which enjoins employers not to expose their employees to conditions that would lead them to work related injuries or illnesses. Notwithstanding the requirements of the Act and efforts made by companies in the Ghanaian wood industry at ensuring that employees work in safe and healthy conditions, wood workers face a lot of hazards at work. Thus, the questions which remained unanswered were: what health and safety mechanisms or specific policies were in place to regulate the activities of workers such that they did not fall victim to disasters? What characteristics of workers may lead them to violate company codes on occupational health and safety? These questions and several others formed the bases for which a survey questionnaire administered to 150 respondents in the Naja David Wood Industry to find out the role of sex, age, education and experience on compliance or non-compliance to occupational health and safety. The results revealed that age, education and experience play significant role in ensuring compliance whereas sex does not play significant role in ensuring compliance to occupational health and safety. The results further indicated that unavailability and low usage of personal protective equipment (PPE) increased the risk of getting involved in accidents. The study thus, recommended constant provision and replacement of PPE for workers to use at work. Immediate supervisors should also be officially empowered to enforce usage of PPE and punish violators as way of preventing accidents at work.

KEYWORDS

Occupational hazards, Health and safety, Personal protective equipment, Wood processing, Compliance, Wood workers.

INTRODUCTION

Globalization has facilitated a rapid increase in informal employment, and has been associated with the generation of employment that is often flexible, precarious and insecure (Lund and Nicholson, 2003). Current estimates show that informal employment comprises one-half to three-quarters of non-agricultural employment in developing countries: 48% in North Africa, 51% in Latin America, 65% in Asia, and 72% in sub-Saharan Africa (Chen, 2002). The share of informal employment in non-agriculture employment in sub-Saharan Africa rises to 78% (Chen, 2002), making this region the leader in the growing global trend towards the informalization of labour.

In Ghana, the wood production sector contributes about 11% of foreign earnings; it employs over 100,000 workers and provides a livelihood for over 2.5 million Ghanaians (Acquah-Moses, 2002). Despite this contribution to Ghana's economy, the operations of the Wood Processing Industry (WPI) are generally associated with high levels of occupational hazards with consequent risk to health. Records at the Department of Factories Inspectorate from 1987- 1998 indicated that about 50% of fatal accidents in industrial sector came from the wood working sector in Ghana (Boateng and Nimako, 2000; MOH/GHS, 2002).

The major wood processing industries in Ghana are typically large capacity facilities such as large sawmills, plywood mills, pulp and paper plants and quite large numbers of small scale wood products; manufacturing companies such as furniture industries, cabinet makers and carpentry. The most important wood products, produced, consumed and traded in Ghana are sawn-wood, plywood, particle board, newsprint, printing and writing paper and other paper boards.

Ghana has no national policy on occupational health services even though Article 4 of the International Labour Organisation (ILO) Convention 155 (Occupational Safety and Health Convention 1981) requires the nation to give effect to the provisions of this convention. The aim of the policy is to prevent injury to health

arising out of or occurring in the course of work. It requires each member state to formulate, implement and periodically review a coherent national policy on OHS at the work environment (Factories, Offices and Shops Act 651). There is no institutional facility for training of OHS professionals at the local levels.

PROBLEM STATEMENT

Research on occupational exposures in the wood industry and related industries has suggested that workers in sawmills, lumber mills, plywood and particle board factories, and veneer plants are at high risk of developing lower respiratory diseases, allergic disorders, cancer, and lung diseases (Amedofu and Asamoah-Boateng, 2003). By-products of wood processing, such as wood dust, mould, formaldehyde and noise are well known with respect to their health effects. Workers in the industry have less knowledge about occupational health and safety, leading to low compliance of safety practices even though workers are being exposed to many harmful substances (such as dusts, fumes, toxic chemicals) and biological hazards (such as acute and chronic infections, parasites) and physical (hazards including noise, heat, cold, vibration, inflammable materials and compressed air) (Acquah-Moses, 2002).

In Ghana various studies have shown that the role of occupational exposure to environmental pollutants is the incidence of respiratory diseases. High levels of noise have long been recognized by industrial safety technicians as unsafe to workers. In a typical wood industry, decibel levels often exceed industry limits and may cause hearing loss (Boateng and Nimako, 2000). Despite the clear risks involved in informal work, due to its unconventional nature and location, informal workers in most African countries especially Ghana are not protected by the institutions that officially govern OHS. Currently, Ghana has no national policy on OHS. A draft policy document prepared in 2000 has not been processed for adoption, even though Article 4 of the ILO Convention 155 (Occupational Safety and Health Convention, 198) requires the nation to give effect to the provisions of this convention. The existing problem that this study sought to investigate was compliance to OHS in the wood industry. Even though many apparent improvements had been achieved over the past few decades on OHS in Ghana, the focus has been on the formal sector neglecting the informal sector which actually employs greater percentage of Ghana's population.

