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Influence of Performance Appraisal on Quality of Service Delivery: A Case of Bost Provincial Hospital, Southwestern Afghanistan

Mujibur Rahman Ahmadi[1*], Mohammad Naim Kakar[1], Hekmatullah Khadim[1], Abdul Malik Nazari[1], Mohibullah Amini[1]

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ABSTRACT

Availability of good-quality healthcare remains a high-priority issue in Afghanistan, especially in the district and provincial-level facilities, where resource deficiencies and poor performance management systems prevail. Although performance appraisal is world-wide in principle regarded as an essential mechanism for promoting organizational efficiency and service provision, there has been limited empirical work investigated its place in the Afghan health sector. This study bridges this research gap by investigating the performance appraisal-service quality relationship at Bost Provincial Hospital. The primary purpose of this research was to investigate the effect of performance appraisal systems on healthcare service quality, with particular focus on staff performance and patient satisfaction. Based on performance management theory, the study employed a cross-sectional study design. Information were collected from 200 hospital personnel and patients through a pretested and reliable questionnaire. Descriptive and inferential statistical techniques were used in analyzing the data. The findings indicated that there was a high and statistically significant relationship between performance appraisal and quality of healthcare service. Effective appraisal systems were associated with enhanced staff responsibility, enhanced delivery of service, and improved patient satisfaction. Besides, the respondents expressed general positive perceptions of prevailing appraisal practices in the hospital. This study provides new empirical evidence on the critical function that performance appraisal serves in enhancing service quality in Afghan healthcare facilities. It underscores institutionalizing timely, transparent, and formal appraisal systems. The findings provide practical suggestions for managers of hospitals and policymakers to improve human resource practices and patient care throughout the healthcare sector in Afghanistan.

INTRODUCTION

Quality healthcare delivery is critical to a healthy and economically successful society. The performance of health workers directly influences the effectiveness and quality of service provision in labor-intensive sectors like healthcare. The professionals diagnose illnesses, dispense drugs, conduct medical examinations, treat patients, and educate communities on good preventive behavior. Enhancing the performance of health workers is therefore critical to quality output delivery in the health sector. However, in the majority of developing settings, the overall standard of healthcare delivery is not optimal owing to a number of systemic issues (Adepoju, Opafunso, & Lawal, 2017).

One of the main inhibitors of quality delivery of services is human resource constraint and poor structured practice of performance management. Studies have cited a lack of up-to-date job descriptions, poorly defined performance objectives, inadequate supervision, and a lack of sufficient appraisal tools as some of the herculean challenges encountered in the health sector (Bangdiwala *et al.,* 2010; Alenoghena *et al.,* 2014). These limitations account for service gaps such as staff absenteeism, unproductive communication with the patient, suboptimal clinical evaluation, and excessive waiting times (Uneke *et al.,* 2007). Thus, the importance of effective management of human resources most importantly, through performance appraisal has increasingly been appreciated.

Performance appraisal is one of the core functions in human resource management and is critical in assessing employee performance, establishing training needs, and driving professional development (Bekele *et al.,* 2014; Choudhary & Puranik, 2014; Musyoka, 2015). It allows organizational activities to monitor employees' performance, reward top performers, and provide feedback that drives motivation and quality of service (Amare, 2014). Formal performance appraisals in healthcare organizations are increasingly being seen as strategic tools that help in organizing employees' efforts in a way that aligns with organizational goals, increase responsiveness to patients' needs, and facilitate accountability (Chegenyea *et al.,* 2015; Choudhary & Puranik, 2014). Feedback systems also reduce uncertainty, increase morale, and lower the turnover of experienced personnel. This view is echoed by recent work, with Lupenza, Kilima, and Kumburu (2024) demonstrating the manner in which performance appraisal positively influences employee productivity in public hospitals through mediating factors such as work environment and management style. Luthra, Ravi, and Ranganathan (2023) also provide a systematic review of the current research profile for performance appraisals, shedding light on trending features and future research that emphasize greater strategic significance of appraisal systems for

[1] Teaching Assistant, Afghanistan
[*] Corresponding author's e-mail: mujiburrahmanahmadi57@gmail.com

organizational effectiveness. Apart from that, justice and fairness perceptions in performance assessment have also been shown to significantly influence the job involvement and organizational commitment of healthcare professionals, which are critical towards guaranteeing high-quality service delivery (Lyu, Su, Qi, & Xiao, 2023).

In Afghanistan, unlike other countries, very limited empirical work has investigated the direct impact of performance appraisal systems on the productivity of health workers and service quality in Afghan health centers. No studies have, to date, thought about investigating the impact of performance evaluation on hospital-level healthcare provision outcomes. Against this background, the current research is the first of its kind to assess the influence of performance appraisal on health service delivery among health workers in Bost Provincial Hospital in Helmand province. As a referral hospital of national importance, Bost serves an essential population of southwestern Afghanistan. This research aims to generate evidence that will inform hospital managers, policymakers, and stakeholders in efficient strategies that would enhance staff performance and healthcare quality in weak and underserved settings.

