

Roles of clinical educators of radiography students

Presenter: Dr. Oswald Bwanga (PhD)

Date of Presentation: 24th February 2024

Time: 15:00-16:30 hours

Presentation layout

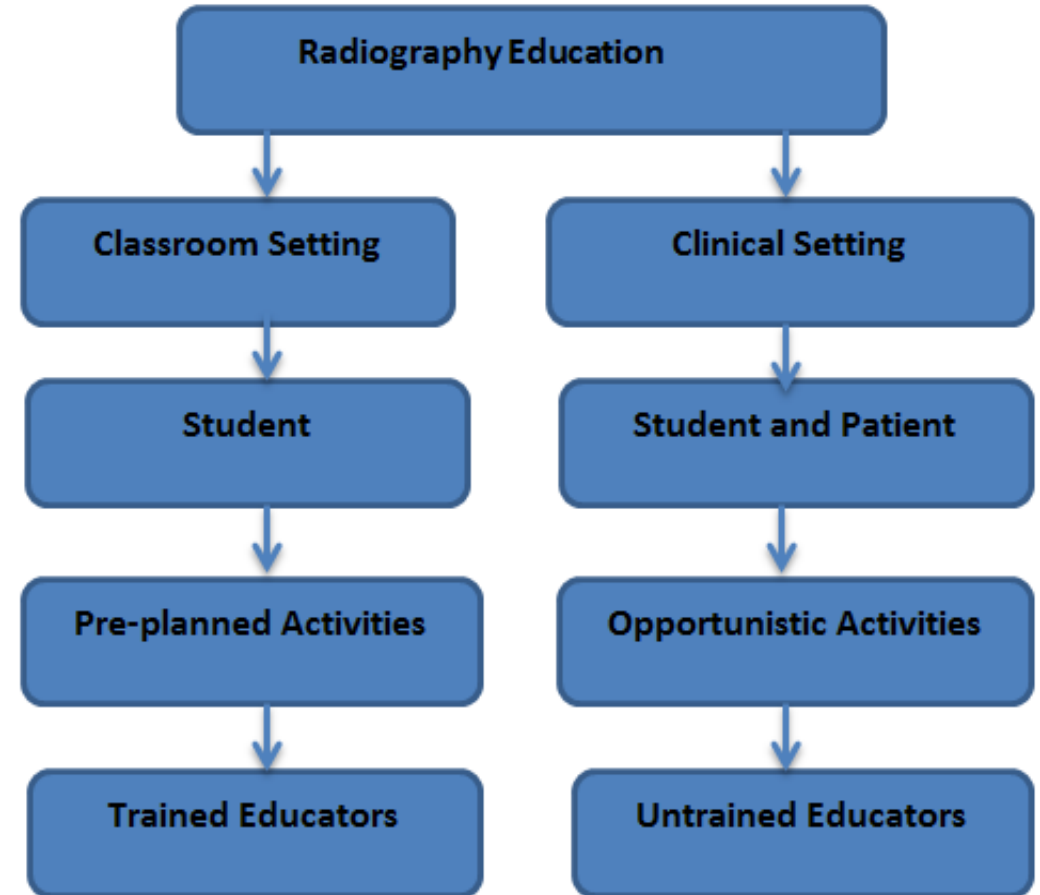
1. Introduction to clinical education in radiography
2. Roles of a clinical educator
3. Challenges of clinical education in radiography
4. Research on clinical education in radiography
5. Conclusion
6. References

1. Introduction to clinical education

- **Clinical education** is the practice of assisting a student to acquire the knowledge, skills, attitudes, and competence in clinical settings (Rose & Best, 2005)
- The term clinical education is a new term in radiography
- An earlier and commonly used term was **clinical supervision**
- Old titles to denote a clinical educator include:
 1. Clinical supervisor
 2. Clinical tutor
 3. Clinical instructor

1. Introduction to clinical education

- Classroom teaching (50%) vs clinical teaching (50%) of undergrad radiography curriculum
- Teaching in a clinical setting is different from classroom
- In a classroom setting, students' activities are pre-planned and structured, whereas in clinical settings activities are mostly unplanned and unstructured



1. Introduction to clinical education

- This makes clinical education a demanding and complex role
- Clinical educators play dual roles by imaging patients and providing learning opportunities to students
- However, most clinical educators in radiography are untrained
(England et al., 2017; Bwanga & Sichone, 2021; Young et al., 2023)
- Developing a clinical education course is a responsibility of HEIs (Schools of radiography)



College of Medicine, Nursing
and Health Sciences



Masters, Diploma,
Certificate in
Clinical Education

1. Introduction to clinical education



Systematic Review

How to run successful tutor-training programs for radiographers: A systematic review and considerations for future perspectives

Elena Scaramelli^a, Andrea Roletto^{a,b,*}, Giuseppe Roberto Bonfitto^{a,c}, Simone Vito Fasulo^a and Diego Catania^{a,d}

^aIRCCS Ospedale San Raffaele, Via Olgettina 60, 20132 Milano, Italy

^bDepartment of Mechanical and Industrial Engineering, Università degli Studi di Brescia, Via Branze 38, 25123 Brescia, Italy

^cDepartment of Information Engineering, Università degli Studi di Brescia, Via Branze 38, 25123 Brescia, Italy

^dRadiography and Diagnostic Imaging, School of Medicine, University College Dublin, Ireland

Available online xxx

ABSTRACT

Introduction: Healthcare professions differ from each other, therefore need different approaches in teaching clinical practices. While teaching and learning designs for medical students are widely present on databases, few information is available for radiographers. The aim of this research is to define tools and knowledge needed to develop successful tutor-training programs that can be cross-cutting and interdisciplinary for radiography profession, taking inspiration from other healthcare professions' programs since the paucity of evidence for radiographers.

Methods: A systematic review (PubMed/Embase) was performed according to the PRISMA checklist. Original articles on learning environment related to healthcare practitioners were included. Inclusion criteria comprehended articles covering design and frameworks of

about the importance of briefing and de-briefing activities. An identical percentage (46 %, 7/15) underlines the advantages of tutoring experiences. 11 articles (73 %) enhance that tutors aren't adequately trained to carry out tutoring activities.

Discussion: Through curricula designed on TTT and PAL programs, radiographers are provided with necessary teachings and frameworks to set up effective training paths. Few institutes promote educational tutor-training courses, even though these are beneficial both for tutors and students, consolidating professionals' knowledge and maximizing students' practical skills.

Conclusion: Offering tutor-training curricula contributes to the development of radiographers as teachers, providing them with guiding principles to improve their formative skills towards future colleagues, therefore optimizing efficacy and effectiveness of programs.

