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Assessing Employee Training's Contribution to Health Service Delivery at Benjamin Mkapa Hospital in Tanzania

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ABSTRACT

The purpose of this paper is to assess employee training's contribution to health service delivery in public health facilities, such as the case of Benjamin Mkapa Hospital (BMH). The study answers the question of whether and how employee training is associated with the quality of health service delivery. The study was guided by the human capital theory and applied mixed methods with a cross-sectional design. Primary data were collected from 89 service providers and 68 beneficiaries at BMH using questionnaires, whereas eight key informants were interviewed. Quantitative data were analysed using the descriptive statistics generated by R Version 4.3.4 in the form of frequencies, percentages, and mean scores, sample means tests, assumptions of normality tests, and correlation analysis. Qualitative data were analysed using thematic analysis. The study found that much more attention was given to on-the-job training than it was given to off-the-job training, subject to budgetary constraints and limited study leaves to secure the workload balance needs. Nonetheless, there was a very strong positive correlation between effective employee training and quality of health service delivery [rho = 0.879, p-value<0.001; 95% CI = 0.821 - 0.919]. This relationship is mediated through skills, competence, and confidence attributable to regular, relevant, and inclusive training, all of which depend on the scope of the training programs and how well they are being implemented. Thus, the government needs to increase the absorption rate so that off-the-job training is not compromised, especially when the management limits study leave to meet excessive workload balance needs.

Keywords: *Employee training, Health service delivery, Benjamini Mkapa Hospital, Public health, Tanzani*a

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1. INTRODUCTION

The significance of health service delivery cannot be overemphasised, since low-quality healthcare increases the burden of illness and health costs globally (World Health Organisation [WHO], 2018). As a result, improving health service delivery has become a global agenda, mainly through (SDG 3) (IISD, 2016). The key aspect of the agenda is to improve health service delivery. The desired improvement in health service delivery should be consistent with evidence-based professional knowledge (WHO, 2020). This could be linked to reasons for expanding government spending on employee training programs in the health sector worldwide (Gunja *et al.*, 2023).

However, there is evidence of a mix of outcomes regarding quality of health service delivery, regardless of presumably high employee training standards in high-income countries. A comparative study in 2019 found that the U.S.A., with 16.9% as the highest healthcare spending and a high level of employee training programs, had relatively poor health service delivery compared to high-income countries (Tikkanen *et al.*, 2019). Other studies found that countries like the U.K., Australia, the Netherlands, Norway, Sweden, and Switzerland exhibit high health system performance or best health outcomes (Esteban & Max, 2016; Gunja *et al.*, 2023). Nonetheless, the most recent study in Saudi Arabia found a significant correlation between offering training programs to employees and the quality of service delivery in the health sector (Alharbi & Aloyuni, 2023). Even though health outcomes differ between high-income countries, the severely adverse effects of poor service delivery are still concentrated to relatively poor countries.

For instance, lower and middle-income countries (LMICs) happen to exhibit up to 8.4 million deaths, equivalent to about 15% of overall deaths each year, being attributed to poor health service delivery (WHO, 2018). Sub-Saharan Africa has the lowest quality of health service delivery, which signifies 24% of the global disease burden and a severe shortage of health workers, limited to only 3% of the world's health workforce (WHO; Wamai & Shirley, 2022). Thus, poor health service delivery is associated with several factors, such as a lack of skilled and motivated health workers. As a way forward, employee training initiatives are being streamlined to improve the region's health service delivery, mainly through the Human Resources for Health (HRH) program (Van Ryneveld *et al.*, 2020). The HRH programs focus on improving the quality and relevance of pre-service education, expanding and diversifying HRH's production, and enhancing HRH's continuing professional development (CPD) (Van Ryneveld *et al.*). Since HRH-related programs are implemented in varying contexts across countries, there are also varying degrees and scopes of achievements from employee training

programs. In Nigeria, a study by Igwe (2020) revealed that training helps to increase employee performance in service delivery. In Kenya, a study by Tanui and Kwasira (2019) found that staff training positively impacts service delivery. However, any positive contribution of employee training is attributed to the effectiveness of training, which bears adequate knowledge and skills (Kulkarni, 2013). Like other LMICs, Tanzania is witnessing poor service delivery indicators (SDIs) despite considerable investment in the HRH programs.

In Tanzania, the government has been progressively taking initiatives to address the existing problem of low-quality health service delivery. The strategies aimed to intervene in a wide range of challenges related to the lack of health workers and other determinants of health service delivery. Initially, the HRH strategic plan focused on expanding health and social welfare training institutions and curriculum review to reduce the health worker shortage from 56% to 52% from 2008 to 2014 (MoHSW, 2008). This was followed by HRH phase two to increase equality and balance the urban and rural distribution of health workers from 2014 to 2019 (MoHSW, 2014). On the other hand, the ongoing HRH phase three aims to increase absorption so that the shortage of well-trained health workers can be reduced to at least 52% from 2020 to 2025 (MoHCDGEC, 2020). Meanwhile, more recently, the government has injected Tsh. 3 billion in HRH specifically to foster training for health workers (URT, 2022).