OBJECTIVES OF THE STUDY

The general objective of the study was to examine the role of worker background in compliance to OHS policy and practice among workers in the Naja Wood industry limited. Specifically, the study sought to find out the health and safety policies in place at Naja David Wood Industry Limited, identify the personal protective equipment available to workers, examine the types and frequency of work related accidents at the wood industry and find out if sex, age, education and length of service play any role in ensuring compliance to health and safety rules at work place.

HYPOTHESES

H1: Level of education and PPE usage among wood workers are significantly related.

H2: There is a significant relationship between length of service and PPE usage

H3: Level of education and involvement in accident are significantly related.

H4: Length of service is a function of involvement in accident.

LITERATURE REVIEW

The history of occupational safety and health is vast and diverse and, therefore, a comprehensive review is beyond the scope of this study. Therefore, this section of the literature review will focus on the major influences (i.e., government, insurance, engineering and psychology) and pertinent legislation that have shaped occupational safety and health intervention research. As industrial centers grew, the degradation of living conditions increased and the death rate grew. In England, for instance, the first attempt of governmental intervention (1933) began with federally run factory inspections. The results of the scrutiny by governmental inspectors (most of whom were physicians) had little impact on the health and safety of employees until the mid-1800s when the Great Factory Act was initiated. The Great Factory Act of 1844 somewhat improved England's factory conditions, but employers still saw no economic impact of an unhealthy or a risky workplace. In fact, the families of employees who died on the job had little legal recourse. At most they had their funeral expenses covered by the employer (Heinrich, et al., 1980). In 1880, England passed the Employers' Liability Act that made it possible for employees, or their families, to sue an employer for damages. This act made the employers more cognizant of the costs of not addressing the safety of their working conditions. However, the family still had the difficult task of proving the employee (or a fellow employee) was not the cause of his own death, was not aware of the hazard, or that the employer was negligent. Factory inspections and the current laws increased employers' awareness of occupational safety, but it was not until the worker compensation laws were passed that industry owners finally began to realize the costs associated with occupation injuries.

Worker compensation laws covered employee injury regardless of fault; but employees could no longer sue their employers under common law (third party lawsuits were still legal). Seemingly, the worker compensation laws were passed to protect employees. However, they were actually passed to control the number of large lawsuits against employers, and thus enabling a "predictable cost of doing business" (Leigh, 1998). Hence, up to this point the most effective interventions for improving occupational safety and health appeared to be implementation of top-down governmental regulations. As Heinrich et al. (1980) point out, "Legislation is one process by which government affects safety. Judicial process is another. Together, they change the impetus for safety or create a new impetus, and the impetus is defined as time, money and effort" (Leigh, 1998). Thus, regulations finally made it cost effective for employers to attend to working conditions that adversely affect employees' health and safety, though they were not always in the best interest of the employee (Heinrich, et al., 1980; Petersen, 1989; Weindling, 1985; Wilson, 1985).

As the worker compensation laws created a need for industries to invest in additional insurance, insurance companies needed to assess their clients' risks to assign proper rates. Thus, in the early 1900s, insurance companies created inspection departments. The inspectors would visit their policy holders to assess workplace hazards and assign the proper rate (*underwriting*). As these insurance inspectors gained valuable experience in looking for hazards in various industries, these *safety consultants* became the major impetus in organizational safety and health. During an inspection, for instance, if the insurance representative found a hazardous situation, he would make suggestions on how the organization could remedy the safety hazard and obtain a lower premium (also to control the insurance companies' losses). The insurance companies were serving the employer while at the same time trying to control their own losses. Consequently, the only safety concerns addressed by the insurance inspectors were ones currently covered by Worker Compensation laws. Furthermore, once the insurance agent assigns coverage rates, there were several self-serving mechanisms to motivate employers to improve the safety of their workplace. Merit rating schemes (*scheduled rating*), for example, rewarded loss control and penalized high worker compensation claims. The scheduled rating system may have motivated many companies to *cover-up* or not report certain claims to insurance companies in order to avoid a penalty or keep their current coverage rate (Geller, 1996; Miller, 1997). Whereas it seemed the early insurance companies were striving for a safer workplace, they were instead trying to control their own loss and motivate employers to address only hazards covered by Worker Compensation (Heinrich, et al., 1980). If fact, most of the insurance inspector's time and safety materials went to the larger companies who paid massive premiums, leaving out the mid-sized to smaller organizations. Insurance companies did develop safety guidelines and training materials that made an impact on health and safety. Nevertheless these interventions were guided by current governmental regulations and the need to control loss and not for the safety of employees.

From the early 1900s to the present time, employers and safety practitioners adopted the philosophy of the *three E's* (engineering, education, and enforcement) to guide their safety-related interventions (Geller, 1996; Guastello, 1993; Heinrich, et al., 1980; Petersen, 1996; Wilde, 1998). To make a difference in the health and safety of employees, the three Es of safety focus on developing *engineering* strategies that decrease the probability of an employee engaging in at-risk behaviours, *educating* and training employees regarding equipment, environmental hazards, policies and procedures; and *enforcing* the policies and procedures related to operating equipment, wearing proper personal protective equipment, and handling specific hazardous substances.