Problem Statement

The public healthcare institution's performance assessment system is an important means of improving the quality of service, stimulating worker incentives, and ensuring institutional responsibility. There have been numerous studies that have established that systematic and open performance appraisals lead to improved staff morale, improved job performance, and ultimately quality service delivery Adepoju,, Afunso, & Lawal (2017), Ackah (2015), Bekele *et al.* (2014), Nwema & Gachunga (2014), and Iqbal *et al.* (2013), But in Afghanistan—and indeed in conflict-affected provinces like Helmand there still is a stark lack of empirical studies examining the functionality and functionality of these systems in the health sector. This is particularly challenging against the background of Afghanistan's fragile health infrastructure and on-going issues with staff shortages, low retention, and insubstantial training. The situation in Helmand Province is typical of these national challenges.

Due to decades of war, instability, and weak institutional control, provincial healthcare units like Bost are prone to be over-stretched, under-resourced, and lack effective human resource management systems. In such an environment, an effective performance assessment system could be a primary source of motivation for staff, the identification of training needs, and overall care quality improvement. Current practices are often poor, informal, sporadic, or even punitive rather than developmental but are all that is on offer. In the face of international health systems increasingly emphasizing accountability and result-focused approaches, countries like Afghanistan must do the same to set a positive trajectory and achieve long-term sustainability. Performance management theory would hold that regular, objective monitoring of employees has the function of more closely aligning individual performance with institutional goals, encouraging professional development, and improving outcomes through feedback and goal-setting systems (Aguinis, 2013). In healthcare, this translates to greater consistency of patient treatment, greater efficiency, and greater coordination with public health issues. The economic and social benefits of improved provision of healthcare are most valuable in fragile environments. Better performance measurement systems can lead to a more competent and committed health workforce, which can directly contribute to increased patient satisfaction, reduced medical mistakes, and decreased staff turnover. Those advantages can then contribute to increased public trust in healthcare facilities and reduce the long-term economic burden of preventable disease and inefficient service delivery. For a country such as Afghanistan—whose health care is highly dependent on donor support and whose public confidence is precarious enhancing health care quality via enhanced human resource practices is a significant development goal. While various studies across other low- and middle-income countries, such as Nigeria and Uganda, have taken into account the impact that performance assessment has on the delivery of healthcare (Adepoju, Afunso & Lawal., 2017). Afghanistan lacks localised evidence upon which to form such reforms. This study bridges this gap with presentation of empirical data from Bost Provincial Hospital in Helmand—a region that has been the subject of very little research work owing to its importance in regional healthcare service delivery. This study builds on existing global experience but is unique in that it is implemented in a war-torn, low-resource setting where particular cultural, institutional, and operating forces may influence performance appraisal system perception and implementation. As examples, social hierarchy, and low managerial capacity may all influence how assessments are conducted and received at Afghan health facilities. Revealing these context-specific challenges and opportunities is important to the formulation of effective and culturally appropriate appraisal systems. Last but not least, this study will contribute new insights into the connection between performance appraisal and healthcare quality in Afghanistan, particularly in less-researched regions like Helmand. By exploring healthcare staff opinions, organizational issues, and actual effects of appraisal systems, the research aims to offer pragmatic advice to health authorities and policymakers. These findings will be able to guide national policy reform and might serve as an example for the improvement of healthcare performance management in other low-resource environments.

LITERATURE REVIEW

Theoretical Overview

Performance Appraisal

There are many definitions of performance appraisal, and Armstrong (2006) defines performance appraisal as formal ranking and classification of the employees by supervisors in which the employees, normally, are

appraised once a year. Apart from this, performance appraisal is a managerial method to identify and measure employees' performances in organizations (Gomez, David & Robert 2001). Moreover, performance appraisals help employees to set goals, future career, and readiness to perform their tasks (Judge & Ellis, 2002).

Performance is that operation requires workers to deliver in terms of outcomes, sweats, work, and quality in a specified period and under specified conditions (Kumari & Malhotra, 2012).

Researchers have found that measuring employee performance is founded on particular goals and expectations (Mondy & Noe, 2005). Coons and Jenkins (2000) propose that appraisal of performance is a process through which employee behaviors or traits are categorized and the outcomes are preserved and reviewed by the organization.

Gary (2019) explains performance as an existent's performance criteria for evaluating a hand's present or once performance. Appraisals are the process of observing the actual performance of the hand compared with pertinent norms, establishing work norms, and giving feedback to the hand in order to spur the hand toward filling shortfalls. Performance appraisal is a technique of quantifying hand geste within an association an association's quantification of an existent's performance position and a quantification of the quality of the hand's performance compared to organizational pretensions.

Performance Appraisal Process

Performance appraisal systems are utilized by managers to facilitate employees achieving organizational objectives with efficiency and effectiveness, thereby realizing their overall potential. Performance appraisal systems provide employees with vital tools for monitoring employees' performance. Research previously demonstrated the remuneration-performance-appraisal-employee-performance link, asserting that good pay and benefits enhance employees' organizational commitment (Gingreco *et al.,* 2012). Actually, Foote and Hook (2019) pointed out that a focus on employee engagement is mentioned in the performance appraisal as being required for employees to be engaged in setting and aligning organizational and individual goals. In addition, as described by Ackoff (2008), performance management is an ongoing process of communication between the management and workers, and open and ongoing communication is essential to achieve organizational goals.

