

Ageing and Aged Care publication list December 2020

(MACH Care of the Ageing Committee members' **bolded**)

1. Home-based exercise intervention for caregivers of persons with dementia: a randomised controlled trial: abridged secondary publication. *Hong Kong medical journal = Xianggang yi xue za zhi*, Volume 26, Issue 6, 1 December 2020, Pages 13-16.

Chan W.C., Lam L.C.W., **Lautenschlager N.**, **Dow B.**, Ma S.L.

[Link to Publication](#)

2. Hearing aids to support cognitive functions of older adults at risk of dementia: the HearCog trial- clinical protocols. *BMC Geriatrics*, Volume 20, Issue 1, December 2020, Article number 508.

Jayakody D.M.P., Almeida O.P., Ford A.H., Atlas M.D., **Lautenschlager N.T.**, Friedland P.L., Robinson S., Makate M., Coetzee L., Liew A.S.P., Flicker L.

About the Research: Globally, about 50 million people were living with dementia in 2015, with this number projected to triple by 2050. With no cure or effective treatment currently insight, it is vital that factors are identified which will help prevent or delay both age-related and pathological cognitive decline and dementia. Observational data have suggested that hearing loss is a potentially modifiable risk factor for dementia, but no conclusive evidence from randomised controlled trials is currently available.

[Link to Publication](#)

3. Bone From Blood: Characteristics and Clinical Implications of Circulating Osteogenic Progenitor (COP) Cells. *Journal of Bone and Mineral Research*, 2020. Published online December 2020.

Feehan J., Kassem M., Pignolo R.J., **Duque G.**

About the Research: Circulating osteogenic progenitor (COP) cells are a population of cells in the peripheral blood with the capacity for bone formation, as well as broader differentiation into mesoderm-like cells in vitro. Although some of their biological characteristics are documented in vitro, their role in diseases of the musculoskeletal system remains yet to be fully evaluated. In this review, we provide an overview of the role of COP cells in a number of physiological and pathological conditions, as well as identify areas for future research. In addition, we suggest possible areas for clinical utilization in the management of musculoskeletal diseases. © 2020 American Society for Bone and Mineral Research (ASBMR). © 2020 American Society for Bone and Mineral Research (ASBMR)

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4. Psychological well-being of Australian hospital clinical staff during the COVID-19 pandemic.
Australian Health Review, 2020. Published online December 2020.

Holton S., Wynter K., Trueman M., Bruce S., Sweeney S., Crowe S., Dabscheck A., Eleftheriou P., Booth S., Hitch D., **Said C.M.**, Haines K.J., Rasmussen B.

About the Research: This study assessed the psychological well-being of Australian hospital clinical staff during the COVID-19 pandemic. **Methods:** An anonymous online cross-sectional survey was conducted in a large metropolitan tertiary health service located in Melbourne, Australia. The survey was completed by nurses, midwives, doctors and allied health (AH) staff between 15 May and 10 June 2020.

[Link to Publication](#)

5. Toward a theory-based specification of non-pharmacological treatments in aging and dementia: Focused reviews and methodological recommendations.
Alzheimer's and Dementia, 2020. Published online December 2020.

Sikkes S.A.M., Tang Y., Jutten R.J., Wesselman L.M.P., Turkstra L.S., Brodaty H., Clare L., Cassidy-Eagle E., Cox K.L., Chételat G., Dautricourt S., Dhana K., Dodge H., Dröes R.-M., Hampstead B.M., Holland T., Lampit A., Laver K., Lutz A., **Lautenschlager N.T.**, McCurry S.M., Meiland F.J.M., Morris M.C., Mueller K.D., Peters R., Ridet G., Spector A., van der Steen J.T., Tamplin J., Thompson Z., Bahar-Fuchs A., ISTAART Non-pharmacological Interventions Professional Interest Area

About the Research: Non-pharmacological treatments (NPTs) have the potential to improve meaningful outcomes for older people at risk of, or living with dementia, but research often lacks methodological rigor and continues to produce mixed results.

[Link to Publication](#)

6. Resource assessment in trials undertaken in residential care homes: Experiences from the Australian MIDDEL cluster randomised controlled trial research team.
Contemporary Clinical Trials Communications, Volume 20, December 2020, Article number 100675.

Baker F.A., Stretton-Smith P.A., **Sousa T.V.**, Clark I., Cotton A., Gold C., Lee Y.-E.C.

About the Research: The resources involved in delivering a clinical trial in residential aged care facilities (RACFs) are significant and the success of a trial is dependent upon adequate planning, including appropriate timelines for each component of the study and the required budget. This paper describes process and resource assessment during recruitment, collection of outcome measures and intervention delivery, and presents learnings and considerations for conducting trials in RACFs with people living with dementia.

