Adequacy of learning resources and faculty engagement available to mortuary science students at the University of Nairobi: A mixed-methods study

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ABSTRACT

Learning resources and faculty engagement support academic success in health professions education, but evidence on their adequacy for mortuary science students, whose training combines cadaver-based practice with repeated exposure to death, is limited in Kenya. This study assessed the adequacy of learning resources and faculty engagement available to mortuary science students at the University of Nairobi. It was guided by Tinto's Student Integration Theory and Bandura's Self-Efficacy Theory. A descriptive cross-sectional, convergent mixed-methods design was used. The target population comprised the 357 students registered in the mortuary science programme. Stratified random sampling by year and semester of study yielded 222 students, all of whom completed a structured questionnaire, and purposive sampling selected 20 participants (15 students and five faculty members) for focus group discussions and in-depth interviews. Quantitative data were analysed descriptively in SPSS version 26, and qualitative data were analysed thematically. Cadaveric specimens were the most frequently accessed learning resource (41.1%), followed by library textbooks (36.5%) and online journals (36.1%), while computer/information technology laboratories were the least used (10.0%). Academic advising and mentorship was the most used form of faculty engagement (57.7%), whereas counselling services were the least used (14.4%). Feedback was received mainly verbally during practical sessions (44.7%), and 10.5% of students rarely received feedback. More than one-quarter of respondents knew of no mental health support service. Qualitative findings attributed these gaps to undocumented feedback, low visibility of counselling services and delayed help-seeking. The study concludes that learning resources and faculty engagement are moderately adequate: practical resources and mentorship are adequate, whereas digital resources, structured feedback and psychosocial support are only partly adequate. It recommends documented feedback after practical sessions, a formal mentorship programme with psychosocial check-ins, better access to digital learning facilities and routine promotion of counselling services within the department.

Keywords: Academic Feedback; Academic Mentorship; Faculty Engagement; Health Professions Education; Learning Resources; Kenya, Mortuary Science

I. INTRODUCTION

Learning resources and faculty engagement are widely recognized as determinants of student success in higher education. Universities are expected to support learning through adequate educational materials, effective academic advising, faculty mentorship, timely feedback, counselling services and student-centred support. Such provision promotes academic engagement and a sense of belonging, which in turn sustain persistence and programme completion (Tinto, 1993). A systematic review of 50 studies grouped the determinants of poor undergraduate performance into academic, personal, social and demographic factors (Al-Tameemi et al., 2023), and a validation study among 8,520 secondary school students in four countries found that engagement and academic behavioural skills were positively associated with achievement (Siddiq et al., 2020).

Health professions education makes these supports even more important. Students in medicine and allied health disciplines must master extensive theoretical content while developing practical competence in demanding clinical and laboratory environments. For them, learning resources and faculty engagement extend beyond physical materials to include quality teaching, mentorship and constructive feedback, which help them cope with academic pressure and build confidence in their own capabilities (Bandura, 1997; Biggs & Tang, 2011). Academic stress is common among students and affects their mental and physical health as well as their learning (Iqra, 2024).

Mortuary science is one of the most specialized fields in health professions education. Students receive intensive practical training involving cadaveric specimens, embalming, post-mortem procedures and forensic documentation, with direct and repeated exposure to death. This training demands both technical competence and emotional resilience: first encounters with cadavers commonly provoke anxiety, although emotional reactions tend to diminish with experience and preparation (Arráez-Aybar et al., 2008; Bati et al., 2013). Death-related occupations also carry social stigma that

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can isolate workers and strain their psychological well-being (Ashforth & Kreiner, 1999; Sen et al., 2025). These demands make well-resourced learning environments and sustained faculty engagement particularly important for mortuary science students.

Evidence indicates that regular interaction with academic staff through mentorship and constructive feedback is associated with better learning and with personal and career development (Hattie & Timperley, 2007; Sambunjak et al., 2006). Conversely, unrelieved psychological stress undermines academic performance, partly by increasing cognitive load and lowering self-efficacy (Ma, 2025). Whether students can draw on adequate resources and faculty support therefore has direct consequences for their learning and well-being.

In Kenya, the University of Nairobi offers one of the country's established mortuary science training programmes in the Department of Human Anatomy and Medical Physiology. Students combine theoretical instruction with practical laboratory sessions that require continuous academic guidance and psychosocial support, and an earlier survey of University of Nairobi students found moderate depressive symptoms in more than one-third of respondents (Othieno et al., 2014). Although teaching, academic advising, mentorship and counselling are available, little empirical evidence exists on whether this provision is adequate from the perspective of mortuary science students. Most previous studies have examined the determinants of academic performance among medical, nursing and other health sciences students without isolating mortuary science programmes (Al-Tameemi et al., 2023). This leaves a knowledge gap on the extent to which available learning resources and faculty engagement meet the academic and psychosocial needs of mortuary science students.

1.1 Research Objective

To assess the adequacy of learning resources and faculty engagement available to mortuary science students at the University of Nairobi.

1.2 Research Question

What learning resources and forms of faculty engagement are available to mortuary science students at the University of Nairobi, and to what extent are they adequate?

