

Original Research Article

A cross-sectional study on influence of performance management system on employee productivity among healthcare managers in selected public hospitals in Kitui County, Kenya

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ABSTRACT

Background: Although the management of human resources is critical in providing high-quality and safe health care, many developing countries continue to face enormous challenges in health service delivery, including human resource management issues. Particularly, many health facilities around the world have limited human resources.

Methods: This research was carried in Kitui County for a period of 12 months between October 2022 and October 2023. An institutional-based cross-sectional research design was used. Purposive sampling was used to select public hospitals while stratified sampling was employed to obtain 310 study participants. Quantitative data was collected through open and closed ended questionnaires. Version 22.0 of SPSS software was used to statistically analyze the collected data. Chi-square was used to find the relationship between with a p value set at <.05. Binary logistic regression and Multivariate regression were also carried to determine the predictors of the research objectives.

Results: Overall productivity level was computed with 15 as a cut-off point for low and high productivity, and it was found that 185 (59.7%) of the respondents had low productivity. Majority of the respondents 136 (43.9%) disagreed that objective setting is important in PMS with 117 (37.6%) agreeing on the same. Majority of the employees 113 (36.5%) disagreed that PR identifies areas of improvement with 106 (34.2%) agreeing on the same.

Conclusion: On performance reviews and employee productivity among healthcare managers in selected public hospitals in Kitui County, the study concludes that performance reviews partly influence on employee productivity among healthcare managers in selected public hospitals in Kitui County.

Keywords: Performance management, Performance management system, Financial rewards, Objective setting, Performance review, Employee productivity

INTRODUCTION

Worldwide, many countries face critical human resource shortages, a challenge that negatively affect their ability to provide the required quality health services.¹ Countries with low human resource settings have to strengthen the performance of the available workforce to obtain the best possible results. Health workers face a variety of performance related challenges. These include poor work processes, unclear roles and expectations, competency gaps, unsuitable incentives, and a challenging work

environment.² Such human resource challenges and performance drawbacks indicate that even if there are no critical staffing gaps, healthcare workers may still fail to provide the required quality of care to patients. This necessitates the need for an effective performance management system.

Challenges facing HRH in low-income countries have received global attention since the inception of the Joint Learning Initiative. Human resource crisis in the healthcare industry is highly witnessed in sub-Saharan

African countries. Particularly, in most of the sub-Sahara African countries, the existing staffing level is 50% below the level that can comfortably attend to patients in rural populations. As a result, care is at times provided by non-qualified staff. Such situations often compromise the level of care and overall health outcome of individuals and communities. Therefore, having qualified and motivated human resources is indispensable for provision of quality health services in Sub-Saharan Africa.

Since 2013, health services in Kenya have been devolved to 47 County Governments under the new constitution health services were devolved to the County Governments to enhance effective management of health care workers and subsequently scale up the quality of medical care.³ However, in the last seven years, the coordination and management mechanisms for management of health workers at the country level has been inadequate. As such, healthcare providers in various counties have reported frequent industrial strikes in demand for increment of salaries, job promotions, training and development opportunities, and demand for allowances.⁴

In Kitui County, health care workers have resorted to frequent and prolonged industrial strikes over delayed payments, unpaid allowances, and inadequate personal protective equipment (PPE) to help them respond effectively to the COVID-19 pandemic.⁵ The county health staff claim to have been exposed to hazardous work environment and not assured of risk allowances and compensation for their services. The county staff have also decried insufficient in-session training and paid study leaves.