Journal of Medical Radiation Sciences

Open Access

ORIGINAL ARTICLE

Finding ways to support radiographers as teachers

Andrea Thompson, ACBD (Radiography) MHSc (First Class Hons), PhD,^{1,2} & Darci Taylor, BASc (Hons), GCHE, GDipEd(Sec), PhD candidate³

¹School of Medicine, Deakin University, Geelong, Victoria, Australia

²Centre for Medical and Health Sciences Education, University of Auckland, Auckland, New Zealand

³CloudFirst Redesign, Deakin University, Geelong, Victoria, Australia

Keywords

clinical, teaching, students, medical imaging, radiographers

Correspondence

Andrea Thompson, School of Medicine, Deakin University, 75 Pigdons Rd, Waurin Ponds, VIC 3216, Australia. Tel: +6421402123; E-mail: andrea.thompson@deakin.edu.au

Received: 20 January 2020; Revised: 22 March 2020; Accepted: 27 March 2020

J Med Radiat Sci 67 (2020) 199–207

doi: 10.1002/jmrs.399

Abstract

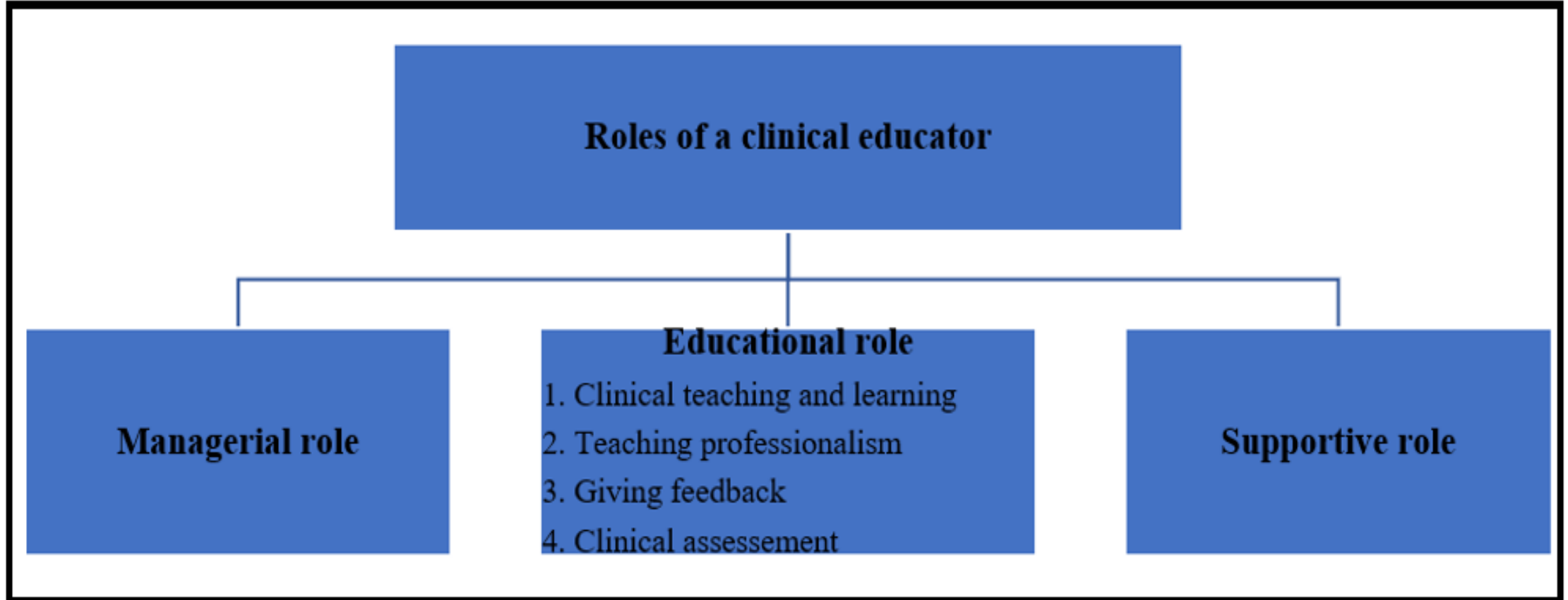
Introduction: Teaching and supervision of medical imaging students are part of the role of many radiographers, yet they are frequently unsupported in the development of their role as a teacher. This study explores radiographers' experiences and level of confidence in teaching and establishes the areas of support they require to be more effective in their clinical teaching role. **Methods:** Sixty radiographers from across Australia completed an anonymous questionnaire, and nine radiographers participated in focus groups. Thematic analysis was conducted on the qualitative data, whilst quantitative data were analysed using one-way ANOVA and reported as descriptive statistics. **Results:** The findings demonstrate that radiographers were mostly confident in the domains of *familiarising students to the practice environment*, *supervising students* and *assisting students to integrate into the practice environment*, but were less confident in *facilitating students' learning*. Radiographers have identified the teaching skills and attributes they currently possess and the areas in which they need further development. **Conclusions:** This study calls for support for radiographers in their teaching role and provides guidance for education providers wanting to design education to support radiographers' learning needs for teaching.

2. Roles of a clinical educator

- Three roles of a clinical educator are:
 1. Managerial role
 2. Educational role
 3. Supportive role
- A clinical educator changes roles in a single teaching encounter
- Because of this the term “**chameleon**” has been used in the literature to describe a clinical educator (Setati & Nkosi 2017)



2. Roles of a clinical educator



2.1 Managerial role of a clinical educator

- Managerial role focus on organising and managing clinical training resources
 1. Student induction
 2. Clinical training resource
 3. Practical guide for clinical educators
 4. Quality assurance
 - Educational audits
 - Evaluation of clinical educators' experiences
 - Evaluation of students' experiences
 5. Research on clinical education

IAR Journal of Medical Sciences
ISSN Online : 2708-3594
Frequency : Bi-Monthly
Language : English
Origin : Kenya
Website : <https://www.iarconsortium.org/journal-info/iarjms>



OPEN ACCESS JOURNALS

Original Review Article

Managerial Function of the Clinical Supervision of Radiography Students

Article History	
Received:	25.05.2020
Revision:	09. 06.2020
Accepted:	14. 06.2020
Published:	20. 06.2020
Author Details	
Osward Bwanga* ¹ and James Maimbo Sichone ²	
Authors Affiliations	
¹ Midland Regional Hospital at Tullamore, Radiology Department, Co. Offaly, Ireland	
² University of Zambia, School of Health Sciences, Lusaka, Zambia	
Corresponding Author*	
Osward Bwanga	
How to Cite the Article:	
Osward Bwanga and James Maimbo Sichone; (2020); Managerial Function of the Clinical Supervision of Radiography Students ; <i>Iar J Med Sci</i> ; Vol-1: Iss- 1 (May-June, 2020): 46-53.	

Abstract

Clinical supervisors of radiography students have a responsibility to organise and manage clinical training resources. However, there is a lack of literature to support radiographers in this role. Most of the literature on the managerial function of a clinical supervisor is from the nursing and medical professions. This article borrows the nursing and medical professions literature and applies it to radiography. The managerial tasks of a clinical supervisor reviewed and discussed are the orientation process of students, clinical teaching and learning resources, requirements for appointment as a clinical supervisor, developing and maintaining competency as a clinical supervisor and quality assurance programmes in clinical supervision. This information will guide radiographers in the facilitation of practice-based learning for radiography students during their clinical practice.

Keywords: Clinical supervisor, Clinical supervision, Managerial, Radiographer, Radiography Student.