The Importance of Performance Appraisal

The employee performance appraisal process is a vital process as it allows the management to understand the employees of a complex organization. Moreover, unrealistic models of appraisal lead to frustration, employment dissatisfaction, and unemployment. Likewise, indirect appraisal systems unrelated to the work of the employees are a waste of time and resources. In fact, it is the best performing appraisal systems simply that they identify and measure critical behaviors contributing to job success (Mwema & Gachunga.2014). Performance appraisal itself is the core process since it ensures employee performance planning that directs the company towards achieving its business goals and measuring performance in a way that motivates employees to make the fullest use of employee's potential towards the company goals (Swanepoel, Erasmus & Schenk.1998).

Performance appraisal process impacts five fundamental organizational results such as financial performance, productivity, product and service quality and service, customer satisfaction, and employee satisfaction. Effective performance management is developing employees' capabilities and competencies, improving customer service and quality, and achieving financial and non-financial targets (De Waal, 2007). Besides, it is of utmost importance that the employees should feel that in performance appraisal there are the greatest possibilities of their job improvement and the evaluation is carried out in a fair way. Without fairness, performance appraisal systems, rewards, incentives, and improvement hurt employees (Gilliland & Langdon, 1998).

Service Quality Concept

Service quality has been defined by different researchers in different manners. For example, Bittner, Baums, and Mohr (1994) define service quality as "a consumer's overall impression of the relative inferiority/superiority of an organization and its services." While Cronin and Taylor (1994) examine service quality as a kind of behavior that is a long-term general judgment, Parasuraman *et al.* (1985) define service quality as "a function of differences between expectations and performance along quality dimensions." This appears to concur with Rust and Peters' (1997) definition that service quality is the relative and cognitive difference between performance on experience-based norms and service benefits.

Customer satisfaction is, according to the views of most authors, a transaction-focused, short-term indicator, while service quality is an emotion created as a result of a longer-term, overall judgment of performance (Hoffman & Bateson, 1997). Indisputably, service quality and customer satisfaction are co-related (Cronin & Taylor, 1992). Some authors believe that customer satisfaction generates service quality, while others have the view that service quality generates customer satisfaction. Besides, the relationship between customer satisfaction and service quality and how they are related to purchasing behavior remains unclear. Customer satisfaction is the foundation of true loyalty, and one of the ingredients for it is service quality. Satisfied or even happier customers are more likely to become a company's loyal advocates, purchase bundles with a supplier, and create good word of mouth. Discontent, on the other hand, pushes away customers and is one of the fundamental drivers of behavioral change (Lolock & Wirtz 2007, 371).

Service Quality in the Healthcare Industry

Service quality and patient satisfaction principles have also become more highlighted in the healthcare industry

over the past decade. However, as the health care industry has certain characteristics, its customer and service quality strategy is partially different from other industries. Apart from the definite requirements of the health care system on which organizations are operating in different countries, there also have differences in health care conditions of products and consumers of health care. First, the products and services that make up health care products are diverse and perceived by patients as a complex mix of services (Thomas 2011, 22). Therefore, they are hard to define and quantify their quality. They are characterized by the absence of substitutability, and healthcare organizations offer one service for one particular purpose. The most important distinction from other industries lies in consumer definition. Basically, the entire population is a potential market for health care products. Eventually, all will need some particular medical service or product. Nevertheless, until recently health care consumers were thought about as just ill people but since the 1990s "the focus moved from sick to healthy individuals" (Thomas, 2011, 15). The reasons for visiting health care facilities are prevention and cure of disease but also to improve well-being or quality of life. There are new generations of consumers of health care, i.e., patients, relatives of patients and potential consumers, that demand better services, higher satisfaction, fewer errors, and prevention of illness (Li *et al.* 2012). Thus, in the present scenario, there should be greater focus on customer satisfaction and quality of service.

According to Grönroos (1984), quality of health care can be described either as functional (or process) quality or technical (or outcome) quality. Technical quality mainly focuses on what the customer actually receives in concrete terms via the service, while functional quality deals with how the service is delivered. Thus, clinical or technical quality is thus accuracy in diagnoses and procedures of the same quality as experts (Lam 1997), and functional quality is thus how the service is being provided to the patient. However, Halstad and Berkowitz observe that in health care, quality is not clinical quality, but quality of service provision (Helstad and Berkowitz 2013, 203). Therefore, the hospital doesn't have to consider merely clinical quality. Clinical quality is taken for granted. Who else would visit a hospital where they do not anticipate the best of medical care and whose doctors they cannot trust? Instead, emphasis must be placed on offering quality service. That means, besides providing the best of healthcare, care should be taken to provide proper interaction between patients and staff (Dushan *et al.* 2010), or just communication with patients. Since scientists have a consensus of opinion that service quality is to be quantified on the basis of personal judgment, it is therefore reasonable to set out the definition of service quality As a gap between what customers expect and what they experience. Consequently, from the patient's viewpoint, service quality implies impressions of medical care, but indeed seemingly trivial matters like physical comfort, and interaction with paramedical and medical staff.

