

Which way to

Following on from last month's article about using a PhD as a form of career advancement, two radiographers explain why they decided to follow the PhD path and which route they took.

From BSc to PhD

My biostatistics book tells me that most clinical events have multiple related causes and this principle applies to the reasoning behind why I chose to start a programme of PhD study directly from a radiotherapy BSc. This route is relatively common in many academic disciplines but not in radiography where, historically, MSc's undertaken by experienced clinicians or lecturers has been the postgraduate norm.

The foremost reason for wanting to undertake a research degree was that I had enjoyed the process of doing a final year undergraduate study. Why I enjoyed the research process may be some combination of an academic bent, a questioning nature regarding the mechanisms underlying events and having a background of self-employment.

This last facet was important for me because, although I was apprehensive about my perception of the intellectual leap required to reach doctorate level, I felt confident about, and positively welcomed, the self motivated and self organising nature of a PhD.

During my undergraduate study – determining the volume of liver and stomach irradiated during breast radiotherapy – I became interested in the means whereby a localised treatment can cause systemic effects, such as fatigue. I could see that an extension, progression and deepening of my undergraduate direction could conceivably add something to the current body of knowledge concerning cancer related fatigue; an area I felt was clinically important. At certain points, I was also acutely aware that the constraints of an undergraduate study render even a good attempt rather amateurish. The opportunity to move towards being a professional researcher was particularly appealing.

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a PhD?

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As doctorates within radiography are still uncommon and there is an associated lack of defined career paths, enhanced job opportunities were not a strong motivating factor for me. There was even the thought that I could end up being the most overqualified band 5 radiographer in the country. I did however feel that the qualification would differentiate me and opportunities, whether they be teaching, research or some hybrid clinical researcher role, would be accessible as the profession expands its research base. This supposition is reinforced by SoR strategic objectives that suggest the numbers of post doctoral researchers will swell from 0.04% of the profession to 3% or more by 2010 (reference?).

As an undergraduate, my expectations were largely formed by what I saw around me. I assumed on graduating that I would work clinically for a period prior to some form of specialisation and – resource dependent – some Masters level study, with a PhD as a possible (very) long term goal.

Becoming aware of a potential source of PhD funding for allied health professionals at a timely point in my third year threw such 'certainties' into flux. It was agreed between Cardiff University's radiography department, the funding organisation, Research Capacity Building Collaboration Wales (RCBC) and the Velindre Cancer Centre Radiotherapy Department that, theoretically, I could work clinically one day a week for the duration of the PhD.

This was an important incentive for me, both in terms of reducing the financial sacrifice of a further three years of study and allowing me to keep current the clinical skills that I had just spent three years honing.

The decision to undertake the PhD was still not straightforward. Certainly there are advantages to continuing education whilst one is 'in the swing' and the differential in salary isn't likely to be as big as doing a PhD at a more advanced career stage. I tried to weigh up all the pros and cons and consider the research status, resources and support likely to be available at my prospective educational institution, but in the final analysis it was an instinctive reaction for me.

As soon as I was aware that there was some funding that I could

apply for I knew that's what I would do. An application had to be hastily put together for the funding organisation and the interview consisted of a brief presentation of the research proposal followed by a searching question and answer session from a panel of about ten. I was delighted to get offered the bursary (£36,000 over three years) that meant I could start the PhD, on condition I achieved a first degree classification.

So now my days are spent investigating why only some women become fatigued during breast radiotherapy and thinking about relationships between irradiated tissues and potential biochemical pathways of fatigue. Although the mode of a research degree is largely to identify one's own learning needs, there is some course structure imposed, with research methods lectures and workshops to attend, reports to write and seminars to be delivered. A study protocol must be written and applications made to R&D and ethics committees.

A surprisingly large component has been the time spent negotiating and fostering contacts with other professions to facilitate elements of the proposed study. The response from medics, bioscientists and physicists has been heartening. Vital support is also provided by an excellent supervisory team. My first supervisor, Dr Tina Gambling, has the more direct involvement, providing hands-on advice, opinion and guidance. This central role is complemented by my second supervisor, Professor Malcolm Mason, who provides mentorship, experience and clinical insight.

Moving straight from undergraduate level to being a PhD postgraduate has certainly been challenging, but also a hugely stimulating experience about which I have no regrets..

About the Author

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A part-time PhD

Having undertaken various taught post-graduate programmes in the past, whilst working as a clinical radiographer, I felt reasonably well-prepared to embark upon a PhD alongside my 'day-job' as a lecturer. I believed that I had good time-management skills, was able to prioritise work, and was able to motivate myself to meet deadlines.

However, doing a PhD has turned out to be a completely different experience to what I expected. It is a vast undertaking with no clearly defined routes through it. It is essentially an apprenticeship in research, whereby the student plots his or her own path through the research project, becoming increasingly more independent, skilled and knowledgeable as the project progresses and develops.

As with radiography, it doesn't take long to realise how much you don't know, and how much more there is to know, and all research generally throws up new questions to be answered. This lack of a clear end-point can, therefore, make progress difficult to gauge. It is also what makes research interesting.

So what about undertaking a PhD alongside a full-time job? Whilst there isn't the financial hit that is usually associated with undertaking a PhD studentship, other factors come into play. I think it is essential to be really interested in the research topic – passionate in fact, as interest has to be maintained over six years. It is also vital to have a good team around you – your relationship with your project supervisors is key – they need to be able to support you and to facilitate your development as an independent researcher. They also need to have a similar interest so that they can ensure you are starting out in the right direction and enough enthusiasm in your work to be able to give you a boost if/when you start to flag.

Completing a PhD is as much about endurance as ability.

Maintaining a work-life balance is also important – because the scope of a PhD isn't clearly defined, it is difficult to know how to pace the work, especially when you are trying to fit it in around an existing job. Taking it steady and taking time to fully reflect upon work in progress is a crucial part of a PhD in order to ensure that strategies are optimised and effective. I would also say that having family and friends who understand the work and commitment as well as the highs and lows involved in undertaking a PhD is critical.

Someone once told me that completing a PhD is as much about endurance as ability and I do think there is truth in this statement. There have been times when I have gone down blind alleys and produced nothing but negative results – this is all valid research, but it is frustrating and also doubt-inducing. Accepting that this is part and parcel of the PhD process and just hanging-on in there helps with these moments.

So why bother if it is such hard work? Well, even though I am still only part-way through, and sometimes wonder if I will ever get there, I do believe that I have already gained some transferable skills. I think about things differently now, am more questioning and objective. I am truly being stretched by the experience and process. I have a greater, more in-depth knowledge of my area of clinical practice to which my PhD is related. I am excited by the idea of potentially being able to influence radiographic practice in the future through the work I am doing now. I also know that when (and I am determined that it will be 'when' not 'if') I walk onto that stage to collect the award of PhD I will be proud of my achievements and I will be proud to be a research-active radiographer.

This author has asked to remain anonymous.

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