DEPRESSION & EXERCISE

PROFESSIONAL

WHAT IS DEPRESSION?

Depression is a common, potentially debilitating condition characterised by sadness, loss of interest or pleasure, and feelings of guilt or low self worth. Depression may also manifest as disturbances in sleep, concentration, appetite, or as persistent fatigue (1). Depression ranks as a leading cause of disability worldwide, affecting more than 264 million people (2).

Changes in mood or feeling of sadness are not uncommon, hence a diagnosis of major depressive disorder is based on daily (or nearly daily) presence of symptoms over a 2-week period (3). Depression commonly co-occurs with other mental health conditions. For example, up to 67% of people with unipolar depression meet the criteria for at least 1 anxiety disorder (4). Depression is also a common comorbidity in many chronic metabolic, neurological and cardiovascular conditions (5). For example, around 25% of people with type 2 diabetes (6), Parkinsons Disease (7), or cardiovascular disease (8) will experience comorbid depression. Major depression is also associated with an increased likelihood of early mortality, primarily due to cardiometabolic disease (9). Multidisciplinary approaches to treatment based on pharmacological, psychological, and lifestyle approaches are often recommended.

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

Evidence suggests physical activity and exercise exert multiple benefits for people with depression. People engaging in regular physical activity or exercise, even at very low levels, are less likely to experience symptoms of depression (10) and as little as 1-hour may be sufficient to prevent future depressive episodes (11, 12). People with depression are less active and more sedentary compared to the general population (13) Since sedentary behaviour is strongly associated with depression (14), a multifactorial approach including physical activity or exercise, coupled with reducing sedentary behavior is important. People with depression typically have lower levels of cardiorespiratory fitness (CRF) compared to the general population which is subsequently associated with great depression symptom severity (15). Finally, people with depression experience poorer physical health and early mortality (16). Physical activity and exercise can potentially improve all aspects of depression management, but critical to acknowledge, is unlike other therapies, CRF can only be improved through physical activity and exercise.

WHAT TYPE OF EXERCISE MIGHT BE BENEFICIAL FOR PEOPLE WITH DEPRESSION?

The consensus based on multiple studies and systematic reviews indicates physical activity or exercise programs similar to that recommended for the general population is likely to be beneficial for people with depression. This is summarised below.

Frequency	Intensity	Time	Type	Supervision	Setting
Most days of the week with resistance training on 2 non-consecutive days each week	Low – moderate or patient-preferred. Emerging evidence supports high intensity exercise for some people	30-60 minutes per session. Starting with small amounts of 5-10 minutes may also be effective	Aerobic activity such as walking, cycling, or swimming. Most important is that the activity is enjoyable. For resistance training, machines, free weights, bodyweight, or resistance band exercises may be effective	Appropriately trained and qualified personnel such as Accredited Exercise Physiologist or Physiotherapist may support adherence	Activities undertaken in a group or on your own can be beneficial

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

As a treating professional, talk to your client about an exercise program that suits their personal preferences and circumstances. You may consider referring your client to a Physiotherapist or Accredited Exercise Physiologist, who has specialised training in the design and delivery of exercise and lifestyle interventions for people with chronic and complex conditions including depression.

Self or perceived stigma, low motivation, and poor access to resources (17, 18) often present as barriers to the commencement and maintenance of regular physical activity or exercise. Therefore, it's important to make sure the exercise professional understands your clients' condition, the risk of comorbid health conditions, and can work alongside them to help adopt physical activity and exercise as part of their recovery journey.

Prepared by Dr Robert Stanton and Dr Oscar Lederman.

RELATED INFORMATION AND REFERENCES

Exercise is Medicine Australia www.exerciseismedicine.org.au
Exercise Right www.exerciseright.com.au
Find a Physiotherapist www.choose.physio
Find an Accredited Exercise Physiologist www.essa.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.

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

1. WHO. (2014). Depression: definition Retrieved 4 November 2020, from http://www.euro.who.int/en/health-topics/noncommunicable-diseases/pages/news/news/2012/10/depression-in-europe/depression-definition
2. WHO (2020) Depression. Retrieved 4 November 2020 from https://www.who.int/news-room/fact-sheets/detail/depression
3. American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.). Washington, DC: Author
4. Kircanski, et al. (2017). Investigating the nature of co-occurring depression and anxiety: Comparing diagnostic and dimensional research approaches. Journal of Affective Disorders, 216, 123-135.
5. Gold, et al. Comorbid depression in medical diseases. Nat Rev Dis Primers 6, 69 (2020).
6. Khaledi, et al. (2019) The prevalence of comorbid depression in patients with type 2 diabetes: an updated systematic review and meta-analysis on huge number of observational studies. Acta Diabetologica 56, 631–650
7. Ray, S., & Agarwal, P. (2020). Depression and anxiety in Parkinson Disease. Clinics in Geriatric Medicine, 36(1), 93-104.
8. Pope, B. S., & Wood, S. K. (2020). Advances in understanding mechanisms and therapeutic targets to treat comorbid depression and cardiovascular disease. Neuroscience & Biobehavioral Reviews, 116, 337-349.
9. Firth, et al. (2019). The Lancet Psychiatry Commission: a blueprint for protecting physical health in people with mental illness. The Lancet Psychiatry, 6(8), 675-712.
10. Chekroud, et al. (2018) Association between physical exercise and mental health in 12 million individuals in the USA between 2011 and 2015: a cross-sectional study. The Lancet Psychiatry, 5(8), 739-746.
11. Harvey, et al. (2018). Exercise and the prevention of depression: Results of the HUNT cohort study. American Journal of Psychiatry 175(1), 28-36.,
12. Stanton, et al. (2014). The mental health benefits of regular physical activity, and its role in preventing future depressive episodes. Nursing: Research and Reviews, 4, 45-53.
13. Vancampfort, et al. (2017). Sedentary behavior and physical activity levels in people with schizophrenia, bipolar disorder and major depressive disorder: a global systematic review and meta-analysis. World Psychiatry, 16(3), 308-315.
14. Pozo Cruz, et al. (2020). Sedentary behaviour is associated with depression symptoms: compositional data analysis from a representative sample of 3,233 US adults and older adults assessed with accelerometers. Journal of Affective Disorders, 265, 59-6
15. Stubbs, et al.. (2016). Exercise improves cardiorespiratory fitness in people with depression: A meta-analysis of randomized control trials. Journal of Affective Disorders, 190, 249-253.
16. Belvederi Murri, et al. (2019). Physical exercise in major depression: Reducing the mortality gap while improving clinical outcomes. Frontiers in Psychiatry, 9(762).
17. Way, et al. (2018). Mental health practitioners' reported barriers to prescription of exercise for mental health consumers. Mental Health and Physical Activity, 14, 52-60.
18. Stanton, R., & Rosenbaum, S. (2019). Temporal trends in exercise physiology services in Australia—Implications for rural and remote service provision. Australian Journal of Rural Health, 27, 514-519.