[Link to Publication](#)

7. Undercarboxylated osteocalcin is associated with vascular function in female older adults but does not influence vascular function in male rabbit carotid artery ex vivo. *PLoS ONE, Volume 15, Issue 11 November, November 2020, Article number e0242774*

Tacey A., Smith C., Woessner M.N., Chubb P., Neil C., **Duque G.**, Hayes A., Zulli A., Levinger I.

About the Research: There are conflicting reports on the association of undercarboxylated osteocalcin (ucOC) in cardiovascular disease development, including endothelial function and hypertension. We tested whether ucOC is related to blood pressure and endothelial function in older adults, and if ucOC directly affects endothelial-mediated vasodilation in the carotid artery of rabbits.

[Link to Publication](#)

8. Non-Pharmacological Interventions in Osteosarcopenia: A Systematic Review. *Journal of Nutrition, Health and Aging, 2020. Published online December 2020.*

Atlihan R., Kirk B., **Duque G.**

About the Research: Osteosarcopenia is a geriatric syndrome defined by the concomitant presence of osteopenia/osteoporosis (loss of bone mineral density (BMD)) and sarcopenia (loss of muscle mass and/or function), which increases the risk of falls, fractures, and premature mortality. Objective: To examine the efficacy of non-pharmacological (exercise and/or nutritional) interventions on musculoskeletal measures and outcomes in osteosarcopenic adults by reviewing findings from randomized controlled trials (RCTs).

[Link to Publication](#)

9. Higher Undercarboxylated to Total Osteocalcin Ratio Is Associated With Reduced Physical Function and Increased 15-Year Falls-Related Hospitalizations: The Perth Longitudinal Study of Aging Women. *Journal of Bone and Mineral Research, 2020. Published online December 2020.*

Smith C., Lewis J.R., Sim M., Lim W.H., Lim E.M., Blekkenhorst L.C., Brennan-Speranza T.C., Adams L., Byrnes E., **Duque G.**, Levinger I., Prince R.L.

About the Research: Evidence from animal models suggests that undercarboxylated osteocalcin (ucOC) is involved in muscle mass maintenance and strength. In humans, the ucOC to total (t)OC ratio may be related to muscle strength and perhaps physical function and falls risk, but data are limited. We tested the hypothesis that ucOC and ucOC/tOC ratio are associated with muscle function (muscle strength and physical function) in older women and 15-year falls-related hospitalizations.

[Link to Publication](#)

10. Protocol for development of a core outcome set for menopausal symptoms (COMMA).

Menopause (New York, N.Y.), Volume 27, Issue 12, 1 December 2020, Pages 1371-1375.

Kim B.V., Iliodromiti S., Christmas M., Bell R., Lensen S., **Hickey M.**, International COMMA (Core Outcomes in Menopause) Consortium

About the Research: Menopause is the natural cessation of menstruation and may be accompanied by troublesome symptoms including hot flushes and night sweats (vasomotor symptoms) and genitourinary symptoms. Randomized trials evaluating the safety and effectiveness of interventions for these symptoms have reported a wide range of outcomes and used inconsistent measures. This variation precludes comparing and combining data from different trials. To overcome this limitation, we will develop a Core Outcome Set for Menopausal Symptoms.

[Link to Publication](#)

11. The effects of acute exercise on bone turnover markers in middle-aged and older adults: A systematic review. *Bone*, 2020, Article number 115766.

Smith C., Tacey A., Mesinovic J., Scott D., Lin X., Brennan-Speranza T.C., Lewis J.R., **Duque G.**, Levinger I.

About the Research: Bone turnover is the cellular machinery responsible for bone integrity and strength and, in the clinical setting, it is assessed using bone turnover markers (BTMs). Acute exercise can induce mechanical stress on bone which is needed for bone remodelling, but to date, there are conflicting results in regards to the effects of varying mechanical stimuli on BTMs. Objectives: This systematic review examines the effects of acute aerobic, resistance and impact exercises on BTMs in middle and older-aged adults and examines whether the responses are determined by the exercise mode, intensity, age and sex.

[Link to Publication](#)

12. The Informed Consent Model of Care for Accessing Gender-Affirming Hormone Therapy Is Associated With High Patient Satisfaction. *Journal of Sexual Medicine*, 2020. Published online December 2020.

Spanos C., Grace J.A., Leemaqz S.Y., Brownhill A., Cundill P., Locke P., Wong P., **Zajac J.D.**, Cheung A.S.

