Clinical Exercise

Exercise Physiology Model of Care in Older Adults Mental Health Services: Opportunities for Service Development and Expansion

Abstract

Older adults (OA) aged ≥65 years with severe mental illness (SMI) experience falls at a rate 1.5-4.5 times that of the age- matched general population, where injurious falls accounted for 60% of hospitalisations and 94% of deaths in the 2020-21 period [1-3]. Falls experienced by OA with SMI are more expensive than falls in apparently healthy OA's, due to increased health service utilisation and expenditure, and higher incidence of care transitions from primary care to long-term care facilities [1-2]. Further compounding this problem is the increased hospital presentations and healthcare utilisation rates of OA with SMI due to comorbidities that could be managed through falls prevention interventions [4].

Level 1 evidence supports the safety, effectiveness and cost efficacy of falls prevention programs when the model of care is specifically designed for the setting/environment, population group, and measures included [5-9]. The feasibility and acceptability of physical health interventions for mental health consumers has

been previously demonstrated by reducing barriers to engagement and tailoring the model of care to the unique needs of people with severe mental illness [10-15].

An exercise physiology model of care (MoC) addressing falls prevention and physical health co-morbidity for OA with SMI was designed and implemented in a metropolitan community Older Adults Mental Health Service. 71% of consumers accessing the MoC experienced a fall in the previous 12-months (m = 1.6 (1.6), range 0-6). Preliminary evaluation demonstrated high MoC feasibility with rates of uptake and attendance 86% and 84% respectively.

Cassandra Butler

Biography

Cassandra Butler is an Accredited Exercise Physiologist with 9-years' experience across key areas of exercise physiology pathologies. Cassandra's passion for mental health led her to complete honours research and commence PhD research in the field of exercise physiology as standard care in mental health services. Since 2017, Casandra has been working with medical professionals to incorporate her ongoing research findings into routine best practice care within Queensland Health mental health services.

In her current role as Advanced Clinical Leader Exercise Physiology at Metro South Mental Health and Addiction Service within Queensland Health(QH), Cassandra has successfully advocated for an increase in EP positions resulting in a 100% increase with in the workforce in the last 12 months. It is in this role

that Cassandra as had the opportunity to advocate for exercise physiology led models of care to address unmet care needs of consumers within the health service.

Abstract references

1. Bunn, F., Dickinson, A., Simpson, C., Narayanan, V., Humphrey, D., Griffiths, C., ... & Victor, C. (2014). Preventing falls among older people with mental health problems: a systematic review. BMC nursing, 13, 1-15.
2. Finkelstein E, Prabhu M, Chen H: Increased prevalence of falls among elderly individuals with mental health and substance abuse conditions. Am J Geriatr Psychiatry. 2007, 15 (7): 611-619. 10.1097/JGP.0b013e318033ed97.
3. Australian Institute of Health and Welfare. (2022, November 25). Falls. Australian Institute of Health and Welfare. https://www.aihw.gov.au/reports/injury/falls
4. Hendrie, H. C., Lindgren, D., Hay, D. P., Lane, K. A., Gao, S., Purnell, C., ... & Callahan, C. M. (2013). Comorbidity profile and healthcare utilization in elderly patients with serious mental illnesses. The American journal of geriatric psychiatry, 21(12), 1267-1276.
5. Guirguis-Blake JM, Michael YL, Perdue LA, Coppola EL, Beil TL. Interventions to Prevent Falls in Older Adults: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA. 2018;319(16):1705–1716. doi:10.1001/jama.2017.21962
6. Gillespie LD, Robertson M, Gillespie WJ, Sherrington C, Gates S, Clemson LM, Lamb SE. Interventions for preventing falls in older people living in the community. Cochrane Database of Systematic Reviews 2012, Issue 9. Art. No.: CD007146. DOI:10.1002/14651858.CD007146.pub3.
7. The Australian Commission on Safety and Quality in Health Care. Preventing Falls and Harm From Falls in Older People: Best Practice Guidelines for Australian Hospitals, Residential Aged Care Facilities and Community Care 2009. 2009.

8. NSW Department of Health. Prevention of Falls and Harm from Falls among Older People: 2011-2015. [Sydney NSW Health Department]. 2011.
9. Peel N, Bell R, Smith K. Queensland Stay On Your Feet Community Good practice Guidelines - Preventing falls, harm from falls and promoting healthy active ageing in older Queensland. Brisbane: QLD Health; 2008.
10. Korman, N.H., et al., Evaluating the feasibility of a pilot exercise intervention implemented within a residential rehabilitation unit for people with severe mental illness: GO HEART: (group occupational health exercise and rehabilitation treatment). Front Psychiatry, 2018. 9: p. 343-343.
11. Korman, N., et al., Feasibility and Acceptability of a Student-Led Lifestyle (Diet and Exercise) Intervention Within a Residential Rehabilitation Setting for People With Severe Mental Illness, GO HEART (Group Occupation, Health, Exercise And Rehabilitation Treatment). Front Psychiatry, 2020. 11: p. 319-319.
12. Vancampfort, D.P.D., et al., Prevalence and predictors of treatment dropout from physical activity interventions in schizophrenia: a meta-analysis. Gen Hosp Psychiatry, 2015. 39: p. 15-23.
13. Firth, J., et al., A systematic review and meta-analysis of exercise interventions in schizophrenia patients. Psychol. Med, 2015. 45(7): p. 1343-1361.
14. Vancampfort, D., et al., Dropout from exercise randomized controlled trials among people with anxiety and stress-related disorders: A meta-analysis and meta-regression. J Affect Disord, 2021. 282: p. 996-1004.
15. Seymour, J., Pratt, G., Patterson, S., Korman, N., Rebar, A., Tillston, S., & Chapman, J. (2022). Changes in self-determined motivation for exercise in people with mental illness participating in a community-based exercise service in Australia. Health & Social Care in the Community, 30(5), e1611-e1624.