METHODS

This study utilized institution-based cross-sectional research design to investigate the relationship between objective setting, training and development, performance review, financial rewards, and employee productivity among healthcare managers in selected hospitals in Kitui County, Kenya. This design involves collecting data at a particular point in time. Interviewing was done to the participant's and structured questionnaires were also used to collect qualitative and quantitative data for a period of 12 months between October 2022 and October 2023. This study focused on healthcare managers employed by the Kitui County Public Service Board on a temporary or permanent contract and had served for at least 3 years and those deployed to the listed level 4 and level 3 hospitals by the time of the study. These include healthcare managers working in the listed level 4 and level 3 hospitals, including Health Administrative Officers

(HAOs), Health Records and Information Managers (HRIM), Human Resource Managers (HRM), finance managers, Head of Departments (HODs) in the listed hospitals and CHMT managers. The target population of healthcare workers in the selected hospitals is approximately 1378. Purposive sampling was used to select level 4 and level 3 hospitals in the County. The Kitui County-Healthcare staff database was then used to establish initial sampling frame by listing all employees working in the sampled hospitals and assigning unique numbers to all staff who meet the threshold of healthcare managers. The study population was then stratified into major managerial cadres. These include; Medical Superintendents, Health Administrative Officers (HAOs), Human Resource Managers (HRMs), Health Records and Information Officers (HRIOs), Public Health Officers (PHOs), Head of Departments (HODs), Finance Managers and County Health Management Team (CHMT) Managers. The two sampling techniques were used to reduce risk of bias in establishing the study participants. The study employed the questionnaire as the key primary research instrument. Self-administered questionnaires were carefully structured, pre-tested, reviewed, and used in collecting data from healthcare managers. The questionnaires contained both closed-ended and open-ended questions. Quantitative data was done before the more refined data was entered into the SPSS program for analysis. Version 22.0 of the SPSS program was utilized to generate descriptive statistics of frequencies and percentages of independent variables used in the study. Chi-square was used to find the relationship between objective setting, training and development, performance review, and financial rewards and employee productivity with a p value set at <.05. Binary logistic regression and Multivariate regression was also carried to determine the predictors of employee productivity per each of the research objectives.

RESULTS

Demographic characteristics of the respondents

The findings revealed that majority of the respondents were male 221 (71.3%), while the highest age bracket was 30-39 with 167 (53.9%) response. It was found that more than half of the participants 213 (68.7%) had worked for less than four years in the respective facility. On level of education, majority 165 (53.2%) of had a basic degree with 196 (63.2%) being heads of the departments. The study also found that the married 263 (84.8%) had higher proportion with only 129 (41.6%) having been taken for training in the last five years (Table 1).

Table 1: Demographic characteristics of the respondents.

Variables	Frequency	Percentage
Gender		
Male	221	71.3
Female	89	28.7

Continued.

Variables	Frequency	Percentage
Age (years)		
20-29	113	36.4
30-39	167	53.9
40 and above	30	9.7
Number of years worked in the current facility		
<4	213	68.7
5-9	74	23.9
10-14	21	6.8
15 and above	2	0.6
Highest level of education		
Diploma	58	18.7
Higher diploma	87	28.1
Degree	165	53.2
Level of the facility working in		
Level 3	157	50.6
Level 4	153	49.4
Position held in the facility		
Executive	62	20
Head of department	196	63.2
CHMT	52	16.8
Marital status		
Bachelor/ bachelorette	28	9
Married/ cohabiting	263	84.8
Separated/ divorced	19	6.2
Undertook training/ professional course in the last 5 years		
No	181	58.4
Yes	129	41.6

Employee productivity

Majority of the participants 115(37.1%), agreed that they had presented the management with a new and exciting innovation aimed at improving work processes and overall patient outcome while 114(36.6%) disagreed that they were willing to attempt challenging assignments at their work place. It was found that 58(18.7%) strongly disagreed that they had the ability to accomplish set targets as per their job description. This was supported by 122 (39.4%) who disagreed to the statement. Therefore,