Despite such progressive initiatives, there is evidence of poor service delivery indicators (SDIs), mainly in public health facilities, regarding health worker availability and knowledge (MoHCDGEC, 2020). Health workers' knowledge would ensure the quality of service being delivered, whereas the timeliness of service delivery can be taken as a proxy indicator of staffing adequacy and non-absenteeism (Hyde, 2024; Rockville, 2016; Salami *et al.*, 2022). Thus, improved service delivery can be evaluated through timeliness and quality of service.

Previous studies have found that employee training programs bridge the shortage of knowledgeable health workers, which is expected to determine the quality of health services (MoHCDGEC, 2020; Kwasira, 2019). In response, much emphasis is on pre-service education, mainly for entry qualification purposes rather than continued professional development (CPD) (MoHCDGEC).

The post-service training aspect of CPD, which is the focus of this study, has not been given much attention. This study focused on post-service employee training to account for paradoxical outcomes of HRH programs on the quality of service delivery in

Tanzania. Using Benjamin Mkapa Hospital as the case study, the study answers the question of whether and how employee training is associated with quality of health service delivery.

The study was guided by the Human Capital Theory, which links investment in employee training with the returns from such an investment. Thus, the theory is adequate for linking employee training with the quality of service delivery. Human capital theory (HCT) was initially found by Gary S. Becker in 1962 and further developed by Sherwin Rosen in 1976. The theory posits that employees solely own human capital, which can be improved through education and training (Ross, 2023). Human capital is assumed to have a direct effect on productivity. In this case, productivity would be increased only through additional competencies and skills to existing employees or hiring new employees with higher skills and competence levels (Ross). In the context of this study, HCT mandates employee training as a key to increasing employee productivity in terms of improving health service delivery. Thus, if there is no significant improvement in health service delivery, any such investment in employee training is counted in vain. However, HCT does not account for the proportional increase in costs associated with human capital as employees become more knowledgeable and skilled, not only in terms of higher salary and benefits but also in terms of their higher competitiveness in the labour market as they are free to move (Dickler, 2023). Regardless of this critique, HCT is still relevant because public health service delivery comes with positive externalities that business-oriented organizations could not consider (Western Governors University, 2021). It is imperative, therefore, to concur with HCT in the context of health service delivery. More importantly, proponents of the theory argue that the effect of employee training on productivity, as assumed by HCT, could be explained through improvement in quality of service, which is a mediating variable (Rew *et al.,* 2018; Rust & Huang, 2012). The literature suggests that employee training in the service sector affects service quality, which explains productivity (Rew *et al.*; Rust & Huang). Thus, the theory is relevant in that it highlights the grounds for assuming that the independent variables and the dependent variables of this study are related.

2. METHODS

The study was conducted at Benjamin Mkapa Hospital (BMH), which offers various medical and super-specialised medical services. Unlike other hospitals, BMH is given priority through the fast tracking of the on-the-job HRH program, besides the highest absorption rate estimated at 190% in a previous year (BMH, 2021; Mmbaga, 2023). This unique feature helped the researcher to find diversity of employees in terms of the scope of training, ranging from pre-service HRH programs and on-job HRH programs, which

is crucial for avoiding selection bias (Shringarpure & Xing, 2014). Nonetheless, BMH is progressively equipped with high technological facilities vital for delivering high-quality services, as Donabedian (2005) suggested. This aspect minimised the problem of omitted variable bias as both training and facility availability contribute to the service delivery level. Thus, it was easy to reach a conclusion and establish generalisation assumptions without the demand for controlling the availability of equipment and medical tools that may have required statistical tools and more complex methodological procedures. Thus, the study area provides for internal validity assurance, which adds value to accuracy in linking employee training with health service delivery in public health facilities. However, differences in training programs and hospital infrastructure may need to be considered for generalisation.

The study applied mixed methods. This was justified by previous researchers who argued that the best way to ensure quality control in studies of health service delivery is by using mixed methods (Agweyu, 2020). The mixed methods accurately capture contextual subtleties often concealed by a single method of inquiry applied in isolation (Agweyu, 2020). On the other hand, the study employed a cross-sectional research design. A cross-sectional design helped collect data, cutting across different categories of service providers and beneficiaries at one point. The design facilitated a comparative analysis crucial for the triangulation and cross-validation of data from different sources, hence quality control.

