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Research Article

How Health and Safety Training Affects Service Delivery Among Staff in the Ministry of Health in Busia County, Kenya

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Abstract: Employee safety and health programmes occupy a pivotal position in Human Resource Management. Improving employee productivity and occupational health and safety (OHS) therefore, have been an important field of interest to industry especially in developing countries. The purpose of this study therefore was to analyze effect of health and safety training on service delivery. This study adopted explanatory research design. The target population consisted of 13 Administration staff, two (2) County Health Chief Officers (CO), three (3) Directors of Health, two (2) County Health Human Resource Managers, 13 Nursing Officers, 13 Health Administrators, 582 nurses, 12 Clinical Officers and 14 Health Records Information Officers. A sample of 284 employees was derived. Structured questionnaires were used to collect data and a pilot study conducted to pre-test questionnaires for validity and reliability. Descriptive and inferential statistics were employed as the main data analysis methods using Statistical Package of Social Sciences (SPSS Version 20). The findings of the study were presented using tables and figures. Findings of the study showed that health and safety training had a statistically significant positive relationship with the service delivery in Busia County. The conclusions of the study were: health and safety training should be very efficient and practiced in Busia County to improve service delivery. Safety inspection should be carried out on regular basis by the line managers and supervisors with the advice and help of safety and health advisers. Routine inspection for all premises for possible safety and health problems, using checklist as aids should be enhanced. Therefore, the following were recommendations of the study: The County Government of Busia County should seriously consider and implement effectively health and safety training. Workplace safety should be considered by the County Government as an important operational priority in addition to cost, quality, flexibility, delivery, and innovation to save lives and improve service delivery. The study would help the County government and other employers who had the legal responsibilities to provide safe workplaces and systems of work, adopt occupational health safety management system.

Keywords: Health and Safety Training, Service Delivery, Staff in the Ministry of Health in Busia County

BACKGROUND OF THE STUDY

According to International Labor Organization (ILO) 2012 Report, it is estimated that 2.34 million people died from work related diseases (approx. 2.1M) and accidents (approx. 0.4M) in 2008n alone. Similarly, in ILO's 2005 report, it was estimated that there were around 12,819 of work-related diseases, 16163 work-related mortality and 3,484 deaths caused by dangerous substances. From the foregoing background studies, most companies have failed to implement the Workman Compensation Act that would ensure compensation of all injuries. Their excuse to failure of implementation is that it would increase labor costs (Nyakang'o 2005). The international labor organization (ILO) and the World Health Organization (WHO) require that occupational health should aim at the promotion and maintenance of the highest degree of physical, mental and social well-being of workers in all occupations. However, most of companies have failed to comply with the requirement claiming that it is costly for them to develop and maintain a good Occupational Health and Safety System (WHO, 1995).

Occupational Health and Safety Management Systems (OHSMS) have been defined by Gallagher (2001) as "…a combination of the planning and review, the management organizational arrangements, the consultative arrangements, and the specific program elements that work together in an integrated way to improve health and safety performance." Efficient use of communication and information networks in enterprises both helps with reducing number of accidents and improves the perception of workers as regards management's commitment for OHS (Gyekye *et al*., 2012).

Safety management systems refers to integrated mechanisms designed to control the risks that may affect worker health and safety in organizations and at the same time to ensure the organization complies with the set regulations. Occupational Health and Safety Management Systems refers to a combination of planning and review, the management organizational arrangements and specific program elements that work together in an integrated way to improve health and safety performance (Gallagher, 2001).

The safety climate in hospitals is effective on some issues such as medication errors, nurse back injuries, urinary tract infections, patient satisfaction, and patients' perception of the responsiveness of nurses and nurse satisfaction (Hoffmann & Mark, 2006). The right to healthy working conditions has dramatically gained a lot of interest at the global, regional and national levels. Countries around the world have recognized the universality, inalienability, interdependency and indivisibility of the human right to safety and health working conditions (Occupational Health and Safety Act, 2000).

Safety at the workplace has become a cross-cutting disciplinary area concerned with protecting the safety, health and welfare of people engaged in employment. This is because workers, like any other resources require maintenance and care in order to maximize the productivity (Casio 1996). For this reason, health and safety should not be viewed as a separate function or responsibility but as a broader initiative that aims at improving productivity, profitability and competitiveness of an organization (Pike, 2000).

