

Experiences of Clinical Educators with Underperforming Radiography Students in Zambia

Bwanga, O., Chinene, B., Kafwimbi, S., Mubanga, B., Sindaza, N., Ohene-Botwe, B.

Abstract

Introduction: Clinical competence in Radiography training programmes is assessed through continuous evaluations conducted by clinical educators, who are also responsible for providing feedback and managing underperformance. However, the literature indicates that clinical educators often fail to recognise underperformance, thereby missing opportunities to support students. This study explored the experiences of clinical educators in identifying and managing underperforming Radiography students during clinical training in Zambia.

Methods: A qualitative interpretive design was adopted. Twelve clinical educators were purposively sampled from 40 Radiography clinical training sites across Zambia and engaged in two virtual focus group discussions in January 2025. Participants had diverse experiences in assessing Radiography students' clinical performance. Discussions were recorded, transcribed and analysed using a framework approach. Data saturation was achieved during the second focus group.

Results: Three overarching themes emerged: (1) identifying underperforming students, which highlighted two major early warning signs, insufficient foundational knowledge and negative student behaviours; (2) managing underperformance, which revealed strategies such as individualised support, constructive feedback, and peer-assisted learning (PAL); and (3) recommending failure, which uncovered the emotional burden faced by Radiography clinical educators when advising that a student should not progress. Reported feelings included frustration, disappointment, heartbreak, and compassion, illustrating the complexity of balancing professional standards with empathy for students.

Conclusion: The study concludes that managing underperformance is a demanding process that places both professional and emotional strain on clinical educators. Their experiences underscore the need for structured guidance, institutional support, and enhanced collaboration with academic educators to ensure fair, consistent, and effective student assessment.

Keywords: Clinical educator, Clinical training, Experiences, Underperforming students, Zambia

Introduction

Clinical training is a crucial component of Radiography education programmes. During clinical training, students apply the knowledge and skills acquired in classrooms and simulations to real clinical settings, working

with actual patients under the supervision of clinical educators (Kumsa *et al.*, 2023; Ofori-Manteaw *et al.*, 2024; O'Connor *et al.*, 2025).

In doing so, Radiography students gain experience in the psychomotor, cognitive, and affective competencies required to perform their future roles as safe and competent Radiographers (Chinene *et al.*, 2023). In Zambia, clinical educators are designated Radiographers working at clinical training sites who facilitate students' learning, provide

Midland University Hospital Tullamore, Radiology Department, Ireland

Corresponding author: Oswald Bwanga
Email: o.bwanga@yahoo.com



© SEAJME. This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited

feedback, and assess their performance (Walsh, 2021; Bwanga *et al.*, 2022). Their assessment role includes monitoring each Radiography student's competency and identifying and supporting underperforming students during clinical training (Bwanga *et al.*, 2024).

Unfortunately, there are times when a student does not achieve the required standards. If this persists, the student is likely to fail clinical assessments (Hauge *et al.*, 2019; Nugent *et al.*, 2020). It is, therefore, paramount that underperforming students are identified as early as possible, and that support is provided promptly (College of Radiographers, 2011; Open University, 2025). Providing constructive feedback is a vitally important aspect of supporting students, and it becomes even more crucial when a student is not performing at the required level (Walsh, 2021). Supporting underperforming students can be particularly demanding for clinical educators, as it often requires more intensive supervision, tailored guidance, and regular performance monitoring (Nugent *et al.*, 2020). Despite these efforts, some students may still be unable to meet the required level of clinical competence (Walsh, 2021).

In such cases, clinical educators have a professional and ethical responsibility to address performance concerns directly and transparently. Avoiding the issue or hesitating to recommend a failure grade for students who are not meeting expectations undermines the integrity of the assessment process and can jeopardise patient safety (College of Radiographers, 2011; Bwanga *et al.*, 2024). It is essential to recognise that the clinical educator's primary role is to support student's professional development while ensuring that only those who demonstrate safe and competent practice proceed to registration (Bachmann *et al.*, 2018). Nevertheless, managing student failure can have a profound emotional impact on clinical educators (Hauge *et al.*, 2019; Nugent *et al.*, 2020; Walsh, 2021). The experience often evokes feelings of disappointment, guilt, or self-doubt, as clinical educators grapple with implications of their decisions (Hauge *et al.*, 2019).