II. LITERATURE REVIEW

2.1 Theoretical Review

2.1.1 Tinto's Student Integration Theory

Tinto's (1993) Student Integration Theory posits that students are more likely to persist and succeed when they become academically and socially integrated into their institution. Academic integration develops through contact with faculty, access to learning resources, academic advising and constructive feedback, whereas social integration develops through peer relationships and a sense of belonging supported by student services. When these institutional mechanisms are accessible and used, students build commitment to their studies; when they are absent, poorly communicated or under-used, students are more likely to disengage. In this study, the theory underpinned the four support domains assessed (learning resources, faculty engagement through advising and mentorship, academic feedback and psychosocial support) and provided the basis for judging adequacy: provision was considered adequate when it was available, known to students and used. The theory is particularly relevant to mortuary science students, whose emotionally demanding practical training in cadaver handling, embalming, forensic documentation and post-mortem examination depends on sustained academic guidance and support.

2.1.2 Bandura's Self-Efficacy Theory

Bandura's (1997) Self-Efficacy Theory holds that people's beliefs in their capability to perform a task shape their motivation, effort and persistence. Self-efficacy is built from four sources: mastery experiences, vicarious experiences of observing competent models, verbal persuasion such as encouragement and feedback, and the interpretation of physiological and emotional states. Learning resources and faculty engagement correspond to these sources. Supervised practice on cadaveric specimens provides mastery experiences, demonstrations by instructors provide models, mentorship and feedback act as verbal persuasion, and psychosocial support helps students reinterpret the anxiety that accompanies exposure to death. A systematic review found a moderate positive relationship between university students' academic self-efficacy and their academic performance (Honicke & Broadbent, 2016), and a survey of 557 college students showed that psychological stress lowered performance partly by eroding self-efficacy (Ma, 2025).

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2.1.3 Application of the Theories to the Study

Together, the two theories frame the study. Tinto's theory identifies what the institution should provide and whether that provision reaches students, while Bandura's theory explains why the provision matters for students' confidence and coping. The theories therefore guided the definition of the study variables and the interpretation of the findings on the adequacy of learning resources and faculty engagement.

2.2 Empirical Review

2.2.1 Learning Resources and Student Learning

Cadaveric dissection remains a cornerstone of anatomy education. In a review of the literature, Ghosh (2017) concluded that dissection lays a foundation for clinical and discipline-independent skills and remains central where cadavers are accessible, as in many developing countries, but that it should be complemented by other learning methods because it cannot on its own provide a uniform learning experience. Resource availability is, however, uneven across the region. The Sub-Saharan African Medical Schools Study, to which 105 schools responded, reported widespread faculty shortages and weak physical infrastructure (Mullan et al., 2011). A review of 14 reviews on education funding in sub-Saharan Africa found that inputs that directly shape students' daily learning experience, such as better infrastructure, stronger teacher capacity and greater use of teaching aids, were associated with improved learning outcomes, although that evidence came from general education rather than health professions training (Hassan et al., 2022).

Digital resources face particular constraints. At Makerere University in Uganda, only 26.6% of medicine and nursing students had high-quality internet access, more than half lacked the skills to use the institutional e-learning platform, and internet costs and poor connectivity were the main barriers to e-learning (Olum et al., 2020). Availability alone does not guarantee learning: Dunlosky et al. (2013) showed that the benefit students derive depends on how they use learning materials, with practice testing and distributed practice having the highest utility. These studies establish that practical and digital resources both matter, but they say little about how students in specialized, practice-oriented programmes distribute their use across resource types.

2.2.2 Faculty Engagement through Academic Advising and Mentorship

Mentorship is widely regarded as one of the most valuable forms of faculty engagement. A systematic review of mentoring in academic medicine found that mentorship was reported to influence personal development, career guidance and career choice, yet fewer than half of medical students had a mentor, and most of the evidence came from cross-sectional self-report surveys (Sambunjak et al., 2006). In sub-Saharan Africa, faculty at Makerere University College of Health Sciences held positive attitudes towards mentoring students, but most felt insufficiently knowledgeable about mentorship, which shaped how they practised it; they proposed continuous faculty development and peer mentorship to sustain the programme (Mubuuke et al., 2020).

The engagement students receive also depends on how institutions support their academic staff. In Nigerian public universities, research, pedagogical and technical support predicted faculty effectiveness in research productivity, knowledge sharing and administrative efficiency (Falola et al., 2020). Zimmerman (2002) adds that the planning, self-monitoring and self-evaluation that make learners independent can be taught and modelled by teachers, which places faculty guidance at the centre of students' development as self-regulated learners. The literature therefore confirms the value of mentorship but offers little evidence on how widely mentorship and related services, such as study skills workshops, reach students in practice-oriented health programmes.

