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Effects of Mentorship Training Program in Retaining Healthcare Professionals at Kilimanjaro Christian Medical Centre, Moshi, Tanzania

Amella E. Makundi, Hezron Onyancha, Amembah A. Lamu Amos

Department of Economics and Business Studies, Mwenge Catholic University, Moshi, Tanzania
Email: br474124@gmail.com

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Abstract

This study assessed the contribution of the mentorship training programme to the retention of healthcare professionals at Kilimanjaro Christian Medical Centre (KCMC), Moshi, Tanzania. Guided by Social Exchange Theory, the study employed a convergent mixed-methods design involving doctors, nurses, pharmacists and laboratory scientists. Quantitative participants were selected through proportionate stratified random sampling, while key informants were selected purposively. The instruments were developed from the study objective, theoretical and conceptual frameworks, empirical literature and relevant KCMC documents. A pilot study was conducted at Mawenzi Regional Referral Hospital because it has a referral environment comparable to KCMC while remaining outside the main study site. Expert review established face and content validity, while Cronbach's alpha coefficients of .784 for the pilot instrument and .826 for the cleaned main-study data demonstrated acceptable to good internal consistency. Ethical clearance and institutional research permission were obtained to protect participants, authorise access to the study setting and ensure compliance with institutional requirements. Quantitative data were analysed using descriptive statistics and multiple linear regression in SPSS version 27, whereas qualitative data from key-informant interviews and open-ended responses were analysed thematically using NVivo version 12. The findings indicated that mentorship was positively associated with regular guidance and feedback, clinical-skill development, understanding of organisational culture, job satisfaction, organisational commitment and willingness to recommend KCMC. The regression model was statistically significant, $F(3, 216) = 23.017$, $p < .001$, and the three mentorship dimensions jointly explained 24.2% of the variation in retention ($R^2 = .242$). Clinical-skill development was the strongest

predictor (B = .173, β = .262, $p < .001$), followed by improved understanding of organisational culture (B = .143, β = .213, $p = .001$) and regular guidance and feedback (B = .120, β = .176, $p = .009$). All three null hypotheses were rejected. The study concludes that mentorship makes a significant but partial contribution to healthcare-professional retention at KCMC. Its contribution is likely to be stronger when combined with adequate remuneration, recognition, career development and supportive working conditions. The study recommends formalising mentorship through institutional policy, preparing mentors, providing protected mentorship time, documenting mentorship activities and integrating mentorship into a broader workforce-retention strategy.

Keywords

Mentorship Training Programme, Healthcare Professionals, Organisational Culture, Retention

1. Introduction

Healthcare institutions depend on skilled and committed professionals to maintain continuity, safety, and quality of care. However, retaining doctors, nurses, pharmacists, laboratory scientists, and other clinical personnel has become a major concern in many health systems. Hospital retention is influenced by job satisfaction, career development, supportive leadership, working conditions, professional relationships, organizational culture, and opportunities for learning (de Vries et al., 2023). When experienced healthcare professionals leave, hospitals lose institutional knowledge, incur recruitment and orientation costs, increase the workload of remaining staff, and may experience interruptions in patient care. Global evidence has shown considerable turnover among nurses and other healthcare professionals, making retention a strategic human-resource priority rather than only an administrative concern (Ren et al., 2024).

Mentorship training program is one of the professional-development strategies used to improve employees' adjustment, competence, confidence, and attachment to healthcare institutions. In this study, Mentorship training program refers to structured or semi-structured arrangements in which experienced healthcare professionals guide, support, supervise, and provide feedback to less-experienced colleagues. Mentorship may include clinical supervision, role modelling, case discussion, career guidance, emotional support, professional socialization, and assistance in understanding institutional procedures. In the health professions, mentorship is broader than the transmission of technical knowledge because it also supports professional identity, ethical conduct, communication, decision-making, and integration into the workplace (Burgess et al., 2018; Mínguez Moreno et al., 2023).

In high-income health systems, structured mentorship and preceptorship programmes are commonly used to support newly graduated professionals during

transition to practice. Gularte-Rinaldo et al. (2023) found that mentorship positively influenced newly graduated nurses' decision to remain in nursing and improved self-confidence, problem-solving, and professional communication. Similarly, Vidal & Olley (2021) reported that clinical mentoring generally improved competence, job satisfaction, and retention, although the benefits weakened where programmes were short, inconsistent, or poorly sustained. Recent reviews have also shown that organised introduction, mentorship, and preceptorship programmes can reduce turnover and improve retention among newly graduated nurses (Berthelsen & Hansen, 2025; Södergård et al., 2026). These findings indicate that mentorship is most effective when it is structured, continuous, and supported by the employing institution.

The need for mentorship is particularly important in low- and middle-income countries, where healthcare workers often practise in environments characterised by staff shortages, heavy workloads, limited specialist supervision, and constrained opportunities for formal training. In such settings, workplace mentorship can provide a practical and relatively accessible mechanism for transferring clinical knowledge and supporting employees in their daily responsibilities. Senjovu et al. (2021) demonstrated that intensive one-to-one mentorship training program among mid-level health providers in Uganda produced substantial improvements in knowledge and clinical competence that remained evident one year after the intervention. This suggests that mentorship can generate sustained professional benefits even in resource-constrained settings when interactions are regular, focused, and supported.

In Africa, mentorship may also strengthen institutional retention by increasing employees' sense of belonging, recognition, and confidence. Structured mentor-mentee relationships help junior staff manage difficult cases, learn institutional expectations, receive feedback, and build professional networks. Hagrass et al. (2023) showed that an educational programme significantly improved mentorship competencies and mentor performance among nurse mentors. Lima & Alzyood (2024) similarly found that supportive preceptorship improved knowledge, competence, confidence, and adaptation among newly qualified nurses in critical-care environments. Nevertheless, mentorship in African healthcare institutions may be limited by inadequate mentor preparation, lack of protected time, uneven access, poor documentation, and the absence of clear institutional policies.

In Tanzania, retention of healthcare professionals is affected by poor working conditions, inadequate recognition, limited career progression, inconsistent incentives, and dissatisfaction (Shemdoe et al., 2016; Sirili et al., 2018). More recent Tanzanian evidence confirms that the problem remains active. Sellah et al. (2025) reported that although 60.7% of nurses and midwives in Tanzanian regional referral hospitals were satisfied with their jobs, substantial dissatisfaction persisted with salaries, incentives, promotions and career-development opportunities, all of which are known drivers of turnover. Mentorship has demonstrated value in Tanzanian health-sciences institutions, Mremi et al. (2023) found that mentees gained

research skills, grant-writing ability, academic productivity, motivation, and interest in further education. However, evidence from academic institutions does not fully explain how mentorship operates in referral hospitals, where clinical demands, shift work, staff shortages, and service pressures influence the availability and quality of mentor-mentee interaction.

At KCMC, the need to examine mentorship is supported by institution-specific evidence. Msanya et al. (2020) in a study of 257 KCMC health workers, reported an overall job-satisfaction level of only 49%; dissatisfaction was 60.2% among nurses and 51.6% among doctors. Because dissatisfaction is closely associated with turnover intention, these findings indicate a local retention risk. KCMC is also a zonal referral, teaching and research hospital where specialists and super-specialists routinely support junior professionals through ward rounds, bedside teaching, case discussions, departmental meetings and clinical supervision. Such activities provide a practical basis for Mentorship training program, but their consistency, coverage and contribution to staff retention had not been systematically established.

Documentary evidence confirms that mentorship training has previously been conducted within the KCMC academic environment. The KCMC-Duke Medical Education Partnership Initiative Mentorship Training Report documented a workshop hosted by KCMUCO/KCMC on 16 October 2012 under the Mentored Research Training Program (MRTP). The workshop involved 33 participants, comprising 27 faculty members from clinical and basic-science departments and six MEPI staff. Its purpose was to strengthen faculty members' mentorship knowledge and their ability to prepare mentorship plans for students undertaking research (KCMC-Duke MEPI, 2015). The report noted that approximately 120 faculty members were involved in mentoring students, but it was not known whether they had received formal mentorship training. Of those who completed the workshop evaluation, 91% considered the duration appropriate and 78% recommended that the course be offered annually. Participants further recommended institutionalising mentorship, linking it with the college supervision policy and developing mentorship templates. This report establishes that mentorship training existed at KCMC, but it focused on faculty student research mentorship rather than a hospital-wide Mentorship training program designed to retain doctors, nurses, pharmacists and laboratory scientists. The available Staff Training Policy likewise addresses formal training and requires supervisors to develop junior staff but does not provide a Mentorship training program reporting framework. Consequently, contemporary evidence on the coverage, frequency and retention effects of Mentorship training program among KCMC healthcare employees remained inadequate.

KCMC depends on a stable multidisciplinary workforce to deliver specialised referral, teaching and research services. However, local evidence indicates a retention risk. Msanya et al. (2020) reported only 49% overall job satisfaction among 257 KCMC health workers, with dissatisfaction reaching 60.2% among nurses and

51.6% among doctors. This is important because dissatisfaction is a recognised precursor of turnover intention and can undermine continuity of care and institutional performance. A further KCMC-based study by Mdimu (2024) similarly examined employee retention strategies at the institution and situated them within the wider Tanzanian health sector, where an estimated 53% of skilled staff have indicated an intention to leave the service. This confirms that staff retention is a documented and continuing concern at KCMC, and it reinforces the need to examine institutional strategies, such as mentorship, that may help strengthen professional support and retention.

KCMC has documented experience with mentorship training. A 2012 KCMC-Duke MEPI report recorded a faculty workshop under the Mentored Research Training Program involving 27 faculty members and six programme staff. It also noted that about 120 faculty members mentored students, although their prior formal preparation was uncertain, and participants recommended annual training, institutionalisation, linkage with supervision policy and development of mentorship templates (KCMC-Duke MEPI, 2015). However, this initiative concerned faculty-student research mentorship; it did not report a hospital-wide Mentorship training program or measure retention among employed doctors, nurses, pharmacists and laboratory scientists. The KCMC Staff Training Policy also contains no defined Mentorship training program roles, schedules, documentation system or retention indicators (Good Samaritan Foundation of Tanzania, 2002). Thus, the problem was not a complete absence of mentorship activity, but the lack of current, systematic evidence connecting Mentorship training program with employee retention at KCMC.