The study population comprised 531 employees involved in health service delivery from different directorates, departments, and units at BMH. Although administrative staff may indirectly affect service delivery, the study did not involve them to avoid underestimating service delivery indicators as suggested by previous researchers (Agweyu, 2020). Also, the population included 210 beneficiaries conceived as patients discharged from the hospital weekly (Benjamin Mkapa Hospital, 2023). The inclusion criteria included health beneficiaries who had been admitted to the hospital and discharged on the survey day. This helped to access beneficiaries with higher odds of having gone through most of the process of health service delivery, and also helped to avoid beneficiaries who are still sick, with the potential of posing a risk to the validity and reliability of their responses to research questions. The sample size was estimated using the Yamane formula with an adjustment rate of an additional 10% for non-response and missing cases. Based on this formula, the sample size was estimated at 94 service providers and 75 beneficiaries.

Simple random sampling was used to select service providers, whereas systematic sampling was used to select beneficiaries. The random selection of service providers was performed using Microsoft Excel separately for each of the seven departments or units, based on an estimated proportionate sample size. In practice, the list of relevant service providers was pasted in Excel, and random numbers were generated in the next column against their names. Then, the generated numbers were sorted in descending order, where the respective sample size was chosen from the highest. On the other hand, systematic sampling facilitated probabilistic sampling while conveniently accessing the beneficiaries. Given the population of 210 and sample of 75, the researcher had to skip two beneficiaries after every successful selection, and limited the number to 11 respondents for each of the seven days of a data collection week. This enhanced even distribution of the sample minimized systematic bias in sample selection. Data from service providers were collected using self-administered questionnaires, whereas for beneficiaries, the questionnaires were administered by two selected and well-trained assistants. To avoid desirability bias, gender matching was adhered to, privacy and conducive environment were maintained, and the respondents were informed that the invigilators had no affiliations with BMH besides ensuring them that anonymity was to be embraced. Recall and telescoping bias problems were not likely since, on average, the beneficiaries interacted with the service providers across all departments for respective services within two weeks before the study, as revealed through the respondent pre-test. Furthermore, primacy and recency effects were not evident.

Also, the study involved eight key informants purposively selected using the seniority criterion. As a result, seven heads of directorates from the top management of BMH and the director of training and human resource development from the Ministry of Health were interviewed using the interview guide. The interviews were handwritten in a book during sessions that lasted 45 to 60 minutes. Secondary data were also collected from internal capacity-building audit reports, training manuals, schedules, and the five-year hospital training and development plan. The use of primary and secondary sources of data helped to improve validity and reliability by ensuring confirmability through the triangulation method. Nonetheless, the research process was thoroughly explained as a means of audit trail in case credibility and transferability of findings were made possible (Noble, 2015).

Quantitative data were analysed using both SPSS and R Version 4.3.4. Although R was preferred, SPSS was helpful in data entry in the first place. The descriptive statistics were generated by SPSS, which include frequencies, percentages, and mean scores. In contrast, R Version 4.3.4 was used for sample means tests, assumptions of normality

tests, and correlation analysis to link dependent and independent variables. Because of fewer cases in the highest and lowest categories, the 5-point Likert scale of agreement was necessarily transformed to a 3-point scale. In this case, the "Strongly Agree" was merged with "Agree", whereas "Strongly Disagree" was merged with "Disagree"; hence, information loss was minimized. As a result, the degree of precision in the inferential statistical analysis results was substantially improved.

On the other hand, qualitative data were analysed manually using thematic analysis with the aid of frameworks. A six stages approach was used as proposed by Clarke & Braun (2017). The stages start with familiarizing with the data, data coding, searching for topics (themes and sub-themes) regarding employee training and health services delivery and their interconnectedness, evaluating the themes, defining and naming the themes, and finally, report writing.

3. RESULTS

The study assessed Employee Training's Contribution to Health Service Delivery in Public Health Facilities, using Benjamin Mkapa Hospital as an example. The results are presented in two main subsections: the demographic characteristics of the respondents and Employee Training Programs for Health Service Delivery.

3.1 Demographic Characteristics of Respondents

At the end of the data collection period, the researcher collected 89 questionnaires from service providers, equivalent to a 94.7% response rate, and 68 questionnaires from beneficiaries, equivalent to a 90.7% response rate. The distribution of the respondents by demographic profile is presented in Table 3.1.

3.1.1 Gender Information

The gender distribution of service providers who participated in the study included 55.1% males and 44.9% females. The results reflect the relatively large number of males employed as service providers at BMH compared to the females. This indicates the representativeness of the sampled respondents, signifying face validity. On the other hand, the gender distribution of the beneficiaries who participated in the study included 33.8% males and 66.2% females. This indicates the fact that women suffer greater health limitations than men more often than not (European Institute for Gender Equality [EIGE], 2022).