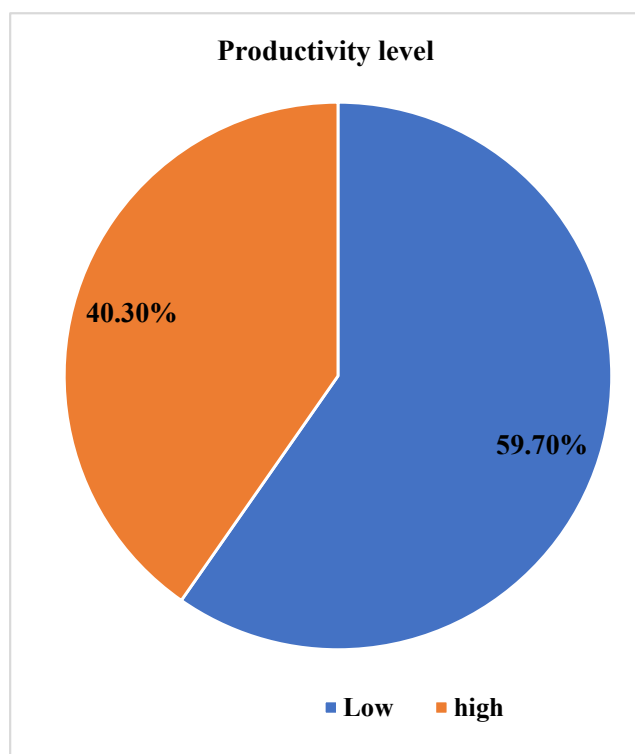
majority 180(58.1%) were unable to accomplish the set targets as per their job description. Similarly, 59(19%) strongly disagreed to have been rewarded in the past for good performance while 129(41.6%) disagreed to have been rewarded for good performance. On availability at work place, 126(40.6%) agreed to be always present at work unless there was a good reason for being absent. Overall productivity level was computed with 15 as a cut-off point for low and high productivity, and it was found that 185(59.7%) of the respondents had low productivity (Table2)(Figure1).

Table 2: Employee responses on their productivity.

Assessed parameter	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
Recently presented the management with an exciting innovation	50 (16.1%)	107 (34.5%)	11 (3.5%)	115 (37.1%)	27 (8.7%)
Willing to attempt challenging assignments	56 (18.1%)	114 (36.7%)	9 (2.9%)	108 (34.9%)	23 (7.4%)
Ability to meet set targets	58 (18.7%)	122 (39.4%)	4 (1.3%)	111 (35.8%)	15 (4.8%)
Awarded in the past for good performance	59 (19%)	129 (41.7%)	6 (1.9%)	103 (33.2%)	13 (4.2%)
Always present at work	52 (16.8%)	112 (36.1%)	9 (2.9%)	126 (40.7%)	11 (3.5%)
Enthusiastic to work as a team	50 (16.1%)	113 (36.5%)	12 (3.9%)	115 (37%)	20 (6.5%)

Table 3: Employees opinions on objective setting.

Assessed parameter	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
Conversant with hospital mission and vision	44 (14.2%)	109 (35.2%)	11 (3.5%)	120 (38.7%)	26 (8.4%)
J.D is clear, precise and understandable	36 (11.6%)	118 (38.1%)	9 (2.9%)	124 (40%)	23 (7.4%)
SMART objectives set	32 (10.3%)	123 (39.7%)	6 (1.9%)	133 (42.9%)	16 (5.2%)
Importance of objective setting in PMS	34 (11%)	136 (43.9%)	9 (2.9%)	117 (37.6%)	14 (4.5%)
Sufficient Resources to execute set objectives	26 (8.4%)	119 (38.4%)	11 (3.5%)	143 (46.1%)	11 (3.5%)
Appraisals scheduled at beginning of year	37 (11.9%)	115 (37.1%)	14 (4.5%)	125 (40.3%)	19 (6.1%)
Blueprint depicting criteria for achieving set objectives exists	32 (10.3%)	135 (43.5%)	9 (2.9%)	106 (34.2%)	26 (8.4%)