Goal-Setting Theory

The Goal Setting Theory, initially proposed by Edwin A. Locke during the late 1960s, is today an integral concept in organizational psychology and human resource management. The theory states that when individuals are assigned clear and challenging goals and immediate and constructive feedback, their job performance significantly enhances and remains at a high level over time. Locke and Latham (2002) argue that goals are powerful motivators as they focus attention, trigger effort, enhance persistence, and stimulate the development of effective plans. Locke and Latham (2002) explain that five basic elements are essential in achieving peak performance through goal setting: clarity, challenge, commitment, feedback, and complexity. The principles notify employees of what is expected of them, motivating them towards performance goals. Clear goals eliminate ambiguity and connect specific behavior to broader organizational objectives. Large body of research supports the effectiveness of goal setting in business, education, and health care. To illustrate, Latham and Pinder (2005) set forth that when goal setting is combined with performance appraisal and feedback systems, it significantly enhances motivation and productivity. This theory is most useful when applied in employee growth and performance management (Wang & Laschinger, 2015). Furthermore, a meta-analysis by Klingeld, Van Merlo, and Arends (2011) determined that having clear, demanding, and accepted goals is always linked with improved job performance in diverse jobs and work environments. In the health industry at large, the use of goal-setting strategies has been shown to enhance both individual and team performance, justifying itself in the difficult and dynamic settings (Wang & Laschinger, 2015).

Empirical Literature Review

There have been several empirical works that have established the fact that performance appraisal has a significant influence on employee performance. Adepoju, Opafunso & Lawal (2017) employed a survey carried out on 241 health workers in primary healthcare facilities in Southwestern Nigeria. They established that PA systems explained 55.6% of the service quality variance (R^2 = 0.556, $\beta = 0.746$, $p < .05$), indicating superior predictive ability of appraisal effectiveness.

Arowolo & Akinbo (2022) examined the impact of performance appraisal on job satisfaction of 275 workers in a federal government agency in Nigeria. Using PLS-SEM, they achieved adjusted $R^2 = 0.254$ ($p = .000$), thereby establishing a significant positive impact on job satisfaction.

Ackah (2015) used a questionnaire survey on 50 Ghana Health Service employees with convenience sampling. Data analysis came out with an established PA–worker productivity relationship based on cross-tabulations and percentage comparisons.

Bekele *et al.* (2014) examined the perception of PA in relation to work performance. Employing a stratified random sample of 119 workers out of 202, they found a moderate positive correlation ($r = .411$, $p < .01$) between

worker performance and perceived fairness of appraisal. Chengeye *et al.* (2015) assessed the performance management function in Kakamega County Hospital, Kenya. They sampled 300 permanent health workers and documented strong positive correlation between setting of targets and service provision ($r = 0.544$, $p = .000$).

Musyoka (2015) explored the effects of PA on health workers in Mbagathi Hospital, Kenya. Utilizing a cross-sectional, descriptive-exploratory study involving purposive and stratified sampling of 179 participants, the study found PAs poorly implemented—mean performance score was 57.6%. Appraisal was also used mainly for training and promotion with minimal relation to rewards or feedback.

Sharma & Sharma (2015) researched PA impacts on private hospitals in Jaipur, Rajasthan. A simple random sample of 60 staff reported that appraisal mechanisms improved provider performance in the private healthcare sector.

MATERIALS AND METHODS

General Background

The study employed the cross-sectional survey design, incorporating the service users and healthcare workers in the chosen facilities of BPH in South-western Afghanistan. The study participants were hospital patients and healthcare providers. The healthcare workers included medical records officers, pharmacy technicians, laboratory technicians, nurses, midwives, and doctors. 200 patients and 200 health workers were purposefully sampled for recruitment. The sample size was also justified from previous precedent in comparable studies within equivalent environments and had adequate statistical power for regression analysis.

Structured questionnaires were used for data collection. The questionnaires were developed based on extensive literature review and expert consultation to ensure content validity. Pilot testing with 20 respondents (10 patients and 10 healthcare providers) at a site not included in the final study was conducted to assess clarity, reliability, and instrument relevance. Pilot feedback was utilized for slight modification to improve understanding and applicability.

Data were gathered within two weeks in March 2025, with the help of trained research assistants under supervision by the principal investigator. All respondents were explained the reason behind the study and provided voluntary informed consent. Ethical approval was obtained from the Helmand Provincial Health Directorate's Ethical Review Committee.

In order to avoid potential biases, data collectors were directed to be neutral, and questionnaires were anonymized to maintain respondents' anonymity and reduce social desirability bias. Data were analyzed using descriptive and inferential statistics. Descriptive analysis to report on socio-demographic and main variables was done by using frequency tables and percentages. Simple linear regression analysis was applied to establish the predictive effect of performance appraisal on delivery of healthcare services among BPH workers

Participants

The study sample consisted healthcare workers and service users (patients) from Bost Provincial Hospital. A total of 200 healthcare workers were purposively selected, including doctors, nurses, midwives, pharmacy technicians, laboratory technicians, and medical records officers. Specifically, the breakdown included approximately 40 doctors, 60 nurses, 30 midwives, 25 pharmacy technicians, 25 laboratory technicians, and 20 medical records officers. Additionally, 200 patients who had received inpatient or outpatient services at the hospital were also purposively selected to participate in the study.