Employers in Ghana are required by the Ghana Labour Act 2003, Act 651 to ensure their employees are not exposed to conditions that would lead them to work related injuries or illnesses. Employees are also required to exhibit their duty of care in ensuring that they work as per the employers' standard operating procedures which must incorporate safety and health requirements. The Nation has different agencies under different jurisdictions which monitor different

industries for workplace and employee safety, however, there is no national body, policy nor process that govern OHS management in Ghana. There is a Road Safety Commission but with little standards, guidelines and impact on the safety of the transport industry and the pedestrian. The Minerals Commission has the Mining Regulations 1970, which contains some guidelines in OHS but just for the Mining Industry. There currently is a draft of the reviewed Mining and Minerals Regulations which is pending approval by the Ghanaian Parliament.

Numerous injuries, illnesses, property damages and process losses take place at different workplaces but due to under reporting or misclassification due to lack or thorough standards, or unfamiliarity with the existing guidelines, people are not normally in the known of such events as well as their actual or potential consequences and effective corrective actions required (Annan, 2010). There are currently two major edicts that have provided guidance in the provision of occupational/industrial safety and health services, practice and management in Ghana. These include the Factories, Offices and Shops Act 1970, Act 328 and the Mining Regulations 1970 LI 665, but these have only driven the mining and the labour sectors and are therefore very limited in scope, given the multifaceted distribution of industrial operations that we have in Ghana. There is the Workmen's Compensation Law 1987 (PNDC 187) which relates to compensation for personal injuries caused by accidents at work and hence, indirectly impacts on monitoring workers/workplace safety. The Radiation Protection Board of the Ghana Atomic Energy Commission is also proactive in monitoring companies with radiation exposure hazards for compliance, however, due to limited resources, effectiveness of their activities is compromised (Annan, 2010). There are other statutes which indirectly impact on Occupational Safety and Health and these include the Environmental Protection Agency Act 490 1994, the Ghana Health Service and Teaching Hospital Act 526, 1999 and the National Road Safety Commission Act 567, 1999.

Though, Ghana is among the 183 member countries of ILO, which requires, as per the ILO convention number 155 1981, that member countries formulate, implement and periodically review a coherent policy on occupational safety and health and work environment, Ghana has not yet rectified this convention and the nation has no established authority dedicated to Occupational Safety and Health to guide and facilitate the implementation of the "Action at the National Level" as indicated in the R164 Occupational Safety and Health Recommendation, 1981. However, the Labour Act 2003, Act 651, Part XV, sections 118 to 120 apparently directs employers and employees in their roles and responsibilities in managing Occupational Health, Safety and Environment in the nation, but is not specific about whom to report accidents and occupational illnesses to. It is not clear or does not specify what to consider as Occupational Illness. It does not specify who to be responsible for ensuring the industries in Ghana implement corrective actions as per recommendations.

Currently, accidents that occur in factories are expected to be reported to the Department of Factory Inspectorate (DFI) but companies hardly report such events to the inspectorate for investigation and correction. In Ghana, an extensive study conducted by Boateng (1997) reported that 67% of Food, Drink and Tobacco (FDT) firms in Ghana, had safety committees, with membership made up of representatives from all departments except one drinking firms whose members were selected on the recommendation of the Department of Factories Inspectorate. There were no visible posters on safety in all the companies surveyed and in most cases where they had posters given by the Department of Factories Inspectorate; they were in the drawers of the managers. News letters on health and safety were also non-existent. In Kumasi, a survey revealed that although some employees were sent to the Wood Industry Training Centre at Akyawkrom, to attend courses each year, the curriculum of the centre did not include OHS (Adei and Kunfaa, 2007).

Adei and Kunfaa (2007) further disclosed that risk assessment was not undertaken at all times to ensure that the existing controls, training and safeguards are still performing their desired function. When performed it was mainly geared towards what was perceived to directly lead to increased productivity, or as a result of investigation of an accident by DFI. Consequently the workers and the employers do not derive the maximum benefit from risk assessment, which are a higher productivity and a healthier working environment and work force.