BACKGROUND

Radiographers who supervise radiography students during clinical practice have a managerial task of organising and managing training resources in conjunction with their departmental managers (College of Radiographers, 2012; Monash University, 2020). These tasks include the orientation of new radiography students to radiology departments, organising and managing imaging equipment and consumables, preparing duty rosters for radiography students, ensuring the availability of clinical teaching and learning aids, developing and maintaining their competencies

2.1 Managerial role of a clinical educator

- The guide should contain practical guidance on the three components of clinical education: managerial, educational, and supportive
- State the responsibilities of:
 1. School of Radiography
 2. Clinical departments
 3. Clinical educators
 4. Radiography students

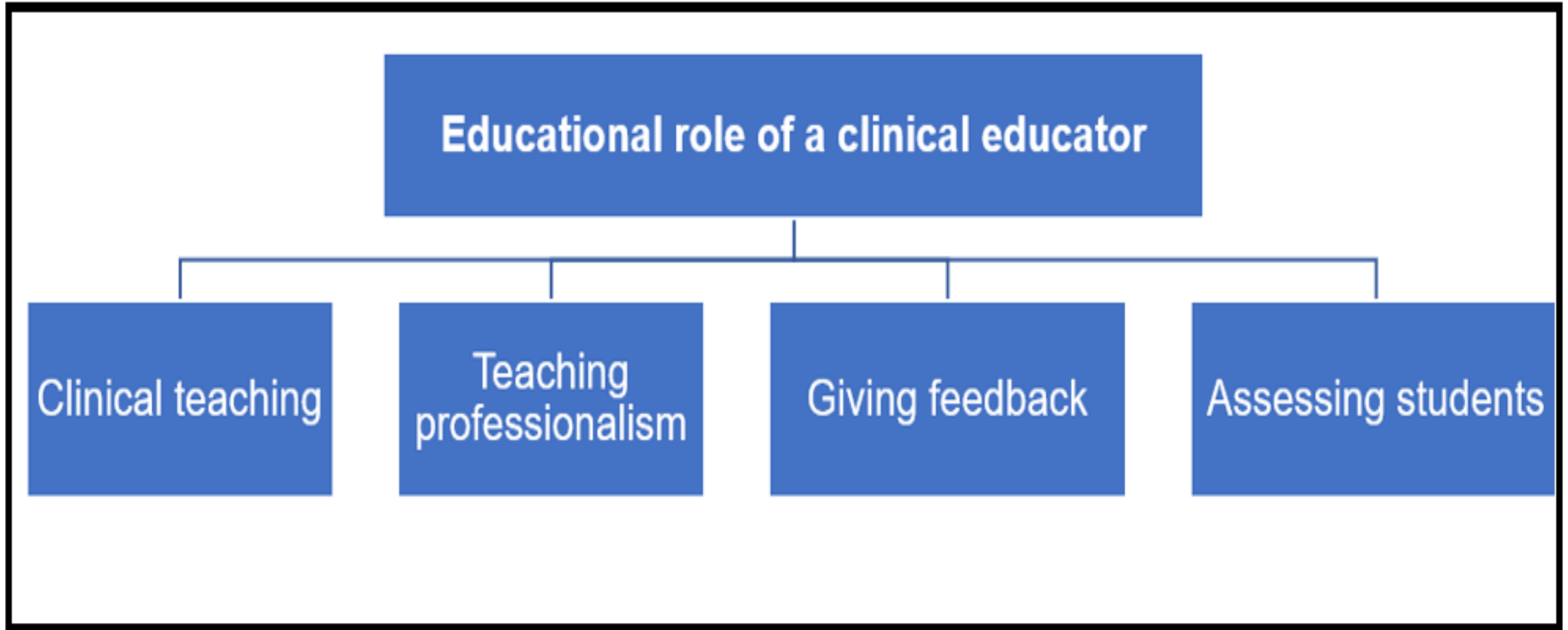


Medicine, Nursing and Health Sciences

Practical Guide for
Clinical Educators

2013

2.2 Educational role of a clinical educator



2.2 Clinical teaching

- To be effective, clinical educators should understand **BASIC** teaching and learning principles
- Unfortunately, individual standards of clinical education in radiography are often ignored
- It is assumed that if a radiographer is a good practitioner, he or she is also a good clinical educator



- www.lsbu.ac.uk/study/course-finder/bsc-hons-diagnostic-radiography

2.2 Clinical teaching

2008; 30: 347–364



- Teach using a student-centred approach
- Teaching and learning in **small** groups
- Teaching and learning in **large** groups
- Simulation of the clinical and imaging experiences
- Independent learning

AMEE GUIDE

AMEE Guide no. 34: Teaching in the clinical environment

SUBHA RAMANI¹ & SAM LEINSTER²

¹Boston University School of Medicine, USA, ²University of East Anglia, Norwich, UK

Abstract

Teaching in the clinical environment is a demanding, complex and often frustrating task, a task many clinicians assume without adequate preparation or orientation. Twelve roles have previously been described for medical teachers, grouped into six major tasks: (1) the information provider; (2) the role model; (3) the facilitator; (4) the assessor; (5) the curriculum and course planner; and (6) the resource material creator (Harden & Crosby 2000).

It is clear that many of these roles require a teacher to be more than a medical expert. In a pure educational setting, teachers may have limited roles, but the clinical teacher often plays many roles simultaneously, switching from one role to another during the same encounter. The large majority of clinical teachers around the world have received rigorous training in medical knowledge and skills but little to none in teaching. As physicians become ever busier in their own clinical practice, being effective teachers becomes more challenging in the context of expanding clinical responsibilities and shrinking time for teaching (Prideaux et al. 2000). Clinicians on the frontline are often unaware of educational mandates from licensing and accreditation bodies as well as medical schools and postgraduate training programmes and this has major implications for staff training. Institutions need to provide necessary orientation and training for their clinical teachers. This Guide looks at the many challenges for teachers in the clinical environment, application of relevant educational theories to the clinical context and practical teaching tips for clinical teachers. This guide will concentrate on the hospital setting as teaching within the community is the subject of another AMEE guide.

2.2 Teaching professionalism

- Although, professionalism is essential for the development of mature radiographers, not much education is devoted to it
- Methods of teaching professionalism to students (Gliatto & Stern, 2009):
 1. Role modelling
 2. Integration of professionalism during clinical teaching
 3. Teaching professionalism on its own as a subject

ISSN 2664-8075 (Print) & Open Access

South Asian Research Journal of Applied Medical Sciences

Abbreviated Key Title: South Asian Res J App Med Sci

| Volume-1 | Issue-1 | Jul-Aug 2019 |

Review Article

Teaching Professionalism to Radiography Students in the Diagnostic Imaging Department