In Britain in 1995/1996 more than one million employees suffered an accident causing more than three days absence from work. This represents an enormous waste of human resources as well human suffering. The cost of accidents and work-related illness to British employers has been estimated to $2.5 billions that year (Cole, 2002). The cost of accidents is an unwelcome addition to production costs and employers have to seek ways of avoiding this additional burden. Holt and Andrews (1993) recommend that it is necessary to deliver the message that health and safety of employees is important by giving messages of unpleasant consequences of actions and to advise staff on importance of health safety in the workplace basing on organization's health and safety policies and procedures.

In the United States, an agency (Occupational Health and Safety Administration) was created within the department of labour to set safety and health standards for all workers. This ensures that every employer provides employees a place of employment which is free from recognized hazards that are causing or are likely to cause death or serious physical harm to employees. In 2000 in the United States, there were over 4.7 million non-fatal injuries and illnesses resulting from accidents at work place per year (Dessler, 2005).

Muchemedzi and Charamba (2006) explain that accidents do not arise from a single cause but from a combination of factors which act simultaneously. A potentially unsafe situation does not cause an accident until someone is exposed to it. Accidents are caused by the result of unsafe acts or practices (the human element that results from poor attitudes, physical conditions and lack of knowledge or skills to enable one to work safely). They are also caused by the result of unsafe conditions of equipment or materials.

The 1969 Frank Bird Accident Ratio study on causes of accidents found out that 88% of accidents are caused by unsafe acts of persons, 10% are caused by unsafe mechanical or physical conditions and the remaining 2% are unpreventable. Muchemedzi and Charamba (2006) analysed the above statistics and established that the majority of accidents (98%) do not just happen. Instead, people who perform unsafe acts and create unsafe conditions cause them and therefore accidents are preventable. A local National Social Security Association (NSSA) bulletin established that most food factories do not abide by set OHS regulations. Most accidents are so minor that they have no visible injury or damage.

Human resource managers and practitioners need to be seen as champions of safety. This position is espoused by Kilian (2012) that human resource professionals have important role to play in the operation of safety by administering, communicating, facilitating and championing the process. Similarly, the Canadian Centre for Occupational and Health safety asserts that human resource professionals are a vital link in any safety programs as they understand the work processes and demands as their training placed them in the position to balance both the interest of the organization and the employees. Human resource policies act as a measure for stakeholders' safety in the health care. One of the most challenging issues faced by the health sector is to manage the changing employment relationship. Health sector is highly occupational hazards prevention oriented business where interaction between employees and customers determine the competitive advantage and success of a business.

Working conditions are the physical settings which employees are exposed to while carrying out their duties. Most organizations are concerned with providing a safe and healthy working environment for their employees. Safety and Health in this case encompasses security, protection and well-being of workers, which is essential to their productivity. Not all situations affecting employee safety and Health can always be anticipated. Nevertheless, management has the

responsibility to implement, enforce, evaluate and review issues related to safety and Health in the organization, which is part of humanitarianism. International labor laws also require that reasonable levels of safety and Health be maintained in the work environment (Armstrong, 2006). Safety policies and programs are concerned with protecting employees and other people from any dangers in relation to what the company produces or any activity that is part of the Company. Safety is the condition of being protected against failure, damage, error, accidents or harm. In the modern industries, safety and Health management concerns go beyond the physical condition of the workplace. It is also concerned with employees mental and emotional well-being. Because of the importance of safety and Health, employees at all levels the organization should be involved (Dessler, 2001).

Hospitals are amongst the highly important and sensitive work environments since the performance of employees in its workplace is associated with the lives of thousands of people, thus, a call for a prioritized emphasis of hospital safety. Establishing a strong safety culture is critical to improve the safety and reduce the adverse events (Rosen *et al*., 2008). Some of the dangerous incidences which can occur include: - fire outbreaks, spillage of corrosive chemicals on human body parts, allergy caused by chemicals to people, gas cylinder explosions, falling down and fracturing or breaking by employees, falling of patients from their beds and bursting of light bulbs.

In Kenya, the Work Injury Benefits Act 2007 covers compensation for all employees, for injuries sustained at the workplaces. It is an improvement of the earlier workman's Compensation Act, which only covered selected group of workers: those earning Kshs. 400,000/= yearly. However, employers are resisting implementation claiming it will increase labor costs (Nyakang'o, 2005). Ministry of Labor reports that more than half of the industrial accidents and injuries in Kenya go unreported. It estimates that reported occupational fatalities and injuries for the year 2000 to 2004 were 1528,1923,1332,1599, and 1387. This is viewed against the background that factories and other work places have to be registered by the Department of occupational Health and safety but, by the end of 2004, only 11,387 such enterprises were registered excluding the 1.3 million micro and small enterprises (Nyakang'o, 2005). Health Institutions in Kenya were established in the year 1928 to deal with smallpox epidemic; massive mortality rate and famine break out. Smallpox epidemic occurred during famine season in Kenya and killed up to half of the entire population.

