Impact of Health and Safety Management on Employee Safety at the Ghana Ports and Harbour Authority

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Abstract
The Ghana Ports and Harbour Authority (GPHA) has been plagued with series of fatal accidents and catastrophes claiming the lives of many employees in recent years. The purpose of this study is to examine the Safety and Health Management Systems (SHMS) implemented by the GPHA, assess the effectiveness of these measures in reducing accidents and death; and evaluate the impact of accidents and work-related illnesses on the employee safety at work. The results reveal an organisation fraught with poor health and safety management practices, poor training in safety know-how, lack of information on dangerous chemicals and hazardous materials, lack of monitoring and enforcement of safety rules, unavailability of essential safety equipments, with adverse effects on employees and the organisational performance. GPHA must increase education and create awareness of the importance of health and safety, ensure collection and storage of data for effective monitoring and evaluation of safety performance.
Keywords: Ghana, Ports, Harbour, Safety, Health

1. Introduction

The health and safety (H&S) of employees is a very significant issue to consider with relation to the attainment of organizational goals. Health and safety policies and programs are concerned with protecting employees and other people affected by an organisation's activities, products and services against hazards. With limited resources to help reduce occupational injuries, companies struggle with how to best focus these resources to achieve the greatest reduction in injuries for the optimal cost. Safety culture has been identified as a critical factor that sets the tone for importance of safety within an organization (O'Toole 2002).

Although the benefits of effective H&S management have been well documented, (Waring, 1996; Lingard et al, 2010; Pollitt, 2011), some organizations especially those in developing countries still aim at maintaining or increasing productivity and profitability at the expense of employee health and safety. With increasing industrialization and its consequent increase in industrial accidents and exposure to dangerous chemicals with their accompanying health implications for employees and others, the issue of health and safety management has become more pressing than ever.

It is estimated by the Health and Safety Executives (HSE 2011) "Every working day in Great Britain at least one person is killed and over 6000 are injured at work. Every year three-quarters of a million people take time off work because of what they regard as work-related illness. About 30 million work days are lost as a result" .It is also estimated that apart from the pain and misery caused to those directly or in directly concerned, the total cost to British employers of work related injuries and illness exceeds 4 billion pounds a year, (http://www.hse.gov.uk/pubns/indg275.pdf).

According to the International Labour Organisation (ILO, 2012) every day, 6,300 people die as a result of occupational accidents or work-related diseases – more than 2.3 million deaths per year. 317 million accidents occur on the job annually; many of these resulting in extended absences from work. The human cost of this daily adversity is vast and the economic burden of poor occupational safety and health practices is estimated at 4 per cent of global Gross Domestic Product each year. "Most of these deaths and injuries occur particularly in developing countries where a large part of the population is engaged in hazardous activities taking severe toll on these economies (www.ilo.org/global/topics/safety-and-health-at-work/lang--en/index.htm).

Thus the H&S of employees is crucial in the effectiveness of any organisation as it constitutes a major drain on the organisation's resources. However, if managed carefully, health and safety management can bring substantial benefits to the organisation. Research presented in the Health and Safety Executive(2004) in 19 case study organizations established that the tangible benefits from health and safety management include higher productivity, lower absenteeism, avoiding the cost litigation, meeting clients demands and improves staff morale and employee relations.

Although H&S management is a problem for all employers the world over, its' adverse impacts on employees and organisational productivity are most felt in developing countries especially in Africa due to a variety of reasons. In his working papers on health and safety management in developing countries, Ahasan and Partanen (2001) observed that officials who are employed by the state, are not able to implement work regulations and labour legislations. Generally, they are no professionally trained experts in the occupational health, industrial hygiene and safety fields, and thus, successful application and implementation of control measures are lacking. Workers everywhere face chemical, biological, physical, and psychosocial workplace hazards. However, people in developing countries bear more than 80 percent of the global burden of occupational disease and injury (Rosenstock, Cullen & Fingerhut 2006).