In Zambia, Radiography clinical educators assess students' clinical competency using both formative and summative methods (Bwanga *et al.*, 2024). In formative assessments, clinical educators continuously assess students and provide feedback on their performance to help them identify strengths and weaknesses. Students who fail formative assessments receive constructive feedback and are given an opportunity to repeat. In contrast, clinical and academic educators work together to conduct summative assessments to determine whether a student has reached the desired level of competency. These assessments are performed at the end of a placement or training programme to determine a pass or fail outcome. The decision to fail a student is made collectively by clinical and academic educators. This study, therefore, aims to explore the experiences of clinical educators in identifying and managing underperforming Radiography students during clinical training in Zambia.

Methods

Study design and settings

This study employed a qualitative, interpretive research design. This approach emphasises describing human lived experiences and interpreting their meanings (Clark *et al.*, 2021). The lived experience is, by nature, an interpretive process (Polit & Beck, 2021). This design was therefore appropriate for providing detailed and comprehensive insights into how clinical educators identify and manage underperforming Radiography students during clinical training.

Zambia is a landlocked country in Southern Africa, with a population of approximately 20.6 million and 152 public hospitals. Of these, only 40 hospitals are affiliated with the four Radiography schools. All curricula place equal emphasis on theoretical and clinical training. The Radiography training programmes are structured so that the first year is largely dedicated to preclinical courses, with clinical exposure gradually increasing until the didactic and practical components are balanced (Bwanga & Sichone, 2020).

Population and sampling

The study population comprised Radiography clinical educators from all clinical training sites nationwide (N=40). Purposeful sampling was used to recruit 12 clinical educators from different sites to participate in focus group discussions (FGDs). Participants were selected based on their expertise and experience in assessing Radiography students. Inclusion criteria required participants to be clinical educators working at clinical training sites, actively involved in

student assessment, and with more than two years of clinical education experience. These criteria ensured that participants had sufficient expertise to provide in-depth, insightful guidance on identifying and managing underperforming students.

Data collection tool and procedure

The interview guide, developed in line with the research aim, was used to conduct virtual FGDs. Table 1 presents the main questions asked during the discussions.

Table 1: Interview guide for focus group discussions

Question 1	Based on your experience in clinical education, what are the early warning signs of an underperforming Radiography student during clinical training?
Question 2	What strategies do you use as a clinical educator to manage underperforming Radiography students during clinical training?
Question 3	Have you ever decided or recommended that a Radiography student be failed due to poor clinical performance or competency? If so, how did you deal with the situation?

FGDs are a form of group interview that relies on participants' communication to generate data (Clark *et al.*, 2021). The in-depth, conversational exchanges between participants and the moderator provided opportunities to capture their experiences and the circumstances through which meaning was constructed (Stalmeijer *et al.*, 2024). Virtual FGDs were chosen over in-person discussions because they are cost-effective, time-efficient, and enhance research accessibility (Flayelle *et al.*, 2022). In addition, the moderator utilised various built-in functions on the online platforms to optimise data collection.

Following ethics committee approval, two FGDs were conducted using Zoom in January 2025, each with six participants. A month prior to data collection, the first researcher contacted Radiography clinical educators across all 40 clinical training sites, sharing study details and informed consent forms with potential participants. Those who consented were contacted one week before the session to re-confirm the date and time. To ensure attendance, the first researcher also telephoned each participant the day before the FGD. A Zoom link was then shared via

WhatsApp. Demographic information and signed consent forms were emailed to the lead researcher prior to each session.

The FGDs were facilitated by a moderator, an experienced academic educator, who posed questions, probed for further detail, and ensured the discussion remained focused (Stalmeijer *et al.*, 2024). As a member of the research team, the moderator bracketed his own experiences and beliefs to minimise bias and avoid influencing participants. Each FGD was recorded using Zoom's built-in recording function, and the research team also took notes. Saturation was attained in the second focus group, as no new insights arose by the end of the discussion (Polit & Beck, 2021). The average FGD lasted 60 minutes.