STATEMENT OF THE PROBLEM

The Health industry has over the year faced critical challenges including treatment errors, patient safety, employee safety, safety climate, and increase in environment variability and degree of competition, acute shortage of qualified labor and the increasing labor turnover, inadequate resources, and high cost of employee replacement in the health sector. The shift of health sector to human resource management has created interest o the effect of human resource policies on safety policy and organizational safety .many studies have shown a great deal of attention Davis (2000), Koh Corrigan Daldon (1990). Policy workers; caregivers, health care administrators and researchers have agreed that medical treatment in the health care industry have perspective of organization behavior. The concept of safety climate in health industry is unlike other industries, since the health sector has several unique characteristics that only affect organization staff members, but also the customers. the health care environment is very complex in terms of tasks characteristics since each patient is unique and in health care setting employees safety behavior is controlled not by the organization but also by the healthcare professionals; define social reality by creating principles and guidelines for action Scot and Beckmann(1990).

The effects of work place hazards are not confined to hospital premises alone; they can often do cause injuries and death to members of the general public as well. It is commonly known that, there is an inherent conflict between the government's need to increase output in-service delivery, and efficiency and employ's needs to maintain good health and be protected from hazards at workplace. If this left to go its way, it would be difficult for many organizations and employees to realize the value for money, because employees will spend their earnings treating job-related diseases, injuries, and/or death occurrence at large number, while organizations will be busy paying compensations and reparations, fines to authorities, repair of buildings and tools' damages. Employees and customers in the County Government of Busia have complaint over time of deplorable working conditions of the workplace. The Ministry of Health has witnessed myriad of challenges but not limited to job-related diseases, injuries, and/or death occurrence due to occupational safety and health practices like safety procedures and risk management, health and safety audit, occupational hazards prevention and health and safety training. Therefore there is a great need for additional evidence to support impact of occupational safety and health programs on employee performance. It's from this background that this study sought to investigate occupational safety and health practices on service delivery among staff in the Ministry of Health in Busia County, Kenya.

PURPOSE OF THE STUDY

The purpose of the study was to determine the effect of health and safety training on service delivery among staff in the Ministry of Health in Busia County, Kenya.

RESEARCH HYPOTHESIS

The study was guided by the following hypothesis:

$H_0$1: There is no significant effect of health and safety training on service delivery among staff in the Ministry of Health in Busia County.

THEORETICAL REVIEW

This study adopted Economic Theory and Distractions Theory to explain the effects of occupational safety and health programs to employee performance. These two theories are hereunder reviewed:-

Economic Theory

The cost of prevention of workplace accident occurrences determines whether an employer will institute measures and systems in place to counter them. Employers who fail to reduce workplace hazards incur high costs of operation because workers will always demand addition compensation of endurance to occupational safety and health risks and inadequacies. To avoid these costs, the employer will make safety and health improvements until the cost of additional precautions I smote than paying wage premiums and other related costs. In this manner, labor markets should create systems to counter safety and compensation of workers. Assumption of this responsibility will expand product market networks and lead to more efficiency performance by employees. The employer's assumption of these costs will make the market for the employer's product or service more efficient. Because the employer assumes these costs, the price of the product or service will reflect the cost to society of the production of the good or service, including the cost occupational illnesses and injuries (Walter 1974).

Goal-Freedom Alertness Theory

The Goal-Freedom Alertness Theory was developed by Kerr (1950) and it states that safe work performance is the result of psychologically rewarding work environment. Under this theory, accidents are viewed as low-quality work behaviour occurring in an unrewarding psychological climate. This contributes to a lower level of alertness. According to the theory, a rewarding psychological climate is one where workers are encouraged to participate, set sustainable goals and choose methods or safety programmes to attain those safety and health goals. They must be allowed to participate in raising and solving problems.

Goal-Freedom Alertness Theory essentially states that management should let workers have well defined goals and freedom to pursue those goals. The result is a higher level of alertness and a 16 focus on the tasks at hand. The theory suggests that managers and supervisors should try and make work more rewarding for workers. They may use a variety of managerial techniques including positive reinforcements, goal setting participative management and clear work assignments.

