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TRAINING DESIGN AND EMPLOYEE SKILLS DEVELOPMENT IN MATHARI NATIONAL TEACHING AND REFERRAL HOSPITAL, NAIROBI CITY COUNTY, KENYA

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ABSTRACT

Public hospitals which seek to elicit and improve the commitment of employees thereby strengthening their staff base must improve on skill development through training of the employees. This would increase the chances of employees increasing their performance in the Healthcare systems. There are limited studies done relating to the effect of employee training design on skill development in the workplace especially in the public hospitals in Kenya. The purpose of this study was to determine the effect of training design on employee skill development in Mathari National Teaching and Referral Hospital in Kenya. Kolb Theory was used to explain the relationship between the variables. Descriptive research design was used in describing mystics and the extent of relationship between variables. Mathari National teaching and referral hospital was the unit of analysis and the target respondents were 383 employees working in the Hospital.



Due to the large number of respondents, a sample size of 195 respondents was arrived at through the use of stratified random sampling procedure. Questionnaires and interview schedules were used to collect primary data. Qualitative data was analyzed through the use of narrative analysis while mean, standard deviation, frequency, percentages and regression analysis was used to analyze the quantitative data. The findings indicated that majority of the employees agreed that there was a thorough needs assessment for each trainee and that the knowledge and skills from training was relevant to their job. The study found that training equip employees with new formats of accomplishing their tasks and that trainings are tailored on employee competencies. The regression results indicated that training design had a positive effect on skill development. The results further indicated that majority of the respondents argued that they are able to learn new skills and knowledge and apply it in their work. They are also capable of absorbing the material taught in a training program. The study recommends that training design should be tailored to the needs of the staff and hospital which often lead to good results in developing a good training design in line with the needs of the staff.

Keywords: *Training Design, Skill Development, Employee Performance, Public Sector*

BACKGROUND OF THE STUDY

The process of providing high quality services in healthcare for all the citizens in the counties has been a challenge simply because of social economic needs and other related factors which has resulted to imbalance between the supply and demand of healthcare services (Njoroge, Muathe & Bula, 2015). Khan (2015) argued that there have been cases of limited human resources in Healthcare which has forced many public institutions including hospitals to be faced by turbulence of organizational change, rapid innovation, competition and globalization as a result of technological advancements. Lack of skills to many of the employees working in Healthcare sector has had negative effect in an effort to expand and improve their health services quality. This situation has been contributed by preference of Human Immunodeficiency (HIV) and Acquired Immunodeficiency Syndrome (AIDS), Malaria and Tuberculosis which has remained to be the great killers in the world today. Despite County governments determination to improve the access of essential health care services and equitable distribution of human resources in healthcare sector, the vision of the economic recovery strategy has been a nightmare together with obliquely reforms vision 2030 and Millennium Development Goals (Kumar & Yaman, 2011).

Accessible quality healthcare not possible good representation of better-managed, better-distributed and better high skilled employees. There has been an increase of mortality of infants, expectancy and death of young kids during the last decades (Njoroge *et al.* 2015). Khan (2015) argued that there have been cases of limited human resources in Healthcare. These has been part of some of the contributing factors such as poor distribution of health employees. There's been reported shortages poor skills distribution of employees in Healthcare sector which has contributed to this negative trend. Despite the increase in government Healthcare spending and civil service recruitment and employment freezing the health workers and the aggregate number of employees in the public institutions have continued to reduce in the public service continued to decline and the last few 5 years as a result this has caused a lot of attrition cause of increasing retirement related losses (Ministry of Health, MoH, 2018).

Training designs a systematic method which are used in developing training programs. Training designs are the process of describing the needs within the organizations which helps in systematically adapting to the business needs within the organization (Olubukunola, 2015). Training designs should consider tailoring needs to the organization's desires which



eventually will lead to improved results achievement of the overall organizational goals. It is the work of the organization to identify the needs of the employees and that's design training needs that will help the workforce to contribute towards organizational objectives (Njoroge *et al.* 2015).

STATEMENT OF THE PROBLEM

Ministry of health in Kenya faces scary challenge of workforce who are ageing as a result of delayed recruitment and selection (MoH, 2018). Currently, the MoH staff median age is at 42 years which resulted to increase of retirement age to 60 from 55. If these was not done and the retirement age remains an age of 55 then the Ministry of Health could have lost 12% of their experienced and skilled employees in the health sector and these could rise to 50% in a decade (MoH, 2018). Human Resources for Health (HRH) practices and systems of operations have remained poor, weak and unpredictable and these as resulted to poor management of health workers due to poor skills. Currently Mathari National Teaching and Referral Hospital rely heavily on less than 5% of their doctors who have gained experience over time.