Data management and analysis

In this study, data analysis was conducted concurrently with data collection. The FGDs were transcribed using the Otter.ai application, managed in NVivo 12 and analysed deductively using framework analysis (Gale *et al.*, 2013). Table 2 summarises the analytical procedure.

Table 2: Five-step framework analysis

#	Step	Activity
1	Familiarisation with the data	The first and second researchers read the FGD transcripts to gain a comprehensive understanding of clinical educators' experiences in identifying and managing underperforming students.
2	Identifying the themes	Themes and sub-themes were developed deductively based on the interview guide and literature analysis to create the thematic framework.
3	Indexing	Researchers applied the themes identified in step 2 to the transcripts using qualitative coding.
4	Charting and summarising	Data were reorganised into a clear structure, and findings (themes and sub-themes) were summarised in a table.
5	Interpretation	Researchers interpreted and reported the findings from the FGDs.

Trustworthiness

The quality of this study was ensured by applying the trustworthiness criteria developed

by Guba & Lincoln (1985), which include credibility, transferability, dependability, and confirmability. *Table 3* illustrates how these criteria were addressed.

Table 3: Strategies employed to enhance trustworthiness

Concept	Strategy	Activities to ensure adherence
Credibility	Prolonged engagement	The research team contacted participants a month before FGDs and spent adequate time building rapport to gain a deep understanding of their experiences. This also helped mitigate power imbalances between the moderator and participants.
Transferability	Thick description	The manuscript provides a detailed account of the research context and methods to enable readers to evaluate the transferability of findings.
Dependability	Methodological documentation	Each step of the research process was thoroughly documented to ensure transparency and allow replication by other researchers.
Confirmability	Peer debriefing	The first researcher engaged other team members to review data analysis and reporting, reducing potential bias.

Ethical approval and consent to participate

This study received ethical clearance from the Lusaka Apex Medical University Bio-Medical Research Ethics Committee (Ref: 0342/14/01/2025). Participants were provided with detailed information about the study and informed that their participation was entirely voluntary. Individuals who agreed to take part in the FGDs signed an informed consent form. To maintain anonymity and confidentiality,

each participant was assigned a unique identification number instead of their name, which was used to report the findings. Access to the data was restricted exclusively to the research team.

Results*Demographics*

Two FGDs were conducted, involving 12 clinical educators in total. The groups comprised six males and six females. Participants' professional experience in Radiography clinical education ranged from 4 to 31 years, reflecting a diverse spectrum of expertise across different clinical training settings. Tables 4 and 5 present the demographic characteristics of participants.

Themes

Framework analysis revealed three overarching themes that encapsulate Radiography clinical educators' experiences in identifying and managing underperforming students (Table 6).

Table 4: Focus group participants' demographic data (First FGD)

Participant number	Biological sex	Highest Radiography qualification	Work experience in clinical education /assessment	Type of workplace
1	Male	Bachelor of Science in Radiography	15 years	General Hospital
2	Female	Diploma in Radiography	11 years	Teaching Hospital
3	Male	Bachelor of Science in Radiography	18 years	General Hospital
4	Female	Bachelor of Science in Radiography	4 years	Teaching Hospital
5	Female	Master of Science in Radiography	31 years	District Hospital
6	Male	Master of Science in Radiography	22 years	Teaching hospital

Table 5: Focus group participants' demographic data (Second FGD)

Participant number	Biological sex	Highest Radiography qualification	Work experience in clinical education /assessment	Type of workplace
7	Female	Master of Science in Ultrasound	14 years	Teaching hospital
8	Female	Bachelor of Science in Radiography	4 years	General Hospital
9	Female	Bachelor of Science in Radiography	19 years	Teaching Hospital
10	Male	Bachelor of Science in Radiography	16 years	District Hospital
11	Male	Bachelor of Science in Ultrasound	16 years	Teaching Hospital
12	Male	Bachelor of Science in Radiography	21 years	Teaching Hospital

Table 6: Themes and sub-themes

Themes	Sub-themes
Theme 1: Identifying underperforming students	• Lack of basic knowledge • Negative student behaviour
Theme 2: Strategies employed in managing underperforming students	• Individualised support • Provision of feedback • Peer-assisted learning (PAL)
Theme 3: Recommending failing underperforming students	• Clinical educator frustration • Ethical dilemmas and patient safety concerns • Reputation vs. compassion • Lack of policy enforcement

Theme 1: Identifying underperforming students

This theme describes how clinical educators recognised early indicators of students at risk of underperformance. Two major warning signs were consistently reported: lack of basic knowledge and negative student behaviour.

