Teaching Professionalism to Radiography Students in the Diagnostic Imaging Department

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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 students 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.

INTRODUCTION
Radiographers working in hospitals affiliated with the schools of radiography in Zambia are responsible for the clinical supervision of radiography students. This obligation is stated in the Code of Professional Conduct for Radiographers “You have a professional responsibility to take part in the education and training of radiography students” [1]. One of their roles is to teach professionalism to radiography students during their clinical placements. Radiography students are given the opportunity to apply professional ethics, morals, and standards of behaviour of the radiography profession taught in the classroom into practice. Although the word “professionalism” is frequently used in healthcare, it is difficult to define because the definition of professionalism varies according to culture of the community, regulatory and professional bodies, and authors. The most suitable definition found by this author is from the medical profession. The Royal College of Physicians [2] defines professionalism as a set of values, behaviours, and relationships that underpin the trust the public has in healthcare professionals. This means that professionalism is a core competency of a radiographer.

Recently, there have been calls to formally teach professionalism to students during their clinical training for three main reasons. Firstly, professionalism is under increasing scrutiny across all healthcare professions and fitness to practice cases heard by regulatory bodies, such as the Health Professional Council of Zambia (HPCZ) often include components of unprofessional behaviour. Secondly, litigation has become a frequent practise in our society, making it important that students and radiographers are familiar with the moral, ethical, and legal implications of their actions [3]. Thirdly, there is evidence from the medical profession that certain unprofessional behaviours observed in students during training continues into their careers [4]. Unfortunately, there is a lack of educational material to support radiographers in teaching and assessing professionalism to radiography students in the clinical environment. Therefore, the aim of this article is to educate radiographers who supervise students on the methods of teaching and assessing professionalism to radiography students, as well as on the challenges that can be encountered in performing this role.

Methods of Teaching Professionalism to Radiography Students during Their Clinical Placements
Teaching professionalism to students in the clinical environment is complex and cannot be compared to teaching the knowledge of radiography. This is because most of the learning about professional values and behaviours expected of those in the
Teaching Professionalism to Radiography Students through Role Modelling

Role modelling is teaching by example and learning by imitation [8]. Radiography students model their behaviours and actions of those they see around them. By observation of radiographers, and participation in clinical activities, students develop their attitudes, values, and professional competencies. Role modelling is therefore an essential and powerful clinical teaching and learning strategy that helps radiography students to develop their professional identities. In a study conducted in Canada by Bolderston and Morgan [9] on the experiences of radiography students during their clinical placement, one radiation therapy student explained how learning took place through role modelling:

“The radiation therapist asked the patient whether she knew about the side effects that may be expected from treatment. She answered gruffly, ‘Yes, I do! However, I do not want to talk about it’. I was stunned and wondered how a radiation therapist should respond to such an answer. I observed that the therapists politely accepted and respected her decision without further questions and noticed that they remained calm and professional throughout the time. In addition, after her treatment, I found that the patient appeared relaxed and cheerful” (p 155).

The concept of role modelling originated from Bandura’s social learning theory, which suggests that learning can take place by being with others and watching them [7]. Thus, role modelling occurs when an individual learns by observing another person through direct observation and reflection. The process of role modelling is influenced by the relationship between the role model and the student, the usefulness of what is being modelled, the student’s ability to undertake the role and the student’s own motivation to learn [9]. Research on radiography students’ perceptions and experiences of their clinical placements shows that students regard radiographers who demonstrate clinical competence, effective clinical teaching skills, and personal attributes which promote patient care and interpersonal relationships as positive role models [10-12]. For this reason, radiographers should constantly reflect upon their practices and professional behaviours as radiography students emulate their conduct. Everything a supervising radiographer does, whether positive or negative, is likely to be regarded by radiography students as acceptable practice and behaviour.

Although role modelling is essential for the development of the radiography student’s identity, relying on this method alone in teaching professionalism in the clinical learning environment can be unsafe. This is because students can easily pick up bad practices from supervising radiographers. Murray and Main [8] states that to be accepted into the clinical learning environment, students will internalise poor practice if it is the norm. For example, if a radiography student is attached to an X-ray department where radiographers do not greet and introduce themselves to their patients before the radiological examination, the student can also follow suit in this unprofessional behaviour. For this reason, professionalism should be taught to radiography students formally in the clinical learning environment by integrating it into the clinical education curriculum.

Teaching Professionalism to Radiography Students through Integration into Clinical Education Curriculum

The integration of professionalism into the clinical education curriculum is another method of teaching professionalism to radiography students. Kirt [13] suggests five steps involved in teaching professionalism to students: defining the characteristics of the expected behaviour, teaching and assessment of professionalism, remediation, and promoting a culture of professionalism. These steps are discussed in relation to teaching and learning in the clinical environment and radiography context.

