



Depression and physical activity research in older age: An important gap to fill

Emily You^{a,*}, Anita M.Y. Goh^{a,b,c}, Christina Bryant^d, Nicola T. Lautenschlager^{a,e,f}, Kathryn A. Ellis^a

^a Academic Unit for Psychiatry of Old Age, Department of Psychiatry, The University of Melbourne, Royal Melbourne Hospital, Royal Park Campus, Ground Floor, Building 5, 34-54 Poplar Rd, Parkville, VIC, 3052, Australia

^b Neuropsychiatry Unit, Melbourne Neuropsychiatry Centre, Melbourne Health, Royal Melbourne Hospital, Royal Park Campus, Ground Floor, Building 5, 34-54 Poplar Rd, Parkville, VIC, 3052, Australia

^c National Ageing Research Institute, 34-48 Poplar Rd, Parkville VIC, 3052, Australia

^d Melbourne School of Psychological Sciences, The University of Melbourne, 12th Floor Redmond Barry Building, Parkville Campus, Melbourne VIC, 3010, Australia

^e NorthWestern Mental Health, Melbourne Health, Royal Melbourne Hospital, Royal Park Campus, Ground Floor, Building 5, 34-54 Poplar Rd, Parkville, VIC, 3052, Australia

^f School of Psychiatry & Clinical Neurosciences and Western Australian Centre for Health & Ageing, The University of Western Australia, Western Australian Centre for Health & Ageing (M573), Centre for Medical Research of the Perkins Institute for Medical Research, University of Western Australia, 35 Stirling Highway, Crawley, WA, 6009, Australia

1. Why this topic?

Accumulating evidence supports the benefits of physical activity in older adults with depressive symptoms. Yet older adults with depressive symptoms do not participate in recommended levels of physical activity and are less physically active compared with their peers without depression. No matter how beneficial participating in physical activity may be, older adults with depressive symptoms often lack the motivation to engage in behaviour change, so addressing common barriers would be the first important steps to enable them to participate. There has been literature reviewing barriers and facilitators of physical activity in younger adults with depressive symptoms; however, to our knowledge, no reviews have been published focusing on older adults with depressive symptoms. We therefore undertook such a systematic review, in an attempt to understand barriers and facilitators of physical activity relevant to community-dwelling older adults (65 years plus) with symptoms of depression. Unexpectedly, our review revealed only one study meeting these criteria. This is in contrast to the large body of literature investigating the same topic in younger adults with depressive symptoms, healthy older adults, and older adults with other health conditions such as fall risks and frailty. In this paper, we overview our literature search, and discuss this apparent gap in the field of physical activity and depression research that needs to be addressed urgently.

2. Background

Worldwide, depression is one of the most common psychiatric disorders across the lifespan and is the fourth leading cause of disability-

adjusted life years lost (Braithwaite, O'Connor, Degli-Esposti, Luke, & Bowes, 2017). In later life, depression is also common, affecting over 10%–20% of adults aged 65 years and older in developed countries (Hansen & Slagsvold, 2017; Kok & Reynolds, 2017; McCall & Kintziger, 2013). Depression in older age significantly affects older adults' health-related quality of life, and is associated with a high level of medical comorbidity, cognitive impairment, frailty, morbidity, and mortality (Kok & Reynolds, 2017; Schulz et al., 2000; Wassink Vossen et al., 2014). With the ageing of the global population, depression and its associated health consequences in the older population lead to increasing costs for the health care system (Hansen & Slagsvold, 2017).

While antidepressants and cognitive behaviour therapies are evidence-based treatment strategies for older adults with depressive symptoms (Baldwin, 2010), the need of psychosocial interventions, e.g., physical activity, for the care of this older population is increasingly emphasised (Glover & Srhrivasan, 2017). Indeed, evidence suggests the benefits of physical activity for older adults with depressive symptoms, such as improved depressive symptoms, quality of life and independence in activities of daily living (Bridle, Spanjers, Patel, Atherton, & Lamb, 2012; Knapen, Vancampfort, Moriën, & Marchal, 2015; Rhyner & Watts, 2016; Schuch et al., 2016). However, older adults with depressive symptoms are less physically active compared with their non-depressed peers, which could be due to depression-related symptoms such as fatigue, lack of motivation and disturbed eating and sleep (Pelletier, Shanmugasaram, Patten, & Demers, 2017; Wassink Vossen et al., 2014).