Sub-theme 1: Lack of basic knowledge

Participants unanimously cited insufficient foundational knowledge in Radiography as the most common and immediate indicator of student underperformance. This limitation was frequently observed at the beginning of placements and hindered the effective application of theory to practice.

"If a student cannot remember fundamental principles like radiation protection... that's a clear sign of underperformance." (Participant 7)

Other markers included poor interpretation of request forms and inadequate patient communication.

"Students who can't interpret request forms or communicate with patients." (Participant 9)

Educators emphasised that clinical training is intended to consolidate theoretical learning, yet this goal becomes challenging when students lack the requisite academic foundation.

Sub-theme 2: Negative student behaviour

Beyond knowledge deficits, clinical educators also identified behavioural indicators of underperformance, such as low confidence, poor motivation, and repeated lateness. These behaviours often manifested as avoidance or minimal engagement during clinical tasks.

"You find a student who is not very free in the clinical area... they are shy about handling patients... the confidence is not there." (Participant 12)

"A student might come late... or just doesn't look interested... this affects their performance." (Participant 3)

"I have observed that underperforming students hide in groups and dodge clinical educators..." (Participant 6)

Theme 2: Strategies employed in managing underperforming students

This theme captures the range of approaches adopted by clinical educators to support struggling students. The three main strategies included individualised support, provision of feedback, and peer-assisted learning (PAL).

Sub-theme 1: Individualised support

Clinical educators highlighted the value of tailored teaching strategies to meet diverse student needs. Although demanding, individualised support was perceived as highly effective in motivating and improving performance.

"I create a free and conducive learning environment... allow them to ask questions... give them more individual time." (Participant 1)

"I tailor assignments-videos for visual learners, hands-on for others... slow learners need more time." (Participant 11)

Sub-theme 2: Provision of feedback

Providing structured and timely feedback was described as central to student support. Feedback was not only corrective but also reflective, encouraging students to self-assess and address weaknesses.

"I provide regular feedback... let them talk about errors and challenges they face." (Participant 10)

Some participants emphasised structured documentation of student progress across placement phases (beginning, midpoint, and

end), which facilitated performance tracking and provided evidence when recommending failure.

"I document performance in three phases: start, mid, and end of placement to track progress." (Participant 6)

Sub-theme 3: Peer-assisted learning (PAL)

Pairing underperforming students with high achievers was considered an effective and sustainable support strategy.

"I pair weak students with high performers... they learn better from peers." (Participant 4)

"From my experience, pairing the students accelerates learning; high-achieving students model excellence for their peers." (Participant 11)

Theme 3: Recommending failing underperforming students

Despite support strategies, some students continued to fall short of competency requirements. Clinical educators described the emotional, ethical, and professional challenges of recommending failure, which were categorised into four sub-themes.

Sub-theme 1: Clinical educator frustrations

Clinical educators reported significant emotional strain when students failed despite support. Feelings of frustration, disappointment, and personal failure were common.

"I felt bad. Despite our efforts, one student failed to grasp Radiography." (Participant 3)

"It's heart-breaking to see a student struggle when you know they have potential, but sometimes you must face the reality of recommending a failure." (Participant 10)

Sub-theme 2: Ethical dilemmas and patient safety concerns

Clinical educators emphasised the ethical obligation to prioritise patient safety over student progression. Concerns were raised about the risks posed by incompetent practitioners.

"If a student fails, they fail... we're dealing with human lives." (Participant 5)

"How can I pass a student who exposes patients to unnecessary radiation? Lives are at stake." (Participant 2)

Sub-theme 3: Reputation vs. compassion

A tension was noted between compassion for students and the responsibility to safeguard institutional and professional reputation. This dual pressure often left clinical educators in ethically complex situations.