About the Research: There are 2 common approaches to assess an individual before commencing of gender-affirming hormone therapy (GAHT); a mental health practitioner assessment and approval or an informed consent model undertaken with a primary care general practitioner (GP). Aim: In a primary care clinic practising an Informed Consent Model of care to initiate GAHT, we aimed to firstly describe the proportion and characteristics of patients referred for secondary consultation to a mental health practitioner (MH referred) and secondly, we aimed to measure patient satisfaction.

[Link to Publication](#)

13. Public libraries as health literate multi-purpose workspaces for improving health literacy.

Health Promotion Journal of Australia, 2020. Published online December 2020.

Naccarella L., Horwood J.

About the Research: Now more than ever, in this COVID–19 pandemic, our individual and collective ability to access, understand and apply information to inform our health care and broader lifestyle decisions i.e., to be health literate - has life or death consequences. This paper reflects upon the proposition of public libraries as health literate multi-purpose workspaces for improving health literacy. We draw upon our combined experiences as evaluators of organizational health literacy initiatives, and library sector development, engagement and advocacy.

[Link to Publication](#)

14. β -amyloid: The known unknowns. *Ageing Research Reviews, Volume 65, January 2021, Article number 101212.*

Ayton S., Bush A.I.

About the Research: Alzheimer's disease (AD) stands out as a major disease without any form of preventative or disease modifying therapy. This is not for lack of trying. 33 phase 3 clinical trials of drugs targeting amyloid beta ($A\beta$) have failed to slow cognitive decline in AD. The field is at a cross-roads about whether to continue anti- $A\beta$ therapy or more actively pursue alternative targets. With the burden of this disease to patients, families, and healthcare budgets growing yearly, the need for disease modifying AD therapies has become one of the highest priorities in all of medicine. While pathology, genetic and biochemical data offer a popular narrative for the causative role of $A\beta$, there are alternative explanations, and dissenting findings that, now more than ever, warrant thorough reanalysis. This review questions the major assumptions about $A\beta$ on which therapies for AD were premised, and invites renewed interrogation into AD pathogenesis. © 2020 Elsevier B.V.

[Link to Publication](#)

15. Use of the Safewards Model in healthcare services: A mixed-method scoping review protocol.

BMJ Open, Volume 10, Issue 12, 7 December 2020, Article number 039109.

Gerdtz M., Daniel C., Jarden R., **Kapp S.**

About the Research: Safewards is an organisational approach to delivering inpatient mental health services. The aim of Safewards is to minimise the number of situations in which conflict arises between healthcare workers and patients that lead to the use of coercive interventions (restriction and/or containment). The Safewards Model has been developed, implemented and evaluated for its impact on all forms of containment. Safewards has been adopted as the recommended approach to preventing patient agitation and clinical aggression in some jurisdictions. Notwithstanding these recommendations, the outcomes of Safewards for staff and patients have not been comprehensively described. The aim of the scoping review is to describe (1) Safewards interventions; (2) how Safewards interventions have been implemented in healthcare settings; (3) outcome measures used to evaluate the effectiveness of Safewards; (4) barriers and enablers to the uptake and sustainability of Safewards

[Link to Publication](#)

16. Implementation of an electronic care pathway for hip fracture patients: a pilot before and after study. *BMC Musculoskeletal Disorders, Volume 21, Issue 1, December 2020, Article number 837.*

Talevski J., Guerrero-Cedeño V., Demontiero O., Suriyaarachchi P., Boersma D., Vogrin S., Brennan-Olsen S., **Duque G.**

About the Research: Care pathways are generally paper-based and can cause communication failures between multidisciplinary teams, potentially compromising the safety of the patient. Computerized care pathways may facilitate better communication between clinical teams. This study aimed to investigate whether an electronic care pathway (e-pathway) reduces delays in surgery and hospital length of stay compared to a traditional paper-based care pathway (control) in hip fracture patients.

[Link to Publication](#)

17. Updated adolescent diagnostic criteria for polycystic ovary syndrome: impact on prevalence and longitudinal body mass index trajectories from birth to adulthood. *BMC Medicine*, Volume 18, Issue 1, December 2020, Article number 389.

Tay C.T., Hart R.J., **Hickey M.**, Moran L.J., Earnest A., Doherty D.A., Teede H.J., Joham A.E.