The problem addressed by this study was consequently the absence of KCMC-specific empirical and documentary evidence showing whether and how Mentorship training program contributes to healthcare-professional retention. Without such evidence, management cannot determine whether existing informal mentorship is sufficiently accessible, regular and effective or how it should be strengthened. The study therefore assessed the effects of regular guidance and feedback, clinical-skill development and understanding of organisational culture on the retention of healthcare professionals at KCMC.

Workplace mentorship activities are an important approach for supporting healthcare professionals' knowledge, skills, confidence and adjustment to the work environment. In this study, workplace mentorship activities refer to professional interactions in which experienced healthcare professionals provide guidance, feedback, clinical support, role modelling and professional advice to less-experienced colleagues. These activities may take place through clinical supervision, ward rounds, case discussions, professional consultations and regular feedback. Unlike a formal mentorship training programme, workplace mentorship activities focus on the actual support healthcare professionals receive during their routine work (Burgess et al., 2018; Mínguez Moreno et al., 2023).

Workplace mentorship activities can support healthcare professionals' clinical-

skill development, professional confidence and understanding of organisational expectations. Regular guidance and feedback help employees identify areas for improvement and receive support in performing their responsibilities, while interaction with experienced colleagues can facilitate the development of clinical competencies and professional relationships. Mentorship can also help employees understand organisational values, procedures and workplace norms, which may strengthen their sense of belonging and commitment to the institution (Gularte-Rinaldo et al., 2023; Hagrass et al., 2023). These benefits suggest that effective workplace mentorship may contribute to job satisfaction and employees' willingness to remain in healthcare organisations.

At KCMC, mentorship-related activities have previously been documented, although available evidence mainly concerns formal mentorship initiatives within the academic environment. For example, the KCMC-Duke Medical Education Partnership Initiative conducted a mentorship workshop to strengthen faculty members' capacity to mentor students and support research activities (KCMC-Duke MEPI, 2015). However, this initiative did not establish whether doctors, nurses, pharmacists and laboratory scientists currently receive regular workplace mentorship or whether such activities contribute to their retention. Therefore, the present study focuses on workplace mentorship activities, specifically regular guidance and feedback, clinical-skill development, and understanding of organisational culture, and examines their contribution to the retention of healthcare professionals at KCMC.

1.1. Research Questions

1) To what extent does regular guidance and feedback influence the retention of healthcare professionals at Kilimanjaro Christian Medical Centre (KCMC), Moshi, Tanzania?

2) To what extent does clinical-skill development through workplace mentorship activities influence the retention of healthcare professionals at KCMC, Moshi, Tanzania?

3) To what extent does improved understanding of organisational culture through workplace mentorship activities influence the retention of healthcare professionals at KCMC, Moshi, Tanzania?

1.2. Research Hypothesis

H_{01}: Regular guidance and feedback has no statistically significant effect on the retention of healthcare professionals at KCMC, Moshi, Tanzania.

H_{02}: Clinical-skill development through workplace mentorship activities has no statistically significant effect on the retention of healthcare professionals at KCMC, Moshi, Tanzania.

H_{03}: Improved understanding of organisational culture through workplace mentorship activities has no statistically significant effect on the retention of healthcare professionals at KCMC, Moshi, Tanzania.

1.3. Significance of the Study

Practically, the study provides KCMC management, the Human Resources Department, department heads and clinical supervisors with empirical evidence on how regular guidance and feedback, clinical-skill development and understanding of organisational culture relate to healthcare professionals' retention. The findings can guide mentor preparation, mentor-mentee matching, protected mentorship time, documentation, equitable access across cadres and integration of mentorship into broader measures addressing recognition, career progression, workload and working conditions.

Theoretically, the study extends Social Exchange Theory to Mentorship training program and healthcare workforce retention in a Tanzanian referral hospital setting. It demonstrates how mentorship operates as a valued organisational resource that healthcare professionals reciprocate through job satisfaction, commitment and willingness to remain. The findings also clarify the theory's limits by showing that reciprocity through mentorship alone cannot fully explain retention when remuneration, workload, recognition and promotion opportunities also influence employees' decisions. The study therefore contributes context-specific evidence that may support refinement and application of Social Exchange Theory in healthcare human-resource research.

From a policy perspective, the findings provide evidence for reviewing the KCMC Staff Training Policy, which recognises staff development and retention but does not establish a structured Mentorship training program, reporting framework or performance indicators. The study can inform provisions on mentor and mentee roles, eligibility and matching, frequency of meetings, protected time, documentation, monitoring and evaluation. At the national level, the findings support the Health Sector Strategic Plan V emphasis on strengthening the health workforce, institutional capacity, accountability and evidence-informed health-system improvement (Ministry of Health, Community Development, Gender, Elderly and Children, 2021). The evidence may therefore be useful to KCMC and comparable referral hospitals when translating national workforce-development priorities into institution-level mentorship and retention strategies.

2. Literature Review

This section reviews empirical studies on the effects of Mentorship Training Programs on healthcare professionals. It examines evidence from global, African, East African and Tanzanian settings, focusing on how mentorship influences professional development, clinical competence, job satisfaction, organisational commitment and employee retention. The review also identifies gaps that justify the present study at KCMC.

Gularte-Rinaldo et al. (2023) evaluated the Be1Support1 mentorship programme among nursing students and newly graduated nurses in California, United States. An electronic survey was distributed to 151 mentees, of whom 96 completed it, representing a response rate of 63.6%. The findings showed that

58.9% of respondents reported that mentorship positively influenced their decision to remain in nursing, increasing to 70% among those who had been mentored for one to two years. Mentorship also improved mentees' self-confidence, problem-solving abilities, professional communication and transition to practice. However, the study involved newly graduated nurses in a well-resourced healthcare setting and measured perceived decisions to remain rather than actual long-term employee retention. Therefore, the present study extends this evidence by assessing the effects of Mentorship Training Programs on the retention of different healthcare-professional cadres in a resource-constrained Tanzanian referral hospital.

Ene-Peter et al. (2024), researchers based at the University of Port Harcourt in Nigeria, conducted a rapid review of six studies comprising one randomised controlled trial and five quasi-experimental studies on mentorship- and simulation-based neonatal-resuscitation training. The findings showed that both training approaches produced modest short-term improvements in healthcare workers' knowledge, although mentorship appeared more effective in developing practical skills. However, variations in training approaches, assessment instruments and study populations prevented a conclusive comparison of their effectiveness. Furthermore, the review focused on knowledge and practical skills without examining job satisfaction, organisational commitment or employee retention. Therefore, the present study addresses this outcome gap by examining whether regular guidance and feedback and clinical-skill development through mentorship influence healthcare-professional retention at KCMC.

Omondi et al. (2024) examined the effects of mentorship on the academic performance of 229 medical-engineering students at Kenya Medical Training College, Nairobi Campus, Kenya. The findings showed that mentors were approachable (mean = 3.84), provided adequate supportive guidance (mean = 3.98), and offered advice relevant to students' academic and career goals (mean = 4.00). Regression analysis established a strong positive relationship between mentorship and academic performance ($\beta = .937$, $p = .001$), while more than 92% of respondents reported improved academic performance. However, the study involved students in an academic institution and assessed academic performance rather than job satisfaction, organisational commitment or employee retention. Therefore, the present study applies these mentorship dimensions to healthcare professionals working in a referral hospital and examines their effects on retention at KCMC.

Mremi et al. (2023) examined a structured mentorship programme involving 12 young researchers and ten mentors from Kilimanjaro Christian Medical University College in Moshi, Muhimbili University of Health and Allied Sciences in Dar es Salaam, and the Catholic University of Health and Allied Sciences in Mwanza, Tanzania. By the fourth year of the programme, more than three-quarters of the mentees had published research in peer-reviewed journals, more than half had enrolled in doctoral studies, and half had obtained competitive research grants. The programme strengthened research skills, academic productivity and

career development. However, it involved junior academics in health-sciences institutions and did not examine job satisfaction, organisational commitment, intention to stay or actual employee retention. Therefore, the present study extends this evidence by assessing the effects of Mentorship Training Programs on the retention of doctors, nurses, pharmacists and laboratory scientists working at KCMC.

Msanya et al. (2020) investigated factors influencing job satisfaction among 257 healthcare workers at Kilimanjaro Christian Medical Centre in Moshi Municipality, Kilimanjaro Region, Tanzania. The findings showed that only 49% of respondents were satisfied with their jobs. Nurses recorded the highest level of dissatisfaction at 60.2%, followed by doctors at 51.6%. Job satisfaction was significantly associated with participation in decision-making, supervisory support, relationships with colleagues, pay, nature of work and career advancement. However, the study focused on general determinants of job satisfaction and did not directly assess Mentorship Training Programs or their effects on employee retention. Therefore, the present study builds on these findings by examining mentorship as a retention strategy while recognising the contribution of broader employment conditions, including remuneration, promotion opportunities and the working environment.

However, the reviewed literature demonstrates that mentorship programmes contribute to the development of knowledge, practical skills, confidence, professional communication, career growth and adjustment to professional practice. Gularte-Rinaldo et al. (2023) found that mentorship supported newly graduated nurses' transition to practice and influenced their decision to remain in nursing, while Ene-Peter et al. (2024) reported that mentorship improved healthcare workers' clinical knowledge and practical skills. Similarly, Omondi et al. (2024) associated supportive mentorship with improved academic performance and career development. In Tanzania, Mremi et al. (2023) found that structured mentorship enhanced research skills, academic productivity and career development, whereas Msanya et al. (2020) established that supervisory support, participation in decision-making, relationships with colleagues, remuneration and career-advancement opportunities influenced healthcare workers' job satisfaction at KCMC. Despite these contributions, most previous studies were conducted in academic institutions or well-resourced settings, involved students, researchers or newly graduated nurses, and focused primarily on knowledge, skills, academic performance and transition to practice rather than organisational commitment and long-term retention. Moreover, Mremi et al. (2023) focused on academic institutions, while Msanya et al. (2020) examined job satisfaction without directly assessing mentorship. Therefore, limited empirical evidence exists on how regular guidance and feedback, clinical-skill development and improved understanding of organisational culture influence the retention of different healthcare-professional cadres in Tanzanian referral hospitals. The present study addresses this gap by assessing the effects of Mentorship Training Programs on the retention of doctors, nurses, pharmacists and laboratory scientists at KCMC.