Purposive sampling was employed to guarantee that participants had direct, relevant experience with the hospital's performance appraisal system and service delivery, which would enable a complete understanding of the study's goals. For healthcare workers, inclusion criteria were participants who were full-time staff members who had worked at the hospital for a minimum of one year and had experienced at least one cycle of formal performance appraisal. Staff on short-term contracts, interns, and those with a service period of less than one year were excluded. For patients, inclusion criteria were individuals above the age of 18 years who had received services at the hospital in the last three months and were mentally and physically able to give informed consent. Critically ill or cognitively impaired patients were excluded to guarantee informed and coherent responses.

The sample size of (200 patients & 200 health workers) was arrived at by a consideration of a mix of practical limitations, population availability, and consultation of comparable studies carried out in similar health facilities, which had utilized samples sizes between 300 to 500 participants. The size was considered adequate for the intended statistical procedures of regression and exploratory factor analysis, which would generally need not less than 5–10 observations per item.

Although statistical generalizability is compromised through the use of purposive sampling, an attempt was made to maximize representativeness within the hospital setting by achieving proportional representation across staff categories and patient groups. Sampling biases were also controlled for through the inclusion of participants from various departments, shifts, and service areas to represent a range of views and prevent over-representation from one particular group. In addition, data collection took place over several days and time frames to encompass a wide cross-section of experiences. In spite of these measures, the study recognizes limitations in representativeness outside the chosen hospital, and findings need to be interpreted carefully when extrapolating to other clinical environments or parts of Afghanistan. Future research is invited to employ stratified or random sampling from more than one institution to increase external validity.

Instrument and Procedures

In order to gather in-depth and credible data, a quantitative research approach was used, augmented by qualitative information from intensive interviews. A structured questionnaire was the main tool for data gathering, and it was formulated from an extensive review of literature on performance appraisal and healthcare service provision. Items were taken from previously validated instruments, with some modifications to fit the context of Bost Provincial Hospital.

The survey had content and face validity tests. Content validity was achieved through expert review by academic researchers and healthcare professionals who have experience in health systems and human resource management. Face validity was achieved by pilot testing the instrument on a small number of healthcare workers in a similar hospital to determine clarity, relevance, and understand ability. Results from the pilot test were utilized to clarify wording and item structuring.

The tool included closed-ended and Likert-scale questions, addressing major areas like the frequency and reason for performance appraisals, perceived fairness and effectiveness, training needs identification, and perceived effects on service quality. Some of the sample questions were: "During my visit the health workers treated me with courtesy and respect?" and "The right medical conditions were diagnosed and treated?"

The survey was conducted during work hours in a private and quiet area of the hospital to avoid distractions and maintain confidentiality. The data was collected over the period of two weeks. It was voluntary, and all the respondents gave informed consent before the commencement of the survey.

Due to the multilingual situation in Afghanistan, the questionnaire was first prepared in English and then translated into Pashto—the main language used by the majority of employees at Bost Provincial Hospital. Back-translation was carried out by independent bilingual experts to provide linguistic and conceptual equivalence between the original and translated versions.

Missing data were managed by a combination of listwise deletion for missing responses and mean substitution for occasional missing values in important continuous variables, if the rate of missing data was small and random in nature. These actions provided a guarantee for the integrity and wholeness of the dataset to be used for analysis.

Data Analysis

The data collected from structured questionnaires were first coded and entered into the Statistical Package for the Social Sciences (SPSS) version 27 for analysis. Prior to conducting any statistical analysis, the data were cleaned to address missing values, inconsistencies, and outliers. Responses with significant missing data were excluded from analysis, and outliers were identified through boxplots and standardized residuals to ensure they did not unduly influence the results.

To address the first research question concerning the use of performance appraisal in Bost Provincial Hospital, descriptive statistical techniques were employed. These included frequencies, percentages, means, and standard deviations, and the results were presented in tables for clarity and ease of interpretation.

To examine the predictive relationship between performance appraisal practices and healthcare service delivery outcomes, simple linear regression analysis was used. The independent variable was performance appraisal, while the dependent variable was healthcare service delivery quality. The choice of simple linear regression, rather than multiple regression, was justified by the focus on evaluating the direct relationship between a single predictor and an outcome variable, which aligns with the study's objective of isolating the core influence of performance appraisal without introducing confounding effects. However, future studies could benefit from a multiple regression approach to account for potential mediating or moderating variables such as age, experience, or department type.

Assumptions for regression analysis linearity, normality, independence, and homoscedasticity were rigorously tested. Linearity was assessed through scatterplots of residuals, normality was examined using Skewness & Kurtosis, and homoscedasticity was evaluated through residuals-versus-fitted plots. The Durbin-Watson statistic was calculated to check for autocorrelation in the residuals. Only data that satisfied these assumptions were retained for regression analysis to ensure the validity of results. The regression coefficient (β) was used to assess the strength and direction of the relationship, and statistical significance was determined using a p-value threshold of < 0.05. This significance level was chosen in accordance with standard practice in social science research, balancing the risk of Type I and Type II errors.

To explore associations between continuous variables related to performance appraisal dimensions and service outcomes, Pearson correlation coefficients were computed. This analysis supported the investigation of potential linear relationships and further validated the regression findings.