About the Research: Polycystic ovary syndrome (PCOS) is challenging to diagnose. While the 2003 Rotterdam criteria are widely used for adults, the 2018 international PCOS guideline recommended updated Rotterdam criteria with both hyperandrogenism and oligo-anovulation for adolescents based on evidence-informed expert consensus. This study compared the prevalence of PCOS using updated and original Rotterdam criteria in community-based adolescents and explored long-term body mass index (BMI) trajectories across different diagnostic phenotypes.

[Link to Publication](#)

18. Do morbidity measures predict the decline of activities of daily living and instrumental activities of daily living amongst older inpatients? A systematic review. *International Journal of Clinical Practice*, 2020. Published online December 2020.

Soh C.H., Hassan S.W.U., Sacre J., Lim W.K., **Maier A.B.**

About the Research: Older adults often suffer from multimorbidity, which results in hospitalisations. These are often associated with poor health outcomes such as functional dependence and mortality. The aim of this review was to summarise the current literature on the capacities of morbidity measures in predicting activities of daily living (ADL) and instrumental activities of daily living (IADL) amongst inpatients.

[Link to Publication](#)

19. Feasibility of using foot–ground clearance biofeedback training in treadmill walking for post-stroke gait rehabilitation. *Brain Sciences*, Volume 10, Issue 12, December 2020, Article number 978, Pages 1-9

Nagano H., **Said C.M.**, James L., Begg R.K.

About the Research: Hemiplegic stroke often impairs gait and increases falls risk during rehabilitation. Tripping is the leading cause of falls, but the risk can be reduced by increasing vertical swing foot clearance, particularly at the mid-swing phase event, minimum foot clearance (MFC). Based on previous reports, real-time biofeedback training may increase MFC.

[Link to Publication](#)

20. Foot disease and physical function in older adults: A systematic review and meta-analysis.

Australasian Journal on Ageing, 2020. Published online 2020.

Iseli R.K., Lee E.K., Lewis E., Duncan G., **Maier A.B.**

About the Research: To systematically assess the literature examining the association between foot disease (foot ulceration, infection, critical ischaemia and/or Charcot neuroarthropathy) and physical function in older adults.

[Link to Publication](#)

21. Combined physical and cognitive training for older adults with and without cognitive impairment: A systematic review and network meta-analysis of randomized controlled trials.

Ageing Research Reviews, Volume 66, March 2021, Article number 101232.

Gavelin H.M., Dong C., Minkov R., Bahar-Fuchs A., Ellis K.A., **Lautenschlager N.T.**, Mellow M.L., Wade A.T., Smith A.E., Finke C., Krohn S., Lampit A.

About the Research: Combining physical exercise with cognitive training is a popular intervention in dementia prevention trials and guidelines. However, it remains unclear what combination strategies are most beneficial for cognitive and physical outcomes. We aimed to compare the efficacy of the three main types of combination strategies (simultaneous, sequential or exergaming) to either intervention alone or control in older adults. Randomized controlled trials of combined cognitive and physical training were included in multivariate and network meta-analyses.

[Link to Publication](#)

22. Initial orthostatic hypotension and orthostatic intolerance symptom prevalence in older adults:

A systematic review. *International Journal of Cardiology: Hypertension, Volume 8, March 2021, Article number 100071.*

Christopoulos E.M., Tran J., Hillebrand S.L., Lange P.W., Iseli R.K., Meskers C.G.M., **Maier A.B.**

About the Research: Initial orthostatic hypotension is a clinically relevant syndrome in older adults which has been associated with symptoms of orthostatic intolerance. The aim of this systematic review was to determine the prevalence of orthostatic intolerance symptoms in older adults with initial orthostatic hypotension.

[Link to Publication](#)

23. Health service use pathways associated with recovery of quality of life at 12-months for individual fracture sites: Analyses of the International Costs and Utilities Related to Osteoporotic fractures Study (ICUROS). *Bone, Volume 144, March 2021, Article number 115805.*

Talevski J., Sanders K.M., Busija L., Beauchamp A., **Duque G.**, Borgström F., Kanis J.A., Svedbom A., Stuart A.L., Brennan-Olsen S.

About the Research: We aimed to identify combinations of health service use specific to each major osteoporotic fracture (MOF) site - hip, distal forearm, vertebrae and humerus - associated with recovery of health-related quality of life (HRQoL) 12-months post-MOF.

[Link to Publication](#)

24. Effects of Land versus Water Walking Interventions on Vascular Function in Older Adults. *Medicine and Science in Sports and Exercise, Volume 53, Issue 1, 2021, Pages 83-89.*

Haynes A., Naylor L.H., Spence A.L., Robey E., Cox K.L., Maslen B.A., **Lautenschlager N.T.**, Carter H.H., Ainslie P.N., Green D.J.

