

CONSENSUS STATEMENT

ON THE ROLE OF ACCREDITED EXERCISE PHYSIOLOGISTS WITHIN THE TREATMENT OF MENTAL DISORDERS

A GUIDE FOR MENTAL HEALTH PROFESSIONALS

Oscar Lederman^{1,2,3}, Kristine Grainger⁴, Robert Stanton⁵, Angela Douglas⁶, Kirrily Gould ^{2,7}, Amy Perram¹, Rishi Baldeo¹, Theodora Fokas¹, Fiona Nauman⁸, Amanda Semaan^{9,10}, Jude Hewavasam¹¹, Louise Pontin¹², Simon Rosenbaum^{1,2,13}

¹Keeping the Body in Mind Team, South Eastern Sydney Local Health District, ²School of Psychiatry, University of New South Wales, ³School of Medical Sciences, University of New South Wales, ⁴Macquarie Hospital, Northern Sydney Local Health District, ⁵School of Medical and Applied Sciences, Central Queensland University, ⁵School of Medicine, University of Wollongong, ?St John of God Hospital, ®Queensland University of Technology, School of Exercise & Nutrition Science, ⁰University of Sydney, Faculty of Health Sciences, ¹oIntegrated Care Unit, South Eastern Sydney Local Health District, ¹¹Monash Health ¹²Headspace, Alfred Health, ¹³The George Institute for Global Health

INTRODUCTION:

This document provides a consensus statement on the role of Accredited Exercise Physiologists (AEPs) within mental health.

Exercise Physiologists (EPs) are university-qualified health professionals, trained in providing evidence-based exercise interventions to individuals at high-risk of developing, or with existing, chronic and complex medical conditions and injuries. Exercise & Sports Science Australia (ESSA) is the peak body providing national accreditation of Accredited Exercise Physiologists (AEPs). AEPs are allied health clinicians who work in a range of private and public settings. They deliver clinical services to clients across the full range of inpatient (acute) and community (subacute) care settings. AEPs qualify for provider status through Medicare Australia, the Department of Veterans' Affairs and most Private Health Insurers and compensation schemes^[1].

AEPs have experience and expertise in the assessment, design, and delivery of exercise and behaviour change interventions. This includes working with those living with, or at risk of chronic conditions, including mental illness.

AEPs represent a growing workforce within the mental health sector. With increasing opportunities for AEPs in mental health, it is essential that the broader mental health sector is aware of the types of interventions, modes of delivery, and likely benefits to service users associated with the utilisation of AEP interventions.

Specifically this document will:

- Define the scope and capacity of AEPs practising in the mental health sector
- Raise awareness of AEPs services and identify referral pathways available to mental health professionals
- Describe the benefits of AEP interventions for individuals utilising mental health services.

This statement has been developed in consultation with AEPs with expertise in mental health, mental health clinicians and academics.

DEFINING THE NEED FOR AEP SERVICES WITHIN MENTAL HEALTH:

- Mental illness represents the third highest disease burden behind cancer and cardiovascular disease, with nearly one-half of Australians experiencing mental illness at some stage in their life [2, 3].
- Mental illness is associated with poor physical health outcomes. People living with severe mental illness (e.g. schizophrenia, bipolar affective disorder) experience twice the risk of cardiometabolic diseases, including obesity, type 2 diabetes mellitus (T2DM), metabolic syndrome and cardiovascular diseases (CVD) [4]."
- Australians living with severe mental illness face a 15-20 year reduction in life expectancy, primarily due to preventable lifestyle-related conditions [5]. This gap is comparable to that seen in indigenous Australians, and continues to widen as life expectancy increases in the general population.
- High levels of sedentary behaviour, low levels of physical activity, poor dietary habits, high rates of tobacco use and substance misuse are key modifiable risk factors contributing to the increased burden of cardiometabolic diseases seen in this population [6-10].
- Psychotropic medication-induced weight gain further contributes to the high rates of cardiometabolic diseases ^[6].

- People experiencing mental illness often experience considerable barriers to initiating and maintaining behaviour change including; mental health symptoms such as amotivation, avolition, sedative effects of medication, and a lack of access to resources and services [11].
- Mental illness has a significant impact on overall psychosocial functioning and requires a holistic approach to treatment that addresses a variety of factors including symptomatology, social and occupational functioning, sleep behaviour, physical health and quality of life.
- Access to physical health care services may be less than optimal within mental health facilities. Service users often feel their physical health is neglected once they are diagnosed with a mental illness, referred to as diagnostic overshadowing [12].
- Mental health service users are entitled to quality, evidence-based care and treatment for all aspects of their health, including their physical health [13]. AEP interventions remain an underutilised resource, despite service users believing that exercise can make a valuable contribution to their recovery [14].