Zacharatos et al (2005) found in two separate studies that investigate the relationship between high performance work systems (HPWS) and occupational safety that HPWS was positively correlated to occupational safety at work. Organisational practices were also found to be related to hazard control measures and the rate of injury. These two studies provide confirmation of the important role organisational factors play in ensuring worker safety. Empirical studies conducted by Rosekind (2005), Goetzel et al. (2007), and Pronovost et al. (2009) all found employee safety and security at work to be directly related to organisational performance. Waring (1996) observed that "risk control implementation would be difficult if not impossible to achieve without appropriate monitoring of progress and outcomes" (p 54). Research by Professor Rhona Flin of Aberdeen University, pin-pointed leadership and managerial resilience as key drivers of health and safety performance. The author noted that the key to the success of any health and safety management system rests on management's drive towards making safety a 'lived' value throughout the organisation rather than one that was simply talked about (cited in Pollitt 2011).

The safety climate in an organisation is also found to impact employees' attitude towards safety and behavior on the job. Neal and Griffin (2006, pp. 946-7) define safety climate as "individual perceptions of the policies, procedures and practices relating to safety in the workplace". Safety climate is believed to shape workers' behaviour through the expectations they form about how organizations value and reward safety (Zohar and Luria, 2005). Cooper and Philips (2004) explored the extent to which safety climate predicts safety performance within organisations and found that a strong and positive safety climate is linked to high levels of safety performance. Tharaldsen et al. (2008) also report a significant inverse correlation between safety climate perceptions and accident rates. Clarke (2006)'s comprehensive meta-analysis of safety climate also revealed a consistent positive link between safety climate and safety performance.

Johnson (2007) revealed that perceptions of supervisors' safety actions predicted safety behaviour and the occurrence of incidents in the manufacturing sector. Lingard, Cooke & Blismas (2010) argue that Group Safety Climate (GSC) should be a stronger predictor of safety performance than organization level safety climate, especially in large organizations, because most workers have little contact with senior management and are more likely to be influenced on a day-to-day basis by the local GSC. Clarke and Robertson (2011) examined individual personality traits and their influence on accidents involvement and found low conscientiousness and low agreeableness to be valid predicators of accident involvement.

Employee H&S is said to be a joint responsibility of both the employer and the employee working together and playing their roles effectively (Armstrong 2006). Employers are required by law to prepare and issue a health and safety policy, setting out how they intend to provide a healthy and safe place of work, provide the necessary safety equipments and gadgets and ensure the monitoring and compliance with safety rules. The duty of all employees is to observe health and safety policies and regulations to avoid any action which might cause an accident or hazard to themselves or to others.

Thus, the effectiveness of H&S management at the workplace to a large extend depends upon the nature of the work performance systems and organisational work practices; leadership and managerial resilience in seeking continuous improvement upon and implementation of appropriate health and safety measures; and management's drive towards making safety an experiential value of the organisation. Additionally, the general safety climate and particularly group safety climate of specific work groups, supervisors' actions and behavior towards safety; and the individual's safety knowhow, awareness of the importance of safety and the willingness to take responsibility for their own safety and the safety of their work colleagues will determine the extent to which health and safety management will positively impact individual and organisational performance.

The rate of industrialization in Ghana is on ascendancy and this has led to a great number of the Ghanaian workforce being exposed to workplace physical, chemical, biological and psychological stressors. But have the nation's organisations got a system of anticipating, monitoring, evaluating, controlling and preventing such exposures to the

workforce?   Employers in Ghana are required by Act 651 of the Ghana Labour Act, 2003 to "take all practical steps to ensure that the worker is free from risk of personal injury or damage to his or her health during the course of the worker's employment or while lawfully on the employer's premises".   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.

1.1 Research Problem and Objectives of Study

The Tema branch of the Ghana Ports and Harbour Authority, the largest international port in the country has for the past three years been plagued with series of fatal accidents and catastrophes claiming the lives of several employees and the public. It is recorded that on the 25th of March 2010, an accumulation of oil caused a major fire outbreak at the Tema Port that took the lives of over twenty (20) persons Dry Dock and its surrounding areas. As part of the measures to avert any future disasters, the GPHA conducted a mock oil spill exercise at the Tema Harbour to test their disaster response capabilities. The exercise involving the imaginary vessel MT Prampram, an oil tanker discharging crude oil led to a major explosion causing harm to a number of employees resulting in medical treatment and hospitalisation, (GNA, Nov. 8, 2010). Besides, in July this year, a recording clerk was crushed to death at the port by a 45-footer *ritchstacker* machine used in lifting containers. Other fatal accidents in the last five years include empty container handler accidents, gantry crane accidents, vessel burning, container truck falling down, and cargo truck accidents (http://news1.ghananation.com/latest-news).

