

Editorial

EVIDENCE-BASED CLINICAL PRACTICE AND THE VALUE OF CRITICAL SELF-REFLECTION IN CLINICAL PRACTICE

Evidence-based practice (EBP) involves a systematic approach to making improvements to practice based on the best current and available research evidence combined with the clinical knowledge and expertise and commitment to best practice. This approach ensures that clinical decisions are informed by the most current research, leading to optimal patient outcomes.

EBP is not a new process. In radiography, over recent years several changes have been driven from challenging set ways of practicing thereby reducing errors and improving patient outcomes. The implementation of EBP is evident in modification to radiographic techniques, imaging protocols, and guidelines. EBP also enables the creation of new protocols through service evaluations, clinical audits and research activities.

Radiographers are increasingly expected to demonstrate efficiency, safety and effectiveness in service provision so using the latest published evidence can help them to deepen their knowledge by applying that learning in their practice and bring about meaningful service improvements to their organisation.

Successful improvements often involve collaboration with individuals who have different perspectives and skills, including the public, patients, and practitioners. By co-designing and producing new or improved services, radiographers can build on service user experiences, ensuring that changes genuinely support both service users and staff. Keeping the conversation ongoing allows for continuous shaping and development of the service.^[1]

Radiographers are expected to consistently meet the increasingly challenging demands of a dynamic and evolving scope of practice. In addition, the progressive development of imaging equipment and technologies, the advances in imaging procedures and the fulfilment of continuous professional development (CPD) are growing demands in a radiographer's world.

EBP is connected to professional development, service quality, legislative, ethical, and economic issues in radiography. It is intended that principles of EBP help to promote the appraisal of all aspects of radiography practice, for example, the appropriate use of resources, decreasing the use of examinations that use ionising radiation, including unjustified or unintended exposures, and meeting the expectations of radiation protection.

Working to EBP requires care and diligence; much of the onus is on the radiographers themselves to keep up their

CPD and reflect on their practice. Reflective practice, however, although not new to healthcare, is still relatively new to radiographers.

If radiographers are to deal effectively with complex change as seen in dynamics within the profession today, especially in advances in the use of artificial intelligence (AI), then their ability to think, reason and reflect needs to be highly developed. Radiographers' practice is concerned with purposeful, goal-oriented thinking whereby they are thinking about how to go about doing something and make a decision that will yield the best outcome for patients. Rapid decision-making and effective clinical reasoning are therefore a requirement to ensure the most appropriate imaging examination, with respect to a patient's condition, has been carried out.

Self-reflection is a critical thought process that allows radiographers to learn through analysing, evaluating and synthesising knowledge from their experiences and make improvements to their practice; be it in improving radiographic techniques, patient positioning, equipment handling, or patient or peer interactions. Self-reflection helps in identifying and addressing errors, leading to safer and more effective empathetic patient-centred care. This can help improve patient satisfaction and outcomes.

Reflection is a process that allows us to critically assess our radiographic practice, identify areas of improvement, and develop strategies to enhance our skills. As radiographers, we must be receptive to allowing this learning to occur in an iterative manner. We must also be open to evolving with the changes we are facing. Radiography practice is dynamic and quickly advancing; we must be able to keep up with the pace through reflective practice.

Reflective practice helps radiographers adapt to new challenges and changes in the healthcare environment, ensuring we remain effective in our roles. The safety and care of our patients are paramount to our practice. Allowing ourselves to critically reflect on past experiences, radiographers can identify and mitigate potential risks, thereby improving patient safety. Being able to think critically is the hallmark of effective self-reflection. Critical self-reflection promotes ethical decision-making by encouraging radiographers to consider the broader implications of their actions and prioritise patient welfare by balancing the benefits and risks and make informed decisions. These decisions can significantly impact patient outcomes. The practice of critical self-reflection prepares radiographers to select the best available evidence and challenge outdated or poor practice.

Healthcare environments are dynamic. Radiographers therefore must adapt to new technologies, protocols, and

patient needs. Radiographers often encounter complex cases that require quick and effective problem-solving skills. As radiographers, the way we approach critical thinking in the clinical department is twofold: one aspect considers the need to produce a diagnostic image while keeping the radiation dose as low as reasonably achievable (ALARA); the other lies in managing the psycho-social aspects of patient care. In most cases, our role involves a balance with due regard to both these considerations.

Self-reflection involves critical thinking. Critical thinking, however, is not static. Critical thinkers tend to view their thinking as a process rather than an outcome. For example, how often do we continue to revisit our thought processes long after a decision has been made? In reflecting on our actions or decisions, we are appraising our behaviour and this task involves the processing of cognitive and affective skills. Reflection on our thinking is an important factor in developing self-correcting behaviours. The reflective thought process involves thinking explicitly about the nature of the 'something', the evidence surrounding it, and how this shapes our beliefs about it. For example, when reporting on images, thinking critically enhances diagnostic accuracy in the evaluation and interpretation of images to ensure they are of high quality and accurately represent the patient's condition and in distinguishing between normal and abnormal findings. Our critical self-reflection on this process then ensures that the correct clinical decision has been made.

Incorporating both EBP and reflective practice ensures that radiographers provide the highest quality of care while continuously improving their professional competence. This is invaluable in enhancing our professional credibility as radiographers within the healthcare team as decisions are backed by evidence. Self-reflection also encourages a mind-set of continuous improvement and lifelong learning, which is vital for professional growth by enabling radiographers to critically assess their own performance and identify areas for improvement. As radiographers, we can start by considering how we currently incorporate these practices into our work.

Developing critical thinking skills is crucial for radiographers to enhance their reflective practice and provide high-quality evidence-based patient care. Radiographers can begin by updating their skills in literature searching, identifying appropriate databases, and other sources of appropriate information. This will help us stay current with the latest research and guidelines in radiography to ensure our practice is evidence-based. Radiographers can also contribute to journal clubs during the lunch hour; get involved in peer review of journal articles; discuss cases and share constructive peer feedback and create agenda items for discussion of improvements or service challenges.

In this way, radiographers will be supporting their peers and empowering their teams. Participating in multidisciplinary team meetings is another way to gain different perspec-

tives and insights on service and patient care. Encourage your team by cultivating the habit of asking questions about why certain procedures are done in specific ways and how they could be improved. Involving student radiographers in these discussions adds richness as students offer fresh perspectives and should be seen as agents of change. Lastly, as we work in fast-paced environments, practice mindfulness to stay present and focused; this can enhance our ability to think critically in high-pressure situations.

In conclusion, the field of radiography is constantly evolving with new technologies. Critical self-reflection helps radiographers stay current with the latest advancements and integrate them into practice. By incorporating self-reflection into clinical practice radiographers can navigate the complexities of healthcare effectively, providing high-quality care and continuously improving their skills.

It empowers radiographers to advocate for their patients, ensuring that they receive the most appropriate and effective care and encourages the creation of a supportive environment where radiographers can share experiences and learn from each other.

Staying updated with EBP enhances the knowledge and skills of radiographers, making us more competent and confident. By relying on the best available evidence, radiographers can initiate and implement good practice for meaningful and positive change.

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REFERENCE

1. National Institute for Health and Care Excellence (NICE). (2018). Principles for putting evidence-based guidance into practice. Accessed 26/10/2024 from <https://www.nice.org.uk/Media/Default/About/what-we-do/Into-practice/Principles-for-putting-evidence-based-guidance-into-practice.pdf>