Results obtained from 1998-2003 at the Kumasi Metro Labour Department (KMLD) within Ashanti region was 175 cases more than that reported by the Department of Factories Inspectorate (DFI) for the whole country. Analysis of a researcher revealed that out of 185 accidents reported in 1999 only 16 (86%) of the total accident was reported for WPI while the KMLD reported 158 (64.7%) injuries for WPI in Kumasi metropolitan in 2001, 40 (18.9%) out of 211 accidents recorded by DFI came from WPI. While the KMLD recorded 145 (65.6%) injuries for the WPI out of 221 injuries recorded. In 2003, 26 (18.9%) out of 137 accidents were recorded by DFI for WPI while KMLD recorded 176 total injuries and out of the 115 (65.3%) were from wood processing industry. Thus, the extent of under reporting of industrial accidents in WPI only, ranges from 360 to 980 percent. If this is extended to other sectors of the economy, then, there is no doubt that the use of DFI statistics which has been used extensively in the past would not provide compelling evidences of adoption of Occupational Safety and Health policy in Ghana. It appears that the collection of workmen's compensation provided an incentive for the higher notification record of industrial accidents in the Wood Processing Industry at the KMLD (Ashanti). This may be explained by the key role the labour department plays in the collection of workmen's compensation for injured workers. There was no incentive to notify the DFI accidents even though Act 328 of Factories, Offices and Shop Act 1970 Section 10 stipulate the notification of accidents.

RESEARCH METHODS

RESEARCH DESIGN

This exploratory research sought to find the possibility of a relationship between background of workers and compliance to occupational health and safety. According to Robson (2002), exploratory studies are useful at finding out what is happening, to seek new insights, to ask questions and to assess phenomenon in a new light. A social survey was used to collect data on a probabilistic sample of 150 wood workers. The SPSS version 17.0 was used to analyse the data and the hypotheses tested using chi square statistical technique.

SAMPLING PROCEDURE

The target population for the study were wood workers at Naja David wood industry limited. They consisted of workers in charge of peeling/logging, boiling, drying and gluing the wood which included accountants, administrators and managers, both male and female who were currently at post at the time of doing the research. The units of analysis for the study comprised the individual employees of the organisation who took part in the four main stages of the wood processing - peeling/logging, boiling, drying and gluing. The current authorities of the company in-charge of facilitating the work of these workers also formed part of the units of analysis for the study. The list of employees (sampling frame) was obtained from the personnel office of the company. In all 500 employees were identified. They included 120 boilers (boiling), 100 loggers (peeling/logging), 180 gluers (gluing) and 100 dryers. Put together, a total worker population of 500 was identified.

In order for any research analysis to merit significance in statistical decision making Saunders, Lewis and Tornhill (2007) suggested that the sample size should be 10% or more of the population. Therefore, 30% of the 500 workers were sampled by the researcher which was 150 respondents. This again satisfied the condition needed for statistical test of significance in line with Oppenheim's (1992) argument that a sample size must be 60 or more in order to merit generalisation. In addition to the 150 respondents, one person from management was granted a structured interview in order to find out what health and safety policy was in place at the company. The systematic stratified random sampling technique was used to sample the 150 respondents as follows. The 500 workers were put into their various work groups or strata consisting of boiling (120), peeling/logging (100), glue (180) and drying (100). Thirty percent of each stratum (work group) was chosen. To select the individual respondents a sampling fraction of one-third was used since the sample size (150) was approximately one-third of the target population (500). A list of all workers in a particular stratum was compiled using the sampling frame. The first number (person) was chosen at random and every third number (person) was chosen after the preceding third number (person). This was rigorous and time consuming since the researchers had to implore every worker to keep his or her number in mind for the whole period of data collection. Finally, a total sample of 167 respondents was obtained. The aim of arriving at a slightly higher number (167) of respondents than the actual sample size (150) was to cater for non-responses which were normal in every social research.

With regards to the one respondent from management who was granted interview, a letter was sent together with the interview guide, based upon which the authorities of the company chose someone appropriate for the interview. This procedure was viewed as both purposive and appropriate because not every managerial staff may be well versed in the policy on health and safety in the company. Therefore, it was fair to allow the company to choose a technical person appropriate for the interview to be successful.

TOOL FOR COLLECTING PRIMARY DATA

The main tool used for data gathering was self-administered questionnaire. The majority of the questions were close-ended while a few were open-ended. The close-ended questions were asked with the view to permitting vivid comparison of responses while the open-ended questions aimed at allowing participants to supply information which was not captured by the response categories. A semi-structured interview guide was used to collect data on the existing health and safety policy in the organisation. All questions asked in this guide were open-ended. This was to give the interviewee enough opportunity to fully express himself on issues pertaining to the question. The questionnaire was pre-tested using 30 respondents from Sokoban wood village in Kumasi. The aim of pre-testing the research tool was to check for logic in the sequence of the questions asked. It was also meant to correct language difficulty and verify the average duration of time needed to answer each questionnaire. A few questions were reworded to improve clarity of the language. A few also demanded additional response categories for them to be exhaustive. This was because respondents wrote answers which were not covered by the pre-tested answers in the draft questionnaire. Other background information of respondents such as religious affiliation, number of children, ethnicity, monthly income and rank were dropped after the pre-test because it was detected that answers to these questions were either falsified or not answered.