With the discovery and exploitation of oil at the shores of Ghana, there has been a sharp increase in the number of vessels docking at the ports causing huge traffic with increasing numbers of accidents. Currently more that 10 000 000 tons of cargo dock at the port each year represent more than 20% increase over 2005 figure (http//www....). The question therefore is to what extent are health and safety issues addressed at GPHA by both management and employees to ensure a safe and healthy working environment for all employees as well as the public who use these facilities? What measures are put in place to prevent disasters at the workplace? In the unfortunate event, is GPHA well equip to deal with disasters should they occur.   This study seeks to: (a) Examine the Safety and Health Management Systems (SHMS) implemented by the GPHA (b) Assess the effectiveness of these safety measures in reducing accidents and death; and (c) Determine the impact of accidents and work-related health hazards on the safety of employees at the GPHA.

2. Research Methods

This study is a case study involving the Tema branch of the Ghana Ports and Harbours Authority (GPHA). A case study is a study of a person, a small group, a single situation or a specific case. It involves extensive research, including documented evidence of a particular issue or situation (Burns & Grove, 2001). A case study method was used as it enabled the researcher to conduct an in-depth investigation into management and employees' conduct, attitudes and perceptions of health and safety at the workplace. The Tema branch of the GPHA was selected for the study because it is the larger of the two ports in Ghana.

2.1 Research Sample and Sampling Technique

A combination of simple random sampling and purposive sampling methods were used to select respondents for the study. A total sample of 200 employees was selected from the five main departments. Simple random sampling was used to select 185 general staff while purposive sampling was used to select 15 key managers and supervisors. Whereas simple random sampling ensures that each member of the population has an equal chance of being selected, purposive sampling involves the conscious selection by the researcher of certain key participants whose inclusion is vital to the study but whose selection cannot be guaranteed by the simple random sampling technique. In all, 80 respondents participated in the study constituting 40% response rate.

2.2 Research Instrument and Procedures

Questionnaire and personal interviews were the instruments used for gathering data for the study. While questionnaires were used to collect quantitative data from the rank-and-file of employees, interviews were used to collect detailed information from managers, supervisors and key operations staff as well as cross check information gathered from other employees thereby increasing the validity of data collected.   A semi-structured questionnaire consisting of open-ended and closed-ended questions including Likert scales with questions for measuring the degree

to which respondents believed the Health and Safety management systems operate effectively to provide a safe working environment for employees and what impact if any that the system has on the organisation's productivity. According to Rovai (2002), Likert scale questions are recommended for studies aimed at assessing people's attitudes and perceptions of a variety of social and organisational events.

The data obtained from the field went through editing process to correct errors. The inconsistencies were eliminated by cross checking information with the respective respondent and information gathered from other respondents. Each completed questionnaire was then particularized by assigning serial numbers ranging from 01 to 100 to aid the identification of each questionnaire. This process also helped in the cross checking with respondents and the processing of data.

Data was analysed using both quantitative and qualitative methods. The statistical software package SPSS was used to analyze the quantitative data to obtain descriptive statistics mainly in the form of frequencies and percentages. Inferential statistics was used to make decisions and inferences by interpreting data patterns that allowed the researchers to establish relationships between the GPHA's health and safety policies and practices on one hand, and employees' perception of safety and organisational performance on the other. As Nachmias & Nachmias (1992) note, "both descriptive and inferential statistics help in developing explanations for complex social phenomena that deals with relationships between variables" (p340).

3. Analysis of Results

Our data shows that responses were obtained from all the five departments included in the study. The breakdown is as follows: General Operations Staff who deal directly with cargo and freights of all sorts = **30** (37.5%), Fire and Safety Department who are responsible for the provision of all safety equipments and enforcing safety laws = **15** (18.7%), GPHA Clinic responsible for treating accident victims and responding to minor health needs of staff = **10** (12.5%), Marine Department = **15** (18.7%), Human Resource Department = **5** (6.3%), and Public Relations Department = **5** (6.3%). A total of 48 respondents representing 67.5% were males while 34 representing 32.5% were females. The males outnumber females because the GPHA is a male dominated organization as most of the jobs involved are considered as male professions with few females going into them.