Theoretical Framework

Social Exchange Theory (SET) originates in the work of Homans (1958), who conceptualised social behaviour as an exchange of activity, tangible or intangible, between at least two parties. Blau (1964/2017) extended this into a fuller sociological theory of exchange, distinguishing economic exchange, which involves specified obligations exchanged at an agreed value, from social exchange, which involves unspecified obligations whose returns are not bargained in advance but are left to the discretion of the party who receives the benefit. Emerson (1976) further developed the theory around the concepts of dependence and power, arguing that exchange relationships persist because each party depends on the other for valued resources it cannot obtain elsewhere. Cropanzano & Mitchell (2005) in their widely cited interdisciplinary review, distil the theory into a set of interlocking principles that remain its core today: social interactions generate obligations, resources are exchanged through a process of reciprocity governed by the norm of reciprocity Gouldner (1960), and exchange relationships evolve into trust, loyalty and mutual commitment over time, provided both parties adhere to the rules of the exchange.

Applied to organisational settings, Social Exchange Theory assumes that employees evaluate their relationship with an employer as an ongoing exchange of resources rather than a single transaction. When an organisation provides resources that employees value, such as support, development opportunities, recognition or fair treatment, employees experience a felt obligation to reciprocate, typically through attitudes and behaviours that benefit the organisation, including greater effort, loyalty, satisfaction, commitment and a reduced inclination to leave (Cropanzano & Mitchell, 2005). This premise was later formalised specifically for organisational contexts by Eisenberger et al. (1986) through the related construct of perceived organisational support, which holds that employees form a global belief about how much the organisation values their contribution and cares about their wellbeing, and that this belief predicts affective commitment and retention.

This study was underpinned by Social Exchange Theory, which provided the framework for explaining how mentorship may influence the retention of healthcare professionals at KCMC. Mentorship training was conceptualised as a valuable organisational resource provided by KCMC through experienced healthcare professionals to their less-experienced colleagues. The three dimensions examined regular guidance and feedback, clinical-skill development and improved understanding of organisational culture represent discretionary benefits characteristic of social exchange. As Blau (1964/2017) explains, such benefits are not necessarily contractually owed to employees, and the nature and timing of their repayment are not specified in advance. Based on the norm of reciprocity, healthcare professionals who receive these forms of support are expected to respond with greater job satisfaction, organisational commitment and willingness to remain at KCMC. This theoretical explanation is supported by Naim & Lenka (2017), who found

that mentorship strengthened employees' intention to stay both directly and indirectly through perceived organisational support and affective commitment. It is also consistent with the key-informant findings of the present study, which showed that mentored healthcare professionals developed a stronger sense of belonging and commitment when they felt guided, valued and supported by the organisation.

The principal strength of Social Exchange Theory, relative to alternative explanations, is that it specifies a psychological mechanism rather than a mere input-output association. It explains why mentorship should translate into retention, through felt obligation and reciprocity, rather than simply asserting that it does. This distinguishes Social Exchange Theory from purely economic or productivity-based accounts, which cannot explain why two employees who receive identical mentorship might respond differently depending on how supported or valued they feel.

The theory's central limitation is that reciprocity depends on subjective perception rather than objective provision: an employee's response is shaped by how fairly and consistently the exchange is perceived to operate, which Social Exchange Theory does not itself provide instruments to measure, and which can be distorted by factors outside the exchange being studied. Where remuneration, workload, staffing levels, promotion opportunities and recognition are perceived as inadequate, employees may judge their overall relationship with the organisation as unbalanced even where mentorship itself is delivered well, weakening or masking its reciprocal effect on retention. This is consistent with this study's finding that the three mentorship dimensions jointly explained only 24.2% of the variation in retention, indicating that the broader exchange relationship, rather than mentorship alone, ultimately governs employees' decisions to stay.

Social Exchange Theory is directly relevant because it maps precisely onto the variables under investigation: the three mentorship inputs function as the resources exchanged, and the retention-related outcomes, job satisfaction, organisational commitment, employee efficiency and willingness to remain, are the reciprocal responses the theory predicts. Because KCMC is a zonal referral, teaching and research hospital dependent on a stable multidisciplinary workforce, sustaining this exchange relationship is of direct practical and theoretical importance. This framing is reflected throughout the study's conceptual framework and in the interpretation of findings, where mentorship is treated as one component of a broader exchange relationship between KCMC and its healthcare professionals, rather than as a self-sufficient determinant of retention.

3. Research Methodology

The study adopted a convergent mixed-methods design because it required both statistical evidence and contextual explanations on the relationship between Mentorship training program and healthcare-professional retention (Fetters et al., 2013). The target population comprised 548 healthcare professionals: 254 nurses,

166 doctors, 52 laboratory scientists and 76 pharmacists. Yamane's formula produced a quantitative sample of 231 respondents, selected through proportionate stratified random sampling, while four key informants were purposively selected from relevant administrative, human-resource, clinical, training and departmental leadership roles.

3.1. Sampling Allocation and Selection Procedure

The quantitative sample of 231 healthcare professionals was proportionately allocated across the four professional cadres to ensure that each group was represented according to its proportion in the target population. The target population consisted of 254 nurses, 166 doctors, 52 laboratory scientists and 76 pharmacists, giving a total population of 548 healthcare professionals. The proportionate allocation was calculated using the formula (ni = (Ni/N)n), where (ni) represents the sample size for each cadre, (Ni) represents the population of the cadre, (N) represents the total target population, and (n) represents the total sample size. Accordingly, 107 nurses, 70 doctors, 22 laboratory scientists and 32 pharmacists were selected, giving a total of 231 respondents (Table 1).

Table 1. Sampling matrix.

Professional cadre	Target population	Proportion	Sample allocated
Nurses	254	46.4%	107
Doctors	166	30.3%	70
Laboratory scientists	52	9.5%	22
Pharmacists	76	13.9%	32
Total	**548**	**100.0%**	**231**

After proportionate allocation, respondents within each professional cadre were selected using a random-selection procedure. A sampling list of eligible healthcare professionals was obtained from the relevant KCMC administrative and departmental records and separated into the four professional strata. Each eligible professional was assigned a unique identification number within his or her cadre. The required number of respondents was then selected from each stratum using simple random sampling, giving every eligible healthcare professional within the respective cadre an equal chance of being included in the study. The selected respondents were then approached and invited to participate in the study. This procedure reduced the possibility of selection bias and ensured that the final quantitative sample reflected the distribution of the four professional groups at KCMC.

The study included healthcare professionals who were doctors, nurses, pharmacists or laboratory scientists working at KCMC during the period of data collection, had sufficient work experience at the institution to provide information about workplace mentorship activities and retention, and were willing to partici-

pate by providing informed consent. Professionals who were on extended leave during the data-collection period, temporary personnel without sufficient experience of the KCMC work environment, and those who declined to participate were excluded. The eligibility criteria were applied consistently across the four professional cadres to ensure comparability of respondents and to ensure that participants had adequate exposure to the workplace environment relevant to the study.

For the qualitative component, four key informants were purposively selected from administrative, human-resource, clinical, training, and departmental leadership roles because of their knowledge and involvement in staff development, mentorship and healthcare-professional management. The quantitative and qualitative sampling procedures were therefore complementary: proportionate stratified random sampling ensured adequate representation of the four healthcare-professional cadres, while purposive selection provided contextual information from personnel with relevant institutional responsibilities.

Quantitative data were collected using a structured questionnaire with dichotomous Yes/No items and five-point Likert-scale items. The instrument covered mentorship availability, regular guidance and feedback, clinical-skill development, understanding of organisational culture, job satisfaction, organisational commitment, employee efficiency and willingness to continue working at KCMC. Qualitative data were collected through semi-structured interviews and open-ended questionnaire items focusing on mentorship structures, mentor availability, professional guidance, institutional support, morale and implementation challenges.

The questionnaire and interview guide were developed from the study objective, Social Exchange Theory, the conceptual framework and the variables repeatedly identified in the empirical literature. The Kilimanjaro Christian Medical Centre-Duke Medical Education Partnership Initiative (2012) Mentorship Training Report were also reviewed to ensure that the items reflected the institutional context. Each questionnaire item was mapped to one study variable: mentorship availability, regular guidance and feedback, clinical-skill development, understanding of organisational culture, job satisfaction, organisational commitment or intention to remain. Yes/No questions were used only where respondents were required to confirm the presence or absence of a specific mentorship practice or experience. Likert items were used where the researcher needed to measure the strength of respondents' agreement with perceived effects and retention statements. The draft instruments were reviewed by the research supervisors and knowledgeable reviewers for relevance, clarity, wording, coverage and consistency with the objective. Their feedback was used to remove repetition, clarify ambiguous expressions and improve the sequence of questions, thereby strengthening face and content validity.

The revised instruments were pilot-tested at Mawenzi Regional Referral Hospital, a referral-hospital environment with healthcare cadres and working conditions broadly comparable to those at KCMC but outside the final study site. The

pilot involved 23 healthcare professionals, equivalent to approximately 10% of the planned quantitative sample of 231, and two key informants. Pilot participants completed the questionnaire under conditions similar to the main study and were asked to identify unclear, repetitive, sensitive or difficult questions. The pilot also assessed the time required, logical flow, suitability of the Yes/No and Likert response options, and whether interview prompts generated information relevant to the objective. Feedback and preliminary response patterns were reviewed before the main survey; unclear wording and question order were revised while the underlying study variables were retained. Pilot participants were excluded from the final KCMC sample.

Reliability of the questionnaire. Responses from the 23 pilot questionnaires were coded and analysed in SPSS. Yes, was coded as 1 and No was coded as 0 for the dichotomous items, while the Likert items were coded from 1 (Strongly Disagree) to 5 (Strongly Agree), with negatively worded items reverse-coded before reliability analysis. Internal consistency was assessed using the Cronbach's alpha reliability procedure. For items scored 0/1, Cronbach's alpha is mathematically equivalent to the Kuder-Richardson Formula 20 (KR-20); therefore, the same analysis appropriately assessed whether the Yes/No items consistently represented the mentorship construct. The pilot questionnaire produced an overall reliability coefficient of .784, exceeding the commonly accepted minimum of .70 and indicating acceptable internal consistency. After data cleaning, the main-study questionnaire produced an overall coefficient of .826, indicating good internal consistency. Reliability was therefore established from the consistency of responses across related items, not from the proportion of respondents who answered Yes or No. A high percentage of Yes responses alone would not demonstrate reliability.

