

# PhD Opportunity

## A Longitudinal Investigation of Symptom Burden in Patients with Chronic Kidney Disease (CKD) [The CKD-INSIGHT study]

### Supervisory team

**Director of Studies:** [Prof. D Kyte](#) Professor of Physiotherapy, School of Allied Health & Community, University of Worcester, UK. Associate member of the Centre for Patient-Reported Outcomes Research, University of Birmingham, UK.

**Supervisor:** [Dr Kostas Papadopoulos](#)

**External advisors:** An external clinical specialist adviser will be appointed from our associate membership.

**Research Group:** [Living Well with Long-Term Conditions](#)

### The PhD Opportunity

#### Background

Chronic Kidney Disease (CKD) is a long-term condition (LTC) with significant global health implications, affecting millions of people worldwide [1]. Patients with CKD often experience a high symptom burden, which negatively impacts their health-related quality of life (HRQL) and increases mortality risk [1]. Despite the importance of symptom management in CKD, there is limited longitudinal data on the progression of symptom burden over time.

Patient-reported outcome measures (PROMs) are valuable tools for capturing symptom data directly from patients [2]. These measures can provide insights into the patient's perspective on their symptoms and overall well-being [3]. However, there is a need for comprehensive, longitudinal studies to better understand the trajectory of symptom burden in CKD patients and identify key intervention points [4].

This PhD project aims to conduct a longitudinal study tracking symptom burden in CKD patients over time, using PROMs to collect data. The findings will contribute to the development of targeted interventions to improve symptom management and patient outcomes in CKD.

#### Research Aim

To conduct a longitudinal study tracking symptom burden in CKD patients over time, using PROMs to collect data and identify key intervention points for improving symptom management and patient outcomes.

## Proposed Methodology

- **Study Design:** Longitudinal observational study.
- **Participants:** Patients with CKD recruited from collaborating NHS sites.
- **Data Collection:** PROMs will be administered at baseline and at regular intervals (e.g., every 6 months) to capture data on symptom burden, HRQL, and other relevant outcomes.
- **Analysis:** Longitudinal data analysis techniques will be used to track changes in symptom burden over time and identify patterns and predictors of symptom progression.
- **Ethical Considerations:** Ethical approval will be sought from relevant ethics committees, and informed consent will be obtained from all participants.

## Impact

The findings from this study will provide valuable insights into the progression of symptom burden in CKD patients. This knowledge will inform the development of targeted interventions to improve symptom management and patient outcomes. Additionally, the study will contribute to the evidence base for the use of PROMs in CKD care and support the integration of patient-reported data into routine clinical practice.

## References

1. Fletcher BR, Damery S, Aiyegbusi OL, et al. Symptom burden and health-related quality of life in chronic kidney disease: A global systematic review and meta-analysis. *PLOS Medicine* 2022;19(4):e1003954. doi: 10.1371/journal.pmed.1003954
2. Kyte D, Anderson N, Bishop J, et al. Results of a pilot feasibility randomised controlled trial exploring the use of an electronic patient-reported outcome measure in the management of UK patients with advanced chronic kidney disease. *BMJ open* 2022;12(3):e050610.
3. Calvert M, Kyte D, Price G, et al. Maximising the impact of patient reported outcome assessment for patients and society. *BMJ* 2019;364:k5267. doi: 10.1136/bmj.k5267
4. Anderson NE, Kyte D, McMullan C, et al. Global use of electronic patient-reported outcome systems in nephrology: a mixed methods study. *BMJ Open* 2023;13:e070927. doi: 10.1136/bmjopen-2022-070927

## Application Process

To begin the application process please go to:

<https://www.worc.ac.uk/research/research-degrees/applying-for-a-phd/>.

## The Interview

All successful applicants will be offered an interview with the proposed Supervisory Team. You will be contacted by a member of the Doctoral School Team to find a suitable date. Interviews can be conducted in person or over Microsoft Teams.

## Funding your PhD

For information about Doctoral Loans please visit: <https://www.worc.ac.uk/study/fees-and-finance/doctoral-loans.aspx>

During your PhD you can access the Research Conference Support Scheme to support the costs of presenting your research at an external conference.

## Research at the University of Worcester

Research is central to the University's mission to make a difference in everything that we do. We are committed to delivering excellent research which extends the boundaries of human knowledge, but which also improves people's lives by enabling better health outcomes, improving food security, developing environmentally sustainable solutions for crop production and socially sustainable solutions to our ageing population, enhancing public knowledge and understanding of the past and present.

The University hence focuses its research around five high-level challenges facing society, locally, nationally and globally:

- [Human Health and Wellbeing](#)
- [Sustainable Futures](#)
- [Digital Innovation](#)
- [Culture, Identity and Social Exclusion](#)
- [Professional Education](#)

The success of our research is reflected in our continuous improvement in external research assessment processes. In the most recent Research Excellence Framework, REF 2021, the University saw a near 50% increase in the scale of its research and 12% increase in quality, building on its performance in REF 2014 when it was the UK's most improved university in terms of Research Power, a combination of scale and quality.

## Research Degrees at Worcester

Our research students are central to our overall mission for research. They are working at the cutting edge of their disciplines and driving forward the quality of our research whilst enriching our research culture. We are looking to increase our research student numbers as a strategic imperative.

Our commitment to our students is reflected in the results of the Postgraduate Research Experience Survey 2023 in which we ranked 3<sup>rd</sup> for overall research student satisfaction nationally. Key to our success in this area is the Doctoral School, a focal point for all our research students.

It provides:

- day-to-day support for our students, both administrative and practical, through our dedicated team
- a Research Student Study Space with both PCs and laptop docking stations
- a comprehensive Researcher Development Programme for students and their supervisors
- a programme of student-led conferences and seminars

**Widening Participation**

As part of its mission statement the University is committed to widening participation for its higher degrees. Although most candidates will have an undergraduate and/or a Masters degree, the University is happy to accept applications from candidates with relevant professional qualifications and work related experience.

**For further information or an informal discussion on this project, please contact Professor Dez Kyte [d.kyte@worc.ac.uk](mailto:d.kyte@worc.ac.uk)**

