

**TRAINING FACTORS INFLUENCING SHORTAGE OF HUMAN RESOURCES FOR
HEALTH IN SAMBURU COUNTY REFERRAL HOSPITAL, KENYA****Salim Omambia***

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ABSTRACT

Objective: The project aimed to identify the training factors contributing to the shortage of human resources for health in Samburu County Referral Hospital, Kenya. **Design Setting:** The investigation deployed a cross-sectional study. **Subjects or Participants:** A sample population of 145 participants was calculated using the Fishers et al method of 1998. Data collection was done using a survey with closed-ended queries. A strict inclusion criterion was followed to select the respondents from all trained health personnel in Samburu County Referral Hospital in Kenya. Data were analyzed using SPSS, presented in figures with various diagrams like charts and tables, and interpreted using descriptive statistics. **Results:** The study observed that nurses held monetary compensations as a key booster to working especially in out-of-town health institutions. According to the study results, the majority of the healthcare workers at Samburu county referral hospital (73.1%, p-value 0.002 OR 2.6) highlighting that there was a close association, were not satisfied with the training and support offered by the hospital to build an up-to-date workforce. The study results indicated that there was a need for continuous training and development taking into deliberation the political factors, economic, social-economic, technological, legal, environmental and international factors among others. **Conclusion:** There was a strong impact of training and development on employee performance. The healthcare staff in the institution find their training and development beneficial to their performance.

KEYWORDS: Training, Performance, Motivation, Migration, Development, Expertise, Improvement.**INTRODUCTION**

By 2050, more than two-thirds of the world's population will live in urban areas presenting governments and city authorities with the daunting challenge of ensuring that urban dwellers have equitable access to safe and sustainable transport systems, and healthy, sustainable living and working environments (WUP, 2018). By the turn of 2013 sub-Saharan Africa had a shortage of close to 1.8 million health employees and the shortage has been indicated to go up to 4.3 million by 2035. The reasons for this shortage have been highlighted to be as follows: - low funds for education and training of the health workers. This is supported by the region only having 170 medical schools. With 6 countries with no medical school at all and 20 with just one medical school, (WHO, 2013). It had been noted that one in every trained nurse in our Kenyan institutions has applied to move to other countries, (Otieno, 2016). This numbers are even worrying when you look at medics and HRH, with an approximate of about 30-40% of the 600 medics graduating each year leaving the country, (Muraguri, 2015). Annex to all these as a country we also face a very big challenge, by having a shortage in mental health

nurses, with the few that graduate moving to other countries to seek greener pastures, (Oywer, 2011) Given the dynamics of the current business environment, training and development has become an indispensable function in global organizations. Building an effective human capital that contributes to continual organizational growth has become the established norm to survive in a competitive business landscape.

Employees are the major assets of any organization. Every organizations needs well trained employees to perform the activities effectively and efficiently. It is the continuous process of the organizations that helps to develop skills, knowledge, and abilities. Training and development leads the better performance of employees. The wellbeing in every country in the world has been based on how strong and practical the health programs are run. Acute global shortage of hospital personnel presents the world with a serious problem that had been projected to worsen in the future. WHO, reports that there were 60 million health care personnel, the situation has been worsened by some countries having better working conditions compared to other nations?

Resulting in traveling of employees from their motherland to other countries that offered better terms, (Obura, 2014). The world has been facing a major problem, where there is an estimated 7.2 million health worker shortage in the foreseeable future. This usually had a trickledown effect to the billions of people out there by 2035, (WHO, 2013). With Asia showing a huge number with regards to shortage of health personnel, it is Africa and the sub-Saharan Africa that accounted for the greatest share. It was worth noting that with government efforts towards training 47 countries we only had 168 registered medical schools, (WHO, 2013). The Kenya medical training college produced over 8,900 graduates in 2018 and this was due to expansion and new graduates from newly created campuses. In Kenya studies indicate that there is a crisis with regards to the little number of workers that have been trained to work in the health sector. The reasons have been the high wage bill required to run the hospitals, social-economic factors, political have been among the main reason attributes for the crisis, (Government of Kenya (GOK), 2010). The Marsabit County Referral Hospital has been challenged with the shortage of HRH. It was due to this deficiency of human resource for health that the Kenyan Government decided to import 100 Cuban doctors and dispatch at least 2 in each county, including Samburu County. Although the Cuban doctors were brought, Samburu county referral hospital still experiences shortage of HRH in every department. 57 countries have been earmarked by WHO, for having a serious shortage of HRH, with 36 of these countries being in Africa, which registered about 600,000 medical personnel by 2006, with a ratio of 1.3 health workers per 1000 population, which lies below the recommended 4.5 per 1000 as per the millennium development goals standards, Hence the call for Africa to increase in work force in the health sector by 140% to achieve a good distribution of the workers. Most affected countries in Africa include Mozambique, Kenya, and Tanzania, among others, (WHO, 2008).