About the Research: Endothelial dysfunction is an early and integral atherogenic event. Interventions that improve endothelial function also reduce cardiovascular risk. Due largely to the direct hemodynamic effects of repetitive exercise on the artery wall, exercise training has shown to enhance endothelial function. Land walking (LW) and water walking (WW) induce distinct hemodynamic responses, so the comparison of their effects provides an approach to study shear stress effects on endothelial function. We hypothesized that LW and WW training would have different effects on peripheral artery endothelial function.

[Link to Publication](#)

25. Standardizing definitions and reporting guidelines for the infertility core outcome set: an international consensus development study† ‡. *Human reproduction (Oxford, England) Volume 35, Issue 12, 1 December 2020, Pages 2735-2745.*

Duffy J.M.N., Bhattacharya S., Bofill M., Collura B., Curtis C., Evers J.L.H., Giudice L.C., Farquharson R.G., Franik S., **Hickey M.**, Hull M.L., Jordan V., Khalaf Y., Legro R.S., Lensen S., Mavrelos D., Mol B.W., Niederberger C., Ng E.H.Y., Puscasiu L., Repping S., Sarris I., Showell M., Strandell A., Vail A., van Wely M., Vercoe M., Vuong N.L., Wang A.Y., Wang R., Wilkinson J., Youssef M.A., Farquhar C.M., Core Outcome Measure for Infertility Trials (COMMIT) initiative

About the Research: STUDY QUESTION: Can consensus definitions for the core outcome set for infertility be identified in order to recommend a standardized approach to reporting? SUMMARY ANSWER: Consensus definitions for individual core outcomes, contextual statements and a standardized reporting table have been developed.

[Link to Publication](#)

26. Health Literacy and Its Mediating Role in Predicting Health Behaviors Among Chinese Secondary Students. *Asia-Pacific Journal of Public Health, 2020. Published online December 2020.*

Guo S., Naccarella L., Yu X., Armstrong R., Browne G., Shi Y., Davis E.

About the Research: While health literacy research in mainland China has gained increasing attention, most studies focus on adults. This study aimed to examine the mediating role of health literacy in the relationship between a range of upstream factors and health behaviors among Chinese secondary students.

[Link to Publication](#)

27. Top 10 priorities for future infertility research: an international consensus development study. *Fertility and Sterility, 2020. Published online December 2020.*

Duffy J.M.N., Adamson G.D., Benson E., Bhattacharya S., Bofill M., Brian K., Collura B., Curtis C., Evers J.L.H., Farquharson R.G., Fincham A., Franik S., Giudice L.C., Glanville E., **Hickey M.**, Horne A.W., Hull M.L., Johnson N.P., Jordan V., Khalaf Y., Knijnenburg J.M.L., Legro R.S., Lensen S., MacKenzie J., Mavrelou D., Mol B.W., Morbeck D.E., Nagels H., Ng E.H.Y., Niederberger C., Otter A.S., Puscasiu L., Rautakallio-Hokkanen S., Sadler L., Sarris I., Showell M., Stewart J., Strandell A., Strawbridge C., Vail A., van Wely M., Vercoe M., Vuong N.L., Wang A.Y., Wang R., Wilkinson J., Wong K., Wong T.Y., Farquhar C.M., AlAhwany H., Balaban O., Beebejaun Y., Boivin J., Bosteels J.J.A., D'Angelo A., Dann L.F., De Jonge C.J., du Mez E., Ferriani R.A., Gervai M.-O., Gingel L.J., Greenblatt E.M., Hartshorne G., Helliwell C., Helliwell C., Hughes L.J., Jo J., Jovanović J., Kiesel L., Kietpeerakool C., Kostova E., Kucuk T., Lawrence R.L., Lee N., Lindemann K.E., Loto O.M., Lutjen P.J., MacKinven M., Mascarenhas M., McLaughlin H., Mills D.J., Mourad S.M., Nguyen L.K., Norman R.J., Olic M., Overfield K.L., Parker-Harris M., Ramos D.G., Rendulic A., Repping S., Rizzo R., Salacone P., Saunders C.H., Sengupta R., Sfontouris I.A., Silverman N.R., Torrance H.L., Uphoff E.P., Wakeman S.A., Wischmann T., Woodward B.J., Youssef M.A., Priority Setting Partnership for Infertility

About the Research: STUDY QUESTION: Can the priorities for future research in infertility be identified? SUMMARY ANSWER: The top 10 research priorities for the four areas of male infertility, female and unexplained infertility, medically assisted reproduction and ethics, access and organization of care for people with fertility problems were identified.

[Link to Publication](#)