Table 3.1: Respondents' Information

		Service Providers		Beneficiaries	
Parameter	**Categorisation**	**Frequency**	**Percent**	**Frequency**	**Percent**
Gender	Male	49	55.1	23	33.8
	Female	40	44.9	45	66.2
	Total	**89**	**100.0**	**68**	**100.0**
Age	18-35 years	55	61.8	22	32.4
	36-55 years	26	29.2	31	45.6
	56 or above	8	9.0	15	22.1
	Total	**89**	**100.0**	**68**	**100.0**
Education Level	Secondary or less	0	0.0	21	30.9
	Certificate	26	29.2	13	19.1
	Diploma	33	37.1	15	22.1
	Bachelor's degree	14	15.7	10	14.7
	Masters/Specialist	11	12.4	9	13.2
	Super specialist	5	5.6	0	0.0
	Total	**89**	**100.0**	**68**	**100.0**
Working experience	Less than one year	0	0.0	-	-
	1-5 years	52	58.4	-	-
	6 + years	37	41.6	-	-
	Total	89	100.0	-	-
Hospitalisation Period	Less than one week	-	-	16	23.5
	1-2 weeks	-	-	26	38.2
	3-4 weeks	-	-	16	23.5
	2-3 months	-	-	6	8.8
	More than three months	-	-	4	5.9
	Total	**-**	**-**	**68**	**100.0**

Source: Field Data, 2024

3.1.2 Age of Respondents

Of the service providers who participated in the study, 61.8% were aged 18-35, 29.2% were aged 36-55, and the remaining 9% were aged 56 years or above. The majority of those aged 18-35 years reflects the absorption of pre-service education graduates who happen to be younger. Additionally, a good number of those aged 36 years and above indicate that age diversity is crucial in creating valuable two-way mentoring relationships (Bettencourt, 2024). Regarding the beneficiaries who participated in the study, about 32.4% were aged 18-35, 45.6% were aged 36-55, and the remaining 22.1% were aged 56 years or above. The figures show that beneficiaries who participated in the study were younger, youths, and elders, such that the study results reflect the diversity of health services beneficiaries at BMH.

3.1.3 Education Level of Respondents

The highest level of education acquired by service providers who participated in the study, was ranging from 29.2% who had Certificate, 37.1% who had Diploma, 15.7% who had the Bachelor's Degree, 12.4% who had the Masters/Specialist, and the remaining 5.6% who had the Super Specialist Education. The distribution of education among service providers indicates the diversity of expertise, which improves service delivery (Khuntia et al., 2022).

The education level of the beneficiaries who participated in the study was 30.9% Secondary or less, 19.1% Certificate, 22.1% Diploma, 14.7% Bachelor's degree, and the remaining 13.2% who had a Master's/Specialist degree. Thus, the response bias, more particularly the cognitive bias, that would have otherwise emerged from the response process was possibly leveraged by respondents' sufficient cognitive ability of the study questions (Qualtrics, 2024).

3.1.4 Working Experience

The results show that 58.4% of service providers in the study had 1-5 years of working experience, and the remaining 41.6% had six or more years of working experience. These service providers had good working experience, which indicates their sufficient knowledge of the study questions regarding the level of service quality and training and development programs at BMH.

3.1.5 Hospitalisation Period

The results show that 23.5% of the beneficiaries who participated in the study had been admitted at BMH for less than one week, whereas 38.2% had been admitted for 1-2 weeks, 23.5% had been admitted for 3-4 weeks, 8.8% had been admitted for 2-3 months, and the remaining 5.9% had been admitted for more than three months. The results show that the majority of beneficiaries were admitted long enough to have been exposed to different service provision scenarios and different service providers, which adds value in the reliability of their responses about service delivery.

3.2 Post-service Training Programs towards Health Service Delivery at BMH

The study aimed to assess employee training programs towards health service delivery at Benjamin Mkapa Hospital. This study conceived employee training as a proxy indicator of the training programs. Thus, the effectiveness of the training programs is reflected in employee training. The three-point Likert scale of agreement was used to measure the perceived level of employee training, focusing on off-the-job and on-the-job training.

The results of the overall mean score of the three-point Likert scale and correlation analysis are presented in Figure 3.1 and Table 3.2, respectively.

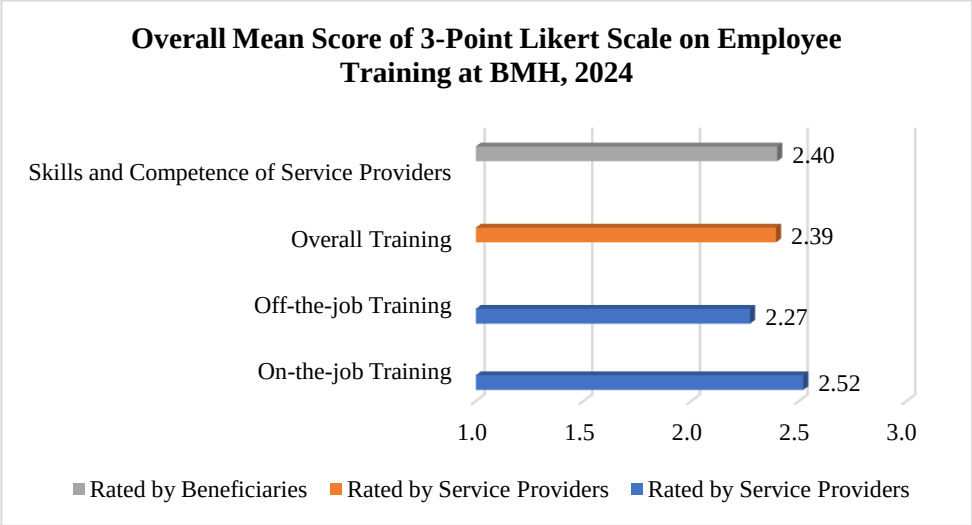

Figure 3.1: Employee Training and Associated Level of Skills and Competence of Service Providers