Two response formats were used in the mentorship section of the questionnaire, and it is important to explain how each was established. For items assessing the existence and provision of mentorship (for example, whether the facility has a formal mentorship arrangement, whether regular guidance and feedback are provided, and whether mentorship improved understanding of organisational culture), respondents answered on a dichotomous Yes/No basis, because these items measure the presence or absence of a mentorship attribute rather than a degree of agreement. For items assessing perceived effects and retention outcomes (for example, clinical-skill development, job satisfaction, commitment and long-term intention to remain), a five-point Likert scale was used, ranging from strongly disagree to strongly agree. During data preparation, the Likert responses for the mentorship-effect items were dichotomised into agreement (Agree/Strongly Agree = Yes) versus non-agreement (Neutral/Disagree/Strongly Disagree = No) to produce comparable Yes/No proportions, while the full five-point distributions were retained for the retention-outcome items reported. This dual approach allowed the study to report the prevalence of each mentorship attribute clearly while preserving the richer Likert distribution for the outcome variables.

Completed questionnaires were checked, coded, cleaned and analysed using

SPSS version 27. Frequencies and percentages described respondents' characteristics and mentorship experiences. The three independent variables, regular guidance and feedback, clinical-skill development and improved understanding of organisational culture, were entered into a multiple linear regression model to test their combined and individual contributions to retention. Healthcare-professional retention was measured using items on job satisfaction, job commitment, employee efficiency, long-term commitment and perceived effects of turnover; negatively worded items were reverse-coded, and favourable responses were used to compute a composite retention mean score ranging from 0 to 1, where values closer to 1 indicated stronger retention. Multiple linear regression using the Enter method tested the independent contribution of each mentorship factor at $p < .05$. $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3$, where Y represents healthcare-professional retention, X_1 = regular guidance and feedback, X_2 = clinical-skill development, and X_3 = improved understanding of organisational culture.

3.2. Measurement of Mentorship Predictors

The predictor variables in this study were intended to measure respondents' reported exposure to and experience of workplace mentorship activities, rather than respondents' general perceptions that mentorship had improved their outcomes. Specifically, regular guidance and feedback measured the extent to which healthcare professionals actually received professional guidance, advice, and feedback from experienced colleagues in their routine work. Clinical-skill development measured respondents' reported experience of developing or strengthening clinical skills through interaction with experienced colleagues, while improved understanding of organisational culture measured respondents' experience of gaining knowledge about institutional values, procedures, expectations and workplace practices through mentorship. Thus, the predictor items focused on the mentorship-related experiences reported by respondents rather than asking whether mentorship was generally beneficial.

The distinction was maintained between exposure to mentorship activities and retention outcomes. Items measuring regular guidance and feedback, clinical-skill development and understanding of organisational culture were treated as indicators of workplace mentorship activities, whereas retention was measured separately using indicators such as job satisfaction, organisational commitment, willingness to continue working at KCMC and related retention statements. Therefore, the regression model examined whether respondents who reported greater exposure to these mentorship activities also reported stronger retention. The study did not interpret the predictor variables as objectively verified improvements in clinical performance or organisational outcomes because such outcomes were not independently assessed through clinical-performance records, supervisor ratings or administrative retention records.

Nevertheless, the study recognises the possibility of common-method bias because both the mentorship predictors and retention outcomes were obtained from

the same respondents using the same questionnaire. In particular, respondents who had more positive experiences at KCMC may have been more likely to report both favourable mentorship experiences and stronger intentions to remain. Consequently, the observed associations should be interpreted as relationships between self-reported workplace mentorship experiences and self-reported retention, rather than as definitive evidence that mentorship objectively caused improvements in clinical skills or actual employee retention. The inclusion of qualitative interviews with key informants provided additional contextual evidence on how mentorship was implemented and how it was perceived to support healthcare-professional retention.

To minimise ambiguity in the interpretation of the findings, the terminology throughout the manuscript should therefore distinguish between "reported experience of clinical-skill development through workplace mentorship activities" and "actual clinical-skill improvement", and between "retention intention" and "actual employee retention". This clarification ensures that the conclusions remain consistent with the cross-sectional, self-reported nature of the data.

3.3. Measurement of Healthcare-Professional Retention

Healthcare-professional retention in this study was defined as the intention of healthcare professionals to remain employed at KCMC and continue working at the institution in the foreseeable future. This definition was adopted because the study used a cross-sectional questionnaire and did not have access to sufficiently complete administrative records on actual employee turnover during the study period. Therefore, intention to remain was used as the measurable indicator of retention rather than combining job satisfaction, organisational commitment, employee efficiency and perceptions of turnover into a single retention score.

The retention outcome was measured using questionnaire items that directly assessed respondents' intention to remain at KCMC. The items focused on whether respondents intended to continue working at KCMC, whether they expected to remain employed at the institution, and whether they were willing to continue their professional career at KCMC. Responses were measured using a five-point Likert scale ranging from 1 = Strongly Disagree to 5 = Strongly Agree. Where negatively worded items were included, they were reverse-coded so that higher scores consistently represented stronger intention to remain. A composite intention-to-remain mean score was then calculated from the relevant items, with higher scores indicating stronger intention to remain at KCMC.

Job satisfaction and organisational commitment were therefore not included in the retention score. Instead, they were treated as related but conceptually distinct employee outcomes that may help explain why healthcare professionals intend to remain with an organisation. Similarly, employee efficiency was excluded because it represents a work-performance outcome rather than employee retention. Perceptions concerning the effects of staff turnover were also excluded because they describe respondents' views about the consequences of turnover rather than

whether an individual respondent intends to remain employed at KCMC. This separation provides a clearer distinction between the predictors, related workplace outcomes and the actual retention construct.

The revised measure aligns with the study definition of retention because an employee who expresses a strong intention to continue working at KCMC demonstrates a behavioural intention consistent with future retention. However, intention to remain is not equivalent to verified administrative retention. Since the study was cross-sectional and did not directly track subsequent employee departures, the findings are interpreted as evidence regarding healthcare professionals' intention to remain, rather than confirmed actual retention. Accordingly, the dependent variable in the multiple linear regression analysis was the intention-to-remain mean score, while regular guidance and feedback, clinical-skill development and understanding of organisational culture were entered as the three workplace mentorship predictors.

4. Justification of the Regression Approach

The three independent variables were coded as binary indicators (1 = Yes, 0 = No), while the dependent variable was a continuous composite retention mean score ranging from 0 to 1. Multiple linear regression is appropriate under this specification because binary predictors function as dummy variables, and the coefficients are interpreted as the average change in the retention score associated with the presence, rather than the absence, of each mentorship attribute. This dummy-variable approach was chosen deliberately because the mentorship-input items were most reliably and consistently answered as presence/absence judgements, and because it produces coefficients that are directly interpretable for management (the retention gain associated with a professional receiving, rather than not receiving, a given form of mentorship). The continuous nature of the dependent variable preserves variation in retention and satisfies the requirements of linear regression. It is acknowledged, as a methodological limitation, that dichotomising the predictors reduces some of the granularity of the original Likert responses; future studies could retain continuous composite Likert scores for each construct to capture graded effects. The assumption checks reported below confirm that the linear model was appropriate for the data as specified.

Missing data were handled through imputation so that all 220 returned questionnaires were retained for every analysis. A small number of respondents had left one or more of the three mentorship-input items blank (13 on regular guidance and feedback, 11 on clinical-skill development, and 11 on understanding of organisational culture), and seven had a missing retention value. Rather than deleting these cases through listwise deletion, each missing binary response was replaced with the item's modal (most frequent) value and each missing retention value with the retention mean, so that the demographic, descriptive, correlational and regression analyses were all based on the same sample of 220 respondents. This maintained consistency across the study and avoided the loss of otherwise-

valid cases. Before regression analysis, diagnostic tests assessed normality, linearity, homoscedasticity, independence of errors, multicollinearity and influential observations. The Durbin-Watson statistic was 1.848, tolerance values ranged from .794 to .848, VIF values ranged from 1.180 to 1.259, and the maximum condition index was 4.794, indicating that the assumptions of independence of errors and absence of multicollinearity were adequately satisfied.

Qualitative data were transcribed and analysed thematically using NVivo version 12 through repeated reading, coding and grouping into categories and major themes. Consistent with the convergent mixed-methods design, the quantitative and qualitative data were collected concurrently but analysed separately, and were then integrated at the interpretation stage. The quantitative data were analysed in SPSS using descriptive statistics and multiple linear regression, while the qualitative data from key-informant interviews and open-ended questionnaire items were analysed thematically in NVivo. The two sets of results were not combined into a single dataset; instead, they were merged through a side-by-side comparison in which the qualitative themes and representative quotations were used to explain, corroborate or qualify the corresponding statistical results. Points of convergence (where the interview evidence supported the survey findings) and divergence (where it added nuance the numbers alone could not show) were identified during interpretation. This integration approach is consistent with the recommendation of Fetters, Curry and Creswell (2013) that convergent designs achieve integration by bringing the two strands together during analysis and interpretation rather than during data collection. Ethical clearance and institutional permission were obtained before data collection. Participation was voluntary, informed consent was obtained, confidentiality was maintained through anonymisation, and data were securely stored for academic purposes only.

5. Findings and Discussion

This section presents and discusses findings on the effects of Mentorship training program on healthcare-professional retention at KCMC.

5.1. Research Instruments Return Rate

Table 2. Response rate by professional cadre.

Professional cadre	Distributed	Returned	Not returned	Response rate
Nurses	107	102	5	95.33%
Doctors	70	67	3	95.71%
Laboratory scientists	22	21	1	95.45%
Pharmacists	32	30	2	93.75%
Total	**231**	**220**	**11**	**95.23%**

Source: Field Data (2026).

A total of 231 questionnaires were distributed to healthcare professionals across the four cadres.

Table 2 shows that nurses constituted the largest proportion of respondents, with 102 returned questionnaires, followed by doctors with 67, pharmacists with 30, and laboratory scientists with 21. The response rate exceeded 93% across all professional cadres, indicating strong participation and reducing the risk that the findings were influenced by non-response bias within any particular group.