3.1 The Health and Safety Management at the GPHA

An organization's health and safety policy sets the scene from the top regarding the board's beliefs, intentions, priorities and requirements from managers and workforce (Waring, 1996:53). This section analyses data that evaluates the health and safety policies and measures implemented at the GPHA. The variables studied here include: availability of health and safety policy and employee awareness of such a policy, education and training on health and safety matters, availability of personal protective devices (PPD), monitoring and enforcement of safety regulations, and the major causes of accidents and work related illnesses.

3.1.1 Availability and Employee Awareness of Health and Safety Policy

Management of GPHA has a comprehensive health and safety policy which was made available to the researchers. Our investigations reveal that majority of the respondents (70%) were aware the organisation has a health and safety policy. However, when respondents were asked whether the policy was made available to them and whether they know the contents of such a policy, only 54 respondents constituting 67.5% answered "Yes", 17 respondents representing 21.2% answered "No" and 9 respondents representing 11.2% "Don't know". This implies that although most of the employees were aware of the health and safety policy, over one third of the organisation's employees are ignorant of the health and safety rules and regulations. This is a significant number which must be a cause for concern for the organisation's HR management who are charged with the responsibility of employees' welfare and safety at work. Management should therefore implement measures that increase employees' awareness of health and safety regulations by communicating safety standards and expectations effectively to all employees. As Cascio and Bernardin (1981) note, communication should clarify expectations and create a feeling of involvement as implementation of rules become effective only when behaviour standards have been clearly communicated and understood by employees.

3.1.2 Health and Safety Training

For employees to comply with health and safety regulations and to take these matters seriously, they must be provided with relevant training and education. Our investigations reveal that majority of respondents have received

some training on health and safety at the workplace. Safety education and First aid form part of the organisation's in-plant training programmes and one week during the year the organises a Safety Week during which seminars are organized for staff, Port users and the public to increase their knowledge and safety awareness. However, 23% of respondents reported having no training at all in health and safety. Since a significant number of employees have no training in health and safety, they would not know the importance of observing safety rules and may therefore not take the necessary precautions to safeguard the health and the safety of themselves and those they work with. Respondents who received training and education on health and safety were also asked whether the training they received was helpful and majority agreed by answering 'Yes'. However, nearly one fifth of respondents representing 19% did not find the H&S training sessions useful. It is evident the H&S training initiatives implemented by the GPHA do not go far enough to safeguard employees against hazards at the workplace. It would be essential for the organisation to adopt specific H&S skills training strategies including the use of on-the-job skills training methods to ensure that skills acquired during training are applied on the job.

Health and Safety Representatives interviewed also complained about lack of adequate and timely information about chemicals workers are asked to handle on daily basis. Due to the insufficiency of the requisite information, employees end up not using the right attire, equipments, and other essential protective garments for handling particular chemicals, a situation which often results in the inhalation of dangerous chemicals and ignition leading to fire outbreaks. The organisation should ensure effective dissemination of necessary information and ensure that H&S training programmes are tailored to the health and safety needs of the individual workers to ensure that resources have the greatest impact on the goals and objectives of the training programmes.

3.1.3. Availability of Necessary Personal Protective Devices (PPD)

For operations staff working on the ground, wearing of protective garments can mean the difference between personal safety and severe injury at work. For safety to be assured, employees must be provided with all the personal protective devices necessary for security and safety at work. Respondents were asked to list the PPD available to them. Table1 below shows that visibility jacket was the most available PPD for employees while safety boots were the least. On the average, each employee has less than three protective equipments. Not surprisingly, when asked to respond to the statement: "I have all the personal protective devices and safety equipment that I need to protect me when I work", only 52% of respondents reported having all the necessary PPD for full protection at work. Majority of respondents who disagreed with the statement to varying degrees were mainly general operations staff on the ground who face the most dangerous hazards.

Respondents were also asked to name one crucial PPD they need which was not provided to them. More than 20% mentioned helmets as the most necessary equipment lacking in their safety armory. Face masks, goggles, reflectors, protective suits and safety boots were also mentioned. In all, two thirds of the workforce lack one or more necessary protective device which the organisation fails to provide. This situation is alarming as it casts doubts on GPHA's ability to provide a healthy, safe and secured working environment for all of its employees.

