Northern Health

Allied Health Research Newsletter

Issue #5 May 2024

Allied Health Research News

Next edition: September

Northern Health acknowledges Victoria's Aboriginal communities and their rich culture and pays respect to their Elders past, present and emerging. We acknowledge Aboriginal people as Australia's first peoples and as the Traditional Owners and custodians of the land (the Wurundjeri people) on which Northern Health's campuses are built.

We recognise and value the ongoing contribution of Aboriginal people and communities to our lives and we embrace the spirit of reconciliation, working towards the equality of outcomes and ensuring an equal voice.

Northern Health celebrates, values, and includes people of all backgrounds, genders, sexualities, cultures, bodies and abilities.

safekindtogether

Welcome to Issue #5 from Senior Allied Health Officer Emily Farrugia

Welcome to our 5th edition of the Allied Health research newsletter; a space to share many of the exciting achievements, milestones and updates occurring across Northern Health's incredible allied health team.

I want to thank all staff who have contributed previously and to this month's newsletter, showcasing the success of an incredible $1.4 million awarded in grant funding, the release of our allied health research report reflecting on many achievements across 2023, the upcoming Stepping into Research (SIR) program and clinicians presenting their research both nationally and internationally! The allied health report alone celebrated more than 5 successful grant applications of >$495K last year, 4 PhD's completed, an array of presentations and awards and 2 SIR publications. Well done to all clinicians on their success in 2023.

It is an exciting time to be working within the research team. I'm currently working on a few allied health projects, mentoring a SIR participant on her systematic review and assisting with facilitating and developing research workshops amongst other things. We are motivated to reach new milestones this year and celebrate an even bigger 2024! Please reach out to myself or the team at AH.Research@nh.org.au if we can support you in any way or if you have feedback on how we can further improve and expand research here at Northern Health.

Allied Health Research Clinic:

Do you:

- ✓ Have a burning research question?
- ✓ Need help with an ethics submission?
- ✓ Want to interpret statistics or a survey?

Contact our team for further advice 😊

HOT OFF THE PRESS – $1.4 million MFF grant obtained

Congratulations to *Hazel Heng*, *Adam Semciw* and *Uyen Phan* on their joint success in receiving $1.4 million in funding, through the Medical Research Future Fund (MFF), in collaboration with academic partners at La Trobe University, Northern Health and the University of Western Australia.

Image (bottom left to right): Hazel Heng, Don Campbell, Uyen Phan and Adam Semciw.

Title: Safe Recovery - reducing falls injuries by older people in Australian hospitals. 2024 – 2027.
Lead investigator: Anne-Marie Hill
Participating health services:

- East Metropolitan Health Service, Western Australia
- Northern Health. Victoria
- Western Health, Victoria

Aim: to reduce hospital falls by implementing an evidence-based patient fall prevention education program.

Hospital falls by older patients (65 years or older) have been identified as a safety priority by older people, hospital staff and policy makers. Hospital falls are a major cause of serious injuries and deaths each year and are associated with older patients' functional decline, delayed discharge, loss of independence and admission to residential aged care. Australian hospitals spend $590 million yearly trying to prevent falls, but some interventions used, such as bed alarms, are not effective. This is a critical problem as older people frequently use hospitals and consume 49% of the 31.8 million bed-days of care provided in Australia. It is vital to reduce falls to avoid older people having poor outcomes after a hospital admission.

A recent systematic review demonstrates that providing older patients with fall prevention education alongside staff support reduces hospital falls and associated injuries. This evidence for education is based on our CI team's trials and is recommended (GRADE 1A) in new World Falls Guidelines. However, a major gap exists because few hospitals deliver any patient fall prevention education. The team will implement our evidence-based Safe Recovery fall education program in three health systems in two states. Co-designed resources will be used to deliver individualised fall education to older patients across wards, using a cluster stepped-wedge trial. Implementation will be enabled by consumer leadership and health system support. Embedded health professional and clinical researcher training and mentoring will build capacity in geriatrics and hospital research.

Reduced falls and injuries can improve older people's outcomes and hospital safety. We will provide a foundation for effective delivery of patient fall prevention education in Australian hospitals by partnering with stakeholders (older people, families, staff, health services) and providing clinicians with research training to discover and translate evidence into high quality practice.

Further details can be found on Northern iNews: https://inews.nh.org.au/2024/03/mff-funding-for-falls/

Introducing our Clinical Biostatistician: Mani Suleiman

Mani joined Northern Health from Melbourne Polytechnic and Cabrini Health in August 2023, and has since been involved in several projects in close collaboration with Allied Health.