Heinrich *et al.* (1980) supports the theory by stating workers will be safe in a positive work environment. They argue that safe performance is compromised by a climate that diverts the attention of workers. They confirm that hazards divert the workers attention during work hours and thus the diversion increases susceptibility to injury. Heinrich *et al*. (1980) suggests that managers and supervisors can actively work to alleviate hazards in the work environment. Reaction of workers to unsafe conditions depends on the whether the worker identifies the unsafe condition.

EMPIRICAL LITERATURE

Health and Safety Training and Service Delivery

According to Armstrong (2006) Health and safety training is a key part of the preventative programme. It should start as part of the induction course. It should also take place following a transfer of employee to a new station or change in a working method. Health and safety training spells out the rules and provides information on potential hazards and how to avoid them. Further refresher training should be provided and special courses laid on to deal with new aspects of health and safety or areas in which safety problems have emerged. Dessler (2005) asserts that training is another way of reducing unsafe and un health acts, especially for new employees. They should be instructed in safe practices and procedures, warn them of potential hazards, and work on developing a safety- conscious attitude. OSHA has published booklets on training requirements and teaching safety in the work place.

A study was conducted by Jelimo (2013) on the effects of occupational health and safety practices on employee productivity found out that occupational health and safety practices that have positive relationship with productivity of employees. This study revealed that there are occupational health and safety practices that have positive relationship with productivity of employees and include; fire preventions and protection, lighting and ventilation, person protective equipment and good housekeeping, while chair/tables and facilities for sitting, first aid kit and medical facility and drinking water and sanitary facilities had negative relationship. From this study, a conclusion drawn indicates that when

an organization fully implements occupational health and safety practices, productivity is proportionally increased. Therefore, this recommends forum interrupted enhancements of occupational health and safety practices as it significantly influences employee fulfillment, dedication and efficiency.

Barling and Hutchinson (2000) found in their study that commitment-based safety practices improved trust and organizational commitment and indirectly and directly influenced the safety climate. Another study by Parker *et al.* (2001) underscored the importance of organizational commitment in improving the safety performance. In short, organizational interest was shown by acts in support of workplace health and safety. Workplace health and safety is expected to influence organizational commitment (DeJoy *et al*., 2010).

Wachter and Yorio (2014) suggested that when organizations invested in a safety management system they approached towards improving the performance of accident reduction/prevention and the occupational safety. Such organizations stated that they also cared for winning the hearts and minds of their workers thanks to human performance systems based on safety management in order to develop and improve organizational commitment in workers. As safety performance decreases the accident rate, personnel injuries and material damage decrease and working conditions enhance simultaneously resulting with higher employee motivation and reduced absenteeism (Fernández-Muniz *et al*., 2009). Meanwhile absenteeism, defined as habitual or intentional absence of employee's from work, has a major effect on company strategies. Employers desire certain number of lacking workdays from employees in a time interval since extra absences can decrease productivity (Cucchiella *et al*., 2014).

Banai and Reisel (2007) asserted that work alienation was selected as a dependent variable as focused by different disciplines until today. DeHart-Davis and Pandey (2003) suggested that workplace alienation was conceptualized as a general cognitive state of psychological disconnection with work driven by lack of professional autonomy. Moreover, alienation is often seen as an agent of dehumanization since the person becomes an object who merely responds to job rather than seeing job as an accomplishment of self (Sookoo, 2014). The results of work alienation in workplace are less worker commitment, employee dissatisfaction, employee sabotage, absenteeism, employee turnover, less productivity, and aggression amongst employees and groups and employee burnout (Sookoo, 2014). Employers cannot put their employees in jeopardy becoming alienated. So, organizations should pay attention to employees' behaviors and attitudes which influence job performance.

According to Takala (2005), the director of the ILO's safe work program, one of the suspects of the high rated incidents is stated the lack of training and skills in developing nations. Most people in these economies have never worked in heavy industry and only some of them have little experience on hazards like electricity. Therefore lack of experience from developed countries' technology and machinery is quoted as a cause (Perez-Floriano & Gonzalez, 2007).

Wilson & Rosenfeld (2004) asserted that integrated health, safety and productivity management programs are emerging as a business imperative aimed at improving the total value of human resource investments. These programs rely upon the joint management of human resources benefits and programs that employees may access when they are sick, injured or balancing work/life issues. They include health insurance, disability and workers' compensation, employee assistance, paid sick leave, and occupational safety programs. Wilson & Rosenfeld (2004) cited that also included are activities meant to enhance morale, reduce turnover, and increase on-the-job productivity. An integrated health, safety and productivity management model evolved over the past five to ten years. What led to its emergence? What prompted business leaders to actively pursue an integrated approach as a business imperative? Below we review some of the forces that supported a growing interest in, and adoption of, integrated health, safety and productivity management programs among American businesses.