DATA COLLECTION

A letter of introduction was first sent to the company for permission to conduct the study. The purpose of the study was explained in the letter to enable authorities of the company make an informed decision. The researcher also took the opportunity to interact and familiarize with the workers and the administrative structures and divisions of the facilities. Following the earlier visit was the questionnaire administration and all questionnaires were hand delivered to the respondents. The recollection of answered questionnaires was also done by hand. This gave opportunity to the researchers to do field editing thereby ensuring that all questions were correctly answered before collection. A face-to-face interview session was held with the managerial staff purposively chosen for the interview. This took about 30 minutes since the interviewer had no recorder and had to write all answers to a question on a piece of paper before proceeding on to the next question on their list.

RESPONSE RATE

It is often difficult to obtain 100% response rate when one uses questionnaire to collect data. This is often due to non-responses from some respondents. To avert the problem, the researcher decided to distribute 167 questionnaires even though the sample size was 150. This was done in order to avoid a situation where less than 150 questionnaires would be retrieved. Out of the 167 questionnaires distributed, 156 were answered and returned indicating 93.4% response rate. After editing, three (3) questionnaires were dropped because respondents gave double answers. Another three (3) were dropped in order to get the actual sample size of 150 thus, obtaining 100% actual response rate.

FIELD PROBLEMS

Some challenges were encountered by the researchers in the course of administering the questionnaire. Some respondents were hesitant to participate in the study because they could not perceive any immediate benefits to them. The researchers took time to explain to them that the study was an academic pursuit; although findings could be used for policy formulation and implementation to their benefit. Some respondents also complained of time constraints in answering the questionnaires because of their tight work schedules. To help solve this problem the questionnaires were given to such respondents to answer at their convenience either at break time or at home. The researchers then went back later to collect the completed questionnaires. A few number of participants also feared that their participation would lead to victimisation from suspicious bosses or supervisors. They thought that if they gave unfavourable answers about the company, their supervisors could jeopardise their job security. This problem was, however, solved when the researcher assured them of anonymity and confidentiality of information gathered. A few questionnaires were also misplaced by respondents. The researchers ensured that extra copies of the questionnaires were always kept handy. Cases of lost questionnaires were, therefore, resolved easily through replacement. These problems slowed down the data collection process. Nonetheless, it was successful with the help of some group supervisors who volunteered to gather and kept them down for the researchers.

DATA PROCESSING AND ANALYSIS

The answered questionnaires were edited to detect unanswered questions and also to eliminate errors such as double answers. The data were later cleaned and coded for entry into the Statistical Package for Social Sciences (SPSS Version 17.0) for Windows software by the researchers. Computer editing was done after keying in of the data was completed. The data were analysed and presented statistically using frequency tables. The testing of hypotheses was done using chi square test on the SPSS. The choice of chi square for hypothesis testing was made because the variables tested were predominantly categorical and as such the appropriate tool was chi square.

PRESENTATION AND ANALYSIS OF DATA

SOCIO-DEMOGRAPHIC DATA OF RESPONDENTS: The socio-demographic characteristics of respondents that were analysed included the sex, age groups, level of education and number of years of experience of respondents. These variables were taken into consideration for the analysis because they had the capacity to determine choice of job among people especially when the study was carried out among workers in a wood factory.

The majority (68.7%) of the respondents were males while 31.3% of them were females. The age group with the largest number of respondents was 34 - 41 years with 51.3%. This was followed by the 26 - 33 years age group with 30.7%. The others were 42 - 49 years age group 9.3% which was closely followed by the 50 plus years' age group with 8%. The age group with the least percentage (0.7%) of respondents was the 18 - 25 years. An overwhelming majority of the respondents ended their education at basic school which was middle school, junior high school or primary school. Those who had secondary level education were 28.7% while 0.7 percent of the respondents had tertiary level certificate on the job. By this distribution, it revealed that about three quarters (3/4) of the respondents were basic school leavers.

The number of years a worker practised on the job was relevant in determining the amount of experience of the worker. All things being equal, the longer the term of service the higher the degree of experience a worker had on the job. It was revealed that majority (52%) of the respondents had practised on their jobs for 11 - 15 years. Twenty percent of them had had 1 - 5 years working experience and 9.3% had had the longest serving period of 21plus years. Respondents who had worked for 6 - 10 years were 15.3% and only 3% had worked for 16 - 20 years.

HEALTH AND SAFETY POLICY: According to the management of the company, health and safety policy was in operation but as to whether it was followed strictly or not depended on the worker and his or her supervisor. The core provisions of the policy included wearing of PPE at work and following standard procedures for operating machines. The company tried to operate this policy by providing PPE for workers which included safety boots, safety overalls, nose masks, hand gloves, etc. The company also did proper induction of new recruits and shift workers, followed guidelines from the DFI, Ghana Fire Service (GFS) and other regulators. Furthermore, reminder notices were accordingly published and supervisors punished workers who violated the policy code. The company equally had a clinic with a qualified professional medical officer assisted by nurses and a stationed car to convey emergency cases to either the clinic or to hospital depending on the type and degree of emergency. The DFI regularly advises the company on policy guidelines to ensure safety and anyone found to have gone contrary to such guidelines was punished using the company's disciplinary procedures.