3.1.4 Monitoring and Enforcement of Health and Safety Rules

Monitoring here refers to the extent to which management ensures that the health and safety rules and regulations are complied with by employees. The variables studied here include, compliance, supervision and enforcement of safety rules. To assess the level of compliance with health and safety rules at the GPHA, employees were asked to respond to the question: "I always wear essential protective garments when working". Unfortunately, only 28% totally agree to always wearing safety garments when working. The rest only partially agree or disagree to varying degrees. This shows that a significant number of employees do not see the essence of wearing the necessary PPD's at all times when carrying out work that requires such protective armor. The reasons given for not wearing protective garments include: ignorance of safety requirements, unavailability of the necessary safety equipment, lack of motivation and most importantly, non-enforcement of safety rules.

Respondents were then asked to respond to the statement: "Supervisors always ensure that the staff wears the necessary protective devices when working". The results captured in figure 1 below show that only 47.5% of respondents either totally agree or agree to the statement. The rest were either neutral or disagree to varying degrees. A number of recent studies have shown that Supervisors' expectations and actions are important determinants of the safety climate especially group safety of work groups as they substantially influence organizational climates and group norms (Zohar, 2002; Lingard et al, 2010). If supervisors let slip staff who flout the rules, it sends the message that safety issues are not important thereby encouraging non-compliance and poor attitudes towards safety. It is

therefore important that supervisors as well as culprits are held accountable for breaches of safety rules especially when such breaches result in accidents and other safety hazards. This will send a strong message to both employees and supervisors that the organisation takes safety rules seriously.

With regard to enforcement, employees were asked if those who do not comply with health and safety rules were always disciplined. The data reveals that only 17% of respondents totally agree with the statement. The overwhelming majority (83%) only partially agree or disagree to varying degrees. This clearly shows that the safety rules at the GPHA are not effectively enforced and reinforced throughout the organisation making it possible for employees to flout the rules with impunity. Besides, a significant number of the people who work on the ground at the port are not directly employed by the GPHA making enforcement of safety measures more cumbersome.

3.1.5 Major Causes of Accidents at the GPHA

Respondents were asked an open question to name the causes of accidents and work related illnesses on the job. The question was open to enable respondents reveal as many causes as possible so as to expose the true picture of events. The data collected revealed that the major causes of accidents are negligence, carelessness, ignorance, non compliance with safety rules and regulations, adamance to change, incompetence, over confidence attitude and complacency, fumes from vehicles, faulty machines, and non adherence to work procedures. Fatigue, lack of maintenance on some container tracks, breakdown of machines and lack of technical know-how, and lack of information and expertise in handling dangerous chemicals were also mentioned. The recent oil spill that cost scores of lives was said to be due to negligence and human error. The issue of overconfidence attitude which is commonly referred to as "*too known*", is a major problem among most Ghanaian workforce especially with older employees who have been on the job for several years and come to believe that they could handle any job situation without further instruction and therefore disregard laid down work procedures and rules.

It is important to note that most of the causes of accidents mentioned are preventable causes which if management effectively implements, monitors and enforces safety regulations throughout the organisation will go a long way to prevent most of these accidents and save lives as well as cost to the organisation. These preventable causes of accidents will affect the productivity level of GPHA negatively. This is because careless employees, those who lack competence and confidence etc. will ignore the details that must be followed when working with strong chemicals, machines, and equipments which will in the end affect their health thus leading to sick leave, high absenteeism rate and increasing other cost such as overtime cost. Consequently, operating costs will be increased thereby reducing profit the organisation.

Finally, respondents were asked whether they think accidents and injuries were increasing or decreasing in the last three years at the GPHA. As high as 70% of respondents believe the rate of accidents is on the rise in the organisation. As one respondent stated "We have been experiencing injuries and even fatal accidents a lot lately because the harbour is becoming busier and busier" (Respondent D12).

Thus, the recent increases in the number of accidents and injuries at the GPHA can be attributed to the poor health and safety management system and lack of the technology and safety know-how, lack of capacity to handle increasing traffic and cargo at the port, ineffective implementation and enforcement of safety rules leading to preventable accidents and injuries with severe consequences for employees and the organisation.

3.2 The Impact of Health and Safety Management on Employee Safety and Performance

This section is devoted to evaluating the impact of the GPHA's health and safety measures on employee and organizational performance. The variables studied here include: experience of work related accidents and health problems and number of days off sick.

Our data shows that 28 respondents (35%) stated that they have experienced accidents or health problems that are related to the work they do. Most of these respondents claim to have had a number of days off sick ranging from one day to several weeks in the last three years. Five respondents have been off sick for more than one month due to injuries sustained at work. Although there is an accidents reporting unit, investigations at the HR department revealed no written records of accidents and health related absentees.

