**Description of UQ Winter Research Projects (n=2)**

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| **Project title:** | **Investigating factors that influence the effects of exercise for knee OA: a review of trial design** |
| **Hours of engagement & delivery mode** | These two winter student projects will last 4 weeks (24th June-19th July)  Hours of engagement will be between 20 – 36 hrs per week and must fall within the official program dates.  This project is hosted by STARS ERA (The Surgical Treatment and Rehabilitation Service Education and Research Alliance). STARS is based at Herston.    The successful students will be able to complete the project via on-site, remote or hybrid arrangements. Some face-to-face contact is recommended but not essential. |
| **Description:** | Osteoarthritis (OA) is the most common type of joint condition in older adults and is associated with pain, disability and reduced quality of life.  Exercise is recommended as a first-line treatment for people with knee OA, however, on average, overall effect sizes of exercise interventions on pain and physical function outcomes are small in randomised controlled trials (RCTs). Individual patient factors, intervention factors and RCT design factors could all influence exercise effect sizes.  Randomised controlled trials exist on a spectrum between “explanatory trials”-i.e trials designed to investigate efficacy of interventions in ideal situations and “pragmatic” trials- i.e. trials designed to investigate the effectiveness of interventions in real world settings and contexts. However, the impact of trial design on exercise effect sizes is not yet known. Therefore, the aim of this study is to 1) evaluate where on the explanatory-pragmatic spectrum trials of exercise for knee OA sit, and 2) whether this is associated with effect sizes in terms of pain and physical function outcomes.  Methods for this project:  Two students will work together with the support of the primary supervisor and an international expert team to identify RCTs of exercise for knee OA, evaluate their design and use narrative synthesis and creative data visualisation techniques to map trends between trial design and exercise intervention effect sizes.  This study is a secondary data analysis using already published data and will not involve any identifiable patient data or require ethics. |
| **Expected learning outcomes and deliverables:** | The successful applicant(s) would gain skills in:  -research methodology (including further understanding of RCTs and their design)  -narrative synthesis and data visualisation  -writing for publication/a conference abstract  -being part of an international research team |
| **Suitable for:** | Applicants with an interest in musculoskeletal conditions (such as physiotherapists), RCTs or data visualisation would make excellent potential students though prior expertise in these are not essential- there will be opportunity to learn and upskill during the project.  Applicants with strong analytic and critical skills are particularly welcome to apply.  It is expected that the work of the two students would contribute to a research publication/ conference abstract which would be of particular benefit to applicants requiring this for their career development. |
| **Primary Supervisor:** | Dr Jonathan Quicke |
| **Further info:** | I welcome contact from interested applicants j.quicke@uq.edu.au |