Osward Bwanga*

Department of Radiology, Midland Regional Hospital at Tullamore, Ireland

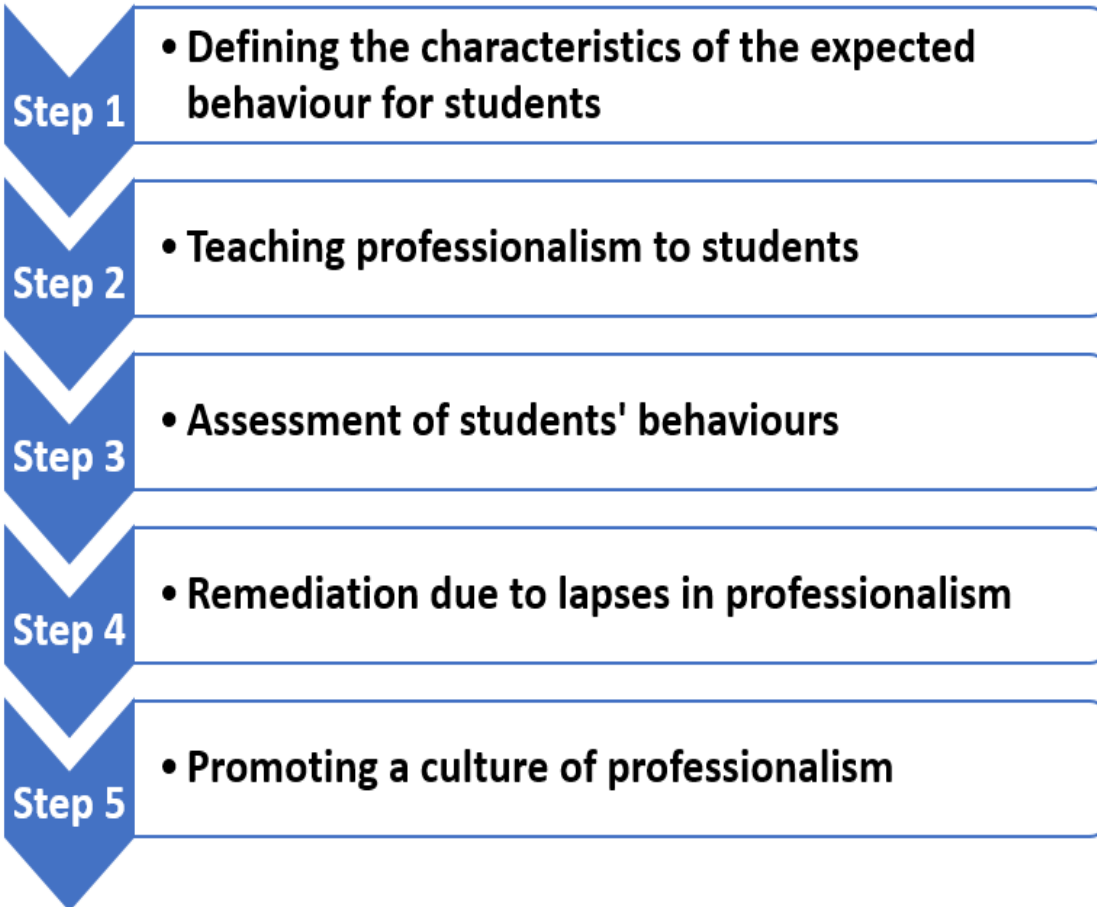
*Corresponding Author
Osward Bwanga

Article History
Received: 28.07.2019
Accepted: 12.08.2019
Published: 30.08.2019

Abstract: Teaching professionalism is an integral component of the radiography curriculum in Zambia and globally. However, there is a scarcity of educational literature to support radiographers who teach and assess professional values and behaviours to radiography student in the clinical learning environment. Most of the literature on this subject is focused on classroom teaching and learning. Therefore, the aim of this educational article is to enhance radiographers' understanding of how to teach and assess professionalism to radiography students during their clinical placements. The information in this article will also be beneficial to other healthcare professionals who supervise students in the clinical learning environment, such as physiotherapists, medical scientists, pharmacists, nurses, medical doctors, and clinical officers.

Keywords: Professionalism, Clinical placement, Clinical learning environment, Role modelling, Radiography student, Radiographer, Clinical supervisor.

2.2 Teaching professionalism



HOME LATEST NEWS **CODE OF PROFESSIONAL CONDUCT** CONTACT

Code of Professional Conduct

HOME → CODE OF PROFESSIONAL CONDUCT

1 Code of Professional Conduct for Radiographers

Introduction

Who is this code for?

This document is for all Diagnostic and Therapy Radiographers, Diagnostic and Therapy Radiography Technologists who are members of the Radiological Society of Zambia. The document is inclusive of the and radiotherapy regardless of their role or place of work be it in public, private or training institution. The Code of Professional Conduct for Radiographers is informed, accepts and builds on the provision the Ionising Radiation Act No. 16 of 2005 of the laws of Zambia. It is also in line with other international standards associated with healthcare in general and medical imaging and radiotherapy in particular. The objective standards to the practices of the Radiographers, Radiography Technologists, Sonographers, Sonography Students.

Patient Care in Radiography
With an Introduction to Medical Imaging
EIGHTH EDITION
Ruth Ann Ehrlich
Dawn M. Coakes

2.2 Giving feedback to students

- Feedback is an essential element of the educational process for students during clinical training
- Without feedback (Cantillon & Sergeant, 2008);
 1. Good practice is not reinforced
 2. Poor performance is not corrected
 3. The path to improvement is not identified

African Journal of Health, Nursing and Midwifery

ISSN: 2689-9418

Volume 3, Issue 4, 2020 (pp. 1-12)



www.abjournals.org

GIVING CONSTRUCTIVE FEEDBACK TO RADIOGRAPHY STUDENTS ON CLINICAL PERFORMANCE

Oswald Bwanga

Midland Regional Hospital at Tullamore, Radiology Department, Co. Offaly, Ireland

ABSTRACT: *Radiographers who act as clinical supervisors are responsible for giving constructive feedback to radiography students on clinical performance. Unfortunately, there is a scarcity of educational material to support radiographers in developing and maintaining competence in this role. This article reviews: relevant literature on the principles of giving constructive feedback, models of delivering effective feedback, and barriers associated with giving effective feedback to students on clinical performance. Clinical supervisors applying the principles of giving feedback and models would improve the delivery of feedback to radiography students in the clinical learning environment (CLE).*

KEYWORDS: Clinical Performance, Feedback, Radiographer, Radiography Student

2.2 Giving feedback to students

- Establish a respectful learning environment
- Communicate goals and objectives for feedback
- Base feedback on direct observation
- Make feedback timely and regular occurrence
- Begin the session with the student's self-assessment
- Reinforce and correct observed behaviours
- Use specific, neutral language to focus on performance
- Confirm the student's understanding and facilitate acceptance
- Conclude with an action plan
- Reflect on your feedback skills

2.2 Assessing students

- Clinical educators who serve as assessors must decide whether the student is “fit for purpose”
- Two types of assessments:
 1. **Formative assessment-** take place during the learning activity
 2. **Summative assessment-** takes place at the end of a period of learning

Assessment of competency in radiography students – a new approach

Abstract The assessment of the clinical performance and clinical competence of radiography students is problematic for many reasons, including the following:

- Significant variations between clinical centres in how students are assessed
- Internal variations within larger clinical centres, depending on who completes the assessment forms
- Clinical supervisors being uncomfortable with failing poorly performing students
- Different interpretations among supervisors as to what constitutes competence
- Confusion amongst supervisors who accept students from more than one university, due to variations in assessment paperwork.