2.2.3 Academic Feedback

Feedback is among the most powerful influences on learning, but its effect depends on its type and timing. Hattie and Timperley (2007) showed that feedback is most effective when it tells learners where they are going, how they are progressing and what to do next, and when it addresses the task, the learning process and self-regulation rather than the person. Biggs and Tang (2011) similarly place formative feedback at the centre of aligned teaching because it allows students to correct misunderstandings while learning is still under way. In practical health professions training, immediate verbal feedback in the laboratory allows students to correct procedural errors before they become habitual. Students, however, also value feedback that is comprehensive and structured: at Makerere University, students in problem-based learning tutorials wanted facilitators to comment on both their knowledge and their generic skills, which led to a structured facilitator feedback guide (Mubuuke et al., 2016). Evidence on whether feedback in cadaver-based practical training is documented and consistently received remains limited.

2.2.4 Awareness and Utilization of Mental Health Support Services

Psychological stress arises when people appraise environmental demands as exceeding their coping resources (Lazarus & Folkman, 1984), which makes institutional counselling an important coping resource for students. The need is substantial. Among 923 University of Nairobi students, 35.7% reported moderate and 5.6% severe depressive

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symptoms (Othieno et al., 2014). Reviews show that academic stress affects students' mental and physical health (Iqra, 2024) and that strong social support and a healthy academic environment protect against academic burnout (Sukamto et al., 2026).

Despite this need, formal services are under-used. Young people cite stigma and embarrassment, poor mental health literacy and a preference for self-reliance as the main barriers to help-seeking (Gulliver et al., 2010), and an umbrella review identified trust in professionals, support from close others, cost, availability and stigma as key influences on service use (Huff et al., 2024). In a mixed-methods systematic review of 18 studies of African university students, informal sources of support were more available, accessible and used than formal services, and access was hampered by inadequate mental health literacy and financial constraints (Wao et al., 2025). Few studies have examined awareness of mental health services among students in death-related training, whose emotional demands are distinctive.

2.2.5 Learning Resources and Faculty Engagement in Death-Related Training

Training that involves death places specific demands on learning support. Among 425 first-time anatomy students in Spain, emotional reactions to dissection decreased as experience grew, and death anxiety varied with how well prepared students felt (Arráez-Aybar et al., 2008). Medical, dental and pharmacy students in Turkey showed moderate anxiety at their first cadaver demonstration, which led the authors to recommend preparatory sessions in which students share their feelings before practical work begins (Bati et al., 2013). Beyond the laboratory, Ashforth and Kreiner (1999) describe stigmatized occupations as "dirty work" whose members must actively construct a positive identity, and mortuary attendants in India reported social distance, exclusion and concealment of their occupation, prompting recommendations for mental health support and community sensitization (Sen et al., 2025). These studies indicate that mortuary science students need both technical resources and psychosocial support, but they were conducted among medical students or mortuary workers rather than mortuary science students, and none was conducted in Kenya.

2.3 Research Gaps

Three gaps emerge from this review. First, there is a contextual gap: evidence on learning resources, mentorship, feedback and counselling comes overwhelmingly from medicine, nursing and other mainstream health programmes, and none of the studies reviewed examined mortuary science students in Kenya. Second, there is an empirical gap: studies tend to examine these supports separately, so little is known about how learning resources, faculty engagement, feedback and psychosocial support together meet students' needs within one programme. Third, there is a methodological gap: many of the primary studies reviewed relied on a single method, which limits explanation of why available services are or are not used. This study addresses these gaps by using a mixed-methods design to assess all four support domains among mortuary science students at the University of Nairobi.

III. METHODOLOGY

3.1 Study Design

The study used a descriptive cross-sectional, convergent (concurrent triangulation) mixed-methods design (Creswell & Plano Clark, 2018). The quantitative strand was a survey of the availability, use and perceived adequacy of learning resources and faculty engagement. The qualitative strand used focus group discussions (FGDs) and in-depth interviews (IDIs) to explore participants' experiences of these supports. The two strands were conducted during the same data collection period, analysed separately and integrated during interpretation, so that the qualitative findings could corroborate and explain the quantitative patterns.

3.2 Study Setting

The study was conducted in the Department of Human Anatomy and Medical Physiology at the University of Nairobi's Chiromo Campus. The University of Nairobi was purposively selected because it is one of Kenya's leading public universities and offers one of the country's established mortuary science training programmes. The programme combines classroom instruction with practical training in embalming, post-mortem procedures, forensic documentation and cadaver handling in anatomy laboratories and dissection facilities. The university also provides academic and student support services, including library resources, academic advising, mentorship, counselling and digital learning facilities, which made the setting suitable for assessing the adequacy of learning resources and faculty engagement.

3.3 Target Population

The target population comprised all 357 students actively registered in the mortuary science programme in the Department of Human Anatomy and Medical Physiology during the study period, from the first to the final year of study. Faculty members involved in teaching, practical instruction, mentorship, assessment and student support formed a second population, which provided institutional perspectives in the qualitative strand.

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3.4 Sampling Techniques and Sample Size

Stratified random sampling was used for the quantitative strand. Using the departmental register as the sampling frame, students were stratified by year and semester of study (Year 1 Semester 1, Year 1 Semester 2, Year 2 Semester 1 and Year 2 Semester 2). The number of students sampled from each stratum was allocated in proportion to its size, and participants were then selected by simple random sampling within each stratum, so that every eligible student had an equal chance of selection. The minimum sample size was estimated with Yamane's (1967) formula, $n = N/[1 + N(e)^2]$, where N is the population size and e is the margin of error (0.05). For N = 357, the minimum required sample was 189 students. A total of 222 students were sampled, which exceeded this minimum, and all 222 completed the questionnaire, giving a response rate of 100%.