Armstrong (2006) further insisted that enlightened employers understand the various factors that comprise their total employment costs. They realize that their direct costs include wages paid to employees in the form of salary, bonuses, stock, savings plans, and commissions. They also understand that they pay for what is sometimes referred to as fringe benefits, which include health insurance, short- and long-term disability coverage, and workers' compensation.. A third component, often overlooked, consists of "other labor costs." This category of expense includes the "people" or "human capital" costs for programs that increase productivity and morale (e.g., training, health promotion, fitness facilities, picnics, fun events) and reimbursements to workers for lost time due to absenteeism. For example, the employer pays for unnecessary replacement worker wages, routine over-staffing or overtime premiums, and the largely intangible costs of dealing with morale issues, interpersonal problems, and sub-par productivity related to health problems.

The Health and Safety Executive (2006) further explains that genuine productivity gains can be realized by those businesses that invest in high performance health and safety practices. However, the Health and Safety Executive (2006) also recognizes that there need to be a positive attitude by many organizations if they are to move on from simply

attaining minimum legal compliance toward implementing the best practice of OHS. For those organizations that make the transition, the rewards are well worth the effort. In other words, when an organization is committed to OHS best practice and implements it in a properly managed manner, the result is a win-win situation that benefits both the workforce and the organization for which they work. There is need for a workplace improvement in terms of occupational health and safety for the benefit of the employer and the employee in order to increase productivity. Health to man has a unique genesis that commenced when man perceived imbalance in his system. Imbalance is experienced in the environment including the workplace. In a noble profession of public health, one will always experience opposition from those who preach preventive medicine outside while inside is filled with curative medicine. Thus it is quite evident that any individual employee productivity is always a function of his/her well-being. A healthy employee will not only be efficient and effective but also motivated to work and perform to the expectation.

Mburu (2017) investigated occupational health and safety training among biomedical waste handlers in Nairobi City County. A mixed research method defined by both qualitative and quantitative paradigms informed the study. A sample size of one hundred and sixty eight (168) respondents was used in the survey with a target population of biomedical waste handlers in Nairobi City County. Results indicated that there is inadequate training on occupational health and safety among employees which has resulted to increase in accidents. High failure rates on the use of biomedical protective equipment and improper maintenance of personal hygiene were among other contributing factors to the prevalence of occupational hazards. However, the study failed to indicate how occupational health and safety training affects service delivery in health sector.

Tait (2019) evaluated the status of medical laboratories' OSH within Kajiado County, Kenya. The objectives entailed establishment of OSH training in the implementation of good OSH practices. The study adopted cross-sectional research design. The study used interview schedules, structure questionnaire, and interview and observation checklists. The researcher was conducted in 108 medical laboratories in Kajiado County and the sampled participants were 204. Further, the factors hindering implementation of good practices among medical laboratory staff in Kajiado County include negative attitude on OSH, inadequate resources/ infrastructure, inadequate training on OHS, ignorance/lack of awareness. The study failed to related OSH training influence on service delivery

Buyela (2018) assessed the relationship between occupational safety as well and service delivery health practices in Kenya agricultural and livestock research organisation, western Kenya region. Structured questionnaires, camera and checklists were used for data collection including personal observation. Data was analyzed using the Statistical Package for Social Sciences. Respondents reported that they are not trained on identification of hazards as a control measure and therefore are at risk of exposure to harmful chemicals. However, the study did not indicate how OSH training influences service delivery in the organization.

Wanjiru (2018) to establish the perceived influence of occupational safety and health practices on employee commitment at Nakuru Level Five County Referral Hospital. The study adopted descriptive design. The population comprised of 438 medical employees of the Nakuru Level Five County Referral Hospital, both permanent and temporary employees. The categories of these individuals include; doctors, nurses, clinical officers, radiologists and lab specialists. The study gathered primary data by means of questionnaires. The study recognized that the key occupational health and safety practices at Nakuru Level Five hospital included health and safety education and training, policy, committee, practices by management and audits. The study concludes that occupation health and safety practices had significant effect on employee service delivery

CONCEPTUAL FRAMEWORK

O'Donnell's (2000) conceptual model of human performance exemplifies the linkages between health and safety, productivity and profits. Health and safety prevention and intervention programmes play a critical role in his model as these types of programmes can improve the physical and psychological well-being of the workforce which in turn reduces absenteeism and presenteeism. The conceptual framework shows how each variable was measured, with the indicators shown using the bullets.