Having a background in research, data analytics and statistical consulting, particularly in the health, human services, and education sectors, he provides statistical support for a wide range of research activities at Northern Health.

Mani is able to advise on topics relating to the collection, analysis and interpretation of study data, including hypothesis testing, sample size estimation and statistical modelling.

Mani can be contacted on **(03) 8468 0763** or mani.suleiman@nh.org.au and is located in the Research Development and Governance Unit on **Level 3 of the NCHER building**.

Current Allied Health low risk research projects

- ✓ The barriers to attendance in heart failure rehabilitation **(Physiotherapy)**
- ✓ Medication transcription errors associated with electronic prescribing during internal hospital transfers of care: a multi-centre study **(Pharmacy)**
- ✓ The association between toe-brachial index results and haemodialysis in patients with End Stage Kidney Disease **(Podiatry)**
- ✓ Investigating Malnutrition in Victorian Cancer Services: Malnutrition Prevalence Study 2018 **(Dietetics)**
- ✓ Factors associated with research interest, confidence and experience in allied health clinicians **(Allied Health)**
- ✓ Investigation of on-site food purchasing behaviour and attitudes at Northern Hospital **(Dietetics)**
- ✓ Falls and Body Schema Research Project **(Physiotherapy)**
- ✓ Victorian ICUs' Nutrition Practices Survey **(Dietetics)**
- ✓ Resilience, Professional Quality of Life, and Coping Flexibility of Health Social Workers in Facing COVID-19 **(Social Work)**
- ✓ Establishing if a bespoke focused rigidity cast containing an air gap reduces pressure at the posterior heel **(Podiatry and Orthotics)**
- ✓ Web based resource for people with osteoarthritis: a pragmatic feasibility study **(Physiotherapy and Orthopaedics)**
- ✓ Digital Remote Patient Monitoring for the Progressive Neurological Disorders Clinic at Northern Health **(Speech Pathology, Occupational Therapy & Community Therapy Services)**

Your Allied Health Research Committee Representatives

- Emily Farrugia (Dietetics)
- Jeff Khoshaba (Pharmacy)
- Belinda Baines (Podiatry)
- Rebecca Turnbull (Exercise Physiology)
- Adrienne Munro (Occupational Therapy)
- Luckshica De Silva (Physiotherapy)
- Brooke Froud Cummins (Psychology)
- Yue Hu (TALS)
- Carolyn Dun (Mental Health)

If your discipline is not currently represented, please get in touch.

Part 2 on Rebecca Jessup – Staying Well

Left to right: Fan Hoak, with her son Robyn, Lubab Shwaita, Rebecca Jessup and Lizcha Kaivaha

1. What are your thoughts on clinician-led research? Where would we be without it?

Clinician-led research is really important to advancing medical understanding and improving patient outcomes within the Australian healthcare system. With a practical focus on real-world clinical challenges, clinician researchers bring a unique perspective that aligns with the needs of the health system and often the preferences of patients. When clinicians 'own' the research, there is much greater likelihood that the research findings will be translated into everyday clinical practice, bridging scientific discoveries and healthcare delivery. The collaborative nature of clinician-led research promotes interdisciplinary cooperation, ensuring a comprehensive understanding of healthcare issues. Without this approach, there is a risk of missing out on nuanced solutions that directly address the evolving realities of patient care within the Australian healthcare landscape.

2. People often feel there is always so much to learn or more to learn in the field of research. What would your advice be for anyone feeling this way?

Feeling like there's always more to learn in the field of research is a common sentiment, given the ever-evolving nature of knowledge and newly developing methodologies. My advice would be to embrace this as one of the positive parts of a career in research. Recognise that the dynamic nature of research is what makes it intellectually stimulating and impactful. Instead of being overwhelmed, consider the continuous learning journey as an opportunity for personal and professional growth. Set realistic goals, break down large topics into manageable chunks, and prioritise areas that align with your research interests or immediate needs. Engage in regular discussions with colleagues, attend conferences, and participate in training opportunities to stay updated on new methodologies and findings. Embrace a mindset of curiosity and adaptability, and remember that the pursuit of knowledge is a lifelong journey. Celebrate your achievements along the way, and don't be too hard on yourself—research is a collaborative and iterative process, and everyone experiences the feeling of there always being more to learn.