PROVISION OF PPE: When they were asked if they were provided with PPE for their job execution, 14.7% of the respondents answered in the negative which meant that they were never provided with PPE and had to do their work fully exposed to accidents and other forms of hazards. Only 1.3% that they were always provided with PPE. The greater majority (84%) of respondents said that they were not always provided with PPE in the company.

TYPES OF PPE AVAILABLE IN THE COMPANY: The majority of the respondents indicated that they were sometimes provided with PPE. The researchers asked for the types of PPE which were sometimes provided by the company. They explained that safety overall, goggles, safety boots and helmets were supplied by the company. Thirty-six percent were provided with nose masks, 80% were provided with hand gloves by the company. The statistics indicated the level of accidents or hazards in the company could be very high since only two out of the six PPE generally found in factories were available.

PREVENTION OF ACCIDENTS: 99.3 percent of the respondents agreed to the fact that the use of PPE prevented accidents at work. This was a sign of positive attitude towards PPE and occupational health and safety. In addition, the use of PPE at work could prevent or reduce the risk of getting accidents. Thus, majority of the respondents found PPE as preventive measure to accidents at work.

PPE USAGE AT WORK AMONG RESPONDENTS: When they were asked whether they used the few PPE available to them, majority (72%) of respondents said that they sometimes used them. 13.3% said that they never used PPE and 14.7% stated that they were never provided with PPE and for that matter they could not say whether they used PPE or not.

CONSEQUENCES OF REFUSAL TO USE PPE: With the exception of 0.7% of the respondents, 99.3% agreed that failure to use PPE was injurious to one's health and safety. This suggested that workers would readily use PPE if they were available.

LEVEL OF EMPLOYEE INVOLVEMENT IN ACCIDENTS: The study sought to find out the level of occurrence of accidents at work among employees. The majority (54%) of respondents admitted that they often experienced accidents at work. Another 34% testified that they experienced accidents very often at work. Thus, the rate of accidents occurring at the workplace was very high (88%). A few respondents (3.3%) rarely suffered accidents whereas 8.7% never got accidents while at work. The high rate of accidents occurring at the workplace was attributable to the fact that PPE were not sufficiently provided by the organization for its employees. This was because the analyses showed that only 36% of respondents were provided with nose masks and 80 percent with hand gloves. Other protective equipment such as goggles, safety boots, safety overall coats were non-existent in the company.

PLACE (S) OF ACCIDENTS AT WORK: With regards to where the numerous accidents experienced by employees occurred, majority (51.3%) of the accident cases took place at the production section where the wood was treated and sawn into desirable sizes for parking and storage. Forty percent of the accidents also occurred at the yard where the trucks were engaged to load outgoing stock.

NATURE OF ACCIDENTS: It was indicated that the two most common accidents at the workplace among respondents were bruises and lacerations or burns of which 34% of employees sustained one of them. Bruises and lacerations were the commonest cases of accidents at the workplace because they lacked safety boots to protect their feet. Apart from these two common accidents, 19.3% reported having suffered from fractures and just 0.7% suffered from eye defects resulting from accident. Cases of eye accident were the least at the workplace which was a bit surprising because none of the respondents were provided with goggles by the company and as such it was expected that eye accidents would have been among the commonest accidents.

ENSURING PPE USAGE AMONG EMPLOYEES: An overwhelming majority (98%) of the respondents pointed out that usage of PPE would be ensured if PPE were readily provided by the company for employees. This would create the need for employees to use PPE since they would be provided by the company. Only two percent stated that PPE usage would be improved by enforcing rules and regulations at the work place. In other words, two percent of respondents blamed failure to use PPE at work on lack of enforcement of the company's health and safety policies.

HYPOTHESES TESTING: In order to find the relationship between worker background information and compliance with OHS practices in the company, Pearson chi-square tests were used. Four hypotheses were tested involving two background characteristics of workers (education and length of service) and two characteristics of OHS compliance (PPE usage and involvement in accidents).

HYPOTHESIS I

H1: Level of education and PPE usage among wood workers were significantly related.

Ho: There was no significant relationship between level of education and PPE usage.

TABLE 1: CHI-SQUARE TEST FOR LEVEL OF EDUCATION AND PPE USAGE			
Statistics	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	16.696 ^a	4	.002
Likelihood Ratio	20.555	4	.000
Linear-by-Linear Association	5.442	1	.020
No. of Valid Cases	150		

$\alpha=.05$, 2-tailed test

Table 1, depicts that the p-value (.002) was smaller than the alpha (.05) and as such the null hypothesis was rejected while the research hypothesis was accepted. We, therefore, concluded that we were 95 percent confident that there was a significant relationship between PPE usage and level of education among wood workers in the company.