The emigration of African health care workers to western industrialized countries like the USA worsens the HRH crisis in Africa. This global movement has been brought about by the desire to achieve more both personally and professionally; and this aspiration were combined with factors that arise from political, economic and general living conditions within each country. There were much more literatures on brain drain than in county migration, (Obura, 2014).

In Kenya, the transition of national to county governments brought about disadvantages for example little knowledge in the system, managerial issues and absence of direction among the different levels of governments. At the central level of government, the trials of decentralization as portrayed by the mass media have fused in the form of pitiable managing, poor reserve circulation, society doubts, lowly waged circumstances and overdue pays, amid other issues. It was because of

these issues that some of the health workers decided to resign from their jobs. Moreover, reports on strike and strike threats have been rampant within the country, (Kimathi, 2017).

The key cadres in Kenya that face critical shortage include physicians, nurses, clinical officers, laboratory technologists, health record officers and radiologists. Although the WHO endorses at least 2.3 physicians and 1.3 nurses per 1000 population, Kenya, with inhabitants of forty-four million in 2014, had a share of only 0.1 physicians and followed closely by nurses and midwives at 2.1 per 1000 population. Kenya still had a long way to go to realize the recommended number of nurses, physicians and doctors to take care of the inhabitants, (Muriuki et al 2016). A Study by Otieno (2022) reported that Kenya had a total of 189,932 healthcare workers in 2020 with 66% being in the public sector, and 58% being nurses, 13% clinical officers and a paltry 7% doctors, respectively. According to the WHO, the prescribed health worker density ratio is determined as 23 doctors, nurses and midwives for every 10,000 people. However, data showed that the health workforce ratio in Kenya stood at 13 doctors, nurses, and midwives for every 10,000 people. The data further showed that the country had a shortage gap of 3,238 medical officers, with the required number being at least 5,317. There was also a deficit of 2,313 consultants, 1,070 dentists, 4,614 public health officers, 1,020 pharmacists, 4,167 pharm technologists, 3,970 specialist clinical officers and 9,301 general clinical officers.

Samburu County Referral Hospital, the largest hospital in Samburu County has faced a lot of challenges of a disproportional nature coupled by a deficiency in SHRH for many years. It was due to this deficiency of human resource for health that the Kenyan government decided to import 100 Cuban doctors and dispatch at least 2 of them in each county, including Samburu. Although the Cuban doctors were brought, Samburu County Referral Hospital still experiences shortage of health workers for health in every department. Training and development are the crucial factors of enlightening the employee performance in most organizations. The purpose of the study was to find out the training factors influencing the shortage of Human Resources for Health in Samburu County Referral Hospital, Kenya.

MATERIALS AND METHODS

The study utilized a cross-sectional study design, focusing on determinants of the shortage of human resources for health at Samburu County referral hospital. Quantitative data was collected from administered questionnaires to middle-level management and healthcare workers referred in the hospital. This study designed was deemed suitable for this study considering the desire to obtain firsthand data from respondents to formulate rational and sound conclusions for the study and recommendations for the study. Samburu County number 025 borders Baringo County to the west,

