

Developing a clinical academic career with support from the National Institute for Health Research (NIHR).



THE ROAD TO BECOMING A CLINICAL ACADEMIC

KIM MEEKING, SEAN RALPH

The National Institute for Health Research (NIHR) is the research arm of the NHS funded by the Department of Health. The NIHR aims to improve the health and wealth of the nation by increasing the volume of applied health research conducted in the NHS, accelerating the translation of basic scientific research into meaningful benefits for patients and increasing research capacity and capability in the workforce^{1,2}. This article will focus on the funded opportunities available from the NIHR that can support diagnostic and therapeutic radiographers to develop a clinical academic career.

The NIHR celebrated its 10th anniversary in 2016 and through its development over the past decade, it has become the world's most integrated and comprehensive clinical research system. With the recent publication

of The Society and College of Radiographers Research Strategy 2016-2021 it is therefore timely and appropriate to publicise and reflect on the funded opportunities available from the NIHR who invested £97.8 million in training programmes in the year 2014/15⁴. This supported over five thousand trainees to further develop their research careers^{3,9}.

INTEGRATED CLINICAL ACADEMIC (ICA) PROGRAMME

The ICA Programme is a series of research awards available to non-medical health professionals in England who want to develop a clinical academic career that combines continued clinical practice and patient contact with clinical research and leadership. A clinical academic is a health professional who focuses on building a research led care environment through challenging existing practices, in

order to achieve excellence in patient health and care. They may hold a joint contract with the NHS and a higher education institution or if not they are likely to be affiliated with a university in some manner¹¹.

The ICA Programme is funded by Health Education England (HEE) and managed by the NIHR, and provides a fully funded clinical academic career pathway that can be entered into at any point via a competitive process.

These awards provide health professionals with the research training and professional development required to undertake clinical research, and most importantly the protected time to do this whilst also having their salary backfilled and matched at their current Agenda for Change pay point⁵.

Since 2009, 19 radiographers have been funded by HEE/NIHR to study a Masters in clinical research and since 2008 the NIHR have received 32 applications from radiographers (29 diagnostic and three therapeutic: ratio 10:1) for a higher personal award of a clinical doctoral research fellowship or above (see ICA Programme image on page 28) of which five were successful. The higher number of applications received from diagnostic radiographers reflects the ratio of diagnostic to therapeutic radiographers in the UK of 9:1¹⁰.

In this article, therapeutic radiographers Sean Ralph and Kim Meeking reflect on their experiences of successfully gaining a research award from the NIHR. Sean and Kim provide an overview of the first two steps of the ICA programme, namely a clinical academic research internship and Masters in clinical research studentship (see ICA programme image on page 28).

INTERNSHIP EXPERIENCE: SEAN RALPH

A clinical academic research internship is the first step of the ICA Programme and it provides graduates with a 'pre-masters clinical research taster' in all aspects of clinical research from trial design and data management through to conducting your own research study⁶. Due to the demands of undergraduate radiography courses, most students undertake a literature review or clinical audit for their dissertation. In contrast, a clinical academic research internship gives health professionals the opportunity to conduct an empirical study that generates new data and information. The length and structure of an internship can vary from six to twelve months depending on which part of HEE or the NIHR are managing the award.

APPLICATION PROCESS

In the winter of 2014, I applied for an internship with the NIHR Collaboration for Leadership in Applied Health Research and Care (CLAHRC) North West Coast. CLAHRCs are branches of the NIHR which bring together a collaboration of local providers of NHS services, NHS commissioners, local authorities, universities, the life sciences industry and the general public, to co-produce and conduct high-quality applied health research that focuses on the needs of patients to improve the health outcomes of the local population and the wider NHS^{2,7}.

The selection process involved submitting an application form explaining why I wanted to apply for the internship, describing a study or area of research that I would like to undertake, and how this fitted in with the themes of the CLAHRC. When I was selected for interview, this application then formed the basis of a brief research proposal that I presented to the interviewers, which was then later refined into the research study that I conducted as part of my internship. As my proposal was based on work that I was involved in, addressing the needs of lesbian, gay and bisexual

(LGB) people with cancer, I felt very confident going into the interview. I had an agonising wait over Christmas and was delighted when I found out in January that I had been offered a place.