5.2. Demographic Characteristics of Respondents

This section presents respondents' demographic and employment characteristics, including age, gender, education level, professional cadre, working experience, and supervisory or managerial responsibility.

Table 3. Demographic characteristics of respondents (n = 220).

Characteristic	Category	n	%
Age category	20 - 29 years	57	25.9
	30 - 39 years	96	43.6
	40 - 49 years	43	19.5
	50 years and above	24	10.9
Gender	Male	108	49.1
	Female	112	50.9
Education level	Diploma	47	21.4
	Bachelor's degree	92	41.8
	Master's degree	67	30.5
	Ph.D./Doctorate	8	3.6
	Other	6	2.7
Professional category	Doctor	67	30.5
	Nurse	102	46.4
	Laboratory scientist	21	9.5
	Pharmacist	30	13.6
Working experience	Less than 2 years	32	14.5
	2 - 5 years	85	38.6
	6 - 10 years	57	25.9
	More than 10 years	46	20.9
Supervisory/managerial position	Yes	74	33.6
	No	146	66.4

Source: Field Data (2026).

The results in Table 3 show that most respondents were aged 30 - 39 years (43.6%), followed by those aged 20 - 29 years (25.9%). Most respondents held

bachelor's degrees (41.8%) or master's degrees (30.5%), indicating that the study involved a professionally qualified workforce capable of assessing mentorship practices and retention. Furthermore, 33.6% of respondents held supervisory or managerial positions, which helped capture views from staff involved in guidance and institutional decision-making.

5.3. Effects of the MTP in Retaining Healthcare Professionals

This section presents the effects of the mentorship training programme on healthcare-professional retention at KCMC. The findings are summarised in Table 4.

Table 4. Effects of the MTP in retaining healthcare professionals.

MTP-related statement	Yes, n (%)	No, n (%)	n
Facility has formal MTP	155 (71.8)	61 (28.2)	216
MTP provide regular guidance and feedback	143 (69.1)	64 (30.9)	207
MTP help develop clinical skills	138 (66.0)	71 (34.0)	209
MTP improve understanding of organizational culture	142 (67.9)	67 (32.1)	209
MTP increase job satisfaction	141 (67.5)	68 (32.5)	209
MTP strengthen commitment to stay at Facility	127 (61.4)	80 (38.6)	207
MTP affect decision to continue working	122 (59.2)	84 (40.8)	206
Recommendation of Facility to other HCWs because of its MTP	160 (75.1)	53 (24.9)	213

Source: Field Data (2026).

The results in Table 4 show that respondents responded positively to the mentorship training programme at KCMC, with positive responses ranging from 59.2% to 75.1%. This implies that mentorship contributes to professional development, job satisfaction, organisational commitment and willingness to remain, while the lower proportions for commitment to stay and continued employment imply that mentorship is only one of several factors influencing retention. This pattern is consistent with Gularte-Rinaldo et al. (2023), who found that a mentorship programme for newly graduated nurses in the United States positively influenced most mentees' decision to remain in the profession, with the effect strongest among mentees mentored for one to two years before diminishing among those mentored beyond two years, indicating that the contribution of mentorship to retention intentions is not indefinitely cumulative and depends on factors beyond the mentoring relationship itself.

On formal mentorship, 155 (71.8%) reported that KCMC had a formal mentorship arrangement, while 61 (28.2%) reported otherwise. This perception should be interpreted against the institution's Staff Training Policy (Good Samaritan Foundation of Tanzania, 2002), which provides for formal and sponsored training but does not establish a dedicated mentorship programme with defined mentor and mentee roles, matching and documentation. The gap between the majority

who perceived mentorship as formal and the absence of a formal mentorship policy implies that respondents were describing well-established but informal supervisor-to-junior mentorship, consistent with the policy provision that supervisory staff have a duty to assist in developing junior staff.

The results also show that 143 (69.1%) received regular guidance and feedback, while 64 (30.9%) did not. This implies that most employees benefited from mentor support, although the 30.9% without regular contact implies that guidance was not uniformly accessible. This corresponds with Omondi et al. (2024), who found that mentor approachability (mean = 3.84) and the provision of adequate supportive guidance (mean = 3.98) were positively associated with mentees' outcomes, and that a substantial share of mentees had infrequent contact with their mentors, a pattern likely to weaken guidance where it occurs.

On clinical-skill development, 138 (66.0%) indicated that mentorship improved their clinical skills, while 71 (34.0%) reported otherwise. This implies that mentorship supported practical learning through observation, supervised practice and feedback, and that clinical-skill transfer is a central channel through which mentorship contributes to competence and retention. This is consistent with Ene-Peter et al. (2024), whose rapid review of six studies found that mentorship-based training produced a larger improvement in healthcare workers' neonatal-resuscitation skills (pooled mean difference = 6.03) than simulation-based training (3.45), indicating that direct mentorship may be particularly effective for developing practical clinical skills.

Regarding understanding of organisational culture, 142 (67.9%) respondents reported improvement, whereas 67 (32.1%) reported no improvement. This suggests that mentorship served as a mechanism for professional and organisational socialisation by helping employees understand institutional values, communication practices, professional expectations and teamwork, beyond the acquisition of technical competencies. Similarly, Mremi et al. (2023) found that mentees in a structured Tanzanian research-mentorship programme reported strong satisfaction with their mentoring relationships and with the programme's contribution to their careers, suggesting that well-structured mentorship can help healthcare professionals integrate into their professional and institutional environment. The finding therefore indicates that mentorship may help healthcare workers integrate into the organisational culture and function effectively within institutional teams.

On job satisfaction, 141 (67.5%) reported that mentorship increased their satisfaction, while 68 (32.5%) reported otherwise. This implies that mentorship strengthened workplace experience and confidence, although the sizeable minority implies that satisfaction is also shaped by factors beyond mentorship, such as remuneration, workload and promotion. This is consistent with Msanya et al. (2020), who found that supervisory support and participation in decision-making were significantly associated with job satisfaction among KCMC health workers, reinforcing mentorship's role as a form of supervisory support capable of strengthening satisfaction.

The results also show that 127 (61.4%) reported that mentorship strengthened their commitment to remain at KCMC, while 122 (59.2%) reported that it influenced their decision to continue working at the institution. These proportions, lower than those for guidance, clinical skills and job satisfaction, imply that mentorship contributes to retention but that decisions to remain are also driven by salaries, career opportunities, recognition and workload. This corresponds with Msanya et al. (2020), whose KCMC-based study found that pay, career-advancement opportunities and nature of work were significant determinants of job satisfaction alongside supervisory support, indicating that development-oriented strategies such as mentorship are most effective when combined with adequate remuneration and welfare provisions. These findings suggest that mentorship contributes to retention by improving professional support and job satisfaction, but it cannot independently address structural factors such as remuneration, workload, staffing levels and promotion opportunities. This interpretation is consistent with Mremi et al. (2023), who found that structured mentorship contributed to measurable career progression, including publications, PhD enrolment and research grants, among mentees in Tanzanian health-sciences institutions.

The highest positive response concerned willingness to recommend KCMC, with 160 (75.1%) respondents indicating that they would recommend the institution to other healthcare professionals because of its mentorship. This suggests that mentorship enhanced KCMC's reputation as a teaching and professional-development institution and encouraged positive advocacy among employees. However, the 24.9% who would not recommend KCMC indicates that mentorship benefits were not experienced equally across staff. This finding is consistent with Gularte-Rinaldo et al. (2023), who found that mentorship supported newly graduated nurses' professional communication, self-confidence, transition into practice and decisions to remain in nursing. These benefits may strengthen employees' connection to their workplace and consequently their willingness to recommend it to other professionals.

5.4. Organizational Support for Mentorship Training Program

This section presents respondents' open-ended responses on the organisational support available for mentorship at KCMC. The responses were coded into themes.

The results in **Table 5** show that training, clinical guidance and professional development was the most frequently reported theme, mentioned by 29 (17.0%). Respondents referred to lectures, workshops, clinical supervision, continuous education and mentorship opportunities. This finding is consistent with Ene-Peter et al. (2024), who found that mentorship improved healthcare workers' practical skills more than simulation-based training, and with Omondi et al. (2024), who found that approachable, supportive mentors were associated with improved learning and performance outcomes among mentees. Therefore, KCMC should

continue strengthening mentor preparation, clinical supervision and workplace learning opportunities.

Table 5. Organizational support for mentorship training program (n = 171).

Themes	n	%
Training, clinical guidance and professional development	29	17.0
Formal structure, policy, monitoring and programme integration	27	15.8
Regular interaction and supportive mentor-mentee relationships	24	14.0
Provision of financial, physical and digital resources	23	13.5
Recognition, leadership and supportive organisational culture	22	12.9
Limited, absent or uncertain organisational support	16	9.4
Protected time, scheduling and permission to participate	13	7.6
Accessibility, inclusion and awareness of mentorship	12	7.0
General organisational support	5	2.9

Source: Field Data (2026).

Formal structure, policy, monitoring and programme integration was reported by 27 (15.8%), while regular interaction and supportive mentor-mentee relationships were identified by 24 (14.0%). Respondents mentioned mentorship policies, schedules, documentation, progress monitoring, continuous communication, feedback and emotional support. This agrees with Mremi et al. (2023), whose structured mentorship programme for young researchers in Tanzania featured clearly defined mentor-selection criteria, regular mentor-mentee meetings and quarterly institutional reporting, arrangements that were associated with strong mentee outcomes including research publications and grant success. Therefore, KCMC should establish a formal mentorship policy, define mentor and mentee responsibilities, promote regular meetings and ensure appropriate matching of mentors and mentees.

Provision of financial, physical and digital resources was reported by 23 (13.5%). Participants mentioned funding, teleconferencing facilities, internet access, meeting rooms and learning materials. This shows that effective mentorship requires institutional investment and cannot depend only on individual mentors. Therefore, KCMC should allocate adequate financial, technological and physical resources for mentorship activities.