HYPOTHESIS II

H1: There was a significant relationship between length of service and PPE usage

Ho: There was no significant relationship between length of service and PPE usage.

TABLE 2: CHI-SQUARE TEST FOR LENGTH OF SERVICE AND PPE USAGE			
Statistics	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	56.425 ^a	8	.000
Likelihood Ratio	47.085	8	.000
Linear-by-Linear Association	7.718	1	.005
No. of Valid Cases	150		

$\alpha=.05$, 2-tailed test

To find out if there was a significant relationship between length of service and PPE usage, a chi square test (Table 2) was conducted in which the p-value (.000) was found to be less than the significance level (.05). Consequently, the null hypothesis was rejected since there was not enough evidence to support its validity. The research hypothesis was, thus, accepted at 95 percent confidence.

HYPOTHESIS III

H1: Level of education and involvement in accident were significantly related.

Ho: Level of education and involvement in accident were independent.

TABLE 3: CHI-SQUARE TEST FOR LEVEL OF EDUCATION AND INVOLVEMENT IN ACCIDENTS			
Statistics	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	90.708 ^a	6	.000
Likelihood Ratio	89.650	6	.000
Linear-by-Linear Association	15.266	1	.000
No. of Valid Cases	150		

$\alpha=.05$, 2-tailed test

Table 3 presents a chi-square test between level of education and involvement in accident at 95% level of confidence. The value of the test statistic or the p-value was 0.000 which was less than the significance value (0.05). Therefore, the null hypothesis which stated that there was no relationship between the level of education and the rate of getting accident among wood workers in the Naja David Wood Industry Limited had been rejected. Hence, we concluded that we were 95% confident that there was a significant relationship between level of education and involvement in accidents.

HYPOTHESIS VI

H1: Length of service was a function of involvement in accident

Ho: Length of service and involvement in accident were independent.

TABLE 4: CHI-SQUARE TEST FOR LENGTH OF SERVICE AND INVOLVEMENT IN ACCIDENTS			
Statistics	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	46.420 ^a	12	.000
Likelihood Ratio	48.581	12	.000
Linear-by-Linear Association	.452	1	.501
No. of Valid Cases	150		

$\alpha=.05$, 2-tailed test

Table 4 depicts a chi-square test between length of service and involvement in accident at 95% level of confidence. The value of the test statistic or the p-value was 0.000 which was less than the significance value (0.05). Therefore, the sample did not provide enough evidence to accept the null hypothesis which stated that there was no relationship between the number of years of work and the rate of getting accident among wood workers in the Naja David Company limited. Hence, we rejected the null hypothesis and concluded that we were 95% confident that there was a significant relationship between length of service and involvement in accidents. Thus, accidents reduced as workers stayed longer on the job and gathered enough experience.

DISCUSSION OF FINDINGS

On socio-demographic characteristics of respondents, the study examined four areas which included sex, age, level of education and number of years of work. The majority of respondents were males. In fact, the number of males was twice greater than the number of females among the respondents. This was because work in the wood factory demanded a lot of physical strength for its execution. And this explained why females were few there since they did not have the strength as their male counterparts.

The age group with the largest number of respondents was 34 - 41 years followed by the 26 - 33 years age group. People in these age groups were still young and strong. As such they had the energy to do hard work such as cutting, lifting and pushing. In effect, they constituted the economically active age group and they were desirous in working to meet life challenges. Considering the fact that over 70% were basic school leavers, they did not have employable skills to find themselves jobs in the formal sector. The only possible place they could therefore engage themselves to meet their economic needs was blue collar jobs and manual jobs which were found in wood processing companies.

The majority (52%) of respondents had worked in the company for 11 to 15 years. The number of workers who had worked for 16 to 20 years, however, reduced drastically to three percent and 9 percent in the 21 to 25 years of experience group. These figures showed that few people work in the factory for longer period of time which may be due to the tedium involved in the work which weakened people in the course of time thus, causing many of them to resign or leave for other jobs.

The provision of PPE for employees to protect themselves from danger wasn't encouraging. This was because the majority of them indicated that they were provided with PPE only at sometimes. This meant that at other times they worked without any protective equipment. About 14% of respondents even reported that they were never provided with PPE and were constantly exposed to hazards such as sharp objects and heat, noise and odour. Even among those who were sometimes provided with personal protective equipment, this equipment was either nose masks (36%) or hand gloves (80%). Other equally necessary equipment that should be worn by factory workers such as safety boots, safety overalls, helmets and goggles were non-existent. Respondents indicated that the company did not provide them with this equipment. Therefore, it meant that they would have to provide such equipment themselves. This was enough evidence to show that health and safety issues were not a priority in the company.

The respondents, however, unanimously agreed that the wearing of PPE could help prevent unnecessary accidents in the company indicated that the workers knew the importance of the putting on PPE. The problem was that such equipment was not readily available in the company for use by the workers.