3. What would be your top 3 'take home messages for early career researchers?

1) Embrace Curiosity and Open-Mindedness. Be willing to explore new ideas, methodologies, and interdisciplinary perspectives. The research landscape is vast and constantly evolving, and approaching it with a curious mindset allows for continuous learning and adaptation to new challenges.
2) Build Strong Networks and Collaborate. Establishing a robust professional network is crucial for early career researchers. Collaborate with peers, mentors, and experts in your field. Networking provides opportunities for knowledge exchange, collaboration on research projects, and access to valuable resources.
3) Good communication is key to success in research. Hone your ability to communicate complex ideas clearly and concisely, both in writing and verbally. Whether it's presenting at conferences, writing journal articles, or explaining your work to diverse audiences, strong communication skills are essential for disseminating your findings and gaining recognition for your work both within the research community and more broadly.

Stepping Into Research (SIR) Program – August 2024

A 12-week program - including 4 x3-hour small group training sessions, 1:1 meetings with an allocated mentor and a ½ day weekly for private study time - designed to take Allied Health clinicians through the process of writing a systematic review on a clinical research question of interest. No previous research experience is required.

Email AH.Research@nh.org.au if you would like to register for a drop-in session in May. Get in quick! Applications close *Friday 28th June COB*.

Hear from 2023 SIR participant Rebecca Turnbull (Exercise Physiology) on her experience:
How would you describe your experience in the SIR program? Would you recommend this to others? Is there any advice you have for clinicians with an interest in research?

"The SIR program really is a fantastic program and I would highly recommend to any clinicians interested in developing skills research skills. Undertaking a systematic review is a great place to start in research, particularly if you haven't done research training before. The staff were extremely supportive and guided us through the steps of the systematic review, acknowledging our skills and expertise as clinicians and not as researchers! The information in the workshops was presented in an easy to understand way, and regular meetings with the supervision team helped keep us stay on task and progress through the steps of the systematic review.

On a personal level, I was able to refine and consolidate my skills using search terms and search strategies, critically appraising research articles, and effectively summarising and communicating key findings of the literature. In addition to the time provided for participants to complete the program weekly/fortnightly, there was a great deal of personal time invested to achieve the outcomes of the program. However, this varied from person to person and there was no expectation to have the entire research completed within the 12-week period.

My advice to those interested is that, like any program or learning opportunity, you will get out of it what you put in (or at least have capacity to put in, depending on your work/family commitments!), and at the end of the day, it's all about the learning process!" *Read more in our next issue.*

Recently approved allied health research projects (non-HREC)

- ✓ Evaluating time efficiencies following the introduction of an Automated Dispensing Cabinet within a mental health ward **(Pharmacy)**
- ✓ Determining care outcomes of patients seen by podiatry during an admission after peripheral arterial disease is identified **(Podiatry & Orthotics)**
- ✓ Assessing the impact on Pharmacist involvement in clinical transition during an organisation wide electronic medical record implementation **(Pharmacy)**
- ✓ Medtasker and Allied Health **(Informatics)**
- ✓ Musculoskeletal Wellness Program Evaluation **(Orthopaedics, Physiotherapy & Staying Well)**
- ✓ Gastroenterology Screening Clinic Evaluation; Patient Reported Outcome Measures **(Dietetics)**

Upcoming professional development

Interpreting Evidence for Clinical Practice
Workshop: June 20th 1-4pm

Are you interested in improving your understanding of basic statistics? Have you struggled reading the results of a paper or comparing articles in the past? *Read on…*

This workshop will focus on the following learning outcomes:

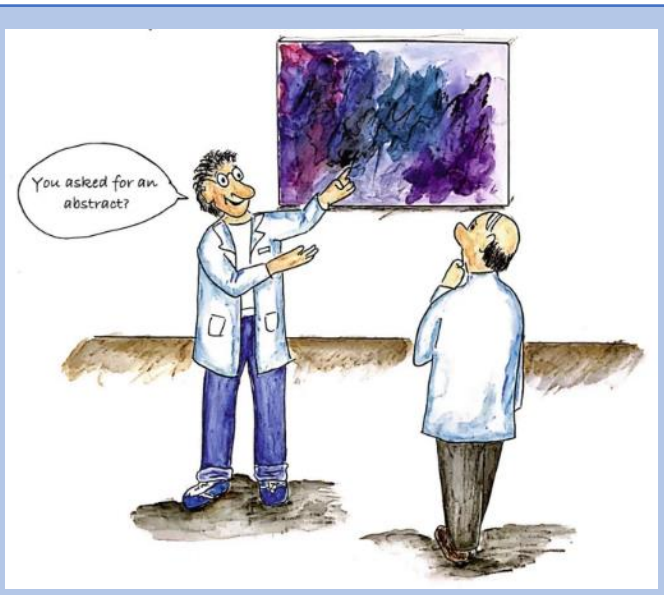
1. Searching databases for key evidence; *key databases and resources available*
2. Reading and evaluating articles effectively; *the hierarchy of evidence and evaluating outcomes and bias*
3. Interpret basic quantitative data; *including key statistics, statistical significance and relevant figures*
4. Locating resources to support you in interpreting evidence; *tools available*