A national assessment tool has been designed and implemented in radiation therapy. Other disciplines to develop a national assessment tool in recent times have included speech pathology and physiotherapy. The discussion that follows describes the first stage of a project to develop a national assessment framework, including a national assessment tool, for the diagnostic radiography profession.

The first stage of this project to develop a national assessment framework is a literature search, and this paper is based on the preliminary findings of this search. The aims of the search were to identify:

- The fundamental principles of assessment in higher education
- Factors arising from these principles that must be considered when designing a clinical assessment tool

Articles were sourced using Educational Resources Information Centre (ERIC), and were chosen based on their relevance to the topic. Some were sourced directly from their authors. Each article was summarised, and sorted into major categories using NVivo8™ (QSR International Pty Ltd, Doncaster, Victoria, Australia) qualitative data analysis software. These categories were: Function of education; issues related to assessment; types of knowledge and understanding; constructive alignment; teacher's role; competence; assessment (formative vs. summative and analytic vs. holistic); criterion and standards referencing; professional judgment. This was followed by a summary of the major categories.

Keywords: clinical assessment, competence, education, diagnostic radiography, reliability, validity, standards.

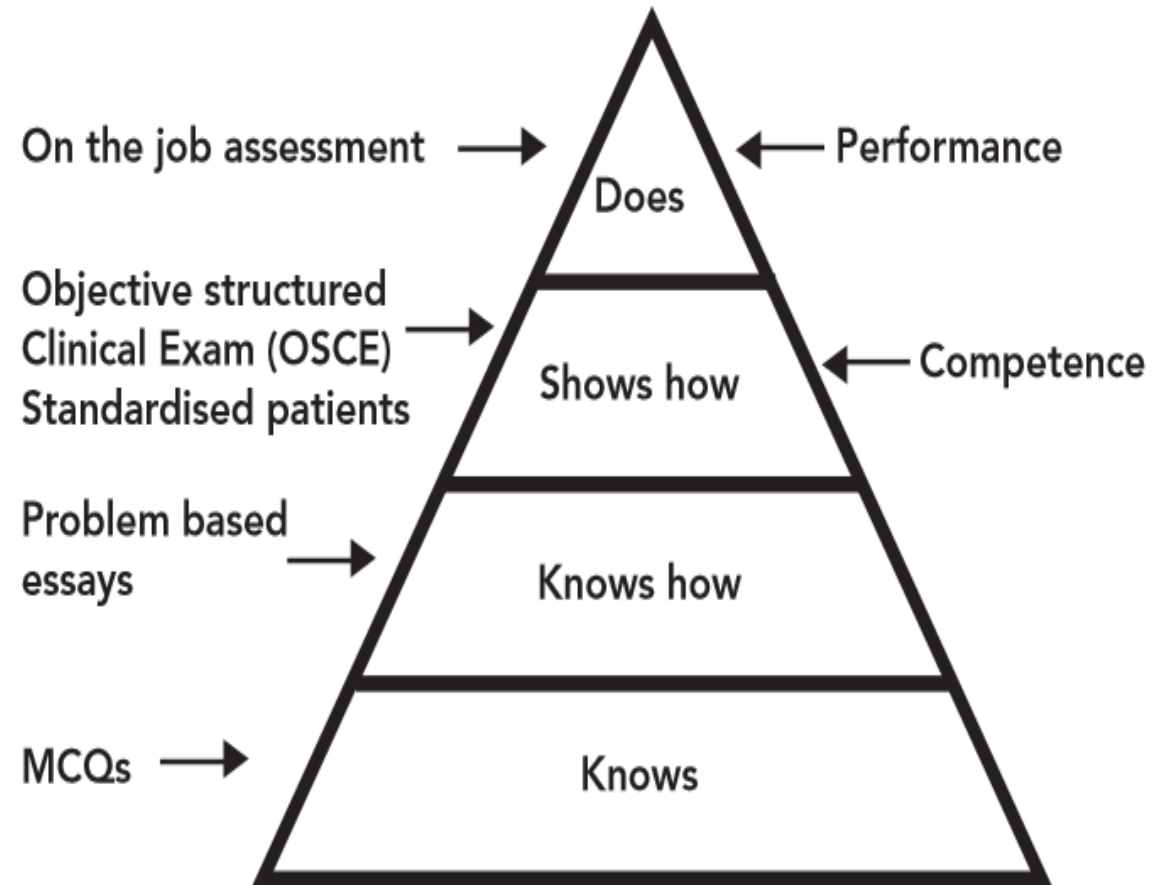
A J Kilgour
AssDipMedRad, GradCertClinEd,
MRadPrac

University of Sydney,
Faculty of Health Sciences,
Lidcombe,
New South Wales 2141,
Australia.

Correspondence to
andrew.kilgour@sydney.edu.au

2.2 Assessing students

- Miller's pyramid of clinical assessment (Kilgour, 2011)
- Assessment of clinical competence
 1. OSCE
 2. Direct observation of procedural skills (DAPS)
 3. Oral assessment
- Assessment of clinical performance
 1. Direct observation of procedural skills (DAPS)
 2. Oral assessment
 3. Practical logbook



2.2 Failing to fail students

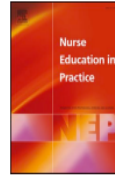
Nurse Education in Practice 36 (2019) 64–70



Contents lists available at ScienceDirect

Nurse Education in Practice

journal homepage: www.elsevier.com/locate/nepr



Clinical education

Are Norwegian mentors failing to fail nursing students?

Kari Westad Hauge*, Hege Bakken, Ole David Brask, Anne Gutteberg, Bente Dale Malones, Ingeborg Ulvund

Department of Nursing and Social Sciences, Høgskolen i Molde, Postboks 2110, 6402, Molde, Norway



ARTICLE INFO

Keywords:
Failing to fail
Student nurse
Mentors
Survey

ABSTRACT

It is highly important that nursing students are well educated and become safe and competent practitioners. This article presents the findings from a quantitative study investigating if Norwegian mentors fail to fail nursing students not achieving the learning outcomes in clinical studies in the bachelor's programme in nursing, in addition to the factors influencing their decisions. A survey was conducted among nurse mentors in hospital- and home-based nursing care in two Norwegian municipalities, and 561 nurses answered the questionnaire. The findings indicate that mentors sometimes fail to fail nursing students in clinical studies. Important factors influencing this decision were that the students did not put the patient's life at risk and that the mentors gave the student the benefit of the doubt. The mentors in our study thought that failing to fail students was not related to personal challenges and burdens. They also felt a lack of support from the educational institution. The findings suggest some future directions for nurse education programmes. The training of mentors, especially in managing failing students, and better support from liaison lecturers from the educational institution are important. It is also suggested that nurse education programmes together with mentors discuss the distinction between unsafe practices and learning outcomes for clinical studies.