Defining the Characteristics of the Expected Behaviour of Radiography Students

The first step in teaching professionalism is defining the characteristics of the expected behaviour of radiography students in the clinical learning environment. Kirk [13] suggests that a written policy statement on professionalism can be developed which details acceptable and unacceptable behaviours. In Zambia, this should be based on the Code of Professional Conduct for Radiographers [1] issued by the Radiological Society of Zambia. The Code sets out the standards of conduct, performance and ethics for radiographers which must be adhered to throughout the course of work. The policy statement should describe the processes relating to reporting channels, due process, absence of retaliation for those who report unacceptable behaviours, remediation processes and follow-up meetings [13]. The professionalism policy statement and a copy of the Code of Professional Conduct for Radiographers should be made available to all radiography students on their first day of placement as part of the induction process. This is useful for reference purpose. The expected behaviour for which radiography students will be assessed and held accountable during clinical training should be clearly explained to them during the induction process as well as the consequences of acting unprofessional in the X-ray department.

Teaching Professionalism to Radiography Students based on the Code of Professional Conduct

The second step of teaching professionalism to radiography students is through integration it into daily work activities. It is the author’s view that teaching professionalism to radiography students should be based on the Code of Professional Conduct for
Radiographers [1] issued by Radiological Society of Zambia. The code has four sections: relationships with patients, the scope of professional practice, personal standards in professional practice and relationships with other healthcare staff. In a research study conducted in Estonia by Challen et al., [12], radiography students understood their role of applying theory taught in the classroom on professionalism into practice:

“College is the place where professionalism is taught to us to a large extent, and clinical placement gives us an opportunity to reflect upon it and compare with it” (p4).

It is therefore paramount that clinical tutors and other radiographers who supervise students have the knowledge in teaching professionalism in the clinical environment, understand the Code of Professional of Conduct for Radiographers, and give opportunities to radiography students to apply theory into practice in this area.

Assessment of Radiography Students’ Behaviour

The third step involved in teaching professionalism is the assessment of radiography students’ behaviour. Globally, regulatory bodies have called for increased attention to the assessment of professionalism amongst healthcare students [5, 14]. This includes radiography students. The reason for assessing professionalism is to determine whether students have this core competency and what kind of deficiency they need to address during their clinical training. It is worth mentioning that assessment drives learning [15, 7]. This means that radiography students will attempt to master professionalism and study the Code of Professional of Conduct for Radiographers if they know they will be assessed at the end of placement regarding this core competency of a radiographer. Without assessment, educators and radiography students will have no yardstick with which to gauge the level of training regarding professionalism. It is the author’s opinion that the assessment of professionalism can also convey the message to radiography students and stakeholders that professionalism is important in radiography and is valued in the delivery of quality diagnostic imaging services.

An important method for assessing professionalism amongst radiography students is multi-source feedback or 360-degree evaluations [15]. This involve evaluation by radiographers, radiologists, radiology nurses, darkroom technicians, supporting staff, peers, and patients. The perceptions from multiple sources offer a unique perspective on the qualities of a professional radiographer such as compassion, respect for patients and their carers, communication skills, cultural awareness, and the ability for teamwork. The other method of assessing professionalism found in the literature is through direct observation by the assessors or examiners [16, 15]. In the direct observation approach, the assessors observe the radiography student performing a procedure or examination and determine the level of professionalism using a standardised assessment rating scale. Buchanan et al., [17] identify five assessable components of professionalism: adherence to ethical clinical practice principles, effective interactions with patients and the people who are important to these patients, effective interactions with individuals within the healthcare system, reliability and accountability, and commitment to improvement. All these assessable components are stated in the Code of Professional Conduct for Radiographers.

Remediation Process Due to Lapses in Professionalism by Radiography Students

The fourth step involved in teaching professionalism to radiography students is remediation. Cohen et al., [18] define remediation as an intervention or suite of interventions required in response to an assessment against threshold standards of performance. The remediation process involves early identification of unacceptable behaviours, followed by a meeting with the student to explain what is acceptable based on the professionalism policy statement and Code of Professional Conduct provided during the induction process, and to develop an explicit remediation plan [19]. In addition, the possible consequences for not improving should be communicated to the radiography student, which may include probation or dismissal from placement. The discussion should be documented and communicated to the respective school of radiography through the coordinator of students’ clinical placements.

Promoting a Culture of Professionalism in the Diagnostic Imaging Department

The final step involved in teaching professionalism to students is the development of a supportive institutional culture [5, 19]. Any efforts in teaching and assessment of professionalism to radiography students will have little efficacy if they occur in the X-ray department that does not promote professionalism amongst its radiographers and other radiology staff. In this regard, clinical educators who supervise students have a responsibility to explicitly set expectations and talk about and define professionalism [13, 5, 19]. This is a reminder to managers of X-ray department (chief radiographers) in hospitals affiliated with the schools of radiography to promote the culture that promotes professionalism in their departments.