"I consider the institution's reputation first... but failing a student feels unfair to their struggles." (Participant 12)

"We're told to maintain quality but given no guidance on how to reconcile that with destroying a student's career." (Participant 8)

Sub-theme 4: Lack of policy enforcement

Participants reported systemic challenges where recommendations to fail underperforming students were sometimes disregarded by academic institutions. A perceived emphasis on student retention over clinical competence was highlighted.

"Recommendations from clinical educators for failing incompetent students are sometimes not taken seriously by academic educators." (Participant 9)

This lack of alignment was seen as undermining academic rigour and risking the graduation of incompetent practitioners, with

implications for professional standards and patient safety.

Discussion

This study identified key early warning signs of underperformance as observed by clinical educators. These signs included a lack of basic radiographic knowledge, low confidence and interest, and frequent lateness to clinical placements. These findings align with a UK-based study that explored nursing clinical educators' experiences in managing failed practice assessments (Duff, 2013). That study identified early indicators such as students not asking questions, showing little enthusiasm for the profession, breaching professional boundaries, and performing clinical tasks inadequately. Despite these patterns being observable early in placements, existing nursing literature suggests that clinical educators often fail to recognise underperformance and, consequently, miss opportunities to support students effectively (Elliott, 2016). A commonly cited reason is the increasing workload placed on clinical educators, which includes both clinical and teaching responsibilities (North *et al.*, 2019). This may result in clinical educators prioritising their primary clinical role over teaching.

When early signs of student struggle become apparent, clinical educators should inform the student promptly, advise on how to improve, provide a timeframe for expected improvement, and explain the consequences if improvement does not occur (Elliott, 2016; Walsh, 2021).

In this study, clinical educators reported providing individualised support and feedback. Individualisation involves tailoring learning to each student's specific needs to improve performance. Students vary in personal capabilities, motivation, learning drivers, goals, and learning styles (Walsh, 2021). Constructive feedback was emphasised as a key component of the assessment process, allowing students to identify their strengths and weaknesses (Kayembe & Bwanga, 2020; Hodgson *et al.*, 2021). Walsh (2021) argues that timely and effective feedback greatly

enhances the potential for performance improvement. Clinical educators in this study also reported using PAL to support underperforming students. PAL is a collaborative learning approach in which students learn from one another, sharing knowledge and experiences appropriately to enhance the learning process (Bain *et al.*, 2017; Elshami *et al.*, 2020). However, it remains an informal support method and may not be sufficient for students requiring more structured intervention.

The literature suggests that informal approaches to managing underperforming students are often unsuccessful, prompting clinical educators to seek support from academic educators (College of Radiographers, 2011; Nugent *et al.*, 2020). This aligns with findings from Hauge *et al.* (2019), in which nursing clinical educators reported contacting liaison lecturers after unsuccessful informal interventions. The formal process typically involves contacting the educational provider, developing an action plan and documentation, and organising regular meetings to evaluate students' progress (Walsh, 2021). Students may also be assigned to other clinical training sites to gather additional information before deciding to fail a student (College of Radiographers, 2011). In a study by Duff (2013), most nursing clinical educators reported satisfaction with the support received from academic counterparts, particularly regarding documentation of practice assessments for failing students.

This study revealed that clinical educators understood their responsibility to assess students' clinical performance to safeguard professional standards, service users, and the public. Consequently, clinical educators should not hesitate to recommend or fail underperforming students (Frank, 2020; Wash, 2021; Bwanga *et al.*, 2025). However, they reported experiencing emotional challenges when managing or recommending failure for Radiography students who had not met required clinical performance levels. This finding is consistent with Frank's literature review (Frank, 2020), which identified emotional challenges among nursing

educators following student failure, including anxiety, anger, and frustration. Some nursing educators blamed colleagues and universities for not failing students earlier, highlighting the need for support. Nursing literature suggests that a multifaceted support approach is required, including emotional support, professional guidance from experienced colleagues, and access to resources to help clinical educators process the experience while continuing to facilitate practice-based learning effectively (Frank, 2020; Nugent *et al.*, 2020; Walsh, 2021).