Laikipia County to the South, Isiolo County to the East, Turkana County to the northwest and Marsabit County to the north. Lake Turkana borders at the northern tip between Turkana and Marsabit counties. The study area was Samburu County Referral Hospital. It was the largest hospital in Samburu County. According to the Kenya Master Health Facility List, the county has 3 level 4 health facilities, 17 level 3 and 89 level 2 health facilities. Majority of health care facilities in the county were faith based and private hospitals and clinics that serve the county. Samburu County Referral Hospital being the largest in the county was picked to give a representation of the county health personnel shortage status. Conferring to the 2019 Census, Samburu County populace had 310,327 persons with a domestic of 4.7 and a populace mass of fifteen people per Km² and a populace growing rate of two percent per annum. The age distribution was zero to fourteen years at fifty percent, fifteen to sixty-four years at forty-six percent and sixty-five and above representing three percent. Target population was the specific population from which the data was collected. The target population was composed of 174 health workers that work at Samburu County Referral Hospital. These health workers were the trained personnel who provide healthcare services. The study included all 174 trained health personnel in Samburu county referral Hospital, specifically those who engaged directly in healthcare delivery like nurses, physiotherapist etc. The study excluded the personnel who were not trained in health and who did not directly engage in enhancing health care services like cashiers, procurement officers etc. The dependent variable was the HRH at Samburu County Referral Hospital, which was measured against the independent variables constituting the socio-demographic features like age, sex, religion, nuptial status and level of education, socio-economic factors such as financial capability, political and contribution of training opportunities to the HRH.

Sample Size Determination

The preferred sample scope was calculated using the Fishers et al method 1998 as shown below.

$$nf = \frac{n}{1 + \frac{n}{N}}$$

nf= required population size when the populace is less than 10,000.

n= required population size when the populace is greater than 10,000.

$$N = \text{target population} \quad nf = \frac{174}{1 + \frac{884}{2000}}$$

$$nf = \frac{174}{1 + 0.0192} \quad nf = \frac{174}{1.192} = 145.97$$

Thus, the sample size was 146 respondents.

The investigator used stratified sampling procedure to select a good number that was represent the entire populace. The population was divided into strata i.e., according to departments. This sampling technique was preferred over simple random sampling and other

sampling designs since stratification can lead to a gain in precision. In stratification the population is partitioned into groups which are called strata corresponding to some characteristics, subsequently, within each strata a sample probability (usually a simple random sample) was selected (Kothari, 2004). Then choice of the study population from each segment is performed based on a listed proportion. The sampling method used was to ascertain representativeness of the general population. Based on the representativeness of the technique used, it permits the researcher to draw conclusions as a representation of the entire population [15]. The data collection method used was questioning. Data collection technique involved structured questionnaires. The questioning method utilized structured questions in a tool where the respondent was writing down their responses thus respondents had to be literate. The study used a self-administered questionnaire to all the health workers at the facility. After gathering of raw records, the investigator used a gadget sequential number to approve that data input into the computer matches with that in the initial data form. The questions entailed issues on human resource traits. The tool was issued through the departmental in charges to the sampled health officers of each healthcare service department and was given via the drop and pick later method. An interval of 21 days was allowed for the data collection tool term after which the subjects who had not responded or completed were added one or two more days for completion as per each department. The tools were then amassed and collated accordingly ready for analysis.

The information needed was gathered by use of surveys questions. A questionnaire had a seethe t of published or printed queries with a choice of responses, created with an aim of a survey. The survey consisted of close-ended questions with an intention to gather the demographic data, political factors, socio-economic factors as well as queries on how knowledge contribute to these features that lead to the shortage of health personnel.

Data analysis was done using SPSS, and Microsoft Word software's with univariate and bivariate. Univariate exploration looked at the central tendency that is how the data tends to present itself around some values. Bivariate exploration was among the simplest statistical analysis, it contained the examination of two variables for the resolution of defining the experimental association between them in order to see if the variables were associated with one another, it was common to look at how those two variables concurrently variation together. Bivariate analysis was supportive in testing modest hypotheses of association.

KMTC having a research mandate and office guided and provided the researchers on the ethical issues even before proceeding to seek for permission from the University of Nairobi/Kenyatta National Hospital ethical review committee thus the researchers were a consult, and all the necessary documents and permissions were obtained

before commencing for data collection. The investigator sought and observed the ethical principles before obtaining consents from the respondents. The researcher

ensured that the respondents' information was carried out with highest discretion and no influence was exerted on the respondents.

