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Commentary

CAN A PROFESSION EXIST WITHOUT RESEARCH?

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Radiography combines science, technology and patient care to provide an essential role in medical diagnosis and treatment. The term 'profession' has existed in the Oxford English Dictionary from the 15th century and argues that a profession is an occupation where professional knowledge is applied by someone who has undertaken prolonged training and obtained a formal qualification (Oxford English Dictionary Online; 2007). For most of history, professions have based their practices on expertise derived from experience passed down in the form of tradition. Even in health care, many practices have still not been justified by evidence and as such there are areas of uncertainty.

In 1972, an epidemiologist named Archie Cochrane argued the importance of properly testing health care strategies and interventions (Cochrane; 1972). In his work, Cochrane suggested that health care should be properly evaluated to ensure that it is effective. Cochrane went further and recommended that the most reliable evidence for evaluating health care interventions was from randomised controlled trials (Cochrane Collaboration; 2003). Cochrane's work was followed quickly by the development and introduction of the term 'evidence-based practice'. Such was the importance of this work it is now widely accepted that health care professionals should make decisions based on evidence and that they must be aware of the most up-to-date sources of information. Problems with this still exist if there is an absence of evidence or when there is a general opinion that a treatment or intervention is effective, but that this may not be reflected in the available evidence.

Along with other allied health professions, radiography has been developing its own evidence base for many years. This is evident by the growing number of radiographers that deliver papers at national and international scientific meetings and the growth of publications in the dominant peer-reviewed radiography journals (Radiography, Radiologic Technology,

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Journal of Medical Radiation Sciences and the Journal of Medical Imaging and Radiation Sciences). Radiography, as a profession, has attempted to continue to develop its evidence base. This component of practice, in some jurisdictions, has not been successful and in some cases has declined. The quantity and quality of research by radiographers, in some instances, has fallen short of that produced by colleagues in other health care disciplines e.g. medicine, nursing and physiotherapy. Within radiography education, tensions often exist regarding the mandatory inclusion of research training with ever-expanding training curricula. Upon qualification, practitioners may face a number of competing opportunities to advance their role, such as role extension and promotion, as well as research, but do not see that research will give them the same advantages and personal rewards.

As a profession, radiography is at a crossroads with three choices facing us. We could continue with the relatively small quantity of research currently produced by a limited number of sites. Alternatively, we allow a reduction in research outputs by radiographers in favour of our colleagues in medical physics and radiology, perhaps increasing the range and quality of the output. More attractively, we have an opportunity to develop a strategy for increasing both the quality and quantity of research outputs by radiographers. Ultimately, we should strive to develop effective research which impacts directly on patient care and advances our profession.

When deciding whether a strategy of more radiographerbased research is possible, we should perhaps consider the alternative options. If we continue with our current trajectory then radiographic research will continue to exist in small pockets. Largely, this will be undertaken in academic units and possibly lean towards education issues. Given the inevitable separation between academia and clinical practice, translating these forms of research into tangible patient benefits can be problematic, and many clinical problems faced by radiographers and their patients run the risk of going un-investigated. Despite the growth of radiographer-led research seen over the past decade, there is still a tendency for such findings not be incorporated within clinical practice. The second option is to allow further a decline in radiographer-led research in favour of research undertaken by colleagues outside of radiography. Some Professions and research 37

areas of medical imaging research are already dominated by professions such as radiologists and medical physicists, and arguably they may be better placed due to their overwhelming expertise in image interpretation and the science of image formation. Such an argument should be fiercely debated, as they don't necessarily have the front-line experience with patients and technology that radiographers have on a daily basis. This gives us a distinct advantage in which our research can be extremely valuable and highly beneficial to the people who are most important – our patients. Perhaps as a stopgap, we should look at a closer working relationship in research between radiographers and other professions, working together to mix these skills to produce research which is actually implementable and actively helps our patients and the profession.

If we adopt the approach of our medical colleagues, then perhaps the value of research is further heightened. A surgical colleague once referred to the fact that there will be many lives that can be saved in the operating theatre; but by undertaking research, changing and improving practice, many more lives can be affected. Our radiographic equivalent is that we can strive to be the best, highly professional and competent, radiographers for our patients. This will make a difference but if we do this in a context of research then those differences could truly be enormous.

Going back to the original title of this article "Can a profession exist without research?", perhaps, more importantly, the question should be "Would a profession want to exist without research?" Given the rising autonomy of radiographers and the wide acknowledgement of what the benefits of research can bring to our patients, an effective research strategy is ever more important and achievable. Our entire profession has a role in research, this can be utilising it within daily practice, teaching it within the classrooms or being directly involved in studies. Understanding how best to identify the most important areas for research and ensuring their rapid and effective translation into clinical practice is paramount. Every radiographer has an obligation to promote research which can benefit patients and take our profession to new heights.

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