Level 2 Research Award report 2022/23

I would like to thank the MACP for awarding me a Level-2 Research Award in 2022. The funding has enabled me to complete my research project and PhD and to develop as a researcher. During my time at Canterbury Christ Church University (CCCU), I have been encouraged to set annual objectives based upon the Vitae Researcher Development Framework (RDF) https://www.vitae.ac.uk/. The framework was developed based upon the characteristics of researchers who demonstrate research excellence. The RDF enabled me to identify areas where I need to develop further knowledge, skills, and experience. I will use this framework to guide this report and would encourage MACP members who are interested in developing as a researcher to consider this framework.

Domain A: Knowledge and Intellectual Abilities

Knowledge base (A1) and Cognitive abilities (A2) Creativity (A3)

The title of my PhD is 'Development and feasibility of a swimming programme as a rehabilitation modality for people with chronic low back pain: A mixed methods project.' The project was developed due to the recognition that it is common practice for health professionals to recommend swimming to people with CLBP for rehabilitation and to improve levels of physical activity. There are however several key uncertainties and limited research supporting this recommendation and a lack of specific swimming frameworks this population. My knowledge base in the field of swimming and chronic low back pain has increased over the last few years alongside my understanding of research methods and relevant theoretical frameworks. I was able to develop my academic writing skills whilst writing up my thesis, but I recognise that I still have further development in this area. It can be overwhelming keeping up to date with the latest published research and it is important that as a researcher and physiotherapist you also develop your analytical and critical thinking skills. During the last 6months I analysed the data for all four studies for my meta-inference chapter, recognising that the swimming programme which I had developed in the third study would need to be refined. I used joint display tables to manage the data, enabling me to evaluate where the data was congruent, diverged and where new insights were observed. Prior to undertaking my PhD, I rarely used theoretical frameworks in my clinical practice. Although I was initially sceptical, I found the MRC framework for designing complex interventions and the COM-B model, and Behaviour Change Wheel (BCW) frameworks very valuable in the design, analysis and write up of the project, helping me structure my methodology and conclusion chapter. I am happy to share my experience using these frameworks with MACP members.

Domain B: Personal Effectiveness

Personal qualities (B1), Self-management (B2) and Professional and career development (B3)

Undertaking a PhD while working part-time requires perseverance and time management and prioritisation skills, whilst trying to maintain a reasonable work-life balance. I am lucky in that I have lots of energy however I found towards the end that it encroached on more than a healthy amount of time. I recognise that funding which buys out time from clinics can help physiotherapists not burnout when conducting research and I would encourage MACP members to look at all funding opportunities. I have developed several strategies for optimising time whilst undertaking written work: including setting a timer, switching off phone and email alerts, using sub-headings and taking breaks outside walking the dog! Part of developing as a researcher is being aware of areas of professional development, responding to opportunities, and developing a reputation in the field through sharing your findings and networking. I have had to work outside my comfort zone, attending and delivering sessions at national conferences and developing networks with professionals outside physiotherapy, such as Swim England. In the summer I delivered a session about one of my studies at a Health and Wellbeing Swim England network event in June 2023 and hope to work with this national body more in the future.

Domain C: Research Governance and Organisation

Professional conduct (C1), Research Management (C2), and Finance, funding, and resources (C3)

When I published my scoping review, I learned that journals require authors to be clear about what contribution each author makes, for example were they involved with data curation, conceptualization, analysis, methodology and what aspects of the writing. This awareness of researcher professional conduct should help me integrate and work with other research teams in the future. Over the last year I have completed the 6-month data collection for my final study. It is often challenging to collect long-term data but essential when conducting a study in the field of back pain rehabilitation. This period of data collection involved me timing this data collection to the different cohorts and reconnecting with participants who may not realise the importance of this phase of the study. As it was a feasibility study, I recognised that in a future RCT I may need to take a different approach based upon the success of this period of data collection and to improve the volume of data collected.

Over the last few years, I have also learned how to manage a budget and write applications for small grants. I recognise that I would need to apply for larger grants in the future and collaborate with other researchers. I am currently looking at the NIHR bridging programme and the ARC grants as a steppingstone to a post-doctoral grant. In order to manage my time more effectively and to ensure I maintain a better work life balance I will need to incorporate

time out of clinic in the grant in addition to funding for the project and professional development. I have identified academics who have the expertise to advise me to apply for these larger grants and I am happy to mentor MACP members new to research if they are considering applying for smaller grants.

Domain D: Engagement, Influence, and Impact

Working with others (D1), Communication and dissemination (D2), and Engagement and Impact (D3)

Over the last academic year, I have mentored a colleague whilst she undertook the NIHR ICAP internship program at the University of Kent; this involved monthly meetings to help guide the development of a research proposal and support writing an essay. I have also mentored other colleagues writing proposals for grey area projects in our trust and two colleagues who are undertaking an MSc at CCCU. Mentoring less experienced researchers has helped me develop as a researcher in that I have to understand the process of designing research well enough that I can advise others. I have been running a monthly research breakfast meeting for AHPs in our trust alongside a more experienced researcher and some other PhD students. These meetings allow time to feedback progress or barriers to projects and studies, to ask others for advice and to share resources. As a group we are hoping in the next 6-months to undertake a project to explore the barriers and enablers to research for AHPs in our trust so that we know how better to support our team. I continue to support the delivery of one of the health and wellbeing modules for the CCCU undergraduate physiotherapy programme, integrating behaviour change theory and policies into clinical reasoning when working with people with chronic pain. I originally learned about the COM-B model and BCW in 2018 when I participated in a 5-day summer school at UCL with Professor Susan Michie and used the framework both in the design of my project and the data analysis. I would be happy to share this presentation with MACP members.

In September 2023 my scoping review was published in the *Journal of Bodywork and Movement Therapies* as an open access paper. The title of the paper was '*Recommending swimming to people with low back pain: A scoping review'*. I had originally submitted it to another journal, but it was rejected with feedback and this journal was suggested. I made further changes based upon feedback from the peer reviewers and then it was accepted for publication. I found this process helpful and was pleased with the final paper. I hope to publish the other study chapters over the next 9-months. I have acknowledged the funding from the MACP in my publication and presentations. In November 2022 I co-produced a 'Swimming with MSK conditions' fact sheet, with Swim England and Versus Arthritis. This involved me providing feedback and suggestions on an initial draft of the leaflet written by Versus Arthritis and then providing further feedback and suggestions on the final draft. It was encouraging to see how my research could impact a nationally produced leaflet, I would

encourage MACP member to read it and if appropriate to share it with their patients. https://www.swimming.org/justswim/musculoskeletal-conditions-swimming/

In April 2023 I attended the BritSpine conference in Glasgow to share the findings from two of my PhD studies 'Learning to swim with back pain: a qualitative study of swimmers with chronic low back pain' and 'Swimming versus routine physiotherapy care as a rehabilitation modality for chronic low back pain: A feasibility study.' The first study was presented as a rapid 5 and the second as a poster. I also presented the first study in April 2023 at the Physiotherapy Research Society scientific meeting in Manchester. I received positive feedback from both presentations and developed further networks which could help me as I develop future research projects. In November 2023 I am due to share the findings from my other two PhD studies 'Barriers, enablers, and preferences to swimming for people with chronic low back pain' and 'The development of a swimming programme for people with chronic low back pain using a modified Delphi technique' at the annual CSP physiotherapy conference. The first study will be presented as a rapid 5 and the second as a poster. I understand that the MACP is one of the professional networks involved with organising this conference and I hope to network with other MACP members during the day and discuss my research.

Many thanks

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