AFP SCOPE OF PRACTICE AND MENTAL HEALTH:

• AEPs place emphasis on implementing individualised lifestyle modification strategies that are both achievable and sustainable. These strategies can be achieved through empowering individuals towards greater independence and self-management of personal health and wellbeing. Examples of chronic conditions that may benefit from AEP interventions include diabetes, cardiovascular disease, cancer, musculoskeletal disorders and chronic pain. Mental health is an area of growing prominence for AEP practice. There is an increasing body of evidence regarding the efficacy of exercise interventions for both physical and mental health outcomes of people experiencing mental illness [15-19]. Despite the growing evidence supporting exercise interventions within targeted mental health settings, AEPs remain an underutilised resource [20,21]. The inclusion of AEPs as part of the multidisciplinary mental health team will lead to improved physical and mental health outcomes for people with mental illness.





INTEGRATION OF AEPS WITHIN THE MULTIDISCIPLINARY MENTAL HEALTH TEAM:

AEPs working in mental health:

- Have an understanding of symptoms of mental illness, and can identify and appropriately respond to symptom driven behaviour or changes in symptom presentation, and initiate a referral to mental health professionals.
- Recognise and appreciate that symptomatology, side effects of medication and possible reluctance to engage present as common barriers in this population.
- Incorporate various evidence-based strategies to overcome barriers including: rapport building, barrier identification, motivational interviewing, education and goal setting.
- Understand the relative and absolute contraindications to exercise for individuals with mental illness.
- Understand the roles of other members of the multidisciplinary mental health team, and work in liaison to provide a holistic approach to client-centred care.

WHAT ARE THE ROLES OF AEP LED INTERVENTIONS WITHIN MENTAL HEALTH SERVICES?

- Design and implement evidence-based physical activity interventions to improve the physical health profile and prevent/manage the development of metabolic and cardiovascular disease [1].
- Work as part of a multidisciplinary team to conduct and promote regular physical health screening and metabolic monitoring (body weight, body mass index (BMI), waist circumference, blood glucose levels and blood pressure) [22] as part of standard care and in line with treatment guidelines.
- Provide individual and group education sessions, outlining the benefits of physical activity for people experiencing mental illness.
- Consider clinical outcomes, risk factors and comorbidities such as cardiometabolic health, aerobic fitness, strength, movement capacity, and other health parameters (e.g. medication side-effects, sleep, fatigue and/or pain) that will inform the appropriateness and specificity of exercise interventions.
- Play a key role in the prevention/management of psychotropic-induced weight gain by increasing physical activity levels, reducing sedentary behaviour [23] and providing basic healthy eating advice.
- Contribute to the mental health team through a client-centred approach incorporating recovery and strength-based models to achieve client-specific health related goals.
- Incorporate health coaching techniques such as motivational interviewing, physical activity education sessions (individual or group-based) regarding the benefits of physical activity, and goal-setting strategies to encourage effective and sustainable behaviour change for people with mental illness [24]. Using such strategies will aid in empowering independent physical activity/ exercise participation.

- Promote 'Healthy Active Lives' for people experiencing mental illness, to achieve the physical activity targets outlined in the HeAL declaration [25], developed by an international working group comprising clinicians, researchers and consumers, which was endorsed in 2014 by Exercise & Sports Science Australia (more information at http://www.iphys.org.au/).
- Work collaboratively with mental health clinicians and other health professionals involved in the multidisciplinary team to provide a holistic and integrated approach to care. This would meet the International Organization of Physical Therapy in Mental Health (IOPTMH) call for 'shared responsibility' of health care providers, general practitioners, psychiatrists, policy makers and society as a whole to promote healthy and active lifestyles [26].
- Facilitate linkages with general practitioners (GPs), other allied health professionals (e.g. dietitians, occupational therapists and social workers), community gyms and sports teams that can assist with a multidisciplinary approach to better health management.
- Assist in reducing the stigma and minimizing barriers for community-based clients utilising mental health services. Exercise is a normalised activity, particularly for young people, and therefore can act as a facilitator ensuring greater engagement with mental health services [23, 27, 28].