In relation to the third research objective, which focused on understanding the latent structure of the performance appraisal constructs, exploratory factor analysis (EFA) was performed. The suitability of the dataset for factor analysis was assessed using the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's Test of Sphericity. Components with eigenvalues greater than 1 were extracted using principal component analysis, and only factors accounting for at least 60% of the total variance were retained for interpretation. This helped uncover the underlying dimensions of performance appraisal perceptions among healthcare workers and strengthened the construct validity of the survey instrument.

Mathematical Expressions and Symbols

$$SQD = \alpha + \beta_1 PA + \varepsilon$$

RESULTS AND DISCUSSION

This part provides the result of data analysis in the form of descriptive statistics and normality of data. Descriptive statistical analysis is needed in such a way that the inherent nature of data in a study can be explained. Descriptive statistics are categorized into measures of central tendency and variability and measures of spread. the skewness and kurtosis which is also conducted in the present study to test the normality of data.

Then, the study explores the correlation matrix which is of interest to test for linearity and homoscedasticity of the variables, and to ensure there is no multicollinearity among the independent variables used. Data analysis begins with reliability analysis to unveil consistency among the items and provides feed on the relationship between some items in the scale using Cronbach's alpha tests in an effort to establish whether multi-item Likert scale questionnaires are reliable. The exploratory factor analysis (EFA) followed then, which is an important component within quantitative research to identify the correlation among the indicators of the manifest variables for building a construct to identify whether it's acceptable to proceed further for model analysis.

Respondents' Demographic Profile

In descriptive analysis, male respondents accounted for 70.0% and female respondents accounted for 30.0%. The age groups were: 18–25 years (18%), 26–35 years (55%), 36–45 years (21%) and >45 years (6%). From the survey, 6.7% was certificate/diploma, 66.7% was bachelor degree, 20% master degree, and 6.7% was Uneducated. Table 1 indicates that 81% of the respondents were staff medical, 12% of the respondents were management staff and 7% of the respondents were staff services. In terms of work experience 50% of respondents worked for less than 5 years, and 50% of respondents worked for more than 5 years.

Normality Test

Skewness represents data deviation from the mean and kurtosis represents relative peakedness of the distribution. For the case of a normal distribution, the skewness value should be ±3.00 standard error of skewness and ±5.00 standard error of kurtosis (Hair *et al.,* 2015). Skewness statistic of performance appraisal independent variable was 0.492 and kurtosis was 0.111. For dependent variable Service quality 0.532 was the skewness statistic and kurtosis was -0.099. Thus, based on the above result data in this study was normally disrupted. Skewness and kurtosis data of all of the variables are presented in Table 2.

Table 1: Respondents Profile

Description	Frequency	% Percentage
Gender		
Male	126	70%
Female	54	30%
Age Group		
18-25	32	18%
26-35	100	55%
36-45	38	21%
Up to 45	10	6%
Educational Level		
High School	12	6.7%
Bachelor	120	66.7%
Master	36	20%
Uneducated	12	6.7%
Job		
Medical	146	81%
Management	22	12%
Service	12	7%
Experience		
Less than 5 Years	90	50%
More than 5 Years	90	50%

Source: Author's development

Correlation Matrix Result

General findings in Table 3 show that there exists an adequate level of relationship between the variables. In particular, it was found that performance appraisal was in moderate level related to service quality (p = 0.60). While variables are significantly correlated with each other, the correlation is in

Table 2: Skewness & Kurtosis Results

Variables	Skewedness		Kurtosis	
	Statistic	Standard error	Statistic	Standard error
Performance Appraisal	.492	.254	.111	.503
Service Quality	.532	.254	-.099	.503

Source: Author's development

a moderate level. Therefore, it can be assumed that linearity and homoscedasticity between the variables are guaranteed (as variables are not highly correlated).

Reliability Analysis

Reliability refers to the extent to which measures replicated produce equivalent results (Hair *et al.,* 2015). In this research, internal consistency across two dimensions of 11 items was tested via Cronbach's alpha. The coefficient ranges from 0 to 1, with high values nearing 1 indicating higher reliability (Hair *et al.,* 2015). As evident from Table 4, Cronbach's alpha for the two dimensions that measured

Table 3: Correlation Matrix

Variables	Performance Appraisal	Service Quality
Performance Appraisal	1	
Service Quality	0.600	1

Source: Author's development

Service Quality implementation at Bost Hospital was 0.77 and 0.78. These are greater than the usually accepted cut-off value of 0.60 that marks a benchmark for acceptable internal consistency, as suggested by Byrne (2010).

Exploratory Factor Analysis (EFA)

Exploratory Factor Analysis (EFA) is a basic technique for reducing a large number of variables into smaller, more interpretable factors based on their intercorrelations (Hair *et al.,* 2015; Byrne, 2012). In this study, 200 valid responses were analysed using EFA. Principal component extraction method with varimax rotation was employed for identifying the potential latent constructs within the questionnaire items. Prior to conducting the EFA, the data set was screened using descriptive statistics, inter-item correlations, and statistical assumption checks for

Table 4: Reliability Analysis

Variables	No. of items	Cronbach's Alpha
Performance Appraisal	6	0.770
Service Quality	5	0.780

Source: Author's development

data appropriateness (Hair *et al.,* 2015). The Kaiser-Meyer-Olkin (KMO) measure gave the minimum value of 0.662 for the performance appraisal dimension, suggesting that the sample was satisfactory for principal component analysis (Table 5). Hair *et al.* (2015) explain that desirable results of both the KMO and Bartlett's Test of Sphericity determine the suitability of the dataset for factor analysis. Additionally, factor loadings above 0.4 are acceptable while those exceeding 0.5 are considered to be statistically significant (Sharma *et al.,* 2005).