* Corresponding author. Royal Melbourne Hospital, Royal Park Campus, Ground floor, Building 5, 34-54 Poplar Rd, Parkville, VIC, 3052, Australia.
E-mail address: chuanmei.you@unimelb.edu.au (E. You).

3. Gaps in the literature and the reasons

Understanding the barriers and enablers of physical activity in older adults is of critical importance when promoting physical activity in this group. While literature reviews and meta-analyses have examined enablers and barriers to participation in physical activity among younger adults with depressive symptoms (Glowacki, Duncan, Gainforth, & Faulkner, 2017), healthy older adults (Franco et al., 2015) and older adults with other health conditions, such as risk of falls (Boehm et al., 2013) and frailty (Freiberger, Kemmler, Siegrist, & Sieber, 2016), there has been, to our knowledge, no systematic review specifically focusing on older adults aged 65 years and older with depressive symptoms. To address this significant gap in the literature, we recently conducted a systematic review entitled “Barriers and enablers to participation in physical activity among older adults with depressive symptoms” (PROSPERO ID: CRD42017068618).

The main inclusion criteria of our systematic review were: 1) qualitative, quantitative and mixed-methods research with original data; 2) community-dwelling older adults aged 65 years and over (or with a mean age of at least 65 years old) in accordance with the definition of older age in western countries; 3) older adults with depressive symptoms assessed through standardised measurement tools and/or clinical evaluation; 4) physical activity defined as structured (e.g., exercise) and/or unstructured (e.g., leisure-time walking) activities; and 5) peer-reviewed English studies. Of 1150 studies screened in our systematic review, 20 studies moved to the full-text review. Nineteen studies were excluded because they focused on adults aged below 65 years, did not have explicit aims of investigating barriers or enablers to participation in physical activity, or examined different mental illnesses such as schizophrenia, schizoaffective disorder and bipolar disorder. The only study meeting our selection criteria employed a quantitative, cross-sectional design (Rosqvist et al., 2009). This study investigated a number of pre-determined barriers and enablers and found that for both healthy older adults and older adults with depressive symptoms, a suitable environment, effective disease management, positive attitudes towards the benefits of exercise, social contacts, self-expression and self-confidence were increased motivation to participate in physical activity. Common barriers included fear and negative experiences, lack of time and interest, lack of company and unsuitable environment. Compared with healthy older adults, older adults with depressive symptoms were less likely to perceive health maintenance and positive experiences with physical activity as motives and were more likely to perceive poor health and lack of knowledge as significant barriers. These findings are consistent with findings in younger adults with depressive symptoms and other older populations mentioned above. Older adults with depressive symptoms, however, may face additional, more specific barriers or enablers. Rebar and Taylor argued that barriers such as stigma, depression-related symptoms (e.g., avoidance and social withdrawal) and emotions (e.g., negative emotions, outcome expectations), and some contextual factors (e.g., cultural experiences and values) may be particularly relevant in older adults with depressive symptoms (Rebar & Taylor, 2017). These factors were not examined by Rosqvist and colleagues but are targets for future research (Rosqvist et al., 2009).

It is unclear why there is a lack of research examining barriers and enablers to physical activity participation in older adults with depressive symptoms. It may be that such research is more relevant to implementation science, and compared with epidemiological or efficacy research might receive less research funding. It may also be due to an element of ageism, such as the false but common assumption that depression in older adults is unavoidable and/or untreatable (Haigh, Bogucki, Sigmon, & Blazer, 2018). Regardless of the reasons, in the field of aged depression and physical activity research examining barriers and enablers guided by relevant theoretical models such as the Theoretical Domains Framework (TDF) and Social Ecological Model is crucially needed (Craig et al., 2016; Franco et al., 2015). We predict that

the findings of such research will enable the effective development of implementation interventions aimed at changing physical activity behaviours of older adults with depressive symptoms, and further contribute to informing health professionals about how to best provide practical advice. These findings would also deliver evidence for public health policy aiming to promote physical activity in older adults with depressive symptoms at the population level. Additionally, such research would also help to address the significant burden associated with depression in rapidly ageing populations.

4. Future research directions

There is a pressing need to conduct more implementation research, including examining barriers and enablers, in the research field of physical activity and depression in older age, in order to help close the current knowledge-practice and knowledge-policy gaps. Research into this topic for this specific population will be essential to allow clinicians and consumers to more effectively include physical activity into personalised management plans. The required research will need to be recognised by funding bodies as crucial on the pathway to effectively improve clinical practice and public health policies.

Declaration of interest

None.

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