

ANXIETY AND EXERCISE

PROFESSIONAL

WHAT IS ANXIETY?

Anxiety disorders are the most common mental health condition worldwide (1). People with anxiety disorders experience persistent fear or worry that may start as feeling nervous but gets worse over time. Anxiety disorders may significantly impact day-to-day activities such as school, work, or family activities and can lead to relationship or financial strain. Although specific symptoms of anxiety may manifest differently depending on anxiety disorder subtype (e.g. generalized anxiety disorder, specific phobias, etc.), symptoms generally include restlessness, fatigue, irritability, poor sleep, or avoidance of certain situations (2). Anxiety disorders often co-exist with mood disorders such as depression, or with physical health complaints such as heart disease or diabetes (3,4). For example, a recent systematic review suggested between 25% - 90% of patients present with comorbid depression and anxiety (5). Another review reported half of patients with multiples sclerosis and almost one-third of patients with cardiovascular disease present with comorbid anxiety (6). Comorbidity complicates treatment and negatively impacts health outcomes for people with anxiety but is rarely accounted for in exercise trials.

WHY IS PHYSICAL ACTIVITY OR EXERCISE IMPORTANT IN THE MANAGEMENT OF ANXIETY?

Traditional therapies including pharmacological and psychological therapies can be effective for some people, but around one-third of people fail to respond to these treatments (7, 8). Physical inactivity is a known risk factor for the development of anxiety (9). In contrast, physical activity and exercise appears to have protective effects against future incident anxiety (10). Perhaps more importantly, evidence from recent systematic reviews on exercise and anxiety and related conditions report a small but statistically significant effect on reducing symptom severity (11). People with anxiety disorders also report poorer physical health including higher prevalence of cardiometabolic conditions (3,4) for which exercise is a well-known treatment strategy. Finally, exercise has shown to be a cost-effective treatment for a range of conditions when delivered by Accredited Exercise Physiologists (12). Hence, reducing sedentary behaviour and increasing physical activity and exercise should both be considered as stand-alone or adjuvant strategies to manage people with anxiety disorders.

WHAT ARE THE EXERCISE RECOMMENDATIONS FOR PEOPLE WITH ANXIETY?

Numerous systematic reviews support the effectiveness of aerobic exercise in reducing anxiety symptoms (13-15). However, study heterogeneity has made determining the optimal dose of exercise based on the frequency, intensity, time, and type (FITT) principles difficult to determine. Systematic review evidence also demonstrates resistance training may be effective for people with anxiety, and that the magnitude of effect is similar to that reported for aerobic training (16). Thus, choice of exercise may be based on personal preferences rather than relative effectiveness. In general, exercise programs should progress toward or meet the public health guidelines of 150 minutes of moderate-vigorous intensity exercise accumulated across all or most days of the week. However, since people with anxiety experience significant barriers to commencing exercise, broad recommendations for the implementation of exercise in this population are outlined below: (17-19)

- To maximise engagement, exercise should be rewarding and enjoyable for the individual;
- Consider the previous experience and personal preferences of the individual;
- Using a self-selected intensity, rather than a prescribed intensity may promote initiation and maintenance of exercise;
- Apply autonomous motivation strategies to minimize dropout from an exercise program;
- Consider referring to a healthcare professional experienced in exercise prescription for people with anxiety;
- Consider comorbidity of anxiety with other mental and/or physical health conditions.



HOW TO SUPPORT PEOPLE WITH ANXIETY TO COMMENCE AN EXERCISE PROGRAM?

Health professionals are well-placed to support people with anxiety in the commencement and continuation of exercise. However, people with anxiety report numerous barriers to exercise. You should talk to your clients about the potential benefits of exercise and help them plan an exercise program that suits their personal preferences and circumstances. You may consider referring your client to an Accredited Exercise Physiologist, who has specialized training in the design and delivery of exercise and lifestyle interventions for people with chronic and complex conditions including anxiety.



RELATED INFORMATION AND REFERENCES

Exercise is Medicine Australia www.exerciseismedicine.org.au

Exercise Right www.exerciseright.com.au

Find an Accredited Exercise Physiologist www.essa.org.au

Find a Sport and Exercise Physician www.acsep.org.au

If you have any concerns about the safety of your patient in commencing an exercise program, please consider referral to a Sport and Exercise Physician.

Prepared by Associate Professor Robert Stanton, Dr Kemi Wright, and Dr Bonnie Furzer

- Stein, et al (2017) Epidemiology of anxiety disorders: from surveys to nosology and back. Dialogues in Clinical Neuroscience 19, 127-136.
- NIH. (2018). Anxiety disorders. Retrieved 3 February 2022, from; <https://www.nimh.nih.gov/health/topics/anxiety-disorders>
- Saha, et al. (2021) Co-morbidity between mood and anxiety disorders: A systematic review and meta-analysis. Depression and Anxiety. 38: 286- 306
- Stanton, et al. (2019) Prevalence of chronic health conditions in Australian adults with depression and/or anxiety. Issues in Mental Health Nursing. 40: 902-907.
- Bond et al (2020) Do exercise trials for adults with depression account for comorbid anxiety? A systematic review. Mental Health and Physical Activity. 18: 100320.
- Latas M, Vucinic Latas D, Spasic Stojakovic M. (2019) Anxiety disorders and medical illness comorbidity and treatment implications. Current Opinion in Psychiatry. 32(5): 429-434.
- de Vries et al. (2016) Influence of baseline severity on antidepressant efficacy for anxiety disorders: meta-analysis and meta-regression. British Journal of Psychiatry. 208(6): 515-21
- Loerinc et al. (2015) Response rates for CBT for anxiety disorders: need for standardized criteria. Clinical Psychology Reviews. 42, 72-82.
- Teychenne et al. (2015) The association between sedentary behaviour and risk of anxiety: a systematic review. BMC Public Health.15(1): 513.
- Kandola et al. (2018) Moving to beat anxiety: Epidemiology and therapeutic issues with physical activity for anxiety. Current Psychiatry Reports 20(8): 63.
- Ramos-Sanchez et al. (2021) The anxiolytic effects of exercise for people with anxiety and related disorders: An update of the available meta-analytic evidence. Psychiatry Research. 302: 114046.
- Deloitte Access Economics. Value of Accredited Exercise Physiologists in Australia. Barton, Australia: Deloitte Access Economics, 2015.
- Asmundson et al. (2013) Let's get physical; a contemporary review of the anxiolytic effects of exercise for anxiety and its disorders. Depression and Anxiety. 30(4): 362-73.
- Jayakody et al (2014). Exercise for anxiety disorders: a systematic review. British Journal of Sports Medicine. 48(3): 187-196
- Stonerock et al. (2015) Exercise as treatment for anxiety: systematic review and analysis. Annals of Behavioral Medicine. 49(4): 542-56.
- Gordon et al. (2017) The effects of resistance exercise training on anxiety: A meta-analysis and meta-regression analysis of randomized controlled trials. Sports Medicine. 47(12): 2521-2532.
- Schuch, F. B., Stubbs, B., & Kandola, A. (2021). Physical activity and exercise for the prevention and management of anxiety. In Z. Zenko & L. Jones (Eds.), Essentials of exercise and sport psychology: An open access textbook (pp. 369-384). Society for Transparency, Openness, and Replication in Kinesiology.
- Rebar et al. (2017) Comorbidity of depression and anxiety in exercise research. The Lancet Psychiatry. 4(7): 519.
- Vancampfort et al. (2021) Dropout from exercise randomized controlled trials among people with anxiety and stress-related disorders: a meta-analysis and meta-regression. Journal of Affective Disorders. 282: 996-1004.