Purposive sampling was used for the qualitative strand to select 20 information-rich participants. These were 15 students drawn from the different levels of study, selected with attention to gender balance and to exposure to cadaver-based practical training, and five faculty members involved in teaching, practical instruction, mentorship, assessment or student support. Recruitment continued until data saturation was reached, when successive discussions and interviews produced no new themes.

3.5 Data Collection Instruments and Procedures

Data were collected between February and March 2026, after ethical approval and a research licence had been obtained. The researcher administered the questionnaires, facilitated the discussions, conducted the interviews and kept field notes throughout.

Quantitative data were collected with a structured, self-administered questionnaire developed from validated educational research instruments and adapted to the mortuary science learning environment. Its first section recorded respondents' gender and their year and semester of study. The next section asked which learning resources students regularly accessed at the university and which institutional support services (academic advising and mentorship, counselling, financial aid or bursaries, and study skills workshops) they had used in the past semester; both questions allowed more than one answer. The same section asked how students usually received academic feedback from lecturers. A further question asked which mental health support services students knew to be available at the university, again allowing more than one answer.

Qualitative data were collected through three FGDs with students and through IDIs with students and faculty members, using semi-structured guides. The guides explored the adequacy of learning resources and facilities, experiences of mentorship and academic feedback, the availability and use of counselling services, and recommendations for improvement. Sessions were held in a private room, audio-recorded with consent, transcribed verbatim and anonymized before analysis. Each quotation reported in this article is labelled with the participant category, data source and participant number, and the date of the discussion or interview.

3.6 Validity and Reliability

Content validity was established through expert review of the instruments by specialists in mortuary science education, medical education, research methodology and psychology at the University of Nairobi, who assessed the relevance, clarity and comprehensiveness of the items; their recommendations informed revisions before data collection. The questionnaire was pilot-tested among approximately 10% of the target population at a comparable institution that was not part of the main study, and the pilot data were excluded from the final analysis. Internal consistency, assessed with Cronbach's alpha, was 0.82, above the 0.70 threshold for acceptable reliability. In the qualitative strand, credibility was enhanced through triangulation of the FGD, IDI and questionnaire findings and through member checking, in which summaries of the findings were shared with selected participants. An audit trail of coding decisions supported dependability and confirmability.

3.7 Study Variables

The dependent variable was the perceived adequacy of learning resources and faculty engagement, judged by the extent to which provision was available, known to students and used. The independent variables were four support domains: (i) learning resources, measured by the resources students regularly accessed; (ii) faculty engagement and institutional support services, measured by the use of academic advising and mentorship, study skills workshops, counselling and financial aid; (iii) academic feedback, measured by the usual mode through which students received feedback; and (iv) mental health support services, measured by students' awareness of the services available. Gender and year and semester of study were recorded as background characteristics.

3.8 Data Analysis

Quantitative data were cleaned and analysed with the Statistical Package for the Social Sciences (SPSS) version 26. Frequencies and percentages summarized each variable. For questions that allowed more than one answer, multiple-response analysis was used, and results are reported both as percentages of all responses and as percentages of the

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respondents who answered the question; the latter therefore sum to more than 100%. Because the objective was descriptive, no inferential tests were performed. Qualitative data were analysed thematically (Braun & Clarke, 2006) with the aid of NVivo: transcripts were read repeatedly for familiarization and coded, and the codes were grouped into themes and sub-themes. The two sets of results were then merged in a joint display (Table 6) to show where the qualitative findings confirmed, explained or extended the quantitative results.

3.9 Ethical Considerations

Ethical approval was obtained from the Amref Health Africa Ethics and Scientific Review Committee (ref. AMREF-ESRC P2040/2025), and a research licence was issued by the National Commission for Science, Technology and Innovation (licence no. NACOSTI/P/26/4184815). Permission to conduct the study was obtained from the University of Nairobi and the Department of Human Anatomy and Medical Physiology. Participation was voluntary, and written informed consent was obtained from all participants before data collection. Questionnaires carried no personal identifiers, and qualitative participants were identified only by codes. Participants were free to withdraw at any stage without penalty, and measures were taken to minimize psychological distress, including referral to the university counselling services where necessary.

IV. FINDINGS & DISCUSSION

4.1 Sociodemographic Characteristics of Respondents

All 222 sampled students completed the questionnaire. As Table 1 shows, more than half of the respondents were female (58.1%), and nearly two-thirds were in their second year of study (64.0%), with the largest groups in Year 2 Semester 2 (32.9%) and Year 2 Semester 1 (31.1%). Most respondents had therefore completed their foundational coursework and taken part in practical mortuary science training, which placed them in a good position to judge the adequacy of the learning resources and faculty engagement available in the programme.