EXAMPLES OF AEP-LED INTERVENTIONS:

- Incorporate health coaching techniques such as motivational interviewing, physical activity education sessions (individual or group-based) regarding the benefits of physical activity, and goal-setting strategies to encourage effective and sustainable behaviour change.
- Design and implement accessible group exercise programs to encourage and enable higher levels of participation.
- Conduct exercise and functional capacity assessments.
- Conduct and promote regular physical health screening and metabolic monitoring (body weight, body mass index (BMI), waist circumference, blood glucose levels and blood pressure).
- Provide access to interventions using assertive outreach strategies to engage with individuals in the community, as a means of improving service utilisation.

- Provide basic healthy eating advice in the absence of a dietitian.
- Provide in-service training for the mental health workforce on the implementation of exercise and physical activity in mental health settings.
- Consult with mental health clinicians and GP's on the most effective strategies to improve the health of clients including basic physical activity recommendations and referral pathways.
- Conduct information and training seminars on the role of physical activity in mental health for people with mental illness, their carers, friends and family, and interested community members.

By achieving these roles listed above, AEPs can apply clinical skills and knowledge to increase physical activity and exercise participation in order to assist service users to achieve a range of positive outcomes including;

PHYSICAL HEALTH OUTCOMES:

- Weight management (weight loss, maintenance and prevention of weight gain)^[23, 29-32]
- Reduce the risk of chronic disease (i.e. cardiovascular disease, metabolic syndrome & T2DM)^[4, 28, 31, 33, 34]
- Improved psychosocial function i.e. activities of daily living, social and occupational functioning^[35-39]
- Contribute to longer life expectancy through improvement in cardiovascular fitness and reduction in cardiometabolic risk^[28, 40]



MENTAL HEALTH OUTCOMES:

- Decrease symptoms of depression, anxiety, stress and schizophrenia [16, 17, 41-43]
- Decrease social isolation [44]
- Improve sleep quality [45, 46]
- Increase engagement with treatment and service utilisation [23, 28]
- Reduce cravings and withdrawal in substance use disorders (SUD) and alcohol addiction [47-49]

- Increase self-esteem [50]
- Improve quality of life [16, 51, 52]

Evidence to date has focused on interventions for adult populations, however it is acknowledged that there is likely to be scope for AEP intervention for children experiencing mental illness. Likewise the evidence regarding the benefits of exercise for healthy aging and neurological disorders is growing, highlighting the potential role for AEP interventions for this population.

REFERRAL PATHWAYS TO COMMUNITY-BASED AEP SERVICES:

- Medicare Chronic Disease Management Plan (formerly Enhanced Primary Care or EPC) – For patients with chronic and complex health, defined as two or more medical conditions lasting 6 months or longer, a GP can set up a Team Care Arrangement and coordinate treatment plans. Medical conditions may include cardiovascular diseases, obesity, diabetes or chronic musculoskeletal conditions, all of which are common comorbidities in patients with serious mental illness. A treatment plan can include referral to various care providers including AEPs for a specified number of sessions, determined by the GP (up to 5 sessions per year).
- Discharge planning for transition from inpatient settings into community-based physical health services. For example private exercise physiologists, community based mental health services that incorporate a physical health program or Community Managed Organisations (CMO's) e.g. The Personal Helpers and Mentors program (PHaMs), NEAMI and Young People's Outreach Program (Y-POP).
- Direct referrals via private psychologist/psychiatrists represent further opportunities for AEPs to contribute to the multidisciplinary health care team. For individuals who may have private health insurance, they may be eligible for rebate, as most private health insurers recognise AEPs services.

REFERENCES:

- Exercise Sports Science Australia Accredited Exercise Physiologist (AEP) Scope of Practice. 2014; Available from: https://www.essa.org. au/wp-content/uploads/2011/08/AEP-Scope-of-Practice_-Final-September-2014.pdf.
- 2. ABS, Australian Health Survey: First results. 2012.
- Begg, S., et al., The burden of disease and injury in Australia 2003. Cat. no. PHE 82. Canberra: AIHW. 2007.
- Vancampfort, D., et al., Risk of Metabolic Syndrome and its Components in People with Schizophrenia, Bipolar and Major Depressive Disorders: a Large Scale Meta-analysis of 198 Studies. World Psychiatry, 2015. In press.
- Lawrence, D., K.J. Hancock, and S. Kisely, The gap in life expectancy from preventable physical illness in psychiatric patients in Western Australia: retrospective analysis of population based registers. BMJ, 2013. 346.
- Vancampfort, D., et al., A meta-analysis of cardio-metabolic abnormalities in drug naive, first-episode and multi-episode patients with schizophrenia versus general population controls. World Psychiatry, 2013. 12(3): p. 240-250.
- Dipasquale, S., et al., The dietary pattern of patients with schizophrenia: a systematic review. Journal of psychiatric research, 2013. 47(2): p. 197-207.