Source: Field Data, 2024

3.2.1 Off-the-job Training at BMH

An off-the-job learning approach is where employees receive professional skills through training outside their regular work environment. The results in Figure 3.1 show that the overall mean score regarding off-the-job training of service providers at BMH was 2.27, indicating a high level, according to the three-point Likert scale. Despite being at a high level, off-the-job training was characterised by the lack of equal participation among the different categories of health service providers, especially the nursing carder. Also, the interview results show that the problem of training participation bias is connected to the limited off-the-job training opportunities, mainly due to the lack of funds and workload balance needs. The finding was further supported by the key informant who had the following views: -

> *"The number of nurses who actually get further training [off-the-job] opportunities is disproportionately less compared to carders like the medical officers" (**Director of Nursing Service, 15th August 2024)***

Another key informant had the following to say: -

> *"Previously we were using the special needs-based approach in which case medical officers and specialists were more privileged for budgetary and workload balance reasons … however, recently we have prepared the training plan commencing this financial year to resolve the existing problem of participation bias associated with the off-the-job training"* ***(Director of Training and Research, 13th August, 2024)***

3.2.2 On-the-job Training at BMH

On-the-job training is when employees learn applicable skills for their role while in the workplace. The results in Figure 3.1 show that the overall mean score regarding the job training of service providers at BMH was 2.52, indicating high levels, according to the three-point Likert scale. Despite both on-the-job training and off-the-job training being at the same high level, as denoted by the Likert scale, the mean score of on-the-job training was significantly higher than that of off-the-job training [t-statistic = 162.23, degrees of freedom = 133.14, p-value <0.001]. The finding indicates much more emphasis on on-the-job training at BMH.

Also, the interview results show that on-the-job training was characterised by a regular schedule, high participation level, and skills relevant to health service providers' needs. The finding was further supported by one of the key informants who had the following views: -

> *"On-the-job training is highly emphasized for all departments using several modalities in form of induction training, job rotation, continuing medical education (CME), infection prevention control (IPC), customer care training, mentorship, seminars and workshops, medical camps, scientific conference"* ***(Director of Human Resource Management and Administration, 16th August, 2024)***

Another key informant had the following to say: -

> *"On-the-job training is less costly and does not affect much the workload balance for the current service delivery"* ***(Director of Training and Research, 13th August 2024)***

3.2.3 Skills and Competence of Service Providers at BMH

To guarantee the reliability of the findings regarding training, it was useful to analyse the level at which service providers could demonstrate the skills and competence during

service delivery at BMH. Thus, service beneficiaries were asked to rate the skills and competence of service providers using a three-point Likert scale of agreement. The results in Figure 3.1 show that the overall mean score regarding the competence of service providers at BMH was 2.40, indicating a high level according to the three-point Likert scale. The equality of means test results show that the means score of skills and competence of service providers as rated by service beneficiaries was not significantly different from the means score of the overall training as rated by service providers [t-statistic = -1.4681, degrees of freedom = 71.477, p-value = 0.1465]. The finding indicates that the service providers demonstrated the skills from training in proportionate correspondence with the level of employee training at BMH.

Also, the interview results show that beneficiaries appreciate the competence of service providers, with complaints skewed much more towards the timeliness of services than their skillfulness or competence. The finding is also supported by the key informant who said the following: -

> *"Seldom do we find complaints related to the questioning of the skills of our service providers ... the lack of timeliness remains the predominant complaint from service beneficiaries"* ***(Head of Communication and Public Relations Unit, 13th August 2024)***

Another one had the following views: -

> *"Given the high commitment of the management to regular trainings, service providers are capable of demonstrating their skills, and this could be the reason as to why high-profile individuals from neighbouring countries are increasingly finding BMH as an alternative to the long known high-ranking facilities found in much more distant destinations"* ***(Director of Surgical Service, 16th August, 2024)***

3.2.3 Perceived Quality of Health Services Delivery at BMH

To link employee training with the quality of health service delivery, it was important to examine the level of service delivery at BMH. Thus, this is the study's dependent variable with two sub-variables, namely, the perceived quality of the health service delivery process and the timeliness of service delivery. Again, a three-point scale of agreement was used to measure the perceived quality of service delivery for the seven items, including consultation, diagnosis, pharmaceutical, nursing, counselling, outpatient, and inpatient services delivered at BMH. The results on perceived quality of

health service delivery process and the timeliness of service delivery are presented in Figure 3.2.