Recognition, leadership and supportive organisational culture were mentioned by 22 (12.9%), while 16 (9.4%) reported limited, absent or uncertain organisational support. This implies that mentorship becomes more meaningful when management values it, recognises mentors and supports implementation across departments. However, unequal support shows that mentorship was not experienced consistently by all staff. This finding supports Omondi et al. (2024), who similarly found that supportive, approachable mentorship was associated with stronger mentee outcomes, and is consistent with Social Exchange Theory, which

explains that organisational support, recognition and consistent mentorship may strengthen commitment, loyalty and willingness to remain through reciprocity.

Protected time, scheduling and permission to participate were reported by 13 (7.6%), while accessibility, inclusion and awareness were mentioned by 12 (7.0%). These findings suggest that workload conflicts, limited awareness and unequal access may restrict mentorship participation, consistent with Omondi et al. (2024), who similarly found that a substantial proportion of mentees experienced infrequent mentor contact, most commonly monthly or less, which the authors suggested could limit the effectiveness of a mentorship programme. Therefore, KCMC should provide dedicated mentorship time, flexible schedules, clear communication and equal access to mentorship opportunities. These findings from the quantitative and open-ended responses were supported by statements from key informants as follows:

"*Mentorship is important for the retention of healthcare staff because it helps junior staff to become more competent and confident in their professional practice. Through mentorship, experienced staff provide guidance, feedback, and support to junior employees, which enables them to understand their responsibilities, improve their clinical skills, and adapt to the organizational culture. Mentorship also has positive impacts on staff commitment and morale because employees feel valued, supported, and recognized by the institution. When staff feel that there is someone to guide and support their professional growth, they are more likely to develop a sense of belonging and remain committed to the organization.*" (Respondent 1, 12:47 p.m.)

This statement indicates that mentorship supports retention by improving competence, confidence, morale, belonging and commitment. From the perspective of Social Exchange Theory, mentorship is a valued resource extended by the organisation, which mentees reciprocate through improved morale, a sense of belonging and willingness to remain. This is consistent with Gularte-Rinaldo et al. (2023), who found that mentorship improved mentees' self-confidence and positively influenced their decision to remain in the profession.

"*Although we do not have concrete written evidence, we can observe the impact of mentorship through staff performance. At KCMC, staff performance is monitored through the electronic health record system, where the number of patients attended by each individual staff member can be tracked. Because the hospital has specialists and super-specialists, junior doctors have gained confidence in managing conditions they previously could not handle, and patients are improving. However, mentorship can be strengthened by documenting and formalizing it, for example by advertising mentorship opportunities through the website, notice boards, or social media.*" (Respondent 2, 12:05 p.m.)

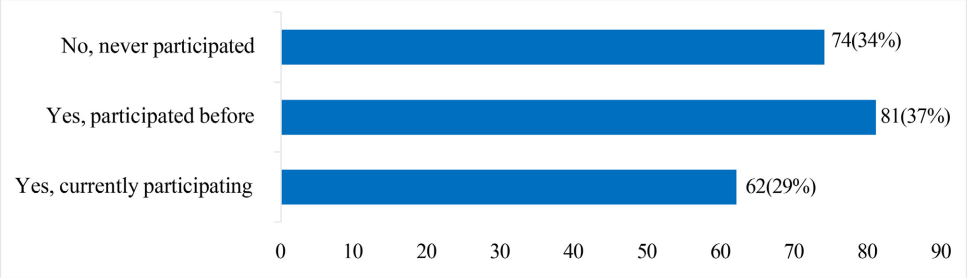
This statement shows that mentorship was perceived to improve clinical confidence, service capacity and staff performance, and it confirms that mentorship at KCMC is currently delivered informally and without concrete documentation.

"*Mentorship helps, although it is not the whole thing. It builds capacity, en-*

hances the ability to provide services, and improves staff skills and competence. Some healthcare professionals have directly benefited from mentorship and are now working for the institution while also mentoring others. However, retention is not only a question of mentorship; if people are not paid well, they may not stay longer or remain committed." (Respondent 3, 11:33 a.m.)

5.5. Participation in Mentorship Training Program

This section presents respondents' participation in Mentorship training program at KCMC, showing whether they were currently participating, had participated before, or had never participated. The analysis helps establish staff exposure to mentorship opportunities within the institution, as presented in **Figure 1**.



Source: Field Data (2026).

Figure 1. Participation in mentorship training program at KCMC (n = 217).

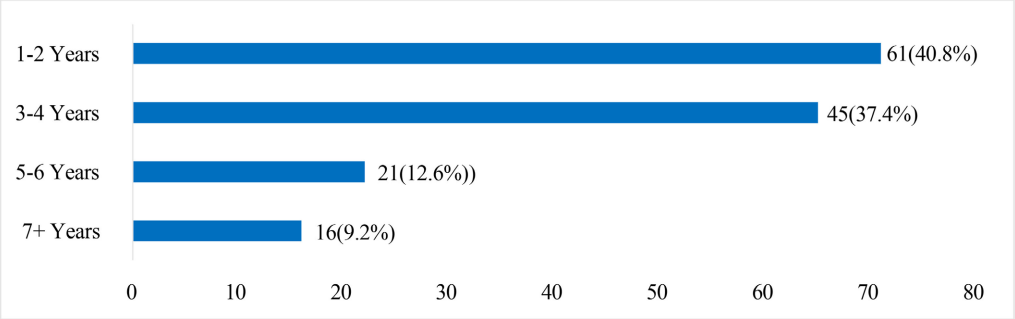
The results in **Figure 1** show respondents' participation in mentorship training program at KCMC. Among 217 respondents, 81 (37.0%) had previously participated, while 62 (29.0%) were currently participating. In total, 143 (66.0%) had either participated before or were currently participating, while 74 (34.0%) had never participated. This indicates that mentorship is practised at KCMC and has reached the majority of surveyed healthcare professionals. However, the fact that about one-third had never participated suggests that mentorship opportunities are not yet available to all staff.

This finding is consistent with the methodological heterogeneity noted by Ene-Peter et al. (2024), who found that mentorship approaches, training content and study populations varied considerably across the studies they reviewed, suggesting that mentorship reach and consistency often differ across institutions and settings. Therefore, KCMC should establish clear eligibility procedures and ensure that mentorship is available across all professional cadres and departments. The finding also relates to Omondi et al. (2024), who found that mentor approachability was strongly associated with positive mentee outcomes; expanding mentorship participation at KCMC should therefore involve both enrolling more mentees and ensuring mentors are adequately prepared and accessible.

5.6. Duration of Participation in Mentorship Training Program

This section presents the duration of respondents' participation in Mentorship

training program at KCMC and assesses how long respondents had been involved in mentorship activities, as presented in Figure 2.



Source: Field Data (2026).

Figure 2. Duration of participation in mentorship training program.

The results in Figure 2 show that 61 (40.8%) had participated in mentorship training program for one to two years, while 45 (37.4%) had participated for three to four years. In total, 106 (78.2%) had participated for between one and four years. In comparison, 21 (12.6%) had participated for five to six years, and only 16 (9.2%) had participated for seven years or more. This indicates that most participants had short- to medium-term mentorship experience, while only a few had long-term mentorship involvements.

These findings suggest that mentorship opportunities at KCMC may have expanded in recent years or are mainly provided during early career development and professional transition. However, the small proportion of long-term participation suggests limited continuity of mentorship relationships. This is consistent with Mremi et al. (2023), whose four-year mentorship programme in Tanzania showed that sustained mentee-mentor engagement was associated with strong outcomes, including publications, PhD enrolment and research grants. It is also consistent with Gularte-Rinaldo et al. (2023), who found that the perceived benefits of mentorship on nurses' decision to remain in the profession peaked among mentees mentored for one to two years and diminished thereafter, suggesting that the relationship between mentorship duration and its benefits may not be strictly linear. From the perspective of Social Exchange Theory, sustained mentorship signals continued organisational investment in the exchange relationship, which is necessary to maintain reciprocal commitment; therefore, KCMC should strengthen mentorship continuity by establishing clear programme durations, follow-up schedules and progression pathways, and by preparing experienced mentees to become mentors.

5.7. Retention Outcomes of Healthcare Professionals

This section presents respondents' rating of retention-related outcomes among healthcare professionals at KCMC. The responses are summarised in Table 6.

The results in Table 6 show that respondents generally had positive perceptions

of retention outcomes at KCMC. Job satisfaction was reported positively by 141 (66.2%), while 36 (16.9%) were neutral and 36 (17.0%) disagreed or strongly disagreed. This finding is similar to Msanya et al. (2020), who found that only 49% of KCMC health workers were satisfied with their jobs, with dissatisfaction concentrated among nurses and doctors; the higher satisfaction level found in the present study may reflect the contribution of mentorship and other improvements since that earlier assessment.

Table 6. Retention-related outcomes among healthcare professionals at KCMC.

Retention-related statement	SD, n (%)	D, n (%)	N, n (%)	A, n (%)	SA, n (%)	n
Job satisfaction has increased my retention.	18 (8.5)	18 (8.5)	36 (16.9)	77 (36.2)	64 (30.0)	213
Job commitment has improved my retention.	13 (6.1)	15 (7.1)	44 (20.8)	70 (33.0)	70 (33.0)	212
I am more efficient as an employee.	14 (6.6)	7 (3.3)	43 (20.2)	84 (39.4)	65 (30.5)	213
I am willing to be committed at KCMC for the long term.	11 (5.2)	18 (8.5)	45 (21.1)	66 (31.0)	73 (34.3)	213
Employee turnover rate in the organization has affected retention.	46 (21.7)	46 (21.7)	50 (23.6)	36 (17.0)	34 (16.0)	212

Key: SD = Strongly Disagree, D = Disagree, N = Neutral, A = Agree, SA = Strong Agree. **Source:** Field Data (2026).

Regarding job commitment, 140 (66.0%) gave positive responses, while 44 (20.8%) were neutral and 28 (13.2%) disagreed or strongly disagreed. This agrees with Omondi et al. (2024), who found a strong positive relationship between supportive, engaged mentorship and improved performance outcomes among mentees ($r = .746$, $p < .001$), suggesting that similarly supportive relationships may strengthen healthcare professionals' engagement with their institution.

The study further found that 149 (69.9%) reported being more efficient as employees, which was the highest positive response among the retention outcomes. This suggests that most respondents believed they could perform their duties effectively, possibly due to improved knowledge, competence, confidence, teamwork and familiarity with institutional procedures. This is consistent with Ene-Peter et al. (2024), who found that mentorship improved healthcare workers' practical skills, and with Omondi et al. (2024), who found that supportive, approachable mentorship was strongly associated with improved performance among mentees.