Register your interest now via LMS to secure your spot!

*This workshop follows the "**Turning clinical questions into QI/Research projects**" workshop delivered May 2nd by Hazel Heng and Emily Farrugia, designed to help Allied Health Professionals work through the practicalities and steps involved in transforming Quality Improvement (QI) and research projects. Thank you to all 8 staff members for attending the workshop. Feedback will support ongoing research-related PD in the future.*

Presenter: Hazel Heng

Cartoon Of The Quarter



Careers in research – Shapin Sayeed (Physiotherapy)

1. **Please talk us through your journey as a physiotherapist/allied health assistant (AHA) thus far and your experience delving in research?**

My physiotherapy career started with a Bachelor degree from University of Dhaka, Bangladesh in 2007, followed by a post-graduate in Musculoskeletal and Sports physiotherapy before working with the Bangladesh Cricket Board. Progressing further in my career, I moved to work with some reputable rehabilitation centres until 2016 and was also involved in clinical supervision and research in those roles. My research interest started while I was doing a thesis in my physiotherapy degree and advanced with the support and opportunities from my workplaces. I then completed a Master in Public Health to pursue better research with more skills and knowledge to improve the health gaps in countries with limited resources.

At the same time, I had the opportunity to work with the International Committee for the Red Cross (ICRC) and my local understanding of gaps in the health system extended more broadly to global scale. ICRC trained me as their mentor for their physiotherapists working in countries with limited resources in Asia, where Allied Health (AH) services are not part of their core health system. Getting access to AH services is a luxury in these countries and people do suffer socio-economically with their disability including their multi-generational family.

Looking forward to improving the situation through evidence, I commenced my PhD at La Trobe University, Melbourne in 2019 with a full scholarship. As I wanted to keep working in my field of clinical practice, as I am still in the process of obtaining my AHPRA registration, I started working as an AHA in 2020 and at Northern Health in 2021-ongoing. Early 2023, I started to work with the HIPSTER Clinical Trial which provided me a great opportunity to work extensively in a national level double blinded clinical trial. Finally, in June 2023, I completed my PhD and am looking forward to start my career in a role which could fulfil my dream to improve the health system in limited resourced areas.

2. **What initially sparked your interest in research?**

Evidence-based treatment was always the priority for me, and I started questioning the healthcare system in Bangladesh where involvement of the multi-disciplinary team approach is missing. Allied health is not part of the health system in the country; it is very limited and an expensive service available privately, meaning many people are unable to access services. I wanted to show the impact of not getting services on people's lives through research.

3. **Please elaborate on your PhD and any relevant learnings in your experience.**

Completing a PhD in Australia, exploring the rehabilitation access, participation and return to occupation in developing Asian countries helped me really understand the issues using a system approach. Working with the Australian health system also helped me to see what the health system looks like in a developed country. *See continued on the next page.*

Careers in research – Shapin Sayeed (Physiotherapy)

Through my PhD, I found that the lifesaving procedure of lower limb amputation (LLA) has significant impacts on individuals. In developing Asian countries, most trauma from those who are amputated are less educated, young, active, male, the principal earner of the family, from lower socio-economic groups mostly living in rural areas and doing labouring jobs; a cohort different from that in most developed countries. People suffer from significant disability, economic, and work-role degradation including their families without access to rehabilitation. Multi-dimensional factors affecting rehabilitation start from individual patient characteristics (gender, education etc.), skills and resources (economic, information etc.) including care-team characteristics and functions (family demands, challenges etc.) and external influences (referral), organisational challenges to service delivery (models, qualities etc.) and physical & psychosocial environmental factors (costs and financial supports) amongst political, social and cultural factors.