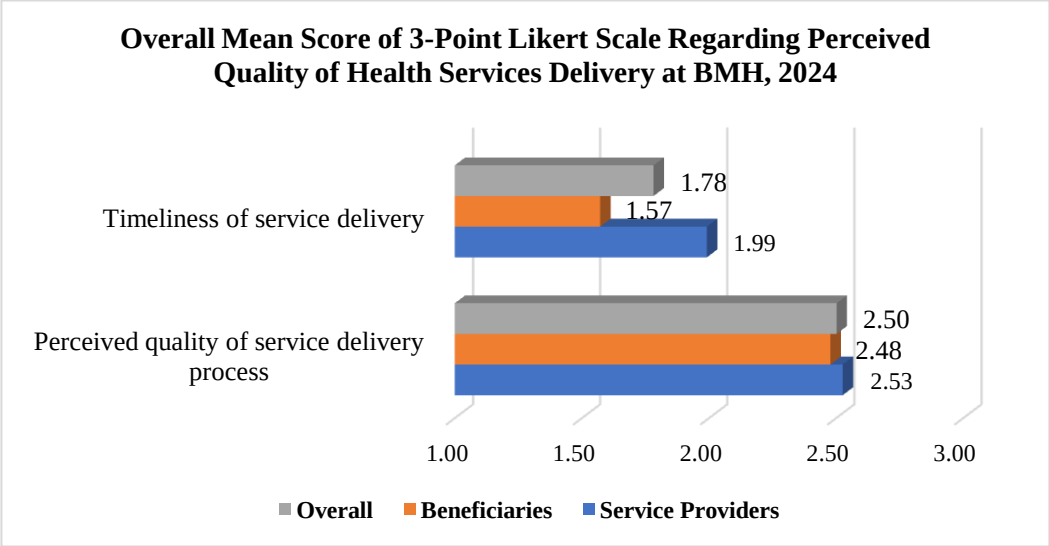

Figure 3.2: Perceived Quality of Health Services Delivery

Source: Field Data, 2024

3.2.3.1 Perceived Quality of Service Delivery Process

The perceived quality of the service delivery process was considered the proxy indicator of the health service delivery process, which could be easily measured using the Likert agreement scale. They are highly preferred, as they may pose complexity in measurement and justification (Donabedian, 2005). The results in Figure 3.2 show that the mean score of perceived quality of health service delivery process was significantly higher for service providers (2.53) indicating high level than for service beneficiaries (2.48) indicating high level according to 3-point Likert scale [t-statistic = 37.02, degrees of freedom = 134.87, p-value <0.001] Based on equality of means tests results, using the mean score from either respondent category would induce bias, the effect that the researcher had to rely on the overall mean score. Thus, Figure 3.2 shows that the overall mean score of perceived quality of health service delivery process was 2.50, indicating a high level according to the 3-point Likert scale. The finding indicates that service providers effectively delivered healthcare services to the beneficiaries at BMH. Although there was high-quality service, the need for improvement was still far-reaching, especially for nursing services, with the lowest mean score of 2.26. For instance, the interview results show that nursing service delivery was characterised by

deliberate but occasional non-adherence to the standard operating procedures (SOP). The finding is supported by the key informant who had the following views: -

> *"In line with the requisites for service quality assurance, there are no serious violations except for some scenarios when let's say the nurse ignores the standard operating procedures based on experience, especially when they act under no supervision"* ***(Head of Quality Assurance Unit, 14th August 2024)***

3.2.3.2 Timeliness of Service Delivery

Arguably, poor service delivery indicators (SDIs), mainly in public health facilities, are more often linked to the availability of health workers (MoHCDGEC, 2020). Thus, in this study, service delivery timeliness was considered a proxy indicator of staffing adequacy and non-absenteeism, which is vital in explaining the quality of health services (Rockville, 2016; Hyde, 2024). The results in Figure 3.2 show that the mean score of timeliness of health service delivery was significantly higher for service providers (1.99) indicating moderate, level than for service beneficiaries (1.57) indicating moderate level according to 3-point Likert scale [t-statistic = 313.57, degrees of freedom = 137.12, p-value <0.001]. Based on the equality of means test results, using the mean score from either sample would induce bias, which is the effect that the researcher had to rely on the overall mean score. Thus, Figure 3.2 shows that the overall mean score of timeliness of health service delivery was 1.78, indicating a moderate level according to the 3-point Likert scale. The finding suggests that delays from the service providers at BMH are often characterising the health service delivery.