In relation to long-term commitment, 139 (65.3%) indicated willingness to remain committed to KCMC, while 45 (21.1%) were neutral and 29 (13.7%) disagreed or strongly disagreed. This is consistent with Mremi et al. (2023), who found that structured mentorship was associated with strong career progression and satisfaction among mentees in Tanzanian health-sciences institutions. However, it contrasts somewhat with Msanya et al. (2020), who found only moderate overall job satisfaction (49%) among KCMC health workers, suggesting that retention intentions may differ depending on institutional context, workload, employment

conditions and professional opportunities.

The finding on employee turnover was more divided. A total of 92 (43.4%) disagreed that turnover had affected retention, while 70 (33.0%) agreed and 50 (23.6%) were neutral. This suggests that turnover effects may not be experienced equally across departments or cadres. Therefore, KCMC should not rely on mentorship alone, but should combine it with adequate remuneration, manageable workloads, recognition, career progression and supportive working conditions to achieve sustainable retention. The findings are also supported by key informants:

"*Mentorship has an impact on staff commitment and morale, although at KCMC the main reason people leave is monetary. They leave for financial reasons because salaries here are lower compared to other hospitals of our level.*" (Interviewee #3, 12 May 2026, 12:05 p.m.)

This statement indicates that mentorship improves morale and commitment but cannot independently prevent turnover. This explains why quantitative findings may show positive perceptions of mentorship while commitment to stay and intention to continue working remain relatively lower, and it is consistent with Msanya et al. (2020), who similarly found that pay was a major driver of dissatisfaction among KCMC health workers despite reasonably positive perceptions of supervisory support. Therefore, mentorship should be considered as one component of a broader retention strategy, together with improved remuneration, recognition, career progression and supportive working conditions.

5.8. Multiple Regression Analysis and Hypothesis Testing

Multiple linear regression analysis was conducted to determine the combined and individual contributions of regular guidance and feedback, clinical-skill development and improved understanding of organisational culture to the retention of healthcare professionals at KCMC. A null hypothesis was rejected when its p-value was less than .05 and was not rejected when its p-value was equal to or greater than .05. As explained in the methodology, the analysis was based on the 220 respondents with complete data on all model variables.

5.8.1. Regression Assumption Tests

Regression assumption tests were performed to determine whether the data met the basic requirements for reliable regression interpretation. Normality of the residuals was assessed using the histogram and the Normal P-P plot of the regression standardised residuals. As shown in **Figure 3**, the histogram displayed an approximately bell-shaped distribution with a mean of approximately 0 and a standard deviation of approximately .993, and in the Normal P-P plot (**Figure 4**) the observed cumulative probabilities followed the diagonal line closely; the assumption of normally distributed residuals was therefore satisfied. Linearity and homoscedasticity were assessed using the scatterplot of standardised residuals against standardised predicted values (**Figure 5**), which showed a random scatter of points with no clear pattern or funnel shape, confirming that both assumptions were met. The residuals statistics are summarised in **Table 7**.

Table 7. Collinearity diagnostics for the regression model.

Collinearity Diagnostics							
Model	Dimension	Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	Regular guidance and feedback	Clinical-skill development through MTP	Improved understanding of organisational culture
1	1	3.452	1.000	.01	.02	.02	.02
	2	.220	3.963	.00	.12	.85	.22
	3	.178	4.400	.02	.60	.01	.69
	4	.150	4.794	.97	.26	.11	.07
Dependent Variable: Retention mean score							

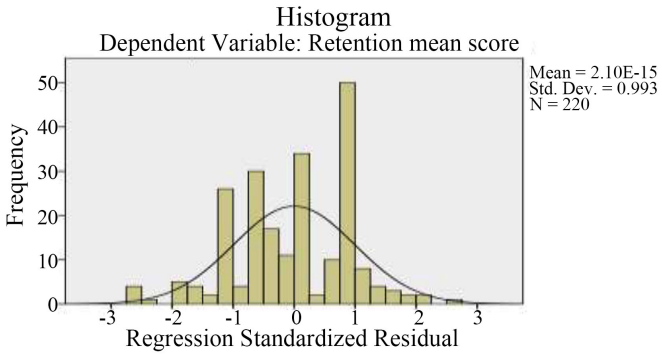
Source: Field Data (2026).

The results in Table 7 confirm that the condition index values ranged from 1.000 to 4.794, with the highest value (4.794) being well below the recommended cut-off of 30. This indicates that there were no harmful linear relationships among the three independent variables; the multicollinearity assumption was therefore satisfied, and all three predictors could be retained in the regression model.

Table 8. Residual statistics and outlier assessment.

Residuals Statistics					
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	.30	.74	.60	.152	220
Residual	−.736	.699	.000	.269	220
Std. Predicted Value	−1.981	.882	.000	1.000	220
Std. Residual	−2.719	2.583	.000	.993	220
Dependent Variable: Retention mean score					

Source: Field Data (2026).

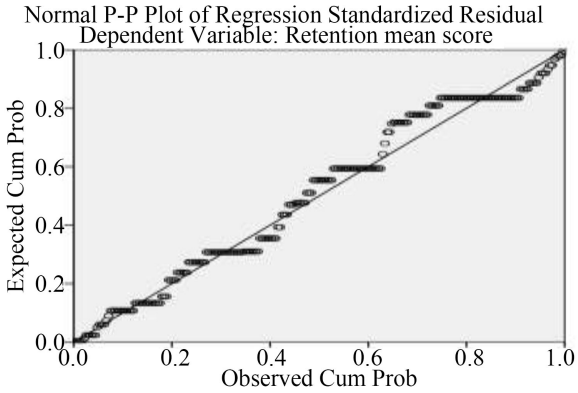


Source: Field Data (2026).

Figure 3. Histogram of regression standardised residuals.

The results in Table 8 show that the residuals had a mean of zero, indicating that the model did not systematically overestimate or underestimate retention.

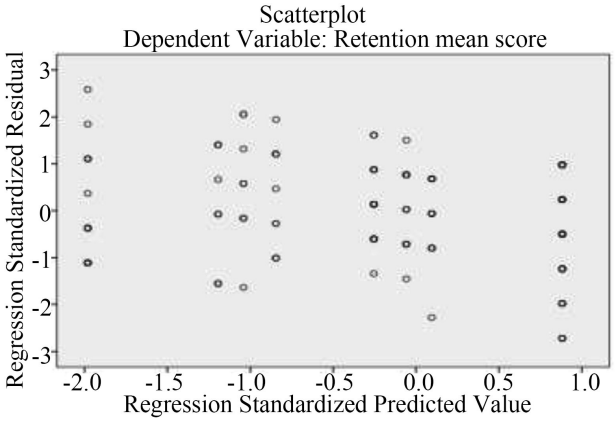
The standardised residuals ranged from −2.719 to 2.583, which were within the acceptable limits of −3 to +3. Therefore, no extreme outliers were identified, and the regression assumption concerning residual outliers was satisfied.



Source: Field Data (2026).

Figure 4. Normality assumptions.

Figure 3 and Figure 4 present the histogram and Normal P-P plot of the standardised residuals. The residuals had a mean of .000, a standard deviation of .993 and ranged from −2.719 to 2.583 for 220 observations. The histogram approximately followed the normal curve, while the points in the P-P plot generally followed the diagonal reference line, with only minor deviations. Therefore, the regression residuals were approximately normally distributed, and the normality assumption was reasonably satisfied.



Source: Field Data (2026).

Figure 5. Linearity and homoscedasticity assessment.

As presented in Figure 5, the standardised predicted values ranged from −1.981 to .882, while the standardised residuals ranged from −2.719 to 2.583. The residuals were distributed above and below zero without a clear curved or funnel-shaped pattern. Therefore, the assumptions of linearity and homoscedasticity were reasonably satisfied.

5.8.2. Overall Model Summary

Table 9. Multiple regression model summary.

Model Summary					
Model	R	R Square	Adjusted R Square	SE Estimate	Durbin-Watson
1	.492[a]	.242	.232	.271	1.848

a. Predictors: (Constant), MTP Improve Organizational Culture, MTP Helped Clinical Skills, MTP Regular Guidance feedbacks

Dependent Variable: Retention mean score

Source: Field Data (2026).

The results in Table 9 show a moderate positive combined relationship between the three mentorship dimensions and healthcare-professional retention (R = .492). The three mentorship dimensions jointly explained 24.2% of the variation in retention (R^2 = .242; adjusted R^2 = .232). This indicates that mentorship makes a meaningful but partial contribution to retention, and that the remaining 75.8% of the variation is explained by factors outside the model, such as remuneration, workload, recognition and career progression. Mentorship should therefore be treated as one component of a broader staff-retention strategy rather than as the sole determinant of employees' decisions to remain.

5.8.3. Overall Significance of the Regression Model

Table 10. ANOVA results for the multiple regression model.

ANOVA						
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.058	3	1.686	23.017	.000
	Residual	15.821	216	.073		
	Total	20.879	219			

Dependent Variable: Health Professional Retention

Predictors: (Constant), Improved understanding of organisational culture, Clinical-skill development through MTP, Regular guidance and feedback

Source: Field Data (2026).

The results in Table 10 show that the overall regression model was statistically significant, F (3, 216) = 23.017, $p < .001$. This confirms that the three mentorship dimensions jointly predict healthcare-professional retention, and it was therefore appropriate to interpret the individual regression coefficients and test the study hypotheses.

5.8.4. Individual Effects of Mentorship Dimensions on Retention

As presented in Table 11, the estimated regression equation showed that regular guidance and feedback, clinical-skill development and improved understanding

of organisational culture all made positive contributions to healthcare-professional retention: $Y = .301 + .120X_1 + .173X_2 + .143X_3$. The constant of .301 represents the predicted retention mean score when all three mentorship variables are coded as zero. Regular guidance and feedback made a positive and statistically significant contribution to retention, increasing the retention mean score by .120 points among respondents who received such support (B = .120, β = .176, t = 2.652, $p = .009$); the first null hypothesis was therefore rejected. This agrees with Omondi et al. (2024), who found that consistent, approachable mentor guidance was strongly associated with positive mentee outcomes.