The number of trainings in the hospital has declined over time in an attempt to cut on costs of operations. Skill development in public hospitals is very essential but studies relating training design on skill development are limited. Therefore, this study sought to establish the effect of training design on skill development in Mathari National Teaching Referral Hospital.

OBJECTIVE OF THE STUDY

The study established the effect of training design on employee's skill development in the public sector, with a focus on Mathari National Teaching and Referral Hospital.

THEORETICAL FRAMEWORK

The study was anchored on the Kolb Learning Cycle Theory published in the year 1984. It is a useful model based experimental learning. It explains the need for the trainings and trainers and other learning professionals to develop their practice in the learning cycle. Kolb also known as the learning cycle proposed four stages of learning from experience. According to the learning cycle by Kolb's the time of experience learning is part of all the concrete experience and that is the first stage in learning cycle. The second stage is observation, the third stage is conceptualization and the fourth stage is active experimentation by the training and trainers.

The theory proposed that when people could have different learning styles the four stages must be followed by successful taking place of learning. Theories applicable in an organization in trying to identify the strengths and areas of improvement in learning in order to be able to offer this tool as part of leadership training and programs in coaching incorporating other psychometric testing (Aziz & Ahmad, 2011). This theory is applicable in an organization for it tries



to identify the strengths and areas of improvement in learning in order to be able to offer leadership, training and programs in coaching incorporating other psychometric testing (Aziz & Ahmad, 2011). Therefore, this theory will be applicable in this study in explaining the effectiveness of training program and development of the employees.

EMPIRICAL LITERATURE REVIEW

Velada, Caetano, Michel, Lyons and Kavanagh (2017) studied the effects of training design, work environment, and trainee features on transfer of training in Portugal focusing on large grocery firms. The study suggested that firms should design training that provides trainees the capacity to reinforce trainee beliefs in their abilities to transfer learning, ensuring training content is retained over time, and providing appropriate feedback on staff job performance after training activities. Another study by Yusof (2016) focused on the link between training design, trainee characteristics, and work environment among departmental staff of a public sector firm in Malaysia. Through a Pearson's correlation, it was established that training design and training effectiveness had a significant positive relationship. In Nigeria, a study by Olubukunola (2015) indicated that a training design should be tailored to the needs of staff, organisations that develop a good training design in line to the staff needs often lead to good results.

A related study was also conducted in Pakistan by Khan, Khan, and Khan (2014) to examine the impact of development and training on organisation performance. Focusing on selected firms in Islamabad, Pakistan, it was established that training design has a positive and significant effect on the organizational performance. The findings further indicated that training delivery method have a significant impact on firm performance and all these collectively affected the firm's performance. Additionally, Kasim and Ali (2014) analyzed the low training effectiveness among support staff in a public university in Malaysia and revealed that training design had a positive effect on training transfer. In Korea, Doo (2000) focused on the training design aspects that influenced transfer of training in an international context among the Human Resources Development (HRD) professionals of SK Group in Korea and found that firm specific factors were inhibiting and promoting training design factors on training transfer.

Another study conducted in India by Kunche, Puli, Guniganti and Puli (2011) on analysis and evaluation of training effectiveness concluded that training environment was favorable. Training material provided was good, pedagogical and technological mix modes of training, and the learning phase was evaluated by conducting tests before and after training. In Iraq, Mozael (2015) interrogated the impact of training and development programs on employee performance in Iraq through a desk research and concluded that organizations should identify a training design(s) that is in accordance with the needs of its employees. Additionally, Devi and Shaik (2012) informed that organisations need to have documentation on the effectiveness of training without which firms may not be able to objectively know that their investments in training contribute to organisation development. Training effectiveness has remained elusive for organisations and has been attributed to several factors. Kasim and Ali (2011) attributed lack of training effectiveness on the individual factors of employees.



RESEARCH METHODOLOGY

The study adopted a descriptive research design which was appropriate for this study in highlighting the issues surrounding the study theme as recommended by Mugenda (2003). The target population was 7 consultant psychiatrists, 104 psychiatric nurses, 2 Psychologists, 15 Pharmacists, 32 Pharmaceutical Technologists, 13 Occupational Therapists, 5 Medical Social Workers and 205 Support Staffs at Mathari Hospital in Nairobi, Kenya. Sampling was done through the use of stratified sampling methods after Yamane (1967) formula (recommended by Mugenda, 2003) had been adopted at 95% confidence level to determine the sample size of 195. Table 1 indicates the stratification process.