Also, the interview results show that patients may have to wait longer for clinics, pharmacy services, and diagnostics services beyond the recommended turnaround time, unlike emergency services, which are delivered more often promptly. The finding is in support of the key informant who had the following to say: -

> *"Patients have been submitting complaints on service quality with much emphasis on the delays ... delays are frequently traced at laboratory, at pharmacy, and for clinics ... some of the delays are justifiable; some are not"* ***(Head of Communication and Public Relations Unit, 13th August 2024)***

3.2.4 Employee Training and Perceived Quality of Services Delivery at BMH

In this part, the researcher aimed to link employee training with the quality of service delivery using the statistical methods of correlation analysis. The first step was to test the normality assumptions to choose the appropriate correlation technique. The Shapiro-Wilk test results proved the data were normally distributed for employee training [w =

0.993, p-value = 0.922] and perceived quality of service delivery [w = 0.978, p-value = 0.144]. Thus, the Pearson Correlation Analysis method was relevant, and the researcher used the 95% confidence interval. The results are presented in Table 3.2.

Table 3.2: Correlation between Employee Training and Perceived Quality of Service Delivery

Parameters	Estimates	Interpretation
Pearson Correlation Coefficient (rho)	0.879	Very Strong Positive Relationship
P-Value	<0.001	
95% Confidence Interval	0.821 - 0.919	
Number Of Observations	89	

Source: Field Data, 2024

The results in Table 3.2 show a robust positive correlation between employee training and perceived quality of service delivery at a 1% significance level. The finding indicates that service providers with higher odds of employee training would exhibit relatively higher odds of quality of service delivery. The finding implies that employee training positively affects service delivery quality through the skills and competencies gained and demonstrated during the provision of healthcare services. Also, the results align with the interviews and concur with the contention from the key informant who had the following to say: -

> *"Regular employee trainings equip service providers with more relevant skills, improves their professional competence and raises their confidence in carrying out their professional duties, hence improving the quality of healthcare services delivery"* ***(Director of Training and Human Resource Development, 19th August 2024)***

Nevertheless, the positive link between employee training and thematic analysis can be summarised in the thematic map generated at the fifth stage of the thematic analysis procedure as proposed by Clarke & Braun (2017), which is presented in Figure 3.3.

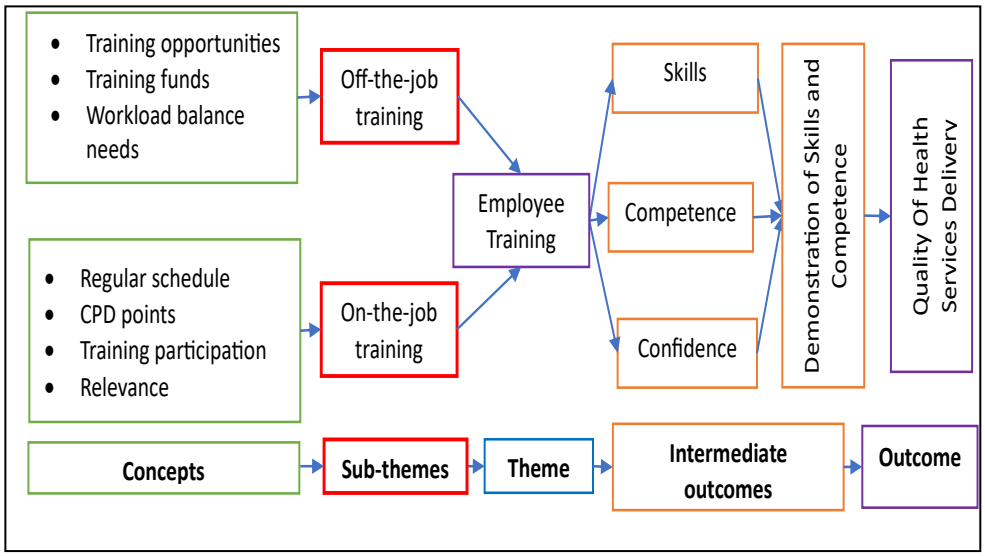

Figure 3.3 Thematic Map to Link Employee Training and Quality of Health Services Delivery

Source: Field Data, 2024

This map in Figure 3.3 is a summary of how the variables are interrelated with their root source being the concepts which explain the sub-themes. The subthemes influence the them in this case employment training. An effective training equips service providers with skills, competence and confidence all of which contribute to the level of demonstration of their skills and competence in service delivery.

4. DISCUSSION

The study assessed Employee Training Programs for health service delivery in Public Health Facilities: including the case of Benjamin Mkapa Hospital. The discussion is presented in paragraphs focusing on off-the-job training, on-the-job training, perceived quality of health services delivery, and the link between employee training and perceived quality of health services delivery.

Off-the-job training is a structured learning approach where employees receive professional skills through training outside their regular work environment. The study found that despite being at a high level, off-the-job training was characterized by the lack of equal chance of participation among the different categories of health service providers, especially the nursing carder. The finding implies that there were limited opportunities for off-the-job training. This problem can be linked to the budgetary constraints emerging from the trade-offs between study leaves needed to enhance off-the-job training and the current service delivery needs. The finding aligns with one of

the key axioms of the human capital theory, establishing that trade-offs between the costs of investing in training and the anticipated returns are vital (Deming, 2022).