RESULTS

Table 1: Social Demographic Characteristics.

Social demographic characteristic	Frequency	Percent
Gender (n=106)		
Male	45	42.5
Female	61	47.5
Age (years) (n=106)		
18-25	42	39.6
26-35	34	32.1
36-45	23	21.7
46-59	7	6.6
Level of education (n=106)		
College	56	52.8
University	39	36.8
Others	11	10.4
Religion(n=106)		
Catholics	44	41.5
Protestants	37	34.9
Muslims	10	9.4
Others	15	14.2
Marital status (n=106)		
Single	23	21.7
Divorced	8	7.5
Married	72	67.9
Separated	3	2.8

During the study, a total of 106 out of the 144 responded participated in the study through completing and returning the study questionnaire. The study population 18-25 age group accounted for the greatest number of health care workers in Samburu sub county referral hospital, with 39.6% followed by 26-35 with 32.1%, 36-45 (21.7%), and 46-59 (6.6%). Majority of the health

care workers had attained collage education at 52.8% and university graduates at 36.8% and finally 10.4 % had no access to education. Catholics were the most represented religious group 41.5%, followed by protestants 34.9 and Islam at 9.4%. majority of the health care workers 67.9% were married, followed by singles at 21.7% and separated couples at 2.2% least represented.

Table 2: Training and its association with the shortage of human resources for health at Samburu county referral hospital.

Training	RATING					TOTAL
	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	
I am satisfied with the training by the hospital to present my job P value OR (95% CI)	9 (9.3%) 0.1 0.576	19 (17.6%) 0.2 0.5	24 (22.2%) 0.2 1.1	28 (25.9%) 0.01 1.0	27 (25%) 0.002 2.6	100%
Training opportunities are offered regularly in the hospital P value OR (95% CI)	3 (2.8%) 0.6 0.5	16 (14.8%) 0.3 0.7	12 (11.1%) 0.4 0.21	39 (36.1%) 0.002 1.9	38 (35.2%) 0.004 3.1	100%
Financial support is regularly given by the hospital to attend conferences and workshops to enhance my professional growth P value OR (95% CI)	2 (1.9%) 0.2 0.9	17 (15.7%) 0.12 0.1	16 (14.8%) 0.216 0.87	39 (36.1%) 0.0001 2.9	34 (31.5%) 0.025 2.1	100%
What is stated in training policy is what is practiced P value	5 (4.7%) 0.1	14 (13%) 1.1	23 (21.3%) 0.27	27 (23%) 0.025	39 (36.1%) 0.0002	100%

OR (95% CI)	0.5	0.6	0.81	3.2	3	
The hospital has good training opportunities	5 (4.7%)	20 (18.5%)	24 (22.2%)	31 (28.7%)	28 (25.9%)	
P value	0.1	0.421	0.6	0.005	0.01	100%
OR (95% CI)	1.2	0.5	0.01	2.1	3.	

Majority of the healthcare workers at Samburu county referral hospital (73.1%, p value 0.002 OR 2.6) highlighting that there was a close association, were not satisfied with the trainings offered by the hospital to build an up-to-date workforce. 71.3% (p value 0.002 and OR 1.9) indicating there was a close association of the healthcare workers strongly agreed that training opportunities in the county referral hospital were not offered regularly. When it came to offering financial support to the healthcare workers to attend conferences and workshops 82.4% and a p value of 0.001 and OR 2.9 a clear indication of an association, said there was no support by the hospital for such programs. Training policy in the hospital has not been implemented with 80.4% and p value 0.002 and OR 3 showing a clear association of the healthcare workers supporting this statement. 76.8%, p value 0.005 and OR 2.1, a clear indicator of an association of the healthcare workers strongly said that the hospital has no good training opportunities for its employees.