Table 1 Sample

Category	Population	Sample ($N/1+383(0.05 \times 0.05)$)
Consultant Psychiatrists	7	4
Psychiatric Nurses	104	53
Psychologists	2	1
Pharmacists	15	8
Technologists	32	16
Occupational Therapists	13	7
Medical Social Workers	5	3
Support Staffs	205	105
Total	383	195

Source: Mathari National Teaching and Referral Hospital (2020)

The study used primary data sourced through semi-structured questionnaires and Key Informant Interview (KII) Questions. The questionnaire consisted of both closed and open-ended questions while interviews were scheduled with employees to contribute their opinions on the study subject. The qualitative data collected was analysed thematically and main themes established to compliment the quantitative data results. The Statistical Package for Social Sciences V. 24 was used to analyze the descriptive and regression statistics. A univariate regression model analyzed the extent to which training design affected skill development in Mathari national teaching and referral Hospital. The following univariate regression model was adopted.

$$Y = \beta_0 + \beta_1 X_1 + \varepsilon$$

Where: Y = Employee Skill Development; X_1 = Training Design; β_1 = Coefficient parameter and ε = Error term

FINDINGS AND DISCUSSION

A total of 195 questionnaires were issued to randomly selected respondents out of which, 84.62% (frequency 165) filled and returned the questionnaire while 15.38% (frequency 30 respondents) did not return their questionnaire. The response rate was high and satisfactory according to Mugenda and Mugenda (2013).



Descriptive Results of Training Design

A Five-point likert scale, where 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = Strongly Agree was used to establish the extent to which various training design related practices had been adopted at the Hospital. Table 2 gives a summary of the results.

Table 2 Descriptive Results of Training Design

Statements	Mean	Std. Dev
There was a thorough needs assessment for each trainee	3.91	1.18
There was a thorough needs assessment for job skills demand	4.04	1.09
Trainees were involved in training needs assessments	2.79	1.16
The knowledge and skills from training was relevant to my job	4.11	1.06
There was sufficient time to preview the training content	2.96	1.01
The training incorporated step-by-step instruction moving from basic to advanced learning content	3.07	1.11
The training incorporated skill practice sessions in the training	4.02	0.98
The training encouraged participatory learning methods	4.01	0.93
The training incorporated audio and visual material instruction	4.02	0.90
The instructors' lessons plans were useful in learning skills for my job	4.01	0.88
Trainings equip employees with new formats of accomplishing their tasks	3.95	1.03
Trainings are tailored on employee competencies	4.08	0.83
Average	3.75	1.01

The results indicated an agreement that at the hospital, there was a thorough needs assessment for each trainee ($M = 3.91$; $SD = 1.18$), needs assessment for job skills demand ($M = 4.04$; $SD = 1.09$), trainees were involved in training needs assessment to a moderate extent ($M = 2.79$; $SD = 1.16$) and that knowledge and skills from training was relevant to the employee's job ($M = 4.11$; $SD = 1.06$). It was also established that in the hospital, the training incorporated step-by-step instruction moving from basic to advanced learning content to a moderate extent ($M = 3.07$; $SD = 1.11$), the respondents also agreed that the training incorporated skill practice sessions in the training ($M = 4.02$; $SD = 0.98$), participatory learning methods ($M = 4.01$; $SD = 0.93$) as well as audio and visual material instruction ($M = 4.02$; $SD = 0.90$).

The results also indicated that in the hospital, the instructors' lessons plans were useful in learning skills for their job ($M = 4.01$; $SD = 0.88$), training equipped employees with new formats of accomplishing their tasks ($M = 3.95$; $SD = 1.03$) and is tailored on employee competencies ($M = 4.08$; $SD = 0.83$). Generally, the findings indicated that various training design practices have been adopted by the hospital to a great extent. Caetano, Kavanagh, Lyons and Velada (2017) found that performance reviews, training design and self-efficacy have made a major contribution to the effectiveness of the training system and thus to the growth of employee skills. The results indicate that the management personnel undergoing training had an incentive to use the skills learned in their duties.