Due to budgetary constraints, the management cannot recruit new employees to cover the workload gaps associated with study leaves for existing employees. Based on this axiom of the human capital theory, this scenario would subject such decisions to these trade-offs and make it even more difficult to make a decision. In such a situation, the management is trapped in trade-offs between long-term returns from off-the-job training and current service delivery needs. This finding is justified by the human capital theory, which measures the benefits of training in the form of long-term returns rather than short-term outcomes (Goldin, 2016). Nevertheless, the finding implies that despite efforts to launch a training plan-based approach in selecting participants, the relatively small number of off-the-job trainees may persist in workload balance needs. From a broader perspective, the finding implies that the health sector previously did not take advantage of the absorption gap sufficiently to mitigate the potential workload imbalance caused by the potential increase in off-the-job training participation (MoHCDGEC, 2020). Based on these findings, the policies may need to be reviewed to ensure staffing adequacy and training budget sufficiency. However, training policies may need to focus on integrating alternative learning approaches within the off-the-job training program to reduce study leave periods to a minimum. These alternatives may include complete or hybrid blended learning involving online sessions.

On-the-job training is when the employee learn applicable skills for their role while in the workplace. On-the-job training programs were comprehensive and provided enough room for improving the skills and competence of service providers. The study found that on-the-job training programs were effectively implemented without causing significant human resource deficits for the delivery of health services. The use of CPD Points to incentivize training ensured that participation of service providers was highly guaranteed without the need for training allowances that would otherwise be payable to the training attendants (BMH CPD Report, 2020). The finding is empirical evidence that incentivising employee training enhances participation and the commitment of training attendants in skills acquisition (Anderson, 2024). Participation and commitment to acquire skills increase the odds of practical on-the-job training.

The demonstration of skills and competence of service providers was at a high level according to the three-point Likert scale. The finding indicates that the service providers demonstrated the skills from training in proportionate correspondence with the level of employee training at BMH. The finding implies that training programs effectively enhance service providers' competence and the level at which they can demonstrate

skills during service delivery. This is in line with the previous study's finding that training improves the confidence and competence of healthcare workers (Jose et al., 2022). However, the mean score being less than the highest point on the Likert scale (three) implies that the opportunity to improve on demonstration of learned skills is still far-reaching. It also means that other factors ensure a much higher skill level in service delivery.

Furthermore, the study findings revealed a strong positive correlation between employee training and perceived quality of service delivery [rho = 0.879, p-value <0.001; 95% CI = 0.821 - 0.919], reflecting a powerful positive relationship (Amendolare, 2023). This deviates from Tanui and Kwasira (2019), who found a moderate positive relationship [rho = 0.597, p-value<0.001] at Moi Teaching and Referral Hospital in Kenya. This difference is partly attributed to a possible negative bias from including administrative staff in a previous study (Agweyu, 2020). Unlike the earlier research, only health service providers were included in this study, thus a powerful relationship. The finding indicates that service providers with higher odds of employee training would exhibit relatively higher odds of quality of service delivery. The finding implies that employee training positively correlates with the quality of service delivery through the skills and competencies gained and demonstrated during healthcare provision. Also, the finding suggests that professionalism, a key element in quality service delivery, depends on the level of more up-to-date skills that match the emerging healthcare service needs. It then tied up to the level at which regular employee trainings are practically emphasised (Willie, 2023). The finding agrees with Bhardwaj (2022), who found that medical professionalism is critical for providing safe, effective, patient-centred, timely, efficient, and equitable clinical care delivery, even though this previous study focused on clinical services per se. Furthermore, the study findings align with the human capital theory, which posits that when employee training is emphasised enough, workers can become more productive and efficient, and improving service delivery is inevitable (Yakusheva et al., 2024).

5 CONCLUSION

This study assessed employee training towards health service delivery in public health facilities, a case of BMH. The study found that while on-the-job training was highly realised, off-the-job training was less realised, mainly for workload balance needs, which was further rooted in budgetary constraints. The study findings suggested a strong link between employee training and quality of service delivery [rho = 0.879, p-value<0.001; 95% CI = 0.821 - 0.919], reflecting a powerful relationship. Thus, employee training improves the skilfulness and competence of service providers and instils confidence. The skills, competencies, and confidence positively contributed to the

level at which service providers demonstrate professionalism in service delivery. However, for training to guarantee any improvement in the quality of service delivery, a comprehensive, relevant, regular, and uncoerced participation approach must be used rather than a motivational approach. These aspects signify a need for a wide range of training programmes and an equal chance of participating in these programs. To promote equal opportunity of participation in off-the-job training, the government needs to increase the absorption rate, besides lifting the budgetary constraints.

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