**Figure 1: Level of productivity among the respondents.****Objective setting on employee productivity**

Based on the findings, 120(38.7%) of the respondents agreed that employees being conversant with hospital's vision and mission contributed to their performance objective setting. Similarly, 124(40%) agreed that having a clear, precise and easy to understand job description positively contributes to performance objective setting. Setting of specific, measurable, achievable, realistic and

time bound was assessed among the respondents and it was found that 133(42.9%) agreed that set objectives were smart with 123(39.7%) disagreeing with the statement. Majority of the respondents 136(43.9%) disagreed that objective setting is important in PMS with 117(37.6%) agreeing on the same. Resources are crucial in productivity, 143(46.1%) of the employees agreed that the county had provided sufficient resources for their work. However, 119(38.4%) and 26(8.4%) of the employees either disagreed or strongly disagreed with the statement respectively. With respect to prior scheduling of performance appraisal, 125(40.3%) of the employees agreed that scheduling of performance appraisal was done at the beginning of every year to give employees a timeline for achieving set goals, with 115(37.1%) disagreeing on the same.

Concerning availability of a comprehensible blueprint depicting a criterion for achievement of individual and organizational goals, majority of the respondents 135(43.5%) disagreed that such a blueprint existed with 32(10.3%) of the respondents strongly disagreeing. Performance objective setting was measured using the seven variables with a Likert scale rating from 1 to 5, with 1 denoting strongly disagree, 2 denoting disagree, 3 denoting undecided, 4 denoting agree and 5 denoting strongly agree. This was computed to form one continuous variable.

The minimum score expected was 7 and the maximum score of 35. The median was set at 17. Those who scored 18 and above were categorized as having high level of performance objective setting while those who scored 17 and below were categorized as low level of performance objective setting. Following the analysis, the employees were found to be positive about the influence of performance objective setting on employee productivity, as supported by 229(73.9%) (Table 3) (Figure 2).

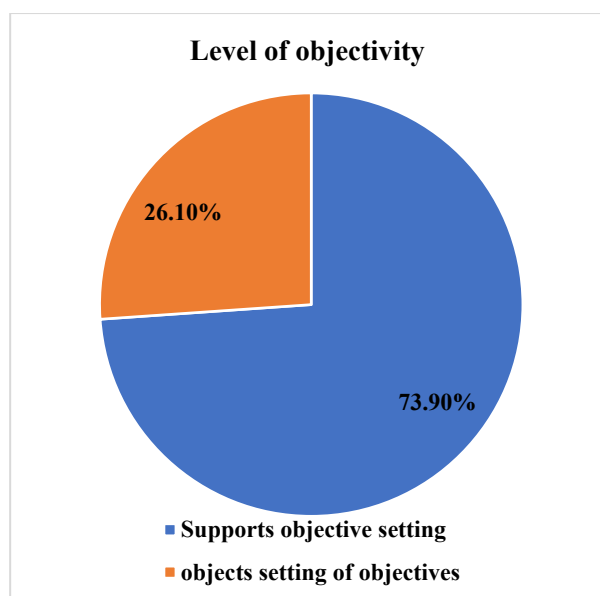


Figure 2: Level of objectivity.

Performance reviews on employee productivity

Majority of the employees 113 (36.5%) disagreed that PR identifies areas of improvement with 106 (34.2%) agreeing on the same. Concerning the statement that sought to establish whether performance review

indicators were well aligned with the employees' job description, 133 (42.9%) disagreed with the statement.

Ability of performance reviews to recognize good performance was also assessed and was found that 134 (43.2%) of the employees disagreed, 44 (14.2%) strongly disagreed, with only 17 (5.5%) strongly agreeing with the statement. Regular performance reviews enable employees to improve their productivity progressively. Based on the findings, 147 (47.4%) of the employees disagreed that performance reviews were done on a regular basis while 101 (32.6%) of the employees agreed on the same.

Majority of the employees 129 (41.6%) agreed that performance reviews provide an avenue for supervisors to discuss performance with the employee for improved performance with the same proportion disagreeing on the same. On whether performance reviews help to determine employee's level of productivity at the workplace, 117 (37.7%) of the employees agreed with the statement while 123 (39.7%) disagreed, and only 10 (3.2) were undecided. Finally, the research sought to determine whether performance reviews provide an opportunity for the employee to discuss their strengths and weaknesses with their managers. On this aspect, 138 (44.5%) disagreed, 120 (38.7%) agreed, with 31 (10%) strongly disagreeing with the statement (Table 4) (Figure 3).