Table 11. Regression coefficients and hypothesis decisions.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1. (Constant)	.301	.041		7.372	.000
Regular guidance and feedback	.120	.045	.176	2.652	.009
Clinical-skill development through MTP	.173	.042	.262	4.073	.000
Improved understanding of organisational culture	.143	.044	.213	3.216	.001
Dependent Variable: Retention mean score					

Source: Field Data (2026).

Clinical-skill development was the strongest positive and statistically significant predictor, increasing the retention mean score by .173 points among respondents who reported improved clinical skills through mentorship (B = .173, β = .262, t = 4.073, $p < .001$); the second null hypothesis was therefore rejected. This agrees with Ene-Peter et al. (2024), whose rapid review found that mentorship produced a larger improvement in practical clinical skills (pooled mean difference = 6.03) than simulation-based training (3.45) in the immediate post-training period.

Improved understanding of organisational culture also contributed positively and significantly to retention (B = .143, β = .213, t = 3.216, $p = .001$), indicating that mentors support not only clinical learning but also professional socialisation, team acceptance and adjustment to institutional expectations, as supported by Mremi et al. (2023), who found that structured mentorship helped mentees integrate into their professional and institutional environment; the third null hypothesis was therefore rejected.

5.8.5. Robustness Check: Sensitivity of Results to the Definition of Retention

Job satisfaction and organisational commitment can be understood as intermediate mechanisms (mediators) between mentorship and retention, rather than as components of retention itself, a robustness check was conducted on the full sample of 220 respondents to test whether the results depended on how the retention outcome was defined. In the main model reported above, the composite retention score combined five outcome items (job satisfaction, job commitment, employee

efficiency, long-term commitment and perceived turnover effect). For the robustness check, the model was re-estimated using a narrower retention measure that excluded the job-satisfaction and job-commitment items and retained only the items most directly reflecting intention to remain, namely long-term commitment, employee efficiency and the reverse-coded turnover item. The three mentorship predictors were kept unchanged.

Under this narrower specification, the overall model remained statistically significant, F (3, 216) = 16.752, $p < .001$, with the three predictors jointly explaining 18.9% of the variation in retention ($R^2 = .189$). Clinical-skill development remained the strongest and a highly significant predictor (B = .159, β = .231, $p < .001$), and improved understanding of organisational culture remained significant (B = .137, β = .196, $p = .005$). Regular guidance and feedback remained positive but became weaker (B = .105, β = .148, $p = .032$); in a stricter specification using only long-term commitment and turnover, it was no longer statistically significant ($p = .330$).

Two conclusions follow. First, the contributions of clinical-skill development and understanding of organisational culture to retention are robust: they hold regardless of how retention is defined, which strengthens confidence in these two findings. Second, the contribution of regular guidance and feedback is more sensitive to the definition of retention; part of its apparent effect in the main model operated through job satisfaction and commitment, consistent with a conceptual ordering in which satisfaction and commitment mediate between mentorship and retention. This refines rather than overturns the main findings: it indicates that the effect of guidance and feedback on retention is likely to be partly indirect. Future research using continuous composite scores and mediation or structural-equation modelling could formally test these indirect pathways.

6. Conclusion

The study concludes that Mentorship training program significantly affects the retention of healthcare professionals at Kilimanjaro Christian Medical Centre. The multiple regression model was statistically significant, F (3, 216) = 23.017, $p < .001$, and the three mentorship dimensions jointly explained 24.2% of the variation in retention ($R^2 = .242$; adjusted $R^2 = .232$). This confirms that regular guidance and feedback, clinical-skill development and improved understanding of organisational culture are important determinants of healthcare-professional retention at KCMC.

Clinical-skill development was the strongest significant predictor of retention, with B = .173, β = .262 and $p < .001$. The result indicates that mentorship-driven improvement in clinical competence is the channel through which mentorship most strongly supports retention, as it builds the confidence and practical ability healthcare professionals need to function effectively in their roles. Therefore, the null hypothesis that clinical-skill development has no statistically significant effect on retention was rejected.

Improved understanding of organisational culture was the second-strongest significant predictor, with B = .143, β = .213 and p = .001. This finding demonstrates that mentorship which helps healthcare professionals understand institutional values, communication norms and professional expectations strengthens their integration into the workplace and, in turn, their willingness to remain. As a result, the hospital benefits not only from mentees' technical development but also from their socialisation into the organisation. The null hypothesis relating to organisational-culture understanding was therefore rejected.

Regular guidance and feedback also had a statistically significant positive effect on retention in the main model, with B = .120, β = .176 and p = .009, and the corresponding null hypothesis was rejected. However, this effect was less robust than the other two: when retention was measured more strictly, using only long-term commitment and turnover, guidance and feedback lost statistical significance (p = .330). Guidance and feedback should therefore not be regarded as unimportant, since it remained a significant predictor in the main model and is a precondition for the trust and confidence that mentorship builds; rather, its influence on retention operates mainly indirectly, through the job satisfaction and commitment it first generates, rather than through a direct effect on the decision to stay.

The descriptive findings supported the regression results. Most respondents reported that mentorship improved their clinical skills (138, 66.0%), strengthened their understanding of organisational culture (142, 67.9%) and increased their job satisfaction (141, 67.5%). Willingness to recommend KCMC to other healthcare professionals was the most strongly endorsed outcome (160, 75.1%), while long-term commitment to remain at KCMC was comparatively lower (139, 65.3%). These findings show that the main benefits of mentorship were concentrated in competence, confidence and organisational belonging, while translating these benefits into firm, long-term retention intentions proved comparatively harder to achieve.

Qualitative evidence from key informants further demonstrated this pattern. Respondents described mentorship as building junior staff's competence, confidence and sense of belonging, with one respondent explaining that mentored staff feel valued, supported, and recognized and consequently develop stronger commitment to the organisation. However, key informants also cautioned that mentorship alone cannot secure retention: as one respondent noted, mentorship builds capacity, enhances the ability to provide services, and improves staff skills and competence, but if people are not paid well, they may not stay longer or remain committed. Although the qualitative evidence did not identify remuneration as the sole barrier to retention, it supported the quantitative and regression evidence that mentorship benefits are real but incomplete on their own.

Overall, the study concludes that strengthening healthcare professional retention at KCMC requires priority attention to clinical-skill development and organisational culture orientation within mentorship, since these were the dimensions

that retained statistically significant and robust effects after the strictest tests were applied. Regular guidance and feedback remain a valuable and statistically significant complement, but its contribution to retention works mainly through the satisfaction and commitment it builds rather than through a direct effect on the decision to stay. Mentorship training program is therefore a genuine but partial lever for retention at KCMC: it produces a statistically significant and practically meaningful improvement, but the remaining 75.8% of the variation in retention depends on factors outside the mentorship programme, such as remuneration, workload, recognition and career progression, which must be addressed alongside it.

7. Recommendations

Prioritise clinical-skill mentorship: As the strongest and most consistent predictor of retention, clinical-skill development should receive first priority. Within three months, Heads of Department and the Directorate of Clinical Services should integrate mentorship into ward rounds, bedside teaching, supervised procedures, case discussions and morbidity-and-mortality meetings. Mentors should document at least one structured clinical-skill contact with each mentee every month, with departmental reviews conducted quarterly.

Incorporate organisational culture into mentorship: Within six months, Human Resources and departmental supervisors should integrate institutional values, communication norms, professional expectations and teamwork practices into mentorship sessions. A culture-orientation checklist should be included in the mentorship log and reviewed quarterly. This recommendation is given second priority because organisational-culture understanding was the second-strongest and most consistent predictor of retention.

Use guidance and feedback to strengthen satisfaction and commitment: Regular guidance and feedback should be treated primarily as a means of improving job satisfaction and organisational commitment rather than as an independent retention strategy. Mentors should provide monthly guidance and feedback, while Human Resources conducts quarterly assessments of mentee satisfaction and morale.

Pilot a structured mentorship programme: Within three months, Human Resources and the Directorate of Clinical Services should introduce a six-month pilot in two departments with many newly employed or early-career professionals. Each mentee should be matched with an experienced professional using a brief agreement outlining goals, responsibilities, confidentiality and meeting frequency. Indicators should include active mentorship pairs, monthly contacts, mentee satisfaction and intention to remain. Lessons from the pilot should inform an addendum to the KCMC Staff Training Policy.

Prepare mentors: Within six months, Human Resources and the Continuing Professional Development coordinator should provide a half-day orientation covering clinical-skill goal setting, constructive feedback, organisational culture, professional boundaries, documentation and referral of issues beyond the mentor's role. At least two mentors from each participating department should be trained

and assessed using attendance records and a brief competency checklist.

Prioritise employees with limited mentorship access: Human Resources should initially enrol newly employed staff, professionals with less than two years of experience and employees who have never participated in mentorship. Departmental registers and induction records should be used to identify eligible staff, with the aim of reducing the proportion reporting no mentorship participation within 12 months.

Monitor the three mentorship dimensions separately: Human Resources should add mentorship indicators to existing staff-development or electronic performance systems. These should record clinical-skill contacts, organisational-culture orientation, guidance and feedback sessions, and mentee satisfaction. Department heads should submit quarterly summaries of participation and barriers. After 12 months, management should compare mentorship participation, satisfaction and intention to remain against the study baseline before expanding the programme hospital-wide.

Combine mentorship with wider retention measures: Because mentorship explained only part of the variation in retention, it should complement rather than replace improvements in remuneration, promotion, staffing, recognition and working conditions. Human Resources should review exit-interview findings every six months, communicate promotion and training-selection criteria, recognise active mentors through certificates or performance appraisal, and refer persistent workload and remuneration concerns to the relevant management structures.

Future research: A follow-up study should be conducted after at least 12 months of implementation. It should compare participating and non-participating staff using continuous mentorship and retention measures, actual turnover records and qualitative interviews. Mediation or structural-equation modelling should also be used to determine whether job satisfaction and organisational commitment mediate the relationship between guidance and feedback and employee retention.

Author Contributions

All authors contributed to the conception and design of the study. The authors participated in data collection, data analysis, interpretation of findings, and preparation of the manuscript. All authors critically reviewed the manuscript, approved the final version, and agreed to be accountable for all aspects of the work.

Conflicts of Interest

The authors declare no conflicts of interest.

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