Received: 26 August 2020 | Accepted: 3 November 2020

DOI: 10.1002/nop.2.717

RESEARCH ARTICLE

NursingOpen WILEY

Challenges in the assessment of nursing students in clinical placements: Exploring perceptions among nurse mentors

Bjørg Christiansen | Gertrud Averlid | Cynthia Baluyot | Karin Blomberg | Anne Eikeland | Ingrid Rachel Strand Finstad | Monica Holm Larsen | Katrin Lindeflaten

Department of Nursing and Health Promotion, Faculty of Health Sciences, Oslo Metropolitan University, Oslo, Norway

Correspondence

Bjørg Christiansen, Department of Nursing and Health Promotion, Faculty of Health Sciences, Oslo Metropolitan University, Oslo, Norway.
Email: bjorgchr@oslomet.no

Abstract

Aim: The aim was to explore how nurse mentors experience the assessment of nursing students in clinical placements at hospitals and in municipal health care.

Design: The study is qualitative with an explorative and descriptive design.

Methods: Based on an interview guide, we conducted 19 individual qualitative interviews and four focus group interviews with nurse mentors from various levels and fields of nursing education at a Norwegian university.

Results: Feedback in and on action was an integrated part of the formative assessment. In the summative assessment, where the university lecturer also participates, the nurse mentors perceived their role as passive. A disturbing finding was that divergent views on the student's competence sometimes occurred in these situations, thus challenging the credibility of the student assessment. Perceptions of nursing values and concerns embedded in nursing practice as collective criteria appear to have an impact on the mentors' assessment of the nursing students.

KEYWORDS

clinical placement, mentorship, nurses, nursing

2.3 Supportive role of a clinical educator

- This deals with supporting students:
 1. Struggling with studies
 2. Bullied and harassed
 3. Sick or stressed
 4. Learning difficulties and disabilities
 5. Social issues such as accommodation during placement

IAR Journal of Medical Sciences

ISSN Online : 2708-3594

Frequency : Bi-Monthly

Language : English

Origin : Kenya

Website : <https://www.iarconsortium.org/journal-info/iarjms>



OPEN ACCESS JOURNALS

Original Review Article

Supportive Function of the Clinical Supervision of Radiography Students


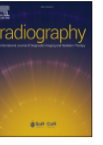
Article History	Abstract
<p>Received: 25.05.2020 Revision: 09. 06.2020 Accepted: 14. 06.2020 Published: 20. 06.2020</p>	<p>Clinical supervisors are faced with daily challenges of managing and supporting radiography students from all levels of training and with varying degree of autonomy. However, there is a lack of literature and guidelines to support radiographers who provide practice-based learning to radiography students with learning difficulties and disabilities during clinical practice. The purpose of this article is to bring about awareness and provide information and guidance to clinical supervisors of radiography students on how to support learners with learning difficulties and disabilities. This information will also be useful to other healthcare professionals, such as nurses, pharmacists, physiotherapists, and medical doctors who facilitate practice-based learning for healthcare students in the clinical environments.</p> <p>Keywords: Bullying, disability, harassment, learning difficulty, radiographer, radiography student, stress, struggling student.</p> <p>INTRODUCTION</p> <p>Clinical practice is an essential component of radiography education which allows students to develop their competences under the supervision of radiographers who act as clinical supervisors (College of Radiographers, 2012). Clinical practice provides an opportunity for students to integrate theory with practice and attain the social and technical skills that are required to practice as radiographers. A clinical supervisor constitutes an important resource in this professional development. One of the roles of a clinical supervisor is to support students with learning difficulties (Murphy, 2011; University College Dublin, 2011). There are two other terminologies used to describe learning difficulties: “disability”,</p>
Author Details	
<p>Oswald Bwanga*¹ and Kelvin Chitamya²</p>	
Authors Affiliations	
<p>¹Diploma in Radiography, BSc Radiography, MSc Advanced Practice (Radiography), MSc Health Professions Education Midland Regional Hospital at Tullamore, Radiology Department, Co. Offaly, Ireland</p> <p>²Diploma in Radiography, BTech Radiography, MSc Radiography, Evelyn Hone College of Applied Arts and Commerce, School of Applied and Health Sciences, Lusaka, Zambia</p>	
Corresponding Author*	
<p>Oswald Bwanga</p>	
How to Cite the Article	

3. Challenges of clinical education

- Non-availability of clinical education courses
- Lack of training among clinical educators
- Lack of planning
- Lack of guidelines
- Departmental workload
- Lack of protected time
- Lack of clinical educator position in radiography career pathway
- Lack of incentives
- Lack of research

Radiography 29 (2023) 629–634

Contents lists available at ScienceDirect

 **Radiography** 

journal homepage: www.elsevier.com/locate/radi

Recruitment and retention of radiography clinical practice educators

M. O'Connor*, A. Lunney, L. Rainford, J. Grehan

Radiography and Diagnostic Imaging, School of Medicine, University College Dublin, Dublin, Ireland

A R T I C L E I N F O

Article history:
Received 19 February 2023
Received in revised form
31 March 2023
Accepted 5 April 2023

A B S T R A C T

Introduction: Clinical Practice Educators (CPEs) play a vital role in radiography education, fostering the development of students' clinical competence and creating positive learning experiences. In recent years, there has been a high turnover and difficulties recruiting radiography CPEs in Ireland. This is the first study to explore issues surrounding recruitment and retention of radiography CPEs.

Method: A cross-sectional, mixed-method study was conducted to gain a better understanding of the issues surrounding recruitment and retention of radiography CPEs. Current and former CPEs affiliated with undergraduate radiography training in Ireland were recruited. CPEs completed an online questionnaire detailing demographics and career background. Online semi-structured focus groups were conducted with current CPEs and interviews with former CPEs.

Results: Nineteen current CPEs completed the questionnaire and participated in focus groups (95% response rate). Ten CPEs who had resigned within the last five years were interviewed. The main motivators for CPEs were an interest in teaching, inspiration from role models, personal learning goals and the appeal of part-time employment. Job satisfaction was influenced by efficacy in the role, professional growth, autonomy, and relationships with stakeholders. The main disincentives were the CPE grade not being commensurate with work involved, lack of protected time and lack of support from colleagues. A variety of reasons for resignation were provided, many of which related to grading of the CPE post and lack of career progression opportunities in the role.

Conclusion: The findings outline the key motivators for radiography CPEs and disincentives relative to recruitment and retention of radiography CPEs in Ireland.

Implications for practice: By understanding the disincentives relative to CPE recruitment and retention, along with the motivators, employers can devise initiatives that reduce turnover and increase CPE retention.

© 2023 The Author(s). Published by Elsevier Ltd on behalf of The College of Radiographers. This is an open access article under the CC BY license (<http://creativecommons.org/licenses/by/4.0/>).

4. Research on clinical education

ORIGINAL ARTICLE

Developing a Framework Strategy for Supporting Radiographers in the Clinical Supervision of Radiography Students in Zambia: A Mixed Methods Study

Osward Bwanga^{1*}

OPEN ACCESS

Citation: Osward Bwanga. Developing a Framework Strategy for Supporting Radiographers in the Clinical Supervision of Radiography Students in Zambia: A Mixed Methods Study. *Ethiop J Health Sci.* 2020;30(6):971. doi:<http://dx.doi.org/10.4314/ejhs.v30i6.15>

Received: May 19, 2020

Accepted: June 09, 2020

Published: November 1, 2020

Copyright: © 2020 Osward B. This is an open access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Funding: Nil

Competing Interests: The authors declare that this manuscript was approved by all authors in its form and that no competing interest exists.