Table 4: Bivariate analysis of sub variables in objective setting.

Characteristics	Bivariate model		
	COR	95% CI	P value
I'm conversant with the hospital's vision and mission			
Disagree	Reference category		
Agree	3.533	2.548, 4.90	<0.001
My job description has been made clear, precise and easy to understand			
Disagree	Reference category		
Agree	3.516	2.525, 4.896	<0.001
Specific, measurable, attainable and time-bound goals and objectives have been set for my team			
Disagree	Reference category		
Agree	3.868	2.713, 5.516	<0.001
I understand why objective setting is important in PMS			
Disagree	Reference category		
Agree	3.593	2.506, 5.153	<0.001
I have sufficient resources to execute the set objectives			
Disagree	Reference category		
Agree	2.512	1.914, 3.297	<0.001
Scheduling of performance appraisals is done at the beginning of every fiscal year			
Disagree	Reference category		
Agree	2.758	2.076, 3.664	<0.001
I have a comprehensible blueprint that depicts the criteria for achieving the set objectives			
Disagree	Reference category		
Agree	3.694	2.566, 5.317	<0.001

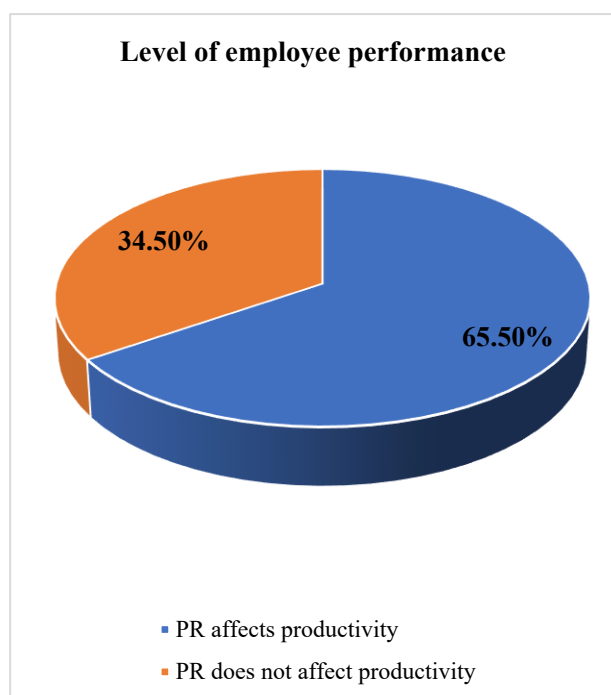


Figure 3: Level of employee performance.

Training and development and employee productivity

Majority of the employees 115 (37.1%) agreed that they had attended in-service training within the previous year while 109 (35.2%) disagreed that such training was provided with 48 (15.5%) strongly disagreeing. Concerning respondents who had attained career growth and development goals, 129 (41.6%) disagreed, 37 (11.9%) strongly disagreed, with 112 (36.1%) agreeing with the statement. In regard to existence of an up-to-date policy on T&D in the hospital, 137 (44.1%) agreed that the policies were up to date, with 119 (38.3%) disagreeing. On assessing ability of the healthcare managers to transfer the skills gained through T&D in improving patient outcome, 142 (45.8%) disagreed, 115 (37.1%) agreed while 13 (4.2%) strongly agreed. The respondents were asked whether key hospital stakeholders appreciated the skills healthcare managers gained through T&D. On this aspect, 12 (3.9%) strongly agreed, 145 (46.7%) agreed, with 118 (38.1%) disagreeing. Lastly, the employee's willingness to renew their employment contract was assessed and 128 (41.3%) agreed, 20 (6.5%) strongly agreed, while 113 (36.5%) disagreed with the statement (Table 5) (Figure 4).

Table 5: Multivariate analysis of sub variables in objective setting.