Based on the EFA, the minimum factor loading was 0.560, which meets the requirement. The overall results of EFA indicate that 6 factors are restricted and will use for further analysis. The summary results of EFA are reported in Appendix A1.

Linear Regression Analysis

In the regression model of the study, there is one Independent Variable Performance Appraisal and a dependent variable Delivery of Service Quality. To assess the influence of Performance Appraisal on Delivery of service quality, this Independent Variable was regressed against delivery of service quality in a linear multiple regression model.

The multiple regression analysis shows a moderate positive relationship between variables, with R = 0.559. The coefficient of determination, R^2 = 0.318, shows that approximately 31.2% of the variance in the delivery of service quality can be explained by the performance appraisal included in the model. After adjusting for the number of predictors, about 30.4% of the variance is

Table 5: Exploratory Factor Analysis

Kaiser Meyer Olkin Measure of Sampling Adequacy		0.662
Bartlett's Test of Sphericity	Approx. Chi-Square	832.879
	D.f	55
	Sig.	0.000

Source: Author's development

explained, offering a more accurate measure of model fit. On average, the observed values deviate from the predicted values by approximately 0.51434 units.

The table 7 presents the coefficients for the regression model. The results show that performance appraisal has a significant positive relationship with the delivery of service quality (Beta = 0.515, t = 6.321, p < 0.000). The constant term (Constant) is 1.082 (t = 6.427, p < 0.000), representing the expected value of the dependent variable when Performance Appraisal is zero. Overall, the coefficients suggest that Performance Appraisal has meaningful influences on the dependent variable delivery of service quality, further highlighting the importance in understanding the relationship with the dependent variable.

Table 6: Model Summary

Model Summary				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	.559a	.312	.304	.51434
a. Predictors: (Constant), Performance Appraisal				

Source: Author's development

Table 7: Coefficients

Coefficients						
Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
		B	**Std. Error**	**Beta**		
1	(Constant)	1.082	.168		6.427	.000
	Performance	.515	.081	.559	6.321	.000
a. Dependent Variable: Delivery of Service Quality						

Source: Author's development

Perception of Health Workers on the Performance Appraisal Practice in BPH

Table 8 presents healthcare service providers' perceptions of the performance appraisal systems implemented in Primary Health Care (PHC) facilities. Perceptions were determined based on a five-point Likert scale, where 1 is "strongly agree" and 5 is "strongly disagree." Analysis was conducted based on percentage distributions and mean scores, with interpretations along the scale. The findings reflect general positive perceptions of the appraisal system by the respondents. The majority agreed that Bost Provincial Hospital (BPH) has a clear, formally established performance appraisal system, as shown by the mean of 1.53. Similarly, the respondents found the performance appraisal forms simple to use and understand, as supported by the mean of 1.50.

Regarding feedback, the participants noted that they typically receive feedback on performance, with a mean score of 2.48. Along with this, it was found that supervisors frequently provide feedback discussion to employees, as indicated by a mean of 2.43. The participants also agreed that their performance is being assessed based on relevant standards of their skills, knowledge, and attitude towards patients, as indicated by the mean score of 1.80. Finally, the evidence revealed that the appraisal process is perceived to positively influence service quality, as indicated by the mean score of 1.98.

Result on Quality Service Delivery

Results in Table 9 with regard to the quality of service provision show that participants were generally content with the care received. They agreed that they were treated with respect and in a polite way by health workers (mean = 1.07). They also agreed that their ailments were rightly diagnosed and dealt with (mean = 2.42), and received timely care when they came in for their visits (mean = 2.42). Further, the participants mentioned that the healthcare staff were sympathetic and willing to hear their concerns (mean = 2.57). Further, the respondents also had the view that the staff were able to perform their duty (mean = 1.94). Overall,

Table 8: Perception of Health Workers on Performance Appraisal Practice in BPH

Performance Appraisal	**% Response**					
	Strongly Agree	**Agree**	**Undecided**	**Disagree**	**Strongly Disagree**	**Mean**
BPH conduct a formal and written appraisal system	124	66	10	-	-	1.53

understand how to fill the performance appraisal form	142	42	2	12	2	1.50
Receive feedback on performance Appraisal & Feedback receive enhance their service delivery	40	80	52	8	-	2.48
Supervisor often discuss the feedback with the staff	60	84	2	46	8	2.43
Performance is measured on the basis of skill; knowledge and attitude to the patients	92	88	4	16	-	1.80
Performance appraisal exercise contribute to better service delivery	84	86	4	20	6	1.98

Source: Author's development

all these findings show that patients prefer to be satisfied with the quality of care offered at BPH hospitals.