- Galletly, C.A., et al., Cardiometabolic risk factors in people with psychotic disorders: The second Australian national survey of psychosis. Australian and New Zealand Journal of Psychiatry, 2012. 46(8): p. 753-761.
- Nyboe, L. and H. Lund, Low levels of physical activity in patients with severe mental illness. Nordic Journal of Psychiatry, 2013. 67: p. 43–46.
- Soundy, A., et al., Physical activity and sedentary behaviour in outpatients with schizophrenia: A systematic review and meta-analysis. International Journal of Therapy and Rehabilitation, 2013. 20(12): p. 588-596.
- Rosenbaum, S., et al., Implementing evidence-based physical activity interventions for people with mental illness: an Australian perspective. Australasian Psychiatry, 2015: p. 1039856215590252.
- 12. Dean, J., et al., Mum, I Used to be Good Looking... Look at Me Now': The Physical Health Needs of Adults with Mental Health Problems: The Perspectives of Users, Carers and Front-Line Staff. International Journal of Mental Health Promotion, 2001. 3: p. 16-24.
- Health, N.D.o., Physical Health Care of Mental Health Consumers: Guidelines. 2009.



REFERENCES:

- Stanton, R., Accredited Exercise Physiologists and the Treatment of People with Mental Illnesses. Community Health, 2013. 4: p. 7.
- Rosenbaum, S., et al., Physical activity interventions: an essential component in recovery from mental illness. British Journal of Sports Medicine, 2014.
- Rosenbaum, S., et al., Physical activity interventions for people with mental illness: a systematic review and meta-analysis. Journal of Clinical Psychiatry, 2014. 75(9): p. 964-974.
- Stanton, R. and P. Reaburn, Exercise and the treatment of depression: a review of the exercise program variables. Journal of Science and Medicine in Sport, 2014. 17(2): p. 177-182.
- Stanton, R. and B. Happell, A Systematic Review of the Aerobic Exercise Program Variables for People with Schizophrenia. Current Sports Medicine Reports, 2014. 13(4): p. 260-266.
- Rebar, A.L., et al., A Meta-Meta-Analysis of the effect of physical activity on depression and anxiety in non-clinical adult populations. Health psychology review, 2015(just-accepted): p. 1-78.
- Stanton, R., Accredited exercise physiologists and the treatment of people with mental illnesses. Clinical Practice, 2013. 2(2): p. 5-9.
- Happell, B., et al., Communication with colleagues: frequency of collaboration regarding physical health of consumers with mental illness. Perspectives in psychiatric care, 2014. 50(1): p. 33-43.
- 22. The Royal Australian and New Zealand College of Psychiatrists, Keeping Body and Mind Together: Improving the physical health and life expectancy of people with serious mental illness. 2015, The Royal Australian and New Zealand College of Psychiatrists: Melbourne.
- Curtis, J., et al., Keeping the Body in Mind: an individualised lifestyle
 and life-skills intervention to prevent antipsychotic-induced weight
 gain in first episode psychosis. Early Intervention in Psychiatry, In
 press.
- Beebe, L.H., et al., Effect of a motivational group intervention on exercise self-efficacy and outcome expectations for exercise in schizophrenia spectrum disorders. Journal of the American Psychiatric Nurses Association, 2010: p. pp.
- Shiers, D. and J. Curtis, Cardiometabolic health in young people with psychosis. The Lancet Psychiatry, 2014. 1(7): p. 492-494.
- Vancampfort, D., et al., International Organization of Physical Therapy in Mental Health consensus on physical activity within multidisciplinary rehabilitation programmes for minimising cardio-metabolic risk in patients with schizophrenia. Disability and rehabilitation, 2012. 34(1): p. 1-12.
- Carless, D. and K. Douglas, Narrative, identity and mental health: How men with serious mental illness re-story their lives through sport and exercise. Psychology of sport and exercise, 2008. 9(5): p. 576-594.
- Vancampfort, D., et al., Promotion of cardiorespiratory fitness in schizophrenia: a clinical overview and meta-analysis. Acta Psychiatrica Scandinavica, 2015.
- Ward, M.C., D.T. White, and B.G. Druss, A meta-review of lifestyle interventions for cardiovascular risk factors in the general medical population: lessons for individuals with serious mental illness. The Journal of clinical psychiatry, 2015. 76(4): p. e477-86.
- Daumit, G.L., et al., A behavioral weight-loss intervention in persons with serious mental illness. New England Journal of Medicine, 2013. 368(17): p. 1594-1602.
- Bartels, S.J., et al., Clinically Significant Improved Fitness and Weight Loss Among Overweight Persons With Serious Mental Illness. Psychiatric Services, 2013.
- Bruins, J., et al., The Effects of Lifestyle Interventions on (Long-Term)
 Weight Management, Cardiometabolic Risk and Depressive Symptoms
 in People with Psychotic Disorders: A Meta-Analysis. PloS one, 2014.
 9(12): p. e112276.
- Vancampfort, D., et al., Associations between sedentary behaviour and metabolic parameters in patients with schizophrenia. Psychiatry Research, 2012. 200(2): p. 73-78.
- Vancampfort, D., et al., Associations Between Metabolic and Aerobic Fitness Parameters in Patients With Schizophrenia. The Journal of nervous and mental disease, 2015. 203(1): p. 23-27.