Key informants interviewed

There were four key informants (CEC health, COH, Medical superintendent, administrator and the chief nurse) interviewed during the study focusing on economic factors associated with the shortage of human resource for health in Samburu sub county referral hospital. Training and Development is an important aspect of human resource management. It is important for organization to get skilled and capable employees for better performance, and employees will be than competent when they have the knowledge and skill of doing the task. Training and Development would provide opportunities to the employees to make a better career life and get better position in organization. Majority of the respondents believed because of the minimum resources and delay by the national government to dispatch resources to the county, county budget allocations have been strained. There has been a stiff competition of resource allocation in the county. Leading to the county falling short of the WHO, recommendations of 40% of the budget allocation to health care alone. *Competition for resources in the county is very stiff, making it very hard for the county to retain specialist doctors, because of lack of attractive remunerations.* Majority of the informants agreed that attractive remunerations play a very big role in combating shortage of human resource for health *"Difficult to meeting the demand of the health care workers especially the ones that are based in arid and semi-arid areas has led to short of specialized health personnel"*. Majority of the respondents agreed that different cadres should be handled differently, this is because their trainings are different and some take even more years to train e.g., a specialist takes more time to

train than hence they cannot be compared or treated equally with other health personnel. *"To be a doctor is very involving, especially training specialists"*

The study results unanimously agreed that there was no racism or gender discrimination in Samburu county referral hospital and that racism or gender discrimination had not impact on shortage of health personnel for health *"If anything because of its location, in an arid and semi-arid, they get very few applicants they end up employing all of the applicants, hence we do not experience any form of discrimination in the hospital"*. A great number of the respondents stated that because of political instability and geo location of Samburu sub county referral hospital, medics especially specialist, find it very hard to apply for these jobs. This ultimately leads to shortage of human resource for health. *Health affect politics and vice versa, health is influenced by politics and politics play a major role in health.* Employment terms had an influence on the shortage of health personnel in Samburu sub county referral hospital. Majority of the respondent agreed that health workers under contract were more productive than health workers who were under permanent contract. *Contract staff are more productive workers because their contract renewal is based on how they perform on the other hand permanent employees are not productive because they know it is very hard to fire a permanent and pensionable employee.*

Majority of the respondent agreed that lack of a training instruction has also impacted on the shortage of health personnel for health in the county. *Because of lack of a training institution in the county, training of health personnel is very expensive because parents must think of accommodation and cost of living for their children, but if they had a KMTC in the county their children could be sleeping at their relatives to save money as they undergo training. The respondent also brought to our attention that with a training institution in the county, the health care trainees could be assisting in the hospital as they undergo their clinical attachment and training, and this would help increase the number of workers in the hospital and offer reprieve to an already strained health system.*

DISCUSSIONS

The success of any organizations depends on employee performance. In this globalization era training is crucial for the competent and challenging business. It is the nerve that needs to help enhancing the quality of work life of employees and development the organization. According to (WHO, 2013), the reasons for shortage of human resource for health has been highlighted to be as follows: - low funds for education and training of the

health workers. This was supported by the region only having 170 medical schools. With 6 countries with no medical school at all and 20 with just one medical school. Majority of the healthcare workers at Samburu county referral hospital agreed with the WHO, findings were (73.1%, p value 0.002 OR 2.6) who were not satisfied with the training offered by the hospital to build an up-to-date workforce. 71.3% (p value 0.002 and OR 1.9) of the healthcare workers strongly agreed that training opportunities in the county referral hospital were not offered regularly. When it came to offering financial support to the healthcare workers to attend conferences and workshops 82.4% (p value 0.002 and OR 3) said there was no support by the hospital for such programs. Training policy in the hospital has not been implemented with 80.4% of the healthcare workers supporting this statement. 76.8% (p value 0.005 and OR 2.1) of the healthcare workers strongly said that the hospital did not offer good training opportunities for its employees. (Hill, 2002 cited in Chew, 2004) stated that as opposed to previously, employers discovered that training their employees help in retaining them. Undeniably, once the exercise ends, turnover tends to initiate (Hill, 2002 cited in Chew, 2004).