Challenges of Teaching Professionalism to Radiography Students during Their Clinical Placements

Some challenges of teaching professionalism to students were found in the literature and are applicable to radiography. The first challenge relates to the lack of a shared definition of what professionalism is amongst clinical educators and students [5]. An understanding of the meaning of professionalism in the radiography context can prevent confusion in defining or stating the characteristics of professional and unprofessional behaviours to include in the policy statement. Paying visits and making presentations on professionalism by professional bodies, such as the Radiological Society of Zambia (RSZ) could help overcome this challenge. The second challenge is a lack of consequences for clinical staff and students who engage in unprofessional behaviours [5]. This also includes an organisational culture which is lenient in punishing students and radiographers who demonstrate unacceptable behaviours. This finding serves as a timely reminder to heads of X-ray departments (chief radiographers) to offer the
same punishment to students as well as other radiology staff. The third challenge is a lack of meaningful recognition for those whose professional behaviour may be exemplary [19]. This is a reminder to radiographers to praise radiography students directly, giving them a praise card or have their course coordinator alerted when they display exemplary behaviour during their clinical placement.

**CONCLUSION**

In conclusion, teaching professionalism is a very important in the training of radiography students in order to produce professional radiographers and improve the quality of diagnostic imaging services. The process starts with the selection of candidates for undergraduate radiography educational programmes. This is because the type of candidates recruited at the beginning can determine the kind of radiographers to come out at the end of the training programme. This academic article has discussed two methods of teaching and assessing professionalism to students, as well as the challenges of teaching this subject in the X-ray department. An understanding of these will help clinical tutors and other radiographers who supervise students to effectively facilitate practice-based learning for radiography students. There is also limited research on teaching and assessing professionalism to radiography students in the clinical learning environment. More research is needed from both students' and radiographers' perspectives in order to develop policies which are evidenced-based.

**REFERENCES**

1. Radiological Society of Zambia. (2018). Code of conduct for radiographers. Lusaka: The Radiological Society of Zambia.
2. Royal College of Physicians. (2005). Report on doctors in society: Medical professionalism in a changing world. *Clinical Medicine*, 5(6): 5-40.
3. Ehrlich, R. A., & Daly, J. A. (2009). Patient care in radiography with an introduction to medical imaging (7th ed.). St. Louis: Mosby Elsevier.
4. Papadakis, M. A., Teherani, A., Banach, M. A., Knettler, T. R., Rattner, S. L., Stern, D. T., ... & Hodgson, C. S. (2005). Disciplinary action by medical boards and prior behavior in medical school. *New England Journal of Medicine*, 353(25), 2673-2682.
5. Gliatto, P. M., & Stern, D. T. (2009). Professionalism. In: Dent, J. A., & Harden, R. M. (Eds.), A practical guide for medical teachers (3rd ed.). London: Churchill Livingstone Publisher Ltd: 281-288.
6. Ponnamperuma, G., Ker, J., & Davis, M. (2012). Medical professionalism: teaching, learning and assessment. *South East Asian Journal of Medical Education*, 42-44.
7. Walsh, D. (2014). The nurse mentor’s handbook-supporting students in clinical practice (2nd ed.). Berkshire: Open University Press.
8. Murray, C. J., & Main, A. (2005). Role modelling as a teaching method for student mentors. *Nursing Times*, 101(26): 30-33.
9. Bolderston, A., & Morgan, S. (2010). Global impact: An examination of a Caribbean radiation therapy student placement at a Canadian Teaching Hospital. *Journal of Medical Imaging and Radiation Sciences*, 46(3): 152-158.
10. Conway, A., Lewis, S., & Robinson, J. (2008). Final-year diagnostic radiography students’ perception of role models within the profession. *Journal of Allied Health*, 37(4): 214-220.
11. Mifsud, C. P., Castillo, J., & Portelli, J. L. (2015). Radiography students’ clinical placement experiences in MRI: A phenomenological study. *Radiography*, 21(1): e17-e20.
12. Challen, V., Laanelaid, Z., & Kukkes, T. (2017). A qualitative study of perceptions of professionalism amongst radiography students. *Radiography*, 23(1): 23-29.
13. Kirk, L. (2007). Professionalism in medicine: definitions and considerations for teaching. *Baylir University Medical Center Proceedings*, 20(1): 13-16.
14. Health Professions Council Research Report. (2014). Professionalism in healthcare professionals. London: The Health and Care Professions Council.
15. Kilgour, A. J. (2011). Assessment of competency in radiography students-a new approach. *Radiographer*, 58(3): 32-37.
16. Almohiy, H., & Davidson, R. (2011). Evaluating the clinical teaching of medical imaging students at Curtin University of Technology, Australia. *Biomedical Imaging and Intervention Journal*, 7(3): 1-5.
17. Buchanan, A. O., Stallworth, J., Christy, C., Garfunkel, L. C., & Hanson, J. L. (2012). Professionalism in practice: strategies for assessment, remediation, and promotion. *Paediatrics*, 129(3): 407-409.
18. Cohen, D., Rhydderch, M., & Copper, I. (2014). Managing remediation. In: T. Swanwick (Ed), Understanding medical education evidence, theory and practice (2nd ed.). London: Blackwell Publisher Ltd: 433-444.
19. Altirkawi, K. (2014). Teaching professionalism in medicine: what, why and how? *Sudan Journal of Paediatrics*, 14(1): 31-38.