Challenges Experienced in Designing Training Program

The challenges experienced in designing training programs were also established and presented in Figure 1. The results in Figure 1 indicated that majority of the employees, 34.5% indicated that one of the challenges experienced was hectic employee schedules, 29.1% of them cited dispersed workforce, 15.2% cited a different learning habits, 7.9% of them cited cost, 6.7% of them cited lack of engagement and irrelevant training. It was also identified that the highest priority for most hospitals when allocating training resources is to increase the productivity of training programs. This is hardly surprising because both managers and learners benefit from training that is designed to save time (and money) while fulfilling all the learning promises. But despite careful allocation of resources, many hospitals still consider their training ineffective (or only partially effective) in achieving their goals. It is generally due to certain rising training and growth challenges. Such training challenges vary from time-consuming and often scattered staff to cost-cutting while increasing engagement

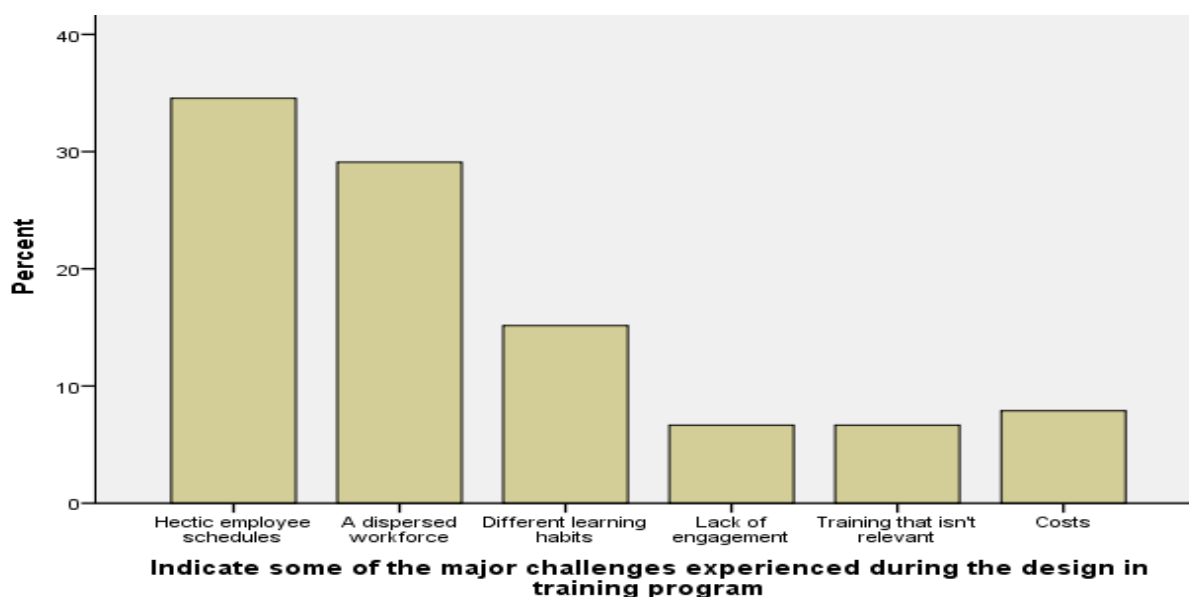


Figure 1 Challenges Experienced in Designing Training Program

Employee Skill Development

A Five-point likert scale, where 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = Strongly Agree was used to establish the extent to which various employee skill development practices had been adopted at the Hospital. Table 3 gives a summary of the results.



Table 3 Employee Skill Development

Statements	Mean	Std. Dev
Employee training has improved the level of employee creativity	3.90	1.01
There are employee mentorship programs to nature employees' career growth	2.38	1.15
Adequate skills evaluation has improved employee accuracy	3.92	0.99
Employee training has improved the amount of work handled by individual staff	3.96	0.93
Development programs have improved the level of efficiency among staff	3.97	0.98
Average	3.63	1.01

The results presented in table 3 indicated that majority of the respondents agreed that employee training has improved the level of employee creativity ($M = 3.90$; $SD = 1.01$), disagreed that there are employee mentorship programs to nature employees' career growth ($M = 2.38$; $SD = 1.15$), agreed that adequate skills evaluation has improved employee accuracy ($M = 3.92$; $SD = 0.99$), employee training has improved the amount of work handled by individual staff ($M = 3.96$; $SD = 0.93$) and that development programs have improved the level of efficiency among staff ($M = 3.97$; $SD = 0.98$). On average, it was established that employee skills are developed to a high extent ($M = 3.63$; $SD = 1.01$). The findings are consistent with Pfeifer, Janssen, Yang and Gellner (2012) who revealed that developing the desired skills knowledge and abilities of the employees in order to perform well in the jobs requires training program which are effective and motivational commitment of the employees.