My PhD recommended provision of services with the patient and family as the primary focus for rehabilitation with well supported management plans from acute care to community re-integration. Sustainable rehabilitation policies need to be embedded into primary to tertiary healthcare facilities to ensure rehabilitation access and participation for all. Policies need to comprehensively address issues at all levels of health services to improve practice, with sustainable resources to improve accessible rehabilitation in all countries in this region.

4. **How did you find the publication process? Do you have any reflections on this?**

Deciding to publish research in a journal starts with considerations on the audience for the study. Based on funding availability, you may select an open source or subscription-based journal, look at impact factors and requirements matching the study; a key to start the process. Preparing the submission based on the journal's requirements is another key step to getting a paper accepted for review. Keeping up with feedback from reviewers and agreeing on key points can be another challenge when publishing.

My reflection on publishing a paper is that one needs to be open to criticism and reasonable but also strong so not to lose the authenticity of the work alongside changes, which can sometimes be difficult to accept.

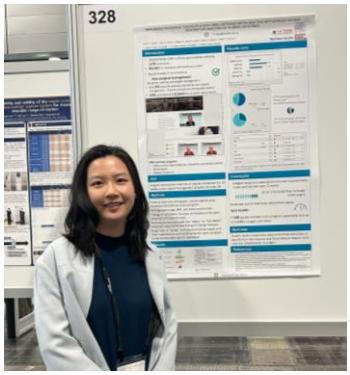
5. **You were a 2023 Stepping into Research (SIR) mentor. Can you please tell us more about the program and any advice you have for future applicants with a growing interest in research?**

The SIR program has been designed to support and promote clinicians to do research. The research team here provide training and one-on-one mentoring to help clinicians alongside their proposed plan. Last year, it was a great opportunity to mentor and see clinicians evolving in their research interests. I could practically use my skills and knowledge to help others to achieve their goal. I believe this program would benefit clinicians interested in evidence-based practice and considering doing research to improve the practice. For future applicants, I would recommend exploring their practices; what bothers them, is there a solution, and if not, can they explore this interest in the next program?

Conference news

2024 OARSI World Congress on Osteoarthritis

Lin Tong presented on "Web-Based Resource for People Referred To Knee Osteoarthritis Orthopaedic Review: Descriptive Analysis Of 12-Week Outcomes".

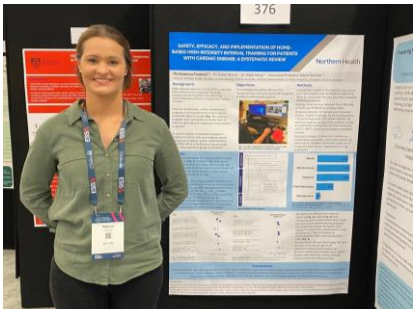


The study provides a descriptive overview of a digitally delivered program for knee osteoarthritis (OA) patients awaiting orthopaedic review. To address the extensive wait times and limited exposure to conservative treatment, the recommended first-line care for knee OA, Northern Health introduced an asynchronous, self-paced 12-week digital resource, with ad hoc physiotherapist and dietician support.

Among 887 screened patients, 62 completed the program, with minor improvements in pain (-1.2 [-1.7,-0.7], p<0.01) and quality of life (KOOS QoL: 6 [2,9], p<0.01). Among those who completed the program, 45.1% reported feeling better at program completion, and 71.0% no longer sought surgical review. The digital resource positively impacted patients' attitudes towards surgery, demonstrating modest enhancements in pain and quality of life. Future investigations will focus on program outreach and identifying patients who would benefit most from this intervention versus those requiring more intensive rehabilitation or surgery.

Exercise and Sport Science Australia (ESSA) Research to Practice Conference May 2024

Rebecca Turnbull (Senior Exercise Physiologist) presented a poster on "Safety, Efficacy and Implementation of Home-based High Intensity Interval Training for Patients with Cardiac Disease: A Systematic Review".



Her systematic review compared high-intensity interval training (HIIT) programs in the home environment to standard centre-based cardiac rehabilitation programs and other lower intensity exercise programs in the home environment. Home-based high-intensity interval training was safe and resulted in similar effects in exercise capacity and quality of life as other centre-based and home-based exercise interventions for patients with cardiac disease. Further research is needed to explore different HIIT protocols in the home environment to ensure exercise prescription is individualised, optimises outcomes for patients and can be readily adhered to in this population group.