Characteristics	Multivariate model		
	AOR	95% CI	P value
I'm conversant with the hospital's vision and mission			
Disagree	Reference category		
Agree	0.345	0.248, 1.81	0.341
My job description has been made clear, precise and easy to understand			
Disagree	Reference category		
Agree	1.216	1.125, 3.491	<0.001
Specific, measurable, attainable and time-bound goals and objectives have been set for my team			
Disagree	Reference category		
Agree	3.588	2.414, 4.526	<0.001
I understand why objective setting is important in PMS			
Disagree	Reference category		
Agree	2.193	1.566, 3.553	<0.001
I have sufficient resources to execute the set objectives			
Disagree	Reference category		
Agree	2.113	0.614, 3.247	0.081
Scheduling of performance appraisals is done at the beginning of every fiscal year			
Disagree	Reference category		
Agree	1.251	1.086, 2.764	<0.001
I have a comprehensible blueprint that depicts the criteria for achieving the set objectives			
Disagree	Reference category		
Agree	0.694	0.366, 1.311	0.341

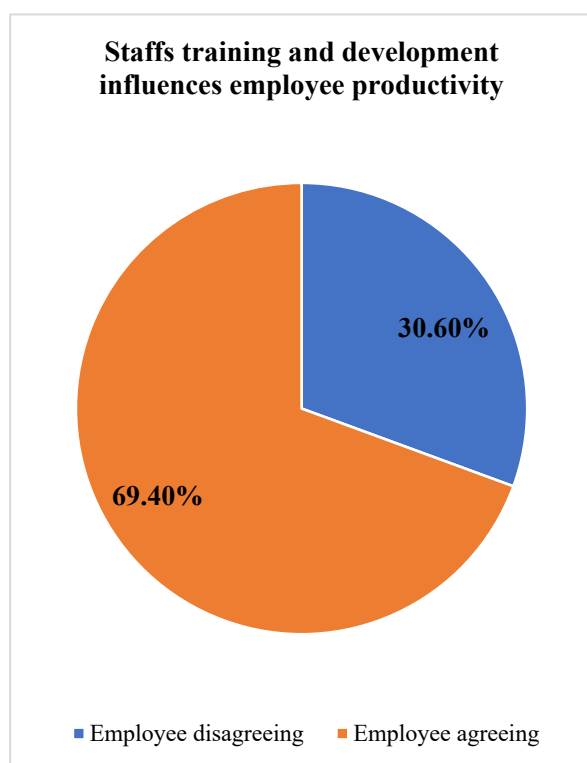


Figure 4: Staff training and development.

Financial rewards and employee productivity

Majority of the employees 126 (40.6%) agreed that the current financial reward system is in tandem with the performance review policy while 118 (38.1%) disagreed. In regard to provision of FR to healthcare managers who transcended performance targets, 127 (41%) of the employees agreed that financial rewards were given to employees who transcended set targets. Concerning provision of salary increment and job promotions on the basis of performance reviews, 141 (45.5%) of the respondents agreed, 127 (41%) disagreed, while only 12 (3.9%) strongly agreed that the county promoted staffs based on performance reviews.

The study also sought to determine whether the reward system was fair and non-discriminatory. On this aspect, 140 (45.2%) disagreed, 29 (9.4%) strongly disagreed, while 118 (38.1%) agreed that the financial reward system was non-discriminatory. The participants were asked whether all their compensation and rewards were in agreement with their performance.

On this aspect, 150 (48.4%) employees agreed, while 124 (40%) disagreed that their compensation was in tandem with their performance. In regard to existence of a clear link between the employee performance review findings and the reward system in the hospital, majority of the respondents 133 (42.9%) agreed while 121 (39%) disagreed with 27 (8.7%) strongly disagreeing that there is a clear link between performance review findings and financial reward system in place (Figure 5).