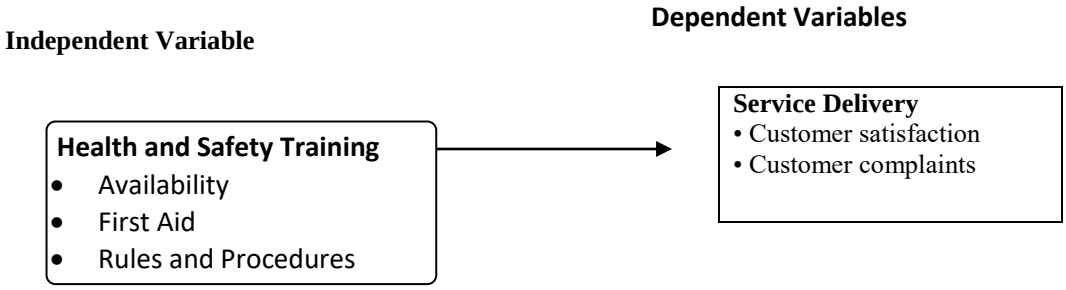

Figure 1: Conceptual Framework Showing Interaction of Key Variables
Source: Researcher (2021)

RESEARCH METHODOLOGY

The research adopted descriptive survey research design. This is a type of a conclusive research that has its major objective as description of phenomena associated with the subject, proportions of population that have certain characteristics (Malhorta, 1996). The target population consisted of 13 Administration staff, two (2) County Health Chief Officers (CO), three (3) Directors of Health, two (2) County Health Human Resource Managers, 13 Nursing Officers, 13 Health Administrators, 582 nurses, 12 Clinical Officers and 14 Health Records Information Officers. This information is well illustrated in the Table 1.

Table 1: Target Population

List of Level 4 Hospitals	Designation	Target Population	Sample Size
County Referral Nambale Sub-County Butula Sub-County Funyula Sub-County Budalangi Sub-County Matayos Sub-County Teso South Sub-County Teso North Sub-County	County Health Chief Officers	02	02
	Directors of Health	03	03
	County Health Human Resource Managers	02	02
	Nurses	582	238
	Health Administrators	13	13
	Clinical Officers	12	12
	Health Records Information Officers	14	14
	TOTAL	**628**	**284**

Source: Human Resource Department, Busia County (2021)

There were two main ways to gather this information. This study adopted a census survey for all the respondents except for the 582 nurses where simple random sampling was used categorize the level four hospitals and the respondents. The sample size for nurses was selected using Slovan formula (2003):

$$n = \frac{N}{1+(N \times e^2)}$$ Where: N= the population; n = sample size and E= Tolerance level of confidence or probability level of α=0.05

Given the population N= 582 then the sample size n =582/ (1+ {(582 *0.05^2)} = 238 nurses were apportioned according to the eight (8) level 4 hospitals.

The structured self-administered questionnaires were administered via drop and pick method and the interview schedules (County Health Chief Officers, Directors of Health and County Health Human Resource Managers) to collect primary data. For validity to be achieved, four requirements were met: face, substance, criterion-related and validity. By utilizing material validity, the validity of the testing tools was assured. It was assessed through literature searches to ensure that items are based on the domain of the study concepts in accordance to (DeVellis, 2012). They were again corroborated by expert judgment and review suggestions as advised by Aila & Ombok (2015). The research advisors and research supervisors in the School of Business and Economics as well as scholars in the School of Graduate Studies from Kibabii University gave expert judgment and their suggestions were incorporated. The reliability of the research instrument represents the degree of internal consistency or stability over time (Kothari, 2004). The results of reliability analysis indicated that the instruments were reliable for data collection since, all the Cronbach's Alpha values were above 0.7.

Descriptive statistics included mean, frequencies, standard deviation and percentage by use of Statistical Package for Social Sciences (SPSS). The findings were presented through frequency distribution tables. Correlation and regression analyses were used to establish the effects of health and safety training on service delivery using the following regression

model:

Model 1: $Y= \beta_0+ \beta_1X_1+ +\varepsilon$

Where:

Y=Aggregate mean score service delivery

β_0 = y- intercept/constant

β_1= Regression coefficient for health and safety training

X_1=Aggregate mean score for health and safety training

ε =Error term- random variation due to other unmeasured factors

RESEARCH FINDINGS AND DISCUSSIONS

Descriptive Statistics of Health and Safety Training

Eight questionnaire items were used to survey the prevailing status of health and safety training on the service delivery in Busia County.