Upcoming allied health conferences in 2024

May-June	*July-August*
• Dietitians Unite 2024 • The Sound Exchange 2024 - Audiology in Action • Speech Pathology Australia 2024 Conference • OT Exchange 2024	• 2024 APS College of Counselling Psychologists Conference • Dietitians Australia 2024 conference • Australasian Diabetes Congress • Australian Diabetes in Pregnancy Society (ADIPS) annual scientific meeting

HOT OFF THE PRESS – Allied Health Research Report 2023

The full report will be available on the intranet from June onwards.

Selected publications for 2024 (Jan-May)

1. **Farrugia, E., Semciw, A.I., Bailey, S.,** Cooke, Z., Tuck, C. (2024). Proportion of unplanned tube replacements and complications following gastrostomy: A systematic review and meta-analysis. Nutrition and Dietetics, 81(1) 63-78.
2. O'Brien, M.J.M., **Semciw, A.I.,** Mechlenburg, I. Tønning, L.C.U., Stewart, C.J.W., Kemp, J.L. (2024). Pain, function and quality of life are impaired in adults undergoing periacetabular osteotomy (PAO) for hip dysplasia: a systematic review and meta-analysis. HIP International, 34(1) 96-114.
3. **Fan, I.,** Govil, D., King, M.G. Scholes, M.J., **Semciw, A.I.** (2024). How effective are exercises delivered digitally (requiring internet), amongst patients with hip or knee osteoarthritis? A systematic review and meta-analysis. Osteoarthritis and Cartilage, 32(3) 254-265.
4. **Farmer, C.,** Haas, R., Wallis, J. O'Connor, D., Buchbinder, R. (2024). Are clinically unimportant findings qualified as benign in lumbar spine imaging reports? A content analysis of plain X-ray, CT and MRI reports. PLoS ONE, 19(3).
5. **Baines, B.L.,** Pianta, T., Tacey, M. **Bramston, C.,** Cotchett, M., **Tucker, S., Jessup, R.L**. (2024). Temporal changes in toe-brachial index results in haemodialysis patients. PLoS ONE, 19(4).
6. **Jessup, R.L.,** Slade, S., Roussy, V. Whicker, S., Pelly, J., Rane, V., Lewis, V., Naccarella, L., Lee, M., Campbell, D., Stockman, K., Brooks, P. (2024). Peer Health Navigators to improve equity and access to health care in Australia: Can we build on successes from the COVID-19 pandemic?. Australian and New Zealand Journal of Public Health, 48(2).
7. Kinsella, R., **Semciw, A.I.,** Hawke, L.J. Stoney, J., Choong, P.F.M., Dowsey, M.M. (2024). Diagnostic Accuracy of Clinical Tests for Assessing Greater Trochanteric Pain Syndrome: A Systematic Review With Meta-analysis. Journal of Orthopaedic and Sports Physical Therapy, 54(1) 26-49.
8. Morris, M.E., Thwaites, C., Lui, R., McPhail, S.M., Haines, T., Kiegaldie, D., **Heng, H.,** Shaw, L., Hammond, S., McKercher, J.P., Knight, M., Carey, L.M., Gray, R., Shorr, R., Hill, A.-M. (2024). Preventing hospital falls: feasibility of care workforce redesign to optimise patient falls education. Age and Ageing, 53(1).
9. **Quick, S.M.,** Lawler, K., Shannon, M.M. Soh, S.-E., McGinley, J.L., Peiris, C.L., Snowdon, D.A., Callisaya, M.L. (2024). Physiotherapy students are underprepared to work with people living with dementia: a qualitative study. Physiotherapy (United Kingdom), 12347-55.
10. Figueiredo, B., Sheahan, J., Luo, R. Bird, S., Wong Lit Wan, D., Xenos, S., Itsiopoulos, C., **Jessup, R.,** Zheng, Z. (2024). Journey mapping long COVID: Agency and social support for long-hauling. Social Science and Medicine, 340.
11. Kjeldsen, T., Hvidt, K.J., Bohn, M.B. Mygind-Klavsen, B., Lind, M., **Semciw, A.I.,** Mechlenburg, I. (2024). Exercise compared to a control condition or other conservative treatment options in patients with Greater Trochanteric Pain Syndrome: a systematic review and meta-analysis of randomized controlled trials. Physiotherapy (United Kingdom), 12369-80.

Have a story for the next Allied Health Research Newsletter?

Published recently but don't see your name here?

Get in touch with our team: AH.Research@nh.org.au