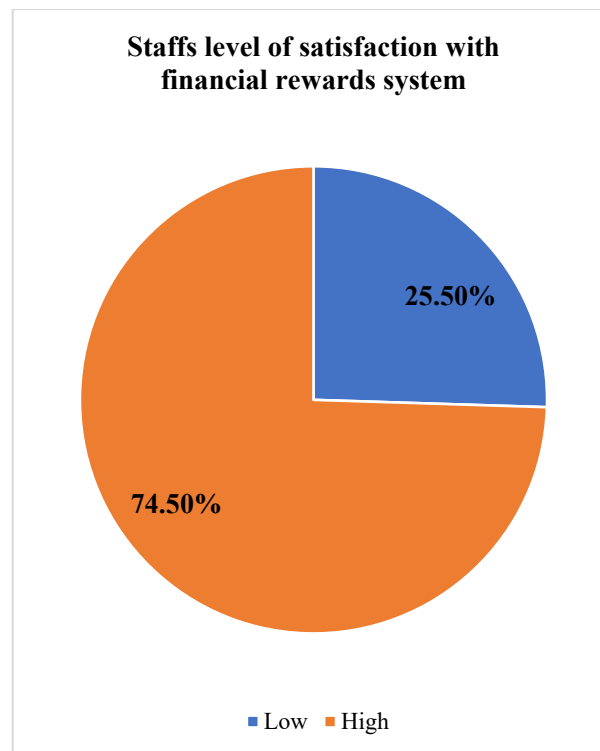


Figure 5: Staff level of satisfaction.

DISCUSSION

Under the demographic characteristics of the study participants, 71.3% were male while 28.7% were female. This finding indicate that males occupy more managerial positions in the healthcare sector than the female. This finding is in agreement with a study carried out.⁶

Previously, performance review is considered one of the essential tools of HRM that push workers to work effectively, diligently and efficiently.⁷ The study findings revealed that having performance review suggesting areas of improvement and having performance review indicators aligned with employee's job description was significantly associated with employee's productivity in the current study. There was a considerable association between having an effective performance review system and employee productivity.

In the current study, the variables that were significantly predicting employee productivity included having a clear, precise and easy to understand job description, setting SMART objectives, understanding why objective setting is important in performance management system and scheduling performance appraisals at the beginning of every fiscal year.⁸ employees who do not set clear goals are likely to find themselves working ineffectively.⁹

The current study found that having attended a training in the previous fiscal year, having an up-to-date policy on training and development that is strictly followed by all staffs and employee willingness to renew their contracts

since the facility catered for their growth and development needs, significantly influenced their productivity in the facility. In this regard, highly skilled and developed employees are a cornerstone to any organization's success.¹⁰

Financial rewards were assessed based on various sub variables and it was found that reward system aims to motivate, attract, and retain competent workers in an organization.⁹ Financial rewards include tangible returns in the form of cash compensations like bonuses, incentives, allowances, and income protection.¹¹ In the current study, the financial rewards were not quantified but were generalized to include recognition and appreciation after good performance.¹² The study was conducted only in selected public hospitals in Kitui County. Therefore, the findings may not be directly generalizable to healthcare managers in other counties or to private and faith-based health facilities in Kenya.

CONCLUSION

On performance reviews and employee productivity, the study concludes that ability of PR to suggest areas of improvement and using indicators that are well aligned with employee job description are significant predictors of employee productivity. On objective setting, the study concludes that objective setting positively influences employee productivity among healthcare managers in public hospitals in Kitui County. Four out of the seven parameters used to determine the influence of objective setting had a significant relationship with employee productivity. On the influence of training and development on employee productivity among healthcare managers in selected public hospitals in Kitui County, the study concludes that training and development has a positive influence on employee productivity. The study concludes that attending in-service training, up-to-date policy on training and development and willingness to renew employment contract significantly influences employee productivity among healthcare managers in selected public hospitals in Kitui County. On the final objective, the influence of financial rewards, the study concludes that recognizing and appreciating best performing employees in the hospital, existence of a financial reward system which is in tandem with PR policy, salary increment and promotions founded on performance reviews, employee compensation, allowances and other financial rewards being fair and in agreement with their performance and having a clear link between employee performance review findings and the reward system in the facility significantly influence employee productivity among healthcare managers in selected public hospitals in Kitui County.

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