Table 2: Descriptive Statistics for Health and Safety Training

Descriptive Statistics					
Questions	N	Minimum	Maximum	Mean	Std. Deviation
Emergency treatment is available in case of accident in my organization.	277	1.00	5.00	4.2744	0.88291
Workers are trained against health hazards in my organization.	277	1.00	5.00	4.1372	1.09476
Workers are provided with health and hygiene training in my organization.	277	1.00	5.00	4.0614	1.23352
Workers are provided with first aid training in my organization.	277	1.00	5.00	4.1300	1.03791
Workers are trained on safety and health rules in my organization.	277	1.00	5.00	3.7365	1.13534
Workers are trained on safety procedures and risk management in my organization.	277	1.00	5.00	4.0686	1.19130
We are trained by experts from OSHA	277	1.00	5.00	3.7834	1.11154
We are trained twice in a year	277	1.00	5.00	3.9025	1.19838
Mean Average	**277**			**4.01175**	

Source: Field data, 2021

The findings presented in Table 2 indicated that emergency treatment was available in case of accident in the organization. (Mean = 4.2744, SD = 0.88291). Similarly, the findings revealed that workers were trained against health hazards in the organization (Mean = 4.1372, SD = 1.09476). Consequently, workers were provided with health and hygiene training in the organization (Mean = 4.0614, SD = 1.23352). The study findings further indicated that workers were provided with first aid training in the hospitals (Mean = 4.1300, SD = 1.03791). Furthermore, workers were trained on safety and health rules in the organization (Mean = 3.7365, SD = 1.13534). Still results showed that workers were trained on safety procedures and risk management in the organization (Mean = 4.0686, SD = 1.19130). The trainings conducted were executed by the experts from OSHA (Mean = 3.7834, SD = 1.11154) and that the employees were trained twice in a year (Mean = 3.9025, SD = 1.19838). On average, the items on prevailing status of health and safety training on the service delivery realized an average mean of 4.01175, implying that the employees in the Busia County had considered health and safety training in their operations. These findings are in agreement with the observations made by Towers (2003) and Takala (2005) who noted the role played by health and safety training on the service delivery in organizations. They recommended that training and skills in developing nations was key and employees should be informed of the dangers that are eminent at their workplace.

Descriptive Statistics of Service Delivery

Table 3 shows descriptive statistics of Service delivery in Busia County. Outcomes of the study showed that clients were satisfied with services provided (Mean = 3.9414, SD = .74524) and therefore, company met its objectives (Mean = 4.29, SD = 1.000). The findings also revealed that most businesses have an average market size (Mean = 4.2599, SD = 1.08562). Furthermore, employees indicated that service delivery was exceptional (Mean = 3.8216, SD = 0.77612). Employees' results on customer satisfaction indicated that it was average among staff in the Ministry of Health in Busia County (Mean = 3.7220, SD = 1.21821) and that few complaints were registered (Mean = 3.3646, SD = 1.37020). Some of the employees received rewards and commendations for exemplary service delivery (Mean = 3.4729, SD = 1.28684).

The items on Service delivery realized an average mean of 3.763733, implying that the service delivery among staff in the Ministry of Health in Busia County was average.

Table 3: Service Delivery

Descriptive Statistics Questions	N	Min.	Max.	Mean	Std. Deviation
Clients are satisfied with services provided	277	1.00	5.00	3.9414	0.74524
Service delivery is exceptional	277	1.00	5.00	3.8216	0.77612
Company meets its objectives	277	1.00	5.00	4.2599	1.08562
Customer satisfaction is high	277	1.00	5.00	3.7220	1.21821
Fewer complaints are recorded	277	1.00	5.00	3.3646	1.37020
I receive rewards and commendations for exemplary service delivery	277	1.00	5.00	3.4729	1.28684
Average Mean				**3.763733**	

Source: Field data, 2021

Regression Analysis

In order to determine how health and safety training affect service delivery among staff in the Ministry of Health in Busia County are statistically related, simple regression analysis was carried out which determined the strength of the associations between these two variables.

The hypothesis for the first objective is stated as follows:

$H_0$1: There is no significant effect of health and safety training on service delivery among staff in the Ministry of Health in Busia County.

Table 4. gives a correlation coefficient (R) of 0.652 which implied that health and safety training had a direct positive relationship with the service delivery in Busia County.