There were therefore no official records available to the researchers to establish the true extent of the cost of these accidents and health related illnesses to the organisation. There is however no doubt that with over a third of workers getting involved in accidents and work related illnesses that take them away from the job will have adverse impact on the productivity of the individuals as well as the organization as a whole. The direct impact of this on

organisational productivity is the immediate loss of input from the affected employees which will directly lower the total output of the workforce, as well as the huge cost of insurance, medical and bereavement benefits Besides, if a significant number of employees regularly experience work related illnesses and accidents, it will eventually affect morale of the entire workforce and this will in turn affect their performance negatively.

As a Senior Health Officer at the medical department stated, "…most of the employees who come into contact with or inhale chemicals such as ammonium gas and fumes from tractors and other heavy machines do experience work related illness especially respiratory problems and even lung cancer. A number of our retired employees are reported to have contracted lung cancer and other diseases which they think would have been caused by working with GPHA". This is a damning verdict of GPHA's health and safety record which could potentially cost the organisation millions of Cedis should such affected employees decide to seek redress at the court.

Our investigations reveal that management has expressed concern about the H&S issues that have beset the organisation in recent years and is committed to implementing measures to ensure a safe and secured working environment for all of its employees and the public who use the port and harbour. As a management official in the Fire department stated, "Management is doing everything possible to put in place effective measures that guarantee the health and safety of our workers, but we face serious challenges like lack of finance to replace old and worn-out safety equipments, and the resources to regularly conduct effective health and safety training for employees".

It is however important that management of the GPHA knows that spending money to ensure a safe workplace should be considered a necessary and a profitable investment rather than a wasteful cost as a recent research conducted Towers Perrin's Research and Consulting Services (2010) shows that for every $1 invested in safety at the workplace, a company gains $2 in return from increase in productivity as well as the saved cost of health bills, sick pay and bereavement benefits in the case of death on the job. The GPHA should therefore take safety matters seriously if it wants to improve productivity, profits and the overall effectiveness of the organisation.

3.3. Employee perception of the Safety Climate at GPHA

Positive safety climate is widely proven to be directly linked to safety performance, employees' feeling of safety at work and general safe work environment (Gillen et al., 2002; Clarke 2006; Neal and Griffin 2006). Particularly, management's commitment to safety and workmates safety behaviour exert significant influence on self-reported safety behaviour (Zhou et al. 2008). To assess employees' perception of the safety climate at GPHA, the researcher used a 12-item Likert questions that test management's commitment to safety, employees' safety behaviour and employees expectations of co-workers' safety behaviour. The results are presented in table 3 below.

Our data revealed that majority of employees at the GPHA do not believe that management is committed to ensuring safety of all workers at the port. This is in sharp contrast to a report by the Acting Director General, K. D. Boateng that "We have a remarkable safety record…and continue to work to ensure the safety of our workers and the general public" (http://www.winne.com/ghana2/to16.html).

The data also showed that there is a feeling of insecurity among some workers as only half the workforce is satisfied with the general safety climate at GPHA. There is however, a wide variation in the responses of various workgroups regarding group safety climate. Whereas majority of operations staff on the ground express dissatisfaction with the safety environment, most of the office staff were quite satisfied with the level of safety. This is not surprising because it is the operations staff on the ground who are most exposed to danger. Employees here are regularly exposed to dangerous chemicals like caustic soda, ammonium gas, dynamite etc. as well as interface with heavy machinery, cranes and cargo.

Surprisingly, despite the feeling of insecurity, the data showed that only 6% respondents agree that their team would refuse to carry out an unsafe task. This implies that workers themselves are not proactive in insisting on their right to safety and holding management accountable to safety breaches. Similarly, majority of the workers seem not to hold each other accountable for their safety behaviour on the job although nearly all expert appropriate safety behaviour from their coworkers.

4. Conclusions and Recommendations

The studies reveal major lapses in the GPHA's health and safety management systems and practices due to, ignorance of safety regulations, lack of monitoring and enforcement of safety rules, unavailability of essential safety equipments, poor training in safety know-how and lack of managerial commitment to safety issues and with adverse consequences for employees' safety at work. The GPHA must therefore embark upon a wide awareness creation program including displaying health and safety rules at vantage points throughout the organisation and making their

H&S policies available to all employees through the email and by handouts. H&S policies should also be reviewed frequently to ensure that new dangers and threats are taken account of. For these challenges, management needs to embark upon a major health and safety educational and skills training program using experts in the field to create awareness of the importance of strict adherence to H&S rules and procedures at work.