Table 1

Sociodemographic characteristics of mortuary science students at the University of Nairobi (N = 222)

Characteristic	n	%
Gender		
Female	129	58.1
Male	86	38.7
Prefer not to say	7	3.2
Year and semester of study		
Year 1	80	36.0
Semester 1	28	12.6
Semester 2	52	23.4
Year 2	142	64.0
Semester 1	69	31.1
Semester 2	73	32.9

Note. Percentages are based on all 222 respondents.

4.1.1 Learning Resources Accessed by Students

Table 2 shows the learning resources that students regularly accessed. Of the 219 students who answered this question, 41.1% used cadaveric specimens, 36.5% library textbooks and 36.1% online journals or databases, whereas laboratory facilities (15.5%) and computer/IT laboratories (10.0%) were the least used. On average, each student reported 1.4 resources (305 responses). The larger counts among second-year and female students reflect their larger share of the sample rather than heavier use; relative to group size, every group reported about 1.4 resources per student (111 responses from 80 first-year and 194 from 142 second-year students; 118 from 86 male and 178 from 129 female students).

Table 2

Learning resources regularly accessed by mortuary science students at the University of Nairobi (n = 219 respondents; 305 responses)

Learning resource	Responses		% of respondents	Responses by year of study		Responses by gender		
	n	%		Year 1	Year 2	Male	Female	Not stated
Cadaveric specimens	90	29.5	41.1	33	57	35	52	3

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Library textbooks	80	26.2	36.5	29	51	31	47	2
Online journals/databases	79	25.9	36.1	29	50	31	46	2
Laboratory facilities	34	11.1	15.5	12	22	13	20	1
Computer/IT laboratory	22	7.2	10.0	8	14	8	13	1
Total	**305**	**100.0**	**139.3**	**111**	**194**	**118**	**178**	**9**

Note. More than one answer was allowed, so percentages of respondents sum to more than 100%. Not stated = preferred not to disclose gender.

The qualitative data confirmed the central place of cadaver-based learning. Students described practical sessions as the point at which theory became meaningful:

> *"Most of our learning happens in the lab; books help, but cadavers are where we really understand anatomy."* (Student, IDI Participant 3, 23 February 2026)

Some participants added that current textbooks and electronic materials were not always available in sufficient copies, and they recommended better access to learning resources. The predominance of cadaveric specimens reflects the competency-based character of mortuary science training and agrees with Ghosh's (2017) conclusion that dissection remains the cornerstone of anatomy education where cadavers are available. In terms of Bandura's (1997) theory, supervised cadaver work provides the mastery experiences from which self-efficacy grows. The low use of computer/IT laboratories, by contrast, mirrors the infrastructural and connectivity constraints on digital learning reported in sub-Saharan Africa (Mullan et al., 2011; Olum et al., 2020) and suggests that the digital component of the learning environment is under-developed or under-promoted. Because dissection needs to be complemented by other learning methods (Ghosh, 2017), and because the value of materials depends on how students use them (Dunlosky et al., 2013), reliance on a narrow set of resources may limit independent study beyond the dissection room. In relation to the dependent variable, practical learning resources were adequate, whereas digital resources were not.

4.1.2 Faculty Engagement and Institutional Support Services

Table 3 summarizes the support services that students had used in the past semester. Academic advising and mentorship was used by 57.7% of the 215 students who answered this question, followed by study skills workshops (30.7%). Counselling services (14.4%) and financial aid or bursaries (12.6%) were the least used. Mentorship alone accounted for half of all support-service responses. In the FGDs and IDIs, participants acknowledged that academic mentorship was available and recommended that it be strengthened.

Table 3

Faculty engagement and institutional support services used in the past semester by mortuary science students at the University of Nairobi (n = 215 respondents; 248 responses)

Support service	Responses (n)	% of responses	% of respondents
Academic advising/mentorship	124	50.0	57.7
Study skills workshops	66	26.6	30.7
Counselling services	31	12.5	14.4
Financial aid/bursary	27	10.9	12.6
Total	**248**	**100.0**	**115.3**

Note. More than one answer was allowed, so percentages of respondents sum to more than 100%.

Mentorship was thus the main channel of faculty engagement. The proportion of students who used it (57.7%) is higher than in the review by Sambunjak et al. (2006), in which fewer than half of medical students had a mentor, possibly because practical teaching keeps mortuary science students in close contact with faculty. The finding supports Tinto's (1993) view that faculty contact drives academic integration and Bandura's (1997) view that encouragement from mentors strengthens self-efficacy. Nevertheless, 42.3% of respondents had not used advising or mentorship in the semester, which suggests that mentorship is available on request rather than systematically assigned. Mubuuke et al. (2020) linked uneven mentorship practice to faculty members' limited knowledge of mentoring and called for continuous faculty development; sustaining mentorship for all students also requires institutional support for the faculty who provide it (Falola et al., 2020). The low use of counselling and financial support reflects the pattern reported across African universities, in which formal support services are used less than informal ones (Wao et al., 2025). Against the dependent variable, faculty engagement through mentorship was largely adequate, but its reach was incomplete.