- Rosenbaum, S., et al., Aerobic exercise capacity: an important correlate of psychosocial function in first episode psychosis. Acta Psychiatrica Scandinavica, 2015. 131: p. 234.
- Vancampfort, D., et al., The functional exercise capacity in patients with bipolar disorder versus healthy controls: A pilot study. Psychiatry Research.
- Vancampfort, D., et al., Relationships between obesity, functional exercise capacity, physical activity participation and physical self-perception in people with schizophrenia. Acta Psychiatrica Scandinavica, 2011. 123(6): p. 423-430.
- Vancampfort, D., et al., The functional exercise capacity is correlated with global functioning in patients with schizophrenia. Acta Psychiatrica Scandinavica, 2012. 125(5): p. 382-387.
- Vancampfort, D., et al., Aerobic capacity is associated with global functioning in patients with schizophrenia. Journal of Mental Health, 2015
- Naci, H. and J.P. Ioannidis, Comparative effectiveness of exercise and drug interventions on mortality outcomes: metaepidemiological study. BMJ: British Medical Journal, 2013. 347.
- Firth, J., et al., A systematic review and meta-analysis of exercise interventions in schizophrenia patients. Psychological Medicine, 2015. FirstView: p. 1-19.
- Stanton, R., B. Happell, and P. Reaburn, The mental health benefits of regular physical activity, and its role in preventing future depressive illness. Nursing: Research & Reviews, 445, 2014. 53.
- Stanton, R. and B. Happell, Exercise for mental illness: A systematic review of inpatient studies. International Journal of Mental Health Nursing, 2014. 23(3): p. 232-242.
- Richardson, C.R., et al., Integrating Physical Activity Into Mental Health Services for Persons With Serious Mental Illness. Psychiatric Services, 2005. 56(3): p. 324-331.
- Youngstedt, S.D., Effects of Exercise on Sleep. Clinics in Sports Medicine, 2005. 24(2): p. 355-365.
- Rethorst, C.D., et al., Does exercise improve self-reported sleep quality in non-remitted major depressive disorder? Psychological Medicine, 2013. 43(4): p. 699-709.
- Wang, D., et al., Impact of Physical Exercise on Substance Use Disorders: A Meta-Analysis. PloS one, 2014. 9(10): p. e110728.
- Giesen, E.S., H. Deimel, and W. Bloch, Clinical exercise interventions in alcohol use disorders: a systematic review. Journal of Substance Abuse Treatment. 2014.
- Glass, T.W. and C.G. Maher, Physical activity reduces cigarette cravings. British journal of sports medicine, 2014. 48(16): p. 1263-1264.
- Krogh, J., et al., The effect of exercise in clinically depressed adults: systematic review and meta-analysis of randomized controlled trials. J Clin Psychiatry, 2011. 72(4): p. 529-38.
- 51. Vancampfort, D., et al., Health-related quality of life and aerobic fitness in people with schizophrenia. International Journal of Mental Health Nursing, 2015: p. n/a-n/a.
- Schuch, F.B., et al., Exercise and severe major depression: Effect on symptom severity and quality of life at discharge in an inpatient cohort. Journal of Psychiatric Research, 2015. 61: p. 25-32.