When they were asked whether they used the few PPE available, 72% of the respondents said they only used them sometimes. 13.3% of them never used PPE and the question was not applicable to 14.7% of the respondents because they were never provided with PPE. The statistics indicated that the workers only used PPE when they liked and were not probably supervised with regards to PPE usage. Supervisors might not have been insisting on PPE usage because the company did not make the equipment available.

The majority (54%) of respondents admitted that they often experienced accidents at work. Thus, 88% of the respondents indicated that the rate of accidents occurring at the workplace was very high. The high rate of accidents occurring at the workplace was attributable to the fact that PPE were not sufficiently provided by the company for its employees and usage of PPE among workers was equally low. Therefore, it wasn't surprising to realise that accidents occurred frequently among employees. This was because they were constantly exposed to accidents. Occupational health and safety in the company was proved to be less catered for. Most of the accidents were found to have occurred in the yard (40%) and at the production section (51%).

The two most common accidents at the workplace among respondents were bruises and lacerations or burns. Thirty-four percent of respondents indicated that they sustained one of these accidents. Apart from these two common accidents, 19.3% stated that they suffered from fractures and only 0.7 percent said that they suffered from eye defects resulting from accidents. These cases of accidents at the workplace were due to unavailability of PPE to protect them which could have been prevented.

An overwhelming majority (98%) of the respondents indicated that the use of PPE would have been improved if the company had provided them. Only two percent (2%) revealed that the PPE usage would improve if the rules and regulations guiding operations at work in the company were enforced.

The discussion so far pointed to the fact that usage of PPE among workers in the Naja David Wood Company was low because PPE were not readily available to majority of the employees. The few PPE which were available were not frequently used causing various types and degrees of accidents to occur. The researchers therefore found out which category of workers, in terms of their background characteristics such as age, sex, education and experience, were likely to obey occupational health and safety regulations. Two criteria were used to indicate health and safety regulation - PPE usage and involvement in accident.

Consequently, four hypotheses were tested using chi square test to determine compliance to occupational health and safety and worker background characteristics. It was found out that there was a significant relationship between the level of education and PPE usage which meant that one's level of usage of PPE was dependent on level of education. There was a significant association between length of service and the use of PPE which explained that the length of service determined how PPE was used by the workers. Hence older workers used PPE more than younger workers. The chi-square test also revealed that the level of education was a function of one's involvement in accidents. Thus, the higher one's level of education the higher one's level of usage of PPE, which would minimize workers' involvement in accidents. Finally, there was a significant relationship between length of service and involvement in accidents. Accidents reduced as workers stayed longer on the job and gathered enough experience.

RECOMMENDATIONS

The following recommendations were made.

There was no comprehensive policy document on health and safety at the Naja David Industry Limited. It is recommended that a policy document on OHS should be printed and circulated among workers for their information and education. This should be followed by group discussions to ensure that employees understand it. This would help prevent accidents which are caused due to ignorance.

It was explained that PPE was not readily available in the company for use by employees. These included hand gloves, helmets, nose masks, safety overalls, safety boots and goggles. Only few workers were provided with hand gloves and nose masks. It is recommended that safety equipment be provided by the company for employees. This will show to employees how committed the company is towards OHS.

The use of the few health and safety equipment provided by the company was not encouraging. This is the reason for numerous accidents among workers as indicated by the findings. It is recommended that strict measures should be put in place whereby no employee should be allowed to enter the production area or yard without his or her PPE.

Work group supervisors should be empowered to discipline their subordinates whose behaviour does not conform to regulations guiding behaviour at work. This is because such supervisors are constantly in touch with workers and therefore, would be better placed to enforce policies on acceptable behaviour in the company.

Training and workshops should also be organised at the workplaces for both new recruits and employees in the company. This would inform the employees about the dangers of their work and how to prevent themselves against accidents.

There is currently a clinic at the factory which provides first aid to injured workers and treats other minor cases of health and safety. This is step in the right direction. It is recommended that employees who visit the clinic for treatment should have their cases investigated. If they are found to be negligent, they should be made to bear the full cost of their treatment. This would ensure compliance to safety rules and regulations in the company.

CONCLUSION

The study concluded that compliance to OHS differed among employees in the wood processing industry based on a number of factors. These included age, education and experience. One's inclination to using PPE at work depended on one's age, level of education and number of years of work experience. The study again concluded that there was significant relationship between one's sex, age, education and experience and one's involvement in accidents. Therefore, the rate at which workers get involved in accidents at work was dependent, to a significant extent, on their sex, age, level of education and number of years of work experience. Furthermore, compliance to OHS measures is dependent on the availability of adequate health and safety equipment coupled with closed supervision and safety equipment was not readily available in the company. There was high rate of accidents among workers at the Naja David Wood Company Limited because they did not use PPE which constantly exposed to accidents at the workplace. However, the accidents were minor cases involving bruises, burns and sprains except some few cases of fractures. Finally, it was found out that there was no comprehensive policy document on OHS in the company.

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