Affiliation and Correspondence:

¹Midland Regional Hospital at Tullamore, Radiology Department, Co. Offaly, Ireland
*Email: o.bwanga@yahoo.com

ABSTRACT

BACKGROUND: Clinical supervisors of radiography students play a key role in the facilitation of practice-based learning. However, there is a scarcity of evidence-based strategies to support clinical supervisors. This study aimed at exploring the level of support required by radiographers in order to develop a framework strategy for supporting clinical supervisors of radiography students in Zambia.

METHODS: This study used an exploratory sequential mixed-methods approach. The qualitative phase was conducted first, and the findings were used to develop the questionnaire for the quantitative phase. The study population was radiographers working in the Lusaka and Copperbelt provinces of Zambia. For the first phase, data were collected from a purposive sample of 10 clinical supervisors of radiography students. For the survey, data were collected from 120 radiographers using a questionnaire. In the third phase, a group of experts validated the proposed framework using an online questionnaire. Qualitative data were analysed thematically and quantitative data using statistics.

RESULTS: Four support areas were identified: training and education in clinical supervision, clinical training resources, human resources and relationships, and quality assurance programmes related to clinical supervision. These findings informed the development of a support framework strategy for clinical supervisors.

CONCLUSION: This study has revealed that clinical supervision of radiography students requires coordinated support from stakeholders: schools of radiography, professional body, and radiology and hospital management. It is anticipated that the developed framework, when implemented, will enhance the experiences of clinical supervisors and improve the quality of clinical education.

KEYWORDS: Clinical supervisor, clinical supervision, radiographer, radiography student, Zambia

Roles of clinical supervisors in the clinical training of radiography students in Zambia: a qualitative study

Osward Bwanga¹, Edward Mwansa²

1. Midland Regional Hospital at Tullamore, Radiology Department, Co. Offaly, Ireland.

E-mail: o.bwanga@yahoo.com

2. Evelyn Hone College of Applied Arts and Commerce, School of Applied and Health Sciences, Lusaka, Zambia.

E-mail: eddiemwansa3@gmail.com

Abstract

Introduction: Clinical supervisors are responsible for the facilitation of practice-based learning for radiography students. However, literature is scarce on the roles of clinical supervisors in the clinical training of students in Zambia.

Objective: This study was aimed at identifying and exploring the roles of clinical supervisors in the clinical training of radiography students in Zambia.

Methods: A qualitative design with unstructured interviews was used in this study. Ten individual interviews were conducted in July 2018 with clinical supervisors of radiography students working at the main clinical training and placement sites of the Lusaka and Copperbelt provinces of Zambia, respectively. All digital interview recordings were transcribed verbatim and analysed thematically.

Results: Three main roles of a clinical supervisor emerged: managerial, educational, and supportive. The managerial role deals with organising and managing clinical training resources. The educational role involves imparting knowledge and skills to students. The supportive role involves supporting students with social and learning problems. Findings show the inter-relationship of these roles to each other.

Conclusion: Clinical supervisors need to understand their roles in order to develop and maintain their competences in the facilitation of practice-based learning. This could also help stakeholders to provide appropriate support to clinical supervisors.

Keywords: clinical supervisor, clinical training, radiographer, radiography student, Zambia.

DOI: <https://dx.doi.org/10.4314/ahs.v22i2.73>

Cite as: Bwanga O, Mwansa E. Roles of clinical supervisors in the clinical training of radiography students in Zambia: a qualitative study. *Afri Health Sci.* 2022;22(2): 638-646. <https://dx.doi.org/10.4314/ahs.v22i2.73>

4. Research on clinical education

THE SOUTH AFRICAN RADIOGRAPHER volume 58 number 2 | NOVEMBER 2020
OPEN ACCESS online only

peer reviewed ORIGINAL ARTICLE

Experiences of clinical supervisors regarding the clinical training of radiography students in Zambia

Oswald Bwanga¹ BSc Radiography, MSc Advanced Practice (Radiography), MSc Health Professions Education, PhD
James Maimbo Sichone² Diploma in Radiography, BTech Radiography, MTech Radiography, PhD

¹Midland Regional Hospital at Tullamore, Radiology Department, Co. Offaly, Ireland

²University of Zambia, School of Health Sciences, Radiography Section, Lusaka, Zambia

ABSTRACT

Introduction. Clinical supervisors play a vital role in the training of radiography students. There is a lack of published research that investigates the experiences of clinical supervisors in the facilitation of practice-based learning for radiography students.

Objective. This qualitative study aimed to explore the experiences of clinical supervisors regarding the clinical training of radiography students in Zambia.

Methods. A qualitative research design, with a phenomenological approach, was used. Data were collected using semi-structured interviews with a purposive sample of ten clinical supervisors of radiography students working in the Lusaka and Copperbelt provinces of Zambia. Data were transcribed verbatim and analysed thematically.

Results. Clinical training of radiography students impacts positively or negatively on clinical supervisors. Experiences, such as the availability of X-ray equipment and teaching aids, positive attitude of students towards learning, positive clinical supervisor characteristics, and knowledge and experience in radiography, positively influenced clinical supervisors in the facilitation of students' learning. On the other hand, insufficient clinical education knowledge, inadequate supply of resources, out-dated X-ray equipment, shortage of clinical supervisors, over-enrolment of students and a lack of support from stakeholders, negatively affected clinical supervisors in the facilitation of students' learning.

Conclusions. The findings shed light on the experiences of clinical supervisors regarding the clinical training of radiography students. There is a need to support clinical supervisors in enhancing their experiences. It is recommended that a clinical supervision course be developed and that continuing professional development (CPD) on clinical education be provided. In addition, incentives should be implemented for clinical supervisors. There is also a need to increase imaging consumables and staffing levels in teaching hospitals.

Keywords experience, qualitative research, radiographer

Original Research Paper

Factors Affecting Radiographers in the Clinical Supervision of Radiography Students in a Limited Resource Setting: A Survey in Zambia

Bwanga, O.¹, Sichone, J.M.², Kaonga, P.³

Abstract

Background and Purpose: Clinical teaching and learning are an important aspect of radiography programmes. It enables radiography students to acquire knowledge, attitudes, skills, and competence under the clinical supervision of designated radiographers. However, there is a paucity of research on radiography clinical training and the factors that impact on it. This study aimed to evaluate factors that affect supervising radiographers in the clinical supervision of radiography students in Zambia.

Methods: A cross-sectional design was utilised in this study. A self-administered questionnaire was used to collect data from supervising radiographers (N=120) working in public hospitals affiliated with the schools of radiography and located in the Lusaka and Copperbelt provinces of Zambia. Data were analysed using descriptive and inferential statistical methods.

Results: The response rate was 75% (N=120/160). Supervising radiographers rated the current system of clinical supervision as being unsatisfactory. Factors that facilitated the clinical supervision process were an adequate supply of X-ray films, students sharing their learning problems and radiology department management support. On the other hand, factors that inhibited the clinical supervision process were a lack of guidelines, lack of theory amongst students, combined supervision of diploma and degree students, student overcrowding, lack of educational audits, unjustified imaging requests, insufficient clinical teaching knowledge, and inadequate faculty and hospital management supports.