COURSE CONTENT

I started my internship in February 2015 and this involved having a protected research day once a week for a year, to enable me to conduct a small research study whilst still working as a band 5 rotational radiographer for the other four days. Once a month, I attended research training sessions at the University of Central Lancashire (UCLan) and I was assigned a research supervisor at the University of Liverpool, both member organisations of the CLAHRC North West Coast, along with my employer, The Clatterbridge Cancer Centre. The internship provided me with a honorary research associate contract with the University of Liverpool, which gave me full staff access to the library facilities. Being given the title of honorary research associate really triggered my imposter syndrome. Was I really a researcher or just someone pretending to be one? I've since realised that being a researcher is a frame of mind, not just a title.

The monthly training session at UCLan with the other interns covered both quantitative and qualitative research methods, and how to use the different computer software packages available that aid the analysis of different types of data. We were guided on how to produce a research protocol and the associated documents that need to be submitted with this, in order to gain research and/or ethical approval for health and social care studies. One of the training sessions also taught us how to produce an academic poster, which could then be used to present our research at a conference or study day. I found myself really looking forward to the training days each month, as it gave me the opportunity to interact and share ideas with the other interns, who came from a wide variety of health and social care backgrounds.

One of the themes of the CLAHRC North West Coast is reducing health inequalities and my study therefore concentrated on addressing an inequality that was identified by the National Cancer Patient Experience Survey 2013. This and subsequent reports have highlighted that LGB patients are having a worse experience of cancer services compared to their heterosexual counterparts⁸. In order to try and address this inequality, I conducted a qualitative study exploring the views and experiences of health professionals on discussing sexual orientation and sexuality with lesbian, gay and bisexual patients in an oncology setting. As a member of the LGB community myself, I felt privileged to have the opportunity to try and improve the care of LGB people with cancer through research.

My internship lasted 12 months and over that period of time:

- I attended nine research training days at UCLan.
- I conducted two patient and public involvement groups to aid with my study design.
- I designed a qualitative research study, producing a research protocol, participant information sheet, consent form and interview guide.
- I designed an academic poster to showcase my research and presented this at three conferences.
- I submitted my study for approval via the Integrated Research Application System.
- I attended several team and tumour group meetings to promote my study.
- I recruited and interviewed 15 health professionals.

HIGHLIGHTS

One of the highlights of the internship was a showcase event held at UCLan for the interns to present our research studies as both a brief oral presentation and an academic poster. Although this was rather daunting as we presented our work to some very experienced researchers, it gave us the opportunity to be questioned about our work and to receive well informed feedback which we then used to refine our studies. It also gave us the chance to come together again as interns to see where we were all up to with our studies, which helped to calm all of our nerves as we realised most of us were roughly at the same place.

I was fortunate enough to win the best overall poster/presentation award at the showcase event, which gave me the confidence to submit and present my poster for presentation at the Gay and Lesbian Association of Doctors and Dentists Annual Conference, the British Psychosocial Oncology Society Annual Conference and the UK Radiation Oncology Conference. As the study was still ongoing, additional information was presented at each of the conferences.

DIFFICULTIES

Conducting a qualitative research study was very challenging at times, particularly trying to book rooms and arrange interviews with participants around our clinical responsibilities. I was very fortunate to have understanding managers who allowed me to conduct some of the interviews during the working day as long as I made up the time. The participants were also very flexible with their own time often staying behind after work to be interviewed.

Due to my naivety as a novice researcher, I did not appreciate how long it would take to complete the project or the large volume of data that is generated from qualitative research. As a result of this, the analysis and write up of my internship study is still ongoing. One completed I aim to get it published in an academic journal, in the hope that it will help improve the care that LGB cancer patients receive by adding to the growing body of evidence on the experiences of this group of patients.

FINAL THOUGHTS

Successfully applying for research posts can feel like an insurmountable task as job specifications often have research experience as a desirable or essential criteria. When applying alongside someone with research experience it can make success at interview difficult to achieve. My research award from the NIHR has given me the opportunity to experience the reality of conducting research in the NHS, confirming to me that this is something that I would like to be involved in on an everyday basis as part of my career. Hopefully, it has also given me the knowledge and experience to be successful at interview the next time that I apply for a research post.

Although it was quite stressful, conducting a research study part-time whilst still working clinically four days a week, I thoroughly enjoyed this challenge and I've recently been awarded a full-time Masters in Clinical Research Studentship at the University of Manchester. This is no doubt due to the knowledge and experience that I gained through my internship.