Use of Performance Appraisal in Bost Provincial Hospital

Figure 1 illustrates the findings in relation to the use of performance evaluation at Bost Provincial Hospital. The majority of the respondents (n=66; 37%) reported that performance appraisal is primarily used for employee promotion. Also, 29% of the participants noted that it is used in training needs identification, and 23% believed that it is used for salary increases. Only 11% reported that performance appraisal is used to recognize and reward great employees. Results of in-depth interviews also corroborated that promotion is the major purpose of performance assessment. Overall, the results show that performance appraisal is mainly applied for promotion decisions, while it is applied sparingly in training advice and to a negligible extent in employee recognition.

This is in line with Adepoju *et al.,* (2017) research which indicated that (72.1%) of the health workers affirm that performance appraisal is mostly used for promotion, 29% indicated the use of performance appraisal for determining training needs and 11% indicated for compensating health workers.

Table 9: Perception of the Patient on the Quality of Service Delivery

Service Quality	**% Response**					
	Strongly Agree	**Agree**	**Undecided**	**Disagree**	**Strongly Disagree**	**Mean**
During my visit the health workers treated me with courtesy and respect	166	14	-	-	-	1.07
The right medical conditions were diagnosed and treated	70	74	50	8	-	2.42
During my visit, I was attended to on time	60	84	4	44	8	2.40
During my visit the health workers showed care and listened carefully to my complaint	48	82	10	58	2	2.57
The staff at the BPH demonstrated competency on their job	102	64	30	4	-	1.94

Source: Author's development.

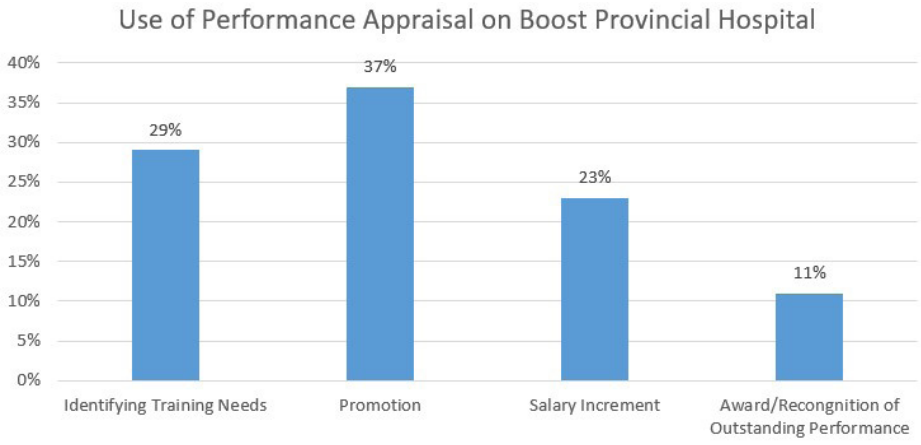

Figure 1: Use of performance appraisal on Bost Provincial Hospital
Source: Author's Development

Discussion

A simple linear regression analysis was used to establish the degree to which performance appraisal predicts quality service delivery in Bost Provincial Hospital (BPH). As shown in Table 6, the regression model returned a coefficient value of $R = 0.55$, with $R^2 = 0.312$ and a p-value of 0.000, which is the model's statistical significance at the $p < 0.05$ level (two-tailed). The R^2 value of 0.312 suggests that about 31.2 % of service quality variation is explained by performance appraisal practices. In addition, the standardized beta coefficient ($\beta = 0.559$, $p < 0.05$) reveals a strong positive association, indicating that for every one-unit increase in satisfaction with performance appraisal, service delivery quality increases by 55.9 %. These results explicitly show a positive and significant effect of performance appraisal on service delivery outcomes in PHC facilities. Therefore, the null hypothesis is rejected, and the alternative hypothesis is accepted. These findings are in line with those of earlier studies by Adepoju, Afunso, & Lawal (2017), Ackah (2015), Bekele *et al.* (2014), Nwema & Gachunga (2014), and Iqbal *et al.* (2013), all of whom concluded that effective performance appraisal improves worker performance and enhance service quality, by extension, contribute to overall organizational effectiveness.

CONCLUSIONS

Additional studies ought to be expanded to other health facilities covering more than one referral hospital and at the provincial and district levels in addition to Bost Provincial Hospital. This expansion would allow for comparison across settings and help detect geographical trends in the practice and effect of performance appraisal on service quality. A broader view would also enhance the generalizability of findings, and a better comprehension of the systemic issues pertaining to the healthcare industry. Methodologically, qualitative research - in the form of detailed interviews and focus group discussions with patients and healthcare staff - is indicated in future research. Such methods have the potential to provide rich, contextually specific data with regard to perceptions, difficulties and the everyday impact of appraisal systems. Combination of qualitative and quantitative methods through mixed method designs would contribute both statistical power and rich, detailed descriptions to findings. Additional studies should also consider direct associations between performance appraisals and patient outcomes, including recovery rates, safety events, and satisfaction levels. Demonstrating these connections would provide more compelling evidence of the benefits and boundaries of performance management systems in healthcare.

Also, research should consider how performance appraisals assist in determining training needs and facilitate ongoing professional development. Insight into their contribution to developing clinical competency and improving service quality would be beneficial to both policy and practice. Comparative research between provinces or nations with comparable health systems may reveal context-specific and transferable best practices. Lastly, longitudinal research is suggested to determine the sustainability of performance improvement brought about by performance appraisals and to examine the factors affecting their long-term success.

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