

UP-SKILLING OUR FUTURE DOCTORS IN PRESCRIBING EXERCISE TO OLDER PEOPLE



Agathe Daria Jadczak

Doctor of Philosophy Candidate
University of Adelaide

Agathe studied Sport Sciences in Germany and has worked as an exercise physiologist in several rehabilitation and therapy centres. She is currently pursuing a Doctor of Philosophy (PhD) with the Adelaide Geriatrics Training and Research with Aged Care (G-TRAC) Centre, School of Medicine, University of Adelaide and is based at the Basil Hetzel Institute in Woodville, South Australia. Her PhD supervisors are Professor Renuka Visvanathan (geriatrician, University of Adelaide, The Queen Elizabeth Hospital) and Dr Natalie Luscombe (CSIRO, University of Adelaide). For more information on the research and work being undertaken by the research team, please visit health.adelaide.edu.au/medicine/g-trac/.



The World Health Organization expects the number of people aged 65 years and older to triple over the next 30 years. By 2050, nearly one quarter of Australia's population will be aged 65 years and above.¹ With increasing age, there is increased risk of frailty with resulting pressure on health care services as well as a risk of experiencing poorer quality of life. Frailty is a geriatric syndrome that is estimated to impact almost four million Australians by 2050.²

Exercise is beneficial for numerous diseases associated with ageing. Weight bearing exercise helps maintain bone and muscle mass, thus reducing the risk of falls and fractures. Balance and strengthening exercise help prevent falls. Aerobic exercise can help to prevent diabetes and impacts positively on blood pressure, thus reducing the risk of future cardiovascular events.³ Therefore, there is no doubt that exercise is good for older people.

Even if the benefits of exercise are well known, the uptake of exercise in older people, and especially those who are frail, is poor; 45% of people aged over 65 years and 75% of people aged over 75 years don't meet the recommended level of physical activity.⁴ People are increasingly leading a more sedentary lifestyle and report that the reasons why they might not exercise is because of health issues, environmental barriers, their own lack of knowledge and, sometimes, because their doctors might not have recommended exercise to them.⁵

General practitioners play an important role in helping increase awareness as well as encouraging older people to participate in exercise.⁶ However, exercise for older people is not a focus of many undergraduate medical curriculums and is poorly taught across medical education programs.⁷ In keeping with this, a recent review of United States medical curriculums suggests that over half of the physicians trained in the United States receive no formal education in exercise.⁸ Another study similarly confirmed that 44% of medical schools in the United Kingdom were not teaching the government recommended guidelines for physical activity,⁷ even though the importance of building the skills of medical students in relation to advising or prescribing

exercise has been discussed for over 30 years.⁹ Therefore, physicians may not be adequately prepared to assist patients with information about exercise and physical activity. It is therefore not surprising that many doctors cite that a lack of formal education courses during medical school is one reason why they might not prescribe exercise.¹⁰

Given our ageing demographic and the benefits of exercise in older people, the improvement of our medical teaching program is one critical strategy in building the future capacity of our medical workforce, thus equipping them with the necessary knowledge and skills that will ultimately result in greater participation in physical activity by our older consumers. Research investigating the effectiveness of medical school teaching programs relating to 'exercise for older people' is sparse. We know from the literature that more general courses to first and second year students about exercise (as opposed to specific for older people) improve student's perceived competency in prescribing exercise.^{11,12}

Our research group therefore wanted to gauge the effectiveness of our current fifth year geriatric medicine teaching program at the University of Adelaide in one teaching campus. In 2015, we administered pre and post course surveys to our fifth year medical students undertaking our geriatric medicine program. Through these surveys we are investigating student perceptions about the importance of exercise for older people and their self-reported competency about prescribing an exercise program for older people. We expect to publish these results in 2016. We now aim to improve our teaching program based on these results, implement it in the 2016 curriculum and re-evaluate for any improvements to the student experience. Additionally, we also aim to determine if the effects of our teaching program are sustained upon graduation at the end of their sixth year. We hope that our research will inform medical curriculum development at universities for the benefit of older consumers. We hope that our medical students graduate with greater knowledge and skills and as future doctors they are likely to advise older people to participate in physical activity.

References

1. Kippen R (2002). 'The future extend of population ageing in Australia', *Journal of Population Research*, Special ed.:151-9.
2. Collard RM, Boter H, Schoevers RA and Oude Voshaar RC (2012). 'Prevalence of frailty in community-dwelling older persons: a systematic review', *Journal of the American Geriatrics Society*, 60(8):1487-92.
3. Taylor D (2014). 'Physical activity is medicine for older adults', *Postgraduate Medical Journal*, 90(1059):26-32.
4. Hallal PC, Andersen LB, Bull FC, Guthold R, Haskell W and Ekelund U (2012). 'Global physical activity levels: surveillance progress, pitfalls, and prospects', *Lancet*, 380(9838):247-57.
5. Schutzer KA and Graves BS (2004). 'Barriers and motivations to exercise in older adults', *Preventative Medicine*, 39(5):1056-61.
6. Lawton BA, Rose SB, Elley CR, Dowell AC, Fenton A and Moyes SA (2008). 'Exercise on prescription for women aged 40-74 recruited through primary care: two year randomised controlled trial', *BMJ*, 337:a2509.
7. Weiler R, Chew S, Coombs N, Hamer M and Stamatakis E (2012). 'Physical activity education in the undergraduate curricula of the UK medical schools: are tomorrow's doctors equipped to follow clinical guidelines?', *British Journal of Sports Medicine*, 46(14):1024-6.
8. Cardinal BJ, Park EA, Kim M and Cardinal MK (2014). 'If exercise is medicine®, where is exercise in medicine? Review of U.S. medical education curricula for physical activity-related content', *Journal of Physical Activity and Health*, Dec 2.
9. Young A, Gray JA and Ennis JR (1983). 'Exercise medicine: the knowledge and beliefs of final-year medical students in the United Kingdom', *Medical Education*, 17(6):369-73.
10. Forman-Hoffman V, Little A and Wahls T (2006). 'Barriers to obesity management: a pilot study of primary care clinicians', *BMC Family Practice*, 7:35.
11. Jones PR, Brooks JH and Wylie A (2013). 'Realising the potential for an Olympic legacy; teaching medical students about sport and exercise medicine and exercise prescribing', *British Journal of Sports Medicine*, 47(17):1090-4.
12. Conroy MB, Delichatsios HK, Hafner JP and Rigotti NA (2004). 'Impact of a preventive medicine and nutrition curriculum for medical students', *American Journal of Preventive Medicine*, 27(1):77-80.