A studentship is the next step of the ICA Programme and below Kim Meeking discusses her experience of studying for a Masters in clinical research part-time whilst also working part-time as a clinical trials radiographer.



The HEE/NIHR funded MRes provides a very solid introduction to clinical research



THE STUDENTSHIP EXPERIENCE: KIM MEEKING

The Masters in Clinical Research is the second stage of the ICA Programme. At the time of writing, there are 10 universities in England offering 100 funded places to study a Masters in Clinical Research.

This Master's degree is either an 'MRes' (in my case), an 'MClin Res', or an 'MSc in Clinical Research'. Although the name of the degree varies, they are all broadly the same in that there is a research focus throughout. In this piece, I'll refer to the degree as an MRes. Each module in the MRes relates to developing both the practical skills and theoretical knowledge of research. The emphasis is on the relationship between research and clinical practice and this is the fundamental thread that runs throughout the course; it firmly promotes and encourages the great potential we have to identify areas of our clinical practice that can be developed and improved through research.

APPLICATION PROCESS

The application process was daunting but in the end was quite straightforward; I had to supply two references, a letter of support from my manager, copies of my BSc certificate and degree transcript, and finally a personal statement including an outline of an idea for a research project.

The MRes can either be completed in one-year full time or two years part-time where the course is balanced 50:50 with the applicant's clinical role. When I applied for the MRes, my full time role was split between treating patients and being the clinical trials radiographer. At the time the clinical trials portfolio was growing and I had secured financial support to fund two part-time research radiographers to help manage the workload. After a lot of consideration, planning and discussions with my team and managers, I applied for the MRes and opted for the part-time option, so that if I was successful, I could continue to lead on the trials portfolio whilst supporting the new team members. This meant giving up the treatment aspect of my role for the duration of the course but the backfill funding could go towards a new radiographer post. By the time I applied, I had been considering my options for well over a year and felt as prepared as possible to commit to the course. Not being someone who rushes into things, this mental preparation was worthwhile as low and behold I was offered a place.

After some slightly panicky celebrations, I went out to buy a new notepad.

COURSE CONTENT

The course started with some research theory; I was introduced to the concept of 'research paradigms'. These can be thought of as frameworks that underpin a piece of research and are informed by the beliefs and philosophy of the researcher. An eye-opening, brain stretching module with a systematic literature search focussed around an idea for a research project as an assessment.

The other two modules in year one were in quantitative and qualitative research methods. The quantitative module involved lots of hands-on learning using statistical analysis software. For the assessment, we were given a dataset to analyse with very little background information, so we had to think up a scenario that fitted the data, invent variables and then analyse it and write a report. The most challenging part of this module was learning when to use certain statistical tests. Since completing this module, I have found it easier to objectively review and critique quantitative research papers.

The qualitative methods module was completely



Qualitative research is complex and challenging; there are a range of different methodologies





The awards provide health professionals with the research training and professional development required to undertake clinical research



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different to any other learning I have undertaken. This subject was a step outside of my comfort zone of more familiar scientific methods. I have always been more inclined towards fact-based quantitative research (this is known as the 'Positivist Paradigm'). I admit to even being a little dismissive of qualitative research in the past. However, an intensive week of lectures took me on a journey into the unknown and I slowly began to realise the importance of this branch of research for radiographers. Qualitative research is difficult to sum up, but think of it like an episode of Sherlock Holmes; it is about insight, exploration, and understanding motivations. It's about finding out what is really going on. It can be applied in almost any setting; from exploring patient experience of a particular procedure or treatment, to understanding barriers to staff progression. Qualitative research is complex and challenging, there are a range of different methodologies to learn about and a lot of skills involved in collecting and interpreting qualitative data. The module assessment involved a secondary analysis of a number of interview transcripts about the topic of getting older. I found the process of exploring the participants' experiences totally captivating but also emotionally tough at times.

Over the summer I completed a 'work based learning' module. This was my optional module and I used it to help prepare my application for advanced practitioner accreditation by writing an essay on advanced practice and evaluating my own professional practice, whilst developing my CPD portfolio.

Year two came around fast, and included two really practical modules. In the first, I was tasked with identifying an issue in clinical practice, appraising the literature around the issue and devising a realistic action plan using SMART goals to address the problem. With the second module, I undertook a learning needs analysis

and identified gaps in my knowledge and skills. I was then able to select from a list of active research projects and undertake a task which addressed the skills deficit. This meant working with other researchers and 'live data' which was great experience.