Conclusion: Supervising radiographers encounter both facilitating and inhibiting factors in the facilitation of practice-based learning for radiography students. More collaboration amongst key stakeholders and supports are necessary to overcome the challenges identified in this study.

Keywords: Clinical supervision, facilitating factor, inhibiting factor, radiography student, supervising radiographer, Zambia

4. Research on clinical education

Radiography 29 (2023) 291–300



Radiographers' perspectives on clinical supervision of students in Ireland

R. Young^{a,*}, M.F. McEntee^a, D. Bennett^b

^a Discipline of Medical Imaging and Radiation Therapy, School of Medicine, University College Cork, Ireland
^b Medical Education Unit, School of Medicine, University College Cork, Ireland



ARTICLE INFO

Article history:
Received 17 June 2022
Received in revised form
17 November 2022
Accepted 23 December 2022

Keywords:
Student supervision
Radiography
Clinical education
Self-efficacy
Barriers
Potential support

ABSTRACT

Introduction: Optimising clinical education in radiography is crucial to ensure competent graduates provide safe and effective patient care. Radiographers play a vital role in student supervision undertaken in the complex clinical environment. A greater understanding of factors influencing their ability to undertake this role effectively is needed. The study aimed to explore radiographers' attitudes and perceptions of confidence in undertaking clinical supervision and perceived barriers in a 'real-life' clinical department.

Methods: The lens of Bandura's social-cognitive theory was utilised to assist the exploration of the desired constructs. An anonymous online survey was developed and circulated among qualified radiographers in Ireland. Descriptive (frequencies and percentages) and inferential statistical testing was undertaken. Thematic analysis was conducted on optional free-text comments.

Results: 217 responses were received. Although most radiographers reported a positive attitude (73.3%), a significant minority reported not being confident across survey items related to the tasks required (ranging from 20.7%–29.1%). Time pressures from clinical workload, perceived lack of organisational support, and lack of guidance on expectations were highlighted challenges.

Conclusion: The survey has enabled first-hand identification of some challenges radiographers encounter in undertaking students' clinical supervision. Radiographers must be supported to optimise the clinical learning environment where both students and educators are valued.

Implications for practice: The findings highlight impact on educational support, practice, policy and future research. Effective clinical supervision is dependent on collaborative engagement and support being evident at all levels, including the clinical department, academic and healthcare institutions, and national organisations.

© 2023 The College of Radiographers. Published by Elsevier Ltd. All rights reserved.

Radiography 23 (2017) S7–S15



Clinical radiography education across Europe

A. England^{a,b,*}, S. Geers-van Gemenen^c, A. Henner^{a,d}, T. Kukkes^{a,e}, D. Pronk-Larive^a, L. Rainford^{a,f}, J.P. McNulty^{a,f}

^a European Federation of Radiographer Societies, Catharijnensingel 73, 3511 GM Utrecht, The Netherlands
^b Directorate of Radiography, School of Health Sciences, University of Salford, Allerton Building, Salford M5 4WT, United Kingdom
^c Nederlandse Vereniging Medische Beeldvorming en Radiotherapie, Catharijnensingel 73, 3511 GM Utrecht, The Netherlands
^d School of Health and Social Care, Oulu University of Applied Sciences, Kiviharjuntie 8, FI-90220 Oulu, Finland
^e Tartu Health Care College, Nooruse 5, 50411, Tartu, Estonia
^f Radiography and Diagnostic Imaging, School of Medicine, University College Dublin, Health Sciences Centre, Belfield, Dublin 4, Ireland



ARTICLE INFO

Article history:
Received 10 April 2017
Received in revised form
17 May 2017
Accepted 20 May 2017
Available online 8 June 2017

Keywords:
Clinical training
Radiography education
European perspective
Teaching and learning
Assessment
Supervision

ABSTRACT

Purpose: To establish a picture of clinical education models within radiography programmes across Europe by surveying higher education institutions registered as affiliate members of the European Federation of Radiography Societies (EFRS).

Method: An online survey was developed to ascertain data on: practical training, supervisory arrangements, placement logistics, quality assurance processes, and the assessment of clinical competencies. Responses were identifiable in terms of educational institution and country. All educational institutions who were affiliate members at the time of the study were invited to participate (n = 46). Descriptive and thematic analyses are reported.

Results: A response rate of 82.6% (n = 38) was achieved from educational institutions representing 21 countries. Over half of responding institutions (n = 21) allocated in excess of 60 European Credit Transfer and Accumulation System (ECTS) credits to practical training. In nearly three-quarters of clinical placements there was a dedicated clinical practice supervisor in place; two-thirds of these were employed directly by the hospital. Clinical practice supervisors were typically state registered radiographers, who had a number of years of clinical experience and had received specific training for the role. Typical responsibilities included monitoring student progress, providing feedback and completing paperwork, this did however vary between respondents. In almost all institutions there were support systems in place for clinical placement supervisors within their roles.

Conclusions: Similarities exist in the provision of clinical radiography education across Europe. Clinical placements are a core component of radiography education and are supported by experienced clinical practice supervisors. Mechanisms are in place for the selection, training and support of clinical practice

5. Conclusion

- A clinical educator is a professional, not a technician
- Need to know and understand teaching principles
- Recommendations to improve clinical education in radiography:
 1. Establishment of clinical education courses
 2. Train clinical educators of radiography students
 3. Include clinical educator position in the career pathway
 4. Offer CPDs in clinical education
 5. Research is needed to inform teaching practice

“Change will not come if we wait for some other person or some other time. We are the ones we’ve been waiting for. We are the change that we seek” (Barack Obama)

6. References

- Bwanga O, Sichone JM. Experiences of clinical supervisors regarding the clinical training of radiography students in Zambia. *The South African Radiographer*. 2020; 58(2): 22-28.
- Cantillon P, Sargeant J. Giving feedback in clinical settings. *BMJ*. 2008;337:a1961. Published 2008 Nov 10. doi:10.1136/bmj.a1961
- England A, Geers-van Gemeren S, Henner A, et al. Clinical radiography education across Europe. *Radiography (Lond)*. 2017;23 Suppl 1:S7-S15. doi:10.1016/j.radi.2017.05.011
- Gliatto PM, Stern DT. Professionalism. In: Dent, J.A. and Harden, R.M., Eds. *A Practical Guide for Medical Teachers*. 3rd Edition, London: Elsevier, 81-288; 2009.

6. References

- Kilgour AJ. Assessment of competency in radiography students- a new approach. *Radiographer*, 2011. 58 (3): 32-37.
- Rose M, Best D. Transforming practice through clinical education, professional supervision, and mentoring. London: Elsevier Limited; 2005
- Setati CM, Nkosi ZZ. The perceptions of professional nurses on student mentorship in clinical areas: A study in Polokwane municipality hospitals, Limpopo province. *Health SA Gesondheid*, 2017; 22: 130-137.
- Young R, McEntee MF, Bennett D. Radiographers' perspectives on clinical supervision of students in Ireland. *Radiography (Lond)*. 2023;29(2):291-300. doi:10.1016/j.radi.2022.12.009

Thank You

Contact: o.bwanga@yahoo.com