Table 4: Model Summary for Health and Safety Training On Service Delivery

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics R Square Change	F Change	df1	df2	Sig. F Change
1	0.652[a]	0.426	0.424	0.45458	0.426	203.863	1	275	0.000

a. Predictors: (Constant), OBJ1- Health and Safety Training

Source: Field data, 2021

The findings showed health and safety training had $R^2 = 0.426$, which is the coefficient of determination which explains the percentage of variance in the outcome variable that is explained by the independent variable. This meant that health and safety training contributed 42.6% variation on service delivery in Busia County and the rest is contributed by other factors. Change statistics illustrated that health and safety training and service delivery were statistically significant (F = 203.863, P=0.00). F-value explains a significant amount of variance in the dependent variable (service delivery). Thus, the model was fit to predict service delivery using health and safety training.

The regression coefficients were generated when the mean of the health and safety training and service delivery were regressed (see the study outcomes in Table 5).

Table 5: Regression Coefficients

Coefficients[a]					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	β	Std. Error	Beta		
(Constant)	1.737	0.144		12.049	0.000
Health and safety training	0.504	0.035	0.652	14.278	0.000

a. Dependent Variable: Service delivery

Source: Field data, 2020

Findings illustrated that health and safety training had coefficients of estimate which was positive and significant, β1 = 0.504, p-value <0.05. This suggested that a unit increase in the health and safety training could result to there was up to 0.652 unit increase in service delivery in Busia County. From the model, when health and safety training was modified by one unit, there was a related shift in the Service delivery in Busia County by 0.652 units. The $H_0$1 was therefore

failed to be accepted and it was determined that health and safety training had significant effect on service delivery. The following simple linear regression model was derived as shown below.

$Y= 1.737+ 0.504X_1$……..…Equation 1

These results are comparable to the findings by Jelimo (2013) on the effects of occupational health and safety practices on employee productivity found out that occupational health and safety practices that have positive relationship with productivity of employees. This study revealed that there are occupational health and safety practices that have positive relationship with productivity of employees and include; fire preventions and protection, lighting and ventilation, person protective equipment and good housekeeping, while chair/tables and facilities for sitting, first aid kit and medical facility and drinking water and sanitary facilities had negative relationship. Similarly, Mburu (2017) investigated occupational health and safety training among biomedical waste handlers in Nairobi City County. Results indicated that there is inadequate training on occupational health and safety among employees which has resulted to increase in accidents.

CONCLUSIONS

In conclusion, health and safety training is very instrumental in enhancing service delivery among staff in the Ministry of Health in Busia County. This means health and safety training should be very efficient and practised in Busia County to improve service delivery. Enhanced health and safety training would reduce accident rates thus, improving the service delivery in Busia County.

RECOMMENDATIONS

The County Government of Busia County should seriously consider and implement effectively health and safety training, occupational hazards prevention and safety procedures and risk management to enhance service delivery. These variables have been tested and approved to increase efficiency in service delivery. Workplace safety should be considered by the County Government as an important operational priority in addition to cost, quality, flexibility, delivery, and innovation to save lives and improve service delivery.

SUGGESTIONS FOR FURTHER RESEARCH

The study focused only on effect of health and safety training on service delivery among staff in the Ministry of Health in Busia County. It is possible that if the study was conducted in other counties, the magnitude and direction of the relationship between the study variables might be different. Thus, future research should include different counties. Future research may re-examine the conceptual model used in this research with a larger sample size so that the outcome could be generalized to a larger population. Moderating variables like organizational culture, leadership among others should be included.

AUTHOR CONTRIBUTIONS

Nancy Nafula Nasimiyu sought for the study authorization from the relevant government institutions like Graduate School of Kibabii University and National Commission for Science, Technology and Innovation. He developed the study methodology that comprised of research instruments that were used in data collection. He further analyzed, interpreted and discussed the data. He undertook a literature review that included the background information on the study concepts and the theoretical context. He trained and supervised the research assistants as well as coordinated primary data collection. He also coded the collected questionnaires and thereafter undertook data entry and analysis using SPSS software. Dr. Kadian Wanyama and Dr. Obino Paul Ong'anyi ensured that the published article conformed to the journal's formatting guidelines.

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CONFLICT OF INTEREST

The authors declare that there are no conflicts of interest regarding the publication of this Manuscript. In addition, the ethical issues; including plagiarism, informed consent, misconduct, data fabrication and/ or falsification, double publication and/or submission, redundancy has been completely observed by the authors.

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