4.1.3 Academic Feedback Mechanisms

Table 4 shows how students usually received feedback from lecturers. Among the 219 students who answered this question, verbal feedback during practical sessions was the most common mode (44.7%), followed by group

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feedback sessions (27.4%). Only 17.4% usually received written comments on assignments, and 10.5% reported that they rarely received feedback.

Table 4

Usual mode of academic feedback reported by mortuary science students at the University of Nairobi (n = 219)

Mode of academic feedback	n	%
Verbal feedback during practical sessions	98	44.7
Group feedback sessions	60	27.4
Written comments on assignments	38	17.4
Rarely receive feedback	23	10.5
Total	**219**	**100.0**

Students valued immediate feedback during practical sessions but noted that it was seldom recorded:

> *"We get feedback during practicals, but it is not written, so you can easily forget."* (Student, IDI Participant 1, 21 February 2026)

Immediate verbal feedback suits practical training because it lets students correct procedural errors as they work, consistent with the emphasis on formative feedback in aligned teaching (Biggs & Tang, 2011). Feedback that is spoken but not recorded, however, is easily forgotten and difficult to revisit, so it does little to show students how they are progressing over time or what to do next, the dimensions that make feedback effective (Hattie & Timperley, 2007). Students' wish for documented feedback echoes the finding at Makerere University that students want comprehensive, structured feedback (Mubuuke et al., 2016). In Bandura's (1997) terms, feedback acts as verbal persuasion, so the one in ten students who rarely received feedback lacked an important source of confidence. Feedback was therefore timely but informal, and only partly adequate.

4.1.4 Awareness of Mental Health Support Services

Table 5 presents the mental health support services that students knew to be available. On-campus counselling accounted for 38.9% of the 216 responses and peer support groups for 34.7%. In 57 cases (26.4% of responses), students knew of no service, which corresponds to more than one-quarter of the 222 respondents.

Table 5

Mental health support services that mortuary science students at the University of Nairobi knew to be available (216 responses)

Mental health support service	Responses (n)	% of responses
On-campus counselling	84	38.9
Peer support groups	75	34.7
None known	57	26.4
Total	**216**	**100.0**

Note. More than one answer was allowed.

Participants linked the low use of counselling to stigma, delayed help-seeking and the poor visibility of the service:

> *"Many students avoid counselling unless they are really overwhelmed."* (Student, FGD Participant 2, 20 February 2026)
>
> *"Some students don't even know where counselling offices are located."* (Student 4 , IDI Participant 2, 20 March 2026)

Faculty members acknowledged that counselling services existed and suggested that greater sensitization and routine integration of counselling into academic activities would improve their use. The challenge is therefore less the absence of services than their visibility and uptake. Taken together with the 14.4% of students who had used counselling (Table 3), these findings mirror evidence that stigma, embarrassment and low mental health literacy keep young people from seeking help (Gulliver et al., 2010; Huff et al., 2024) and that African university students rely more on informal than formal sources of support (Wao et al., 2025). The prominence of peer support in this study fits that pattern. Because strong social support protects students against academic burnout (Sukamto et al., 2026), peer support groups offer a channel through which counselling could be promoted. Low uptake matters because the need is real: moderate depressive symptoms affected more than one-third of University of Nairobi students in an earlier survey (Othieno et al., 2014), and mortuary science students face additional stressors from repeated exposure to death and from the stigma attached to death-related work (Arráez-Aybar et al., 2008; Sen et al., 2025). In terms of Lazarus and Folkman's (1984) model, students who do not know of or use counselling lose an important coping resource. Psychosocial support was therefore inadequate in reach and visibility, even though services existed.

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4.2 Integration of Findings and Overall Adequacy

Table 6 integrates the quantitative and qualitative findings for each independent variable and states what they imply for the dependent variable, the adequacy of learning resources and faculty engagement.

Table 6

Joint display of quantitative and qualitative findings on the adequacy of learning resources and faculty engagement

Independent variable	Quantitative finding	Qualitative finding	Integration	Implication for adequacy (dependent variable)
Learning resources	Cadaveric specimens most accessed (41.1%); computer/IT laboratories least accessed (10.0%) (Table 2)	Cadaver-based practicals seen as where anatomy is understood; current textbooks and e-resources not always available in enough copies	Confirmation and expansion	Practical resources adequate; digital resources under-used and only partly adequate
Faculty engagement (advising, mentorship, workshops)	Advising/mentorship used by 57.7%; study skills workshops by 30.7% (Table 3)	Mentorship acknowledged as available; participants recommended strengthening it	Confirmation	Largely adequate, but 42.3% had not used mentorship in the semester
Academic feedback	Verbal feedback in practicals most common (44.7%); 10.5% rarely receive feedback (Table 4)	Feedback immediate but not written, so easily forgotten	Explanation	Timely but informal and undocumented; partly adequate
Mental health support	Counselling used by 14.4% (Table 3); no service known in 26.4% of responses (Table 5)	Students avoid counselling until overwhelmed; some do not know where offices are	Explanation	Services exist but have low visibility and uptake; inadequate in reach

The two strands converged: the survey showed which supports students used, and the qualitative data explained why some were under-used. Practical learning resources and academic mentorship were adequate and well used, whereas digital resources, documented feedback and psychosocial support were only partly adequate because of limited access, informality or low visibility. In Tinto's (1993) terms, the programme achieves strong academic integration through practical teaching and mentorship but weaker psychosocial integration. In Bandura's (1997) terms, it provides abundant mastery experiences but less consistent verbal persuasion and emotional support. Overall, learning resources and faculty engagement were moderately adequate, and their adequacy depended not only on whether supports existed but also on whether students knew about them, could reach them and used them.

