

Project:

Design, develop and implement a comprehensive education and rehabilitative exercise and lifestyle program in a pilot cohort of older adults living with multiple chronic conditions.



UNSW Lifestyle Clinic Research



2 SCHOLARSHIPS AVAILABLE!

Project Aims:

1. Examine health outcomes of cognition, pain, physical and psychological function in people living with osteoarthritis (OA) or osteoporosis (OP) and associated co-morbidities who complete a 12-week exercise and education intervention compared to a waitlist control.
2. Examine associations between health outcomes (cognition, pain, physical and psychological function) on people with OA or OP and combinations of comorbidities.
3. Collect pilot data for longitudinal study to determine whether the optimised exercise and education intervention reduces risk of cognitive decline and dementia, and development of cardiovascular disease.

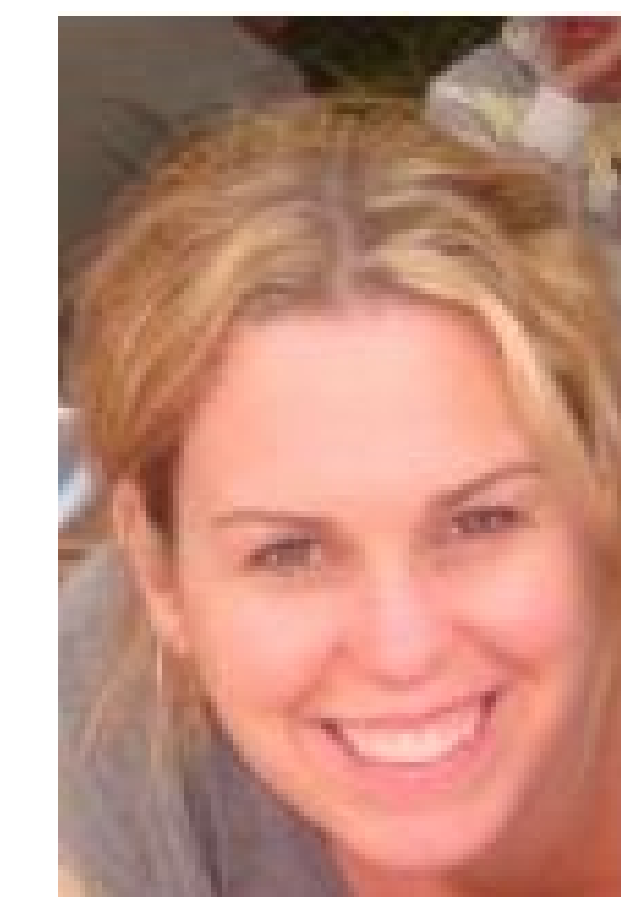
Project Impact:

Older adults commonly live with multiple chronic conditions, yet research into exercise interventions commonly focuses on one condition. The interaction between physical and brain health-related conditions and associated symptoms is complex. Conditions may present independently, but more often are highly intertwined. For example, highly prevalent physical conditions (e.g., arthritis, osteoporosis) can be exacerbated by brain-related conditions (e.g., anxiety and depression) and related to the development of cardiovascular disease and dementia.

In 2020, the leading causes of death were heart disease, dementia, cancer and cerebrovascular diseases (ABS, 2022). With an ageing Australian population, osteoarthritis and osteoporosis were also highly prevalent comorbidities associated with the leading causes of death. Furthermore, anxiety and depression are common psychological co-morbidities that occur alongside osteoarthritis (Sharma et al., 2016; Axford et al., 2010) and osteoarthritis has also been associated with a 1.2 to 1.5-fold increase in dementia risk (Chang et al., 2014; Kostev et al., 2018), higher prevalence rates of dementia (Amouziougan et al., 2018), and is considered an early risk factor for cognitive decline (Chang et al., 2014; Huang et al., 2015; Chen et al., 2018).

Physical activity interventions delivered by Accredited Exercise Physiologists (AEPs) have been shown to be highly effective for people living with 26 chronic conditions (Pederson & Saltin, 2015), including osteoarthritis (Fransen et al., 2015; Fransen & McConnell, 2009), diabetes (Quirk et al., 2014) and cardiovascular disease (Polese et al., 2013). What happens when we start looking at the effect of PA on multiple conditions?

Supervisors:



A/Prof Belinda Parmenter:

Head of the UNSW Lifestyle Clinic and a leading academic in exercise prescription for cardiovascular disease. She is an Accredited Exercise Physiologist with over 25 years' clinical experience and was awarded a NHMRC grant and the ESSA medal for her research in peripheral artery disease.



Dr Claire Burley

A post-doctorate fellow with the UNSW Lifestyle Clinic and Centre for Healthy Brain Ageing (CHeBA). Her research is focused on brain health and improving care for people living with dementia using person-centred, non-pharmacological approaches.