One strategy reported in the literature to support clinical educators is preparatory clinical education training before taking on the role of facilitating practice-based learning to students (Bwanga & Sichone, 2020). Such preparatory training includes identifying and managing underperforming students to minimise associated emotional challenges (Hauge *et al.*, 2019). However, few Higher Education Institutions (HEIs) offering Radiography programmes provide structured preparatory training, leaving many clinical educators feeling unprepared (Bwanga *et al.*, 2025).

Limitations of the study

This study had two main limitations. First, only clinical educators were included, excluding academic educators who might have offered different perspectives. Second, no prior Radiography research on this topic was found to support the comparison of results.

Conclusion

This study emphasises the challenging role of Radiography clinical educators in identifying and supporting underperforming students. Early signs of difficulty include weak knowledge and negative student behaviours. Effective support strategies include tailored guidance, constructive feedback, and PAL. When applied promptly, these improve outcomes but place emotional strain on clinical educators. HEIs should therefore provide strong support systems to ensure the process is fair, supportive, and professional.

Acknowledgements

The authors thank all Radiography clinical educators who participated in this study.

References

- Bachmann, L., Groenvik, C.K.U., Hauge, K.W. & Julnes, S. (2019). Failing to fail nursing students among mentors: A confirmatory factor analysis of the failing to fail scale. *Nursing Open*, 6(3), pp. 966–973. doi:10.1002/nop.2276.
- Bain, P., Wareing, A. & Henderson, I. (2017). A review of peer-assisted learning to deliver interprofessional supplementary image interpretation skills. *Radiography*, 23(Suppl. 1), pp. S64–S69. doi:10.1016/j.radi.2017.05.002.
- Bwanga, O. & Mwansa, E. (2022). Roles of clinical supervisors in the clinical training of Radiography students in Zambia: a qualitative study. *African Health Sciences*, 22(2), pp. 638–646. doi:10.4314/ahs.v22i2.73.
- Bwanga, O. & Sichone, J.M. (2020). Experiences of clinical supervisors regarding the clinical training of Radiography students in Zambia. *The South African Radiographer*, 58(2), pp. 22–28.
- Bwanga, O. & Sichone, M.J. (2020). Managerial function of the clinical supervision of Radiography students. *IAR Journal of Medical Sciences*, 1(1), pp. 54. doi:10.47310/iarjms.2020.v01i01.010.
- Bwanga, O., Chinene, B. & Sindaza, N. (2024). Challenges experienced by clinical educators in the assessment of students: findings from nursing and their application to Radiography in Zambia. *Medical Journal of Zambia*, 51(2), pp. 162–175. doi:10.55320/mjz.51.2.501.
- Bwanga, O., Sichone, J.M., Kafwimbi, S., Sindaza, N., Sutherland, O. & Mubanga, B. (2025). Educational audit of Radiography clinical training sites in a limited resource setting: Zambian clinical educators perspectives. *Journal of Medical Imaging and Radiation Sciences*. doi:10.1016/j.jmir.2025.101867.
- Chinene, B., Sanyamandwe, C. & Hlahla, T. (2023). Challenges experienced by Radiography students during clinical placements in a low resource setting: a qualitative phenomenological study. *The South African Radiographer*, 61(2), pp. 32–40. doi:10.54450/saradio.2023.61.2.753.
- Clark, T., Foster, L., Sloan, L. & Bryman, A. (2021). *Bryman's social research methods*. 6th ed. Oxford: Oxford University Press.
- College of Radiographers (2011). *Roles and responsibilities in clinical education*. London: The College of Radiographers.