Regression Analysis

A regression analysis was used to establish the effect of training design on employee's skill development. The regression model summary is presented in Table 4.

Table 4 Regression Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.796	.634	.592	3.59314
Predictors: (Constant), Training Design			

As shown in Table 4, the correlation coefficient of 0.796 indicates that the relationship between training design and employee skill development was strong and significant implying that better training designs were associated with improved employee skill development. It was also evident that up to 63.4% of the variation in employee skill development could be explained by training design. This accentuates the importance of training design on skill development. A study by Khan, Khan and Khan (2014) similarly indicated that training delivery method has a significant impact on skill development. The model fitness was established as shown in Table 5.



Table 5 ANOVA

Sum of Squares	Mean Squares	df	Mean Square	F	Sig.
Regression	1567.897	1	1,567.90	40.481	
Residual	2078.612	163	12.75		
Total	3646.509	164			
Dependent Variable: Employee Skill Development					
Predictors: (Constant), Training Design					

The Analysis of Variance tests the whole model fitness. It was established that at 95% confidence level, the regression model linking training design to skill development was a good fit ($\text{Sig} < 0.05$). Therefore, the model can be used to explain the changes in employee skill development in the hospital. The regression model coefficients were also established as shown in Table 6.

Table 6 Regression Model Coefficients

	B	Std. Error	Beta	t	Sig
(Constant)	30.492	5.367		5.681	.000
Training Design	.528	.070	.450	7.526	.000
Dependent Variable: Employee Skill Development					

The results in table 6 indicate that holding training design constant the value of skill development would be positive at 30.492 ($\beta_0 = 30.492$). This implies that other factors contribute positively towards employee skill development. The results also indicated that training design had a positive and significant effect on employee skill development ($\beta = 0.528$, $P\text{-Value} < 0.05$). This implies that a positive change in a unit of training design resulted to the positive change in employee skill development. The study findings are supported by Kunche, Puli, Guniganti and Puli (2011) and Mozael (2015) which concluded that organizations training design(s) positively and significantly affects employee skill development.

Qualitative Data Analysis

The open-ended questions in the questionnaire were analyzed through thematic analysis. Table 7 gives a summary of the main themes from the open-ended questions. It was established that some of the major challenges faced when designing training materials were hectic employee schedules, a dispersed workforce, different learning habits, lack of employee engagement, concentrating on ineffective training methods and costs of designing training program. These had earlier been indicated in the quantitative results. It was further indicated that some of the suggested solutions to these challenges ranged from limiting travel requirements for training, consider using a micro-learning, prioritize short and straightforward assessments wherever possible, clarify your training goals clear from the start, conduct a thorough needs analysis and incorporating different training content types.



Table 6 Summary of Thematic Analysis

Question	Summary of the Main Themes
Indicate some of the major challenges experienced during the design in training program.	Some of the major challenges highlighted by the respondents included; hectic employee schedules, a dispersed workforce, different learning habits, lack of employee engagement, concentrating on ineffective training methods and costs of designing training program.
Indicate ways to solve training challenges in the hospital	The respondents presented that major ways of solving training challenges are; limiting travel requirements for training, consider using a micro-learning , prioritize short and straightforward assessments wherever possible, clarify your training goals clear from the start, conduct a thorough needs analysis and incorporating different training content types .

CONCLUSION

A training design should be tailored to the needs of the staff, hospital which often leads to good results in developing a good training design in line with the needs of the staff. Public hospitals are expected to recognize their staff's needs and plan training to better maximize the use of their employees to achieve organizational goals. In this study the respondents decided that to some degree the training they received was important to the work. Mathari National Hospital and Referral Hospital should design training that empowers trainees to reinforce their ability to transfer learning, ensure that training content is maintained over time and provide adequate feedback on staff job performance after training activities. It was also concluded that a well-designed training schedule was the key to effective employee skill development.

POLICY RECOMMENDATIONS

The study recommended that human resource managers conduct needs assessments for training programs among their staff at Mathari National and Referral Hospital in order to ensure that the training content is consistent with staff duties. The study recommended that the Hospital management monitor staff fresh from training on an ongoing basis and provide incentives to motivate staff to enroll in the Hospital's training programmes. The study recommended that Kenya's Ministry of Health should encourage supervisors to create environments where staff can apply the skills acquired from their day-to-day roles in training. This can be done through the development of organizational policies to provide guidelines on how managers can support training workers.

CONFLICT OF INTEREST

No potential conflict of interest was recorded by the authors.



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