Training and development have become one of the necessary functions in most organizations, because they lead to high performance in the same field and are important part of human resource department, it has a significant effect on the success of an organization through improving employee performance (Mozael, 2015). There is significant positive relationship exists between employee training and development and the employee performance (Naveed, 2014) Training and development is essential for all organizations to achieve their objectives. A research that was carried out to look at nurse employment and retaining in countryside Kenya (Mudhune, 2009). Derived several explanations that can be used by policy creators in the health sector to come up with strategies that can boost interest in hospitals that are situated out of the urban areas. These factors include: - good allowance packages, continue health education and promotion opportunities to all and fairly. The study observed that nurses held monetary compensations as a key booster to working especially in out-of-town health institutions. There was also another study that was carried out in rural Ghana (Snow et al., 2011) on factors that are associated with low retention of health personnel. When it came to medics, despite money being a great motivator, they really cared about their career and the advancement of their career, which often than not happens mostly to medics based in urban centers. They also sighted good training while still working as a booster to their marketability. Majority of the respondent agreed that lack of a training institution has also impacted on the shortage of health personnel for health in the county. *Because of lack of a training institution in the county, training of health personnel is very expensive because parents must think of accommodation and coast of living for their children, but if they had a KMTC in the*

county their children could be sleeping at their relatives to save money as they undergo training. The respondent also brought to our attention that with a training institution in the county, the health care trainees could be assisting in the hospital as they undergo their clinical attachment and training, and this would help increase the number of workers in the hospital and offer reprieve to an already strained health system.

The main issue for advancing any health system is human resources for health (HRH). Assessing human resource shortage in health system showed that although the county government of Samburu has really tried to reduce insufficient and unbalance's HR and expand the capacity building in human resource planning, but the study has been able to show political issues such as instability and inequalities among the employees has been among the main causes of shortage for human resource for health. Social economic factors such as payments of salary and remuneration were also associated with shortage of health personnel in the county. Finally lack of training opportunities and allocation of funds for employees to attend workshop was one of the main challenges that health personnel in the county were experiencing. Employees are always regarded with development in career-enhancing skills which leads to employee motivation and retention. There is no doubt that a well-trained and developed staff will be a valuable asset to the company and thereby will increase the chances of their efficiency and effectiveness in discharging their duties. On the other hand development means those learning opportunities designed to help employees to grow. Development is not primarily skills oriented. Instead it provides the general knowledge and attitudes, which will be helpful to employers in higher positions. Development programs are regarded as specific framework for helping employees to develop their personal and professional skills, knowledge, attitudes, behavior and consequently improve their abilities to perform specific task in the organization.

Training and development are crucial factors of enlightening the employee performance in most organizations. The study found out that employees are aware about training; employees are motivated through training; and training and development results into higher performance. The study suggested that training and development of all staff should be dynamically followed and made obligatory and the employer should give compulsory training programs for all employees in order to improve performance. The study results indicated that there was need for continuous training and development taking into deliberation the political factors, economic, social-economic, technological, legal, environmental and international factors among others.

Strengthening human resource for health should be among the priorities identified in the health national strategy and the county government for a long-term

perspective, and all key actors in government, civil society, academia, and other stakeholders to participate in human resource policymaking.

CONCLUSION

Training and development have a positive effect on employee performance that is directly related to variables such as skills, knowledge expertise, abilities, and indirect variables, namely HRM empowerment, communication, planning, coordination, attitudes, behavior, and employee motivation. Political factors such as employees using their influence to get better working stations, preferential treatment and job posting were among the major issues highlighted in the study that had a great influence on the shortage of human resources for health in Samburu subcounty referral hospital. Political, racial/ethnic upheaval, gender discrimination, corruption and political interference were among the main reason hindering the effective operation of health sector in most African countries at different capacities. Strengthening human resource for health should be among the priorities identified in the health national strategy and the county government for a long-term perspective, and all key actors in government, civil society, academia, and other stakeholders to participate in human resource policymaking. A great number of organizations have come to the realization of the vital role training and development programs has, as it increases the organization's staff efficiency, skills and productivity. In order to achieve the benefits of training initiative. The research shows that there is a strong impact of training and development on employee performance. All Employees of the organizations find their training and development beneficial for their performance.

Recommendation

As the main employers the national and county governments should have strategies and reforms towards provision of trainings and development programs in order to reduce the cost of recruiting and hiring new staff members. On the other hand, the provision of feedback to employees after training is recommended in order for employees to become aware of areas where they can improve their performance.

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