- Duff, K.M. (2013). Deciding to fail: Nurse mentors' experiences of managing a failed practice assessment. *The Journal of Practice Teaching & Learning*, 11(3), pp. 36–58. doi:10.1921/2102110304.
- Elliott, C. (2016). Identifying and managing underperformance in nursing students. *British Journal of Nursing*, 25(5), pp. 250–255. doi:10.12968/bjon.2016.25.5.250.
- Elshami, W., Abuzaid, M. & Abdalla, M.E. (2020). Radiography students' perceptions of peer assisted learning. *Radiography*, 26(2), pp. e109–e113. doi:10.1016/j.radi.2019.12.002.
- Flayelle, M., Brevers, D. & Billieux, J. (2022). The advantages and downsides of online focus groups for conducting research on addictive online behaviours. *Addiction*, 117(8), pp. 2142–2144. doi:10.1111/add.15944.
- Frank, N.J. (2020). Dealing with the aftermath of student failure: Strategies for nurse educators. *Journal of Professional Nursing*, 36(6), pp. 514–519. doi:10.1016/j.profnurs.2020.04.009.
- Gale, N.K., Heath, G., Cameron, E., Rashid, S. & Redwood, S. (2013). Using the framework method for the analysis of qualitative data in multi-disciplinary health research. *BMC Medical Research Methodology*, 13, p.117. doi:10.1186/1471-2288-13-117.
- Hauge, K.W., Bakken, H., Brask, O.D., Gutteberg, A., Malones, B.D. & Ulvund, I. (2019). Are Norwegian mentors failing to fail nursing students? *Nurse Education in Practice*, 36, pp. 64–70. doi:10.1016/j.nepr.2019.03.002.
- Hodgson, H., Grobler, A.D. & Morton, D. (2021). Feedback during summative clinical assessments: Experiences of diagnostic Radiography students at a higher education institution in South Africa. *Radiography*, 27(2), pp. 533–538. doi:10.1016/j.radi.2020.11.009.
- Kayembe, R.K. & Bwanga, O. (2020). A study to explore the knowledge, attitudes and practices of student Radiographers regarding feedback on clinical performance in Zambia. *The South African Radiographer*, 58(1), pp. 8–14.
- Kumsa, M.J., Lemu, B.N., Nguse, T.M., Omiyi, D.O. & Akudjedu, T.N. (2022). Clinical placement challenges associated with Radiography education in a low-resource setting: A qualitative exploration of the Ethiopian landscape. *Radiography*, 28(3), pp. 634–640. doi:10.1016/j.radi.2022.04.014.
- Lincoln, Y.S. & Guba, E.G. (1985). *Naturalistic inquiry*. Newbury Park, CA: Sage Publications.
- North, H., Kennedy, M. & Wray, J. (2019). Are mentors failing to fail underperforming student nurses? An integrative literature review. *British Journal of Nursing*, 28(4), pp. 250–255. doi:10.12968/bjon.2019.28.4.250.
- Nugent, O., Lydon, C. & Part, S. et al. (2020). Who is failing who? A survey exploration of the barriers and enablers to accurate decision making when nursing students' competence is below required standards. *Nurse Education in Practice*, 45, 102791. doi:10.1016/j.nepr.2020.102791.
- O'Connor, M., McGee, A., Redmond, G., Murphy, S., Ryan, M.L. & McDermott, E. (2025). Pass/fail grading in Radiography clinical assessments: Insights from clinical practice educators. *Radiography*, 31(3). doi:10.1016/j.radi.2025.102947.
- Ofori-Manteaw, B., Yeboah, H.S. & Wuni, A.R. (2024). Enhancing Radiography education: The roles and challenges of preceptors in the clinical supervision and training of student Radiographers. *Radiography*, 30(Suppl. 2), pp. 149–155. doi:10.1016/j.radi.2024.11.020.
- Open University. (2024). *Identifying and managing a failing student*. Available at: <https://www.open.edu/openlearn/health-sports-psychology/practice-supervision-and-assessment-nursing/content-section-5.2> (Accessed: 10 April 2025).
- Palinkas, L.A., Horwitz, S.M., Green, C.A., Wisdom, J.P., Duan, N. & Hoagwood, K. (2015). Purposeful sampling for qualitative data collection and analysis in mixed method implementation research. *Administration and Policy in Mental Health*, 42(5), pp. 533–544. doi:10.1007/s10488-013-0528-.
- Polit, D.F. & Beck, C.T. (2021). *Essentials of nursing research: Appraising evidence for nursing practice*. 10th ed. London: Lippincott Williams and Wilkins Ltd.
- Stalmeijer, R.E., McNaughton, N. & Van Mook, W.N. (2014). Using focus groups in medical education research: AMEE Guide No. 91. *Medical Teacher*, 36(11), pp. 923–939. doi:10.3109/0142159X.2014.917165.
- Walsh, D. (2021). *The nurse mentor's handbook: Supporting students in clinical practice*. 3rd ed. Berkshire: Open University Press.