Management should make sure that supervisors as well as employees are held accountable for safety breaches and appropriate disciplinary measures taken. Motivation in the form of safety awards could also be given monthly or quarterly as an incentive for supervisors and employees of units where no accident occur.

Lastly, the GPHA management must reinforce its data collection unit and ensure effective collection of data on all health and safety incidents and accidents that occur on the job to ensure that proper records are kept on these issues. That will enable management to work out the actual cost and impact of health and safety on the organisation's productivity and therefore take measures to a safe and healthy work environment for all.

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Notes

Table 1: Personal Protective Devices (PPD) Available

Response	Frequency	Percentage
Goggles	35	43.7%
Protective suits	25	31.2%
Gloves	23	28.7%
Visibility jackets	60	75%
Safety boots	15	18.7%
Helmets	32	40%

Description: The table presents the types of PPDs available to employees

Table 2: I have all the Personal Protective Devices I need to protect me when I work

Response	Frequency	Percent
Totally agree	20	25.0
Agree	22	27.5
Neutral	13	16.2
Disagree	15	18.7
Totally disagree	10	12.5
Total	80	100.0

Description: Table 2 presents respondents' opinion on the adequacy of PPDs available to them

Table 3: Employee Perception of the Safety Climate at GPHA

Statements about GPHA Safety Climate	Agree	Neutral	Disagree
Management of GPHA is committed to ensuring safety at work	45%	23%	32%
Management continuously implements policies and programmes that promote health and safety	35%	16%	51%
Workers at GPHA always work safely even when they are not being supervised	32%	25%	43%
People here think health and safety is not their problem– it is up to management and others	39%	10%	51%
All people who work in my team are fully committed to health and safety	52%	15%	33%
I trust my workmates with my safety	52%	15%	33%
My workmates would react strongly against people who break health and safety procedures	25%	15%	60%
People in my team refuse to do work if they feel the task is unsafe	6%	61%	33%
Co-workers should be warned when their actions are unsafe	94%	6%	0%
Workers should point out hazards to co-workers	100%	0%	0%
Most workers are satisfied with the level of safety at GPHA work environment	51%	4%	45%
I work in a safe and healthy environment	51%	0	49%

Description: Table represents respondents' opinions about the safety climate at GPHA
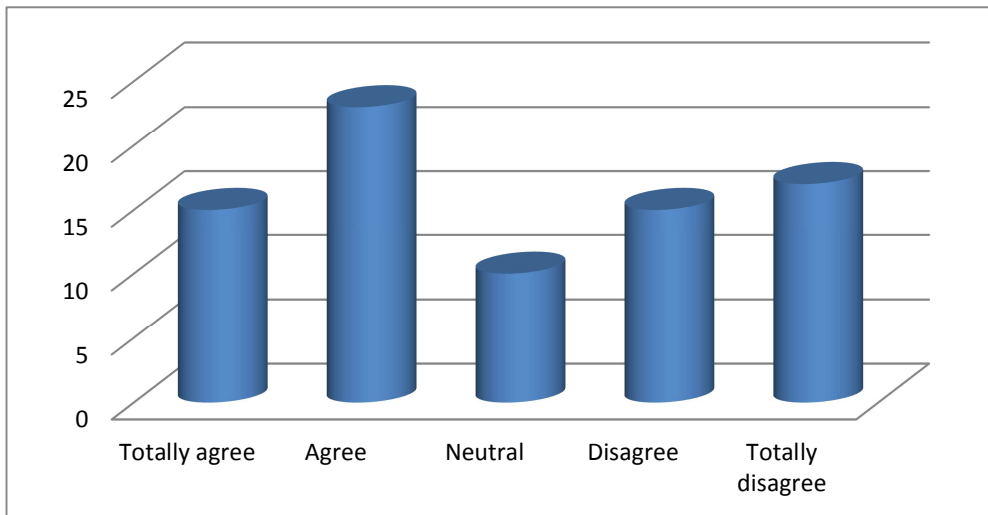
Figure 1: Supervisors always ensure that the staff wears the necessary protective devices when working

Description: The figure presents respondents' view of monitoring and enforcement of safety rules.

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