The remainder of year two focuses on the dissertation. This has to be a piece of empirical research, which means collecting and analysing data yourself, then reporting the findings. This can be survey data, interview data, or even measurements in a laboratory. My own research is about how and why people are engaging with the social networking site Twitter in relation to radiotherapy. I'm going to collect 'tweets', categorise them and use mixed-methods content analysis to explore the data. I hope that this research can help us to keep pace with changing means of communication in the digital age and contribute to a greater understanding of whether Twitter can be used to improve the care and support of radiotherapy patients.

HIGHLIGHTS

I found studying with others from different healthcare professions really beneficial. We developed ideas together, providing a wider context and deeper understanding. Another key positive outcome for me is that my peers (and some of my lecturers) have become part of my small but growing research network.

As well as building theoretical and practical research skills, I have built on my time management and project management skills. I have learnt a lot about how I work under pressure, about the need to set mini-deadlines and being aware of the time I spend procrastinating.

Throughout the course, I have met many inspiring clinical academics, all with a passion for improving patient experience and outcomes through research. In my view, research can (and should) be part of everyday working life. Research is a mind-set, more than an activity.

DIFFICULTIES

I found managing my clinical role alongside the taught aspects of the course quite challenging. Each time a module timetable was released, I would map out with my colleagues how we could ensure there was adequate cover for me to attend.

It felt at times like I was balancing two full time roles, especially as my role in radiotherapy clinical trials was getting busier by the month. I have put in a lot of unseen hours to keep on top of my workload and felt guilty for not being at work every day. However, through sharing my responsibilities with my colleagues, I have seen them develop as a result.

I have learnt that conducting research can be fraught with hurdles. The research project I had intended to pursue for my dissertation was suddenly out of reach due to factors beyond my control. I had written over 10,000 words on a project that couldn't be taken forward in my MRes. I was close quitting in defeat, but with the support of my colleagues and my academic supervisor, I applied for a deadline extension, and set to work developing a new project to take forward. Despite this setback, when I was faced with generating a new project idea, I had the advantage of having developed 12 months of knowledge from the MRes modules.

FINAL THOUGHTS

The HEE/NIHR funded MRes provides a very solid introduction to clinical research. It offers time, high quality education, and expert support, to learn how to develop and conduct research for patient benefit. This postgraduate study has given me renewed ambition and belief in what I can achieve. I have found it immensely rewarding and it has confirmed for me that I want to pursue a clinical academic career. HEE and the NIHR are continuing to fund these studentships because they want to invest in AHPs like us. More radiographers with research skills can only be a good thing for our profession and our patients.

ACKNOWLEDGEMENTS:

Kim Meeking and Sean Ralph are funded by the National Institute for Health Research and Health Education England. This article discusses independent research funded by these organisations. The views expressed are those of the authors and not necessarily those of the NHS, the NIHR or the Department of Health.

Kim Meeking: I would like to thank Suzi, Jo, Lyndsey, Lucy and Elaine; my research team colleagues, past and present, who have encouraged and supported me over the hurdles.

Sean Ralph: I would like to thank my colleague and university friend Ashley Grogan for making me aware of the NIHR internship scheme. Without her, I would still be completely unaware of these amazing opportunities and I hope that I am returning the favour to other radiographers by writing this article.

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REFERENCES FOR THIS ARTICLE CAN BE FOUND AT

<https://www.sor.org/learning/library-publications/imaging-therapy-practice/library>

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- NIHR – Funding Opportunities for Research and Career Development <http://www.rds-eastmidlands.nihr.ac.uk/resources/Funding-Opportunities-Booklet2015.pdf>
- SCoR: The ACORRN / SCoR Research Radiographer Starter Pack for Therapeutic and Diagnostic Radiographers. https://www.sor.org/system/files/article/201109/Research_Radiographer_starter_pack_version_2_FM_edits-1.doc
- SCoR: Society and College of Radiographers Research Strategy 2016-2021 https://www.sor.org/system/files/article/201511/research_strategy_final_4.pdf
- Think of an area of clinical practice or patient care that you would like to improve via research and then produce a brief research proposal/outline that could form the basis of a study undertaken as part of a NIHR award.
- Select a NIHR award to apply for and find out when the next round of applications opens up.

QA Code: 63BF6086