V. CONCLUSION & RECOMMENDATIONS

5.1 Conclusion

Learning resources and faculty engagement for mortuary science students at the University of Nairobi are moderately adequate. Practical learning resources, especially cadaveric specimens, together with academic advising and mentorship, are available and well used, and they support students' academic integration and confidence. Adequacy is limited, however, by the low use of digital learning facilities, by feedback that is mainly verbal, undocumented and not received by all students, and by mental health support services that are under-used and unknown to more than one-quarter of students. The adequacy of support therefore depends as much on its visibility, accessibility and consistency as on its availability.

5.2 Recommendations

Based on these findings and conclusions, the following actions are recommended: Department of Human Anatomy and Medical Physiology (feedback): introduce structured, documented feedback, such as brief written or electronic feedback after practical sessions and assessments, alongside existing verbal feedback, and monitor that every student receives feedback each semester. Department and faculty (mentorship): formalize academic mentorship by assigning every student a faculty mentor with scheduled meetings, so that mentorship reaches all students rather than only those who seek it, and include brief psychosocial check-ins in mentoring sessions.

University counselling services, with the Department (psychosocial support): raise the visibility of mental health support through orientation sessions, clear information on service locations and contacts, debriefing after cadaver-based and post-mortem practicals, and links between peer support groups and professional counsellors. University

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management (learning resources): improve access to computer/IT laboratories and orient students to the e-library and online databases so that digital resources complement cadaver-based learning, while maintaining the supply of cadaveric specimens and current textbooks. Researchers: assess adequacy with validated instruments across several institutions and examine how these supports relate to students' academic performance and well-being over time.

Declaration of Interest

The authors declare that they do not have any known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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REFERENCES

Al-Tameemi, R. A. N., Johnson, C., Gitay, R., Abdel-Salam, A.-S. G., Al Hazaa, K., BenSaid, A., & Romanowski, M. H. (2023). Determinants of poor academic performance among undergraduate students—A systematic literature review. *International Journal of Educational Research Open, 4*, Article 100232. https://doi.org/10.1016/j.ijedro.2023.100232

Arráez-Aybar, L.-A., Castaño-Collado, G., & Casado-Morales, M.-I. (2008). Dissection as a modulator of emotional attitudes and reactions of future health professionals. *Medical Education, 42*(6), 563–571. https://doi.org/10.1111/j.1365-2923.2008.03079.x

Ashforth, B. E., & Kreiner, G. E. (1999). "How can you do it?": Dirty work and the challenge of constructing a positive identity. *Academy of Management Review, 24*(3), 413–434. https://doi.org/10.5465/amr.1999.2202129

Bandura, A. (1997). *Self-efficacy: The exercise of control*. W. H. Freeman.

Bati, A. H., Ozer, M. A., Govsa, F., & Pinar, Y. (2013). Anxiety of first cadaver demonstration in medical, dentistry and pharmacy faculty students. *Surgical and Radiologic Anatomy, 35*(5), 419–426. https://doi.org/10.1007/s00276-013-1075-7

Biggs, J., & Tang, C. (2011). *Teaching for quality learning at university: What the student does* (4th ed.). McGraw-Hill/Society for Research into Higher Education/Open University Press.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research* (3rd ed.). SAGE.

Dunlosky, J., Rawson, K. A., Marsh, E. J., Nathan, M. J., & Willingham, D. T. (2013). Improving students' learning with effective learning techniques: Promising directions from cognitive and educational psychology. *Psychological Science in the Public Interest, 14*(1), 4–58. https://doi.org/10.1177/1529100612453266

Falola, H. O., Adeniji, A. A., Adeyeye, J. O., Igbinnoba, E. E., & Atolagbe, T. O. (2020). Measuring institutional support strategies and faculty job effectiveness. *Heliyon, 6*(3), Article e03461. https://doi.org/10.1016/j.heliyon.2020.e03461

Ghosh, S. K. (2017). Cadaveric dissection as an educational tool for anatomical sciences in the 21st century. *Anatomical Sciences Education, 10*(3), 286–299. https://doi.org/10.1002/ase.1649

Gulliver, A., Griffiths, K. M., & Christensen, H. (2010). Perceived barriers and facilitators to mental health help-seeking in young people: A systematic review. *BMC Psychiatry, 10*, Article 113. https://doi.org/10.1186/1471-244X-10-113

Hassan, E., Groot, W., & Volante, L. (2022). Education funding and learning outcomes in Sub-Saharan Africa: A review of reviews. *International Journal of Educational Research Open, 3*, Article 100181. https://doi.org/10.1016/j.ijedro.2022.100181

Hattie, J., & Timperley, H. (2007). The power of feedback. *Review of Educational Research, 77*(1), 81–112. https://doi.org/10.3102/003465430298487

Honicke, T., & Broadbent, J. (2016). The influence of academic self-efficacy on academic performance: A systematic review. *Educational Research Review, 17*, 63–84. https://doi.org/10.1016/j.edurev.2015.11.002

Huff, N. R., Dunderdale, L., Kellogg, A. J., & Isbell, L. M. (2024). Factors related to help-seeking and service utilization for professional mental healthcare among young people: An umbrella review. *Clinical Psychology Review, 114*, Article 102504. https://doi.org/10.1016/j.cpr.2024.102504

Iqra. (2024). A systematic review of academic stress intended to improve the educational journey of learners. *Methods in Psychology, 11*, Article 100163. https://doi.org/10.1016/j.metip.2024.100163

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer.

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Ma, X. (2025). The relationship between psychological stress and academic performance among college students: The mediating roles of cognitive load and self-efficacy. *Acta Psychologica, 259*, Article 105433. https://doi.org/10.1016/j.actpsy.2025.105433

Mubuuke, A. G., Louw, A. J. N., & Van Schalkwyk, S. (2016). Utilizing students' experiences and opinions of feedback during problem based learning tutorials to develop a facilitator feedback guide: An exploratory qualitative study. *BMC Medical Education, 16*, Article 6. https://doi.org/10.1186/s12909-015-0507-y

Mubuuke, A. G., Mbalinda, S. N., Munabi, I. G., Kateete, D., Opoka, R. B., & Kiguli, S. (2020). Knowledge, attitudes and practices of faculty on mentorship: An exploratory interpretivist study at a sub-Saharan African medical school. *BMC Medical Education, 20*(1), Article 192. https://doi.org/10.1186/s12909-020-02101-9

Mullan, F., Frehywot, S., Omaswa, F., Buch, E., Chen, C., Greysen, S. R., Wassermann, T., Abubakr, D. E. E., Awases, M., Boelen, C., Diomande, M. J.-M. I., Dovlo, D., Ferro, J., Haileamlak, A., Iputo, J., Jacobs, M., Koumaré, A. K., Mipando, M., Monekosso, G. L., . . . Neusy, A.-J. (2011). Medical schools in sub-Saharan Africa. *The Lancet, 377*(9771), 1113–1121. https://doi.org/10.1016/S0140-6736(10)61961-7

Olum, R., Atulinda, L., Kigozi, E., Nassozi, D. R., Mulekwa, A., Bongomin, F., & Kiguli, S. (2020). Medical education and e-learning during COVID-19 pandemic: Awareness, attitudes, preferences, and barriers among undergraduate medicine and nursing students at Makerere University, Uganda. *Journal of Medical Education and Curricular Development, 7*, Article 2382120520973212. https://doi.org/10.1177/2382120520973212

Othieno, C. J., Okoth, R. O., Peltzer, K., Pengpid, S., & Malla, L. O. (2014). Depression among university students in Kenya: Prevalence and sociodemographic correlates. *Journal of Affective Disorders, 165*, 120–125. https://doi.org/10.1016/j.jad.2014.04.070

Sambunjak, D., Straus, S. E., & Marušić, A. (2006). Mentoring in academic medicine: A systematic review. *JAMA, 296*(9), 1103–1115. https://doi.org/10.1001/jama.296.9.1103

Sen, S., Das, R., Roy, T. G., & Das, S. (2025). Stigmatisation of mortuary workers in India: Insights from four hospitals in West Bengal. *The Lancet Regional Health – Southeast Asia, 35*, Article 100559. https://doi.org/10.1016/j.lansea.2025.100559

Siddiq, F., Gochyyev, P., & Valls, O. (2020). The role of engagement and academic behavioral skills on young students' academic performance: A validation across four countries. *Studies in Educational Evaluation, 66*, Article 100880. https://doi.org/10.1016/j.stueduc.2020.100880

Sukamto, I., Ayriza, Y., Hiryanto, Kumullah, R., Murjainah, Ero, P. E. L., Purwandari, S., Lince, R., & Maulina, D. (2026). Understanding academic burnout: A systematic literature review of its risk and protective factors. *Social Sciences & Humanities Open, 13*, Article 102441. https://doi.org/10.1016/j.ssaho.2026.102441

Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition* (2nd ed.). University of Chicago Press.

Wao, H., Wao, M. A., Omollo, S. B., & Mutua, C. K. (2025). Availability, accessibility, and utilization of mental health services or support among university students in Africa: A mixed methods systematic review with meta-analysis and meta-synthesis. *BMC Psychiatry, 25*(1), Article 1082. https://doi.org/10.1186/s12888-025-07529-1

Yamane, T. (1967). *Statistics: An introductory analysis* (2nd ed.). Harper & Row.

Zimmerman, B. J. (2002). Becoming a self-regulated learner: An overview. *Theory Into Practice, 41*(2), 64–70. https://doi.org/10.1207/s15430421tip4102_2

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