

## Chapter 5

# Active Lifestyle in Schizophrenia: How to Combine Exercise and Therapy in Practice?

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### ABSTRACT

*Schizophrenia is a mental illness with intense effects on a person's life. In addition to the psychiatric symptoms, patients with schizophrenia generally have multiple somatic comorbidities, such as cardiovascular and metabolic disorders. High prevalence of an unhealthy lifestyle (smoking habits, poor diets, sedentarism) contributes to the increased risk in these patients. Even though schizophrenia treatment focuses on medication in conjunction with talking therapies, it is essential to address lifestyle choices. Nowadays there is a large body of evidence that suggests that physical activity and exercise can help improve not only schizophrenia patients' physical health but also their mental and psychological wellbeing. This chapter addresses the guidelines for physical activity and exercise interventions for schizophrenia, presenting some programs which combine exercise and therapies to treat schizophrenia, including some novel digital approaches. This chapter also gives some recommendations for an active lifestyle clinical integration providing a literature review on the subject.*

DOI: 10.4018/978-1-6684-6040-5.ch005

## INTRODUCTION

Schizophrenia is considered a serious mental illness and it has been identified as a priority in terms of health policies due to the deficit of functioning and early mortality (Asher, Fekadu, & Hanlon, 2018). It is a chronic disorder characterized by positive symptoms such as hallucinations and delusions, negative symptoms such as avolition and withdrawal, and cognitive impairment (Patel et al., 2014).

Compared to the general population, people diagnosed with schizophrenia are also at risk for low levels of physical activity (PA) and sedentary lifestyle, which means that these populations are more likely to have high body mass index and chronic conditions such as cardiovascular disease and diabetes (Lee et al., 2018; Ringen et al., 2014). The mechanisms underlying these metabolic disturbances are multifaceted and encompass an interaction of genetic and external factors including lifestyle and environmental conditions (Henderson et al., 2015). In addition, the most effective second-generation antipsychotics, such as clozapine or olanzapine, have important metabolic side-effects, causing weight gain and metabolic impairments starting at young ages (Libowitz & Nurmi, 2021).

Over the past decade, there has been a rapid growth of evidence on the benefits of physical activity and the structured subset of exercise in people with mental illness. Studies have shown that even just a small increase in physical activity has effects on symptomatology, regardless of the severity of the condition. A recent meta-analysis (Swora, Boberska, Kulis, Knoll, Keller & Luszczyńska, 2022) found a consistent pattern of associations between higher levels of physical activity and lower positive, negative, and general psychopathology symptoms in people with schizophrenia and those with other psychotic disorders. The benefits of PA include improvements in psychological wellbeing, reduced levels of psychiatric symptoms, improvements in physical and cognitive functioning, social integration, physical health, sleep quality, self-esteem, and quality of life (Fernández-Abascal, et al., 2021; Stubbs et al. 2018; Viljoen, & Roos, 2020). In addition, evidence suggests that participating in physical activity programs decreases self-perceived social stigma compared to other patients not participating in these activities (Moraleta, Galán-Casado & Cangas, 2019). Thus, moderate, and high intensity training are considered attractive forms of adjunctive therapy of schizophrenia, adjustable to patients' age, performance, and preferences (Lebiecka, Łopuszko, Rudkowski, & Dańczura, 2019). Participating in group activities and utilizing digital exercise interventions or exergames could also increase engagement, especially in younger patients (Aschbrenner et al., 2021; Francillette et al., 2021; Heinbach et al., 2021; Byrne & Kim, 2019), nevertheless, no clear recommendations can be provided currently related to these novel interventions (Carneiro et al., 2021).

Concerning schizophrenia treatment, literature claims that pharmacological interventions do not, by themselves, guarantee improvements in overall functioning and quality of life (Rubio & Kane, 2022). It seems essential to combine programs using physical activity and other interventions, such as psycho-education or cognitive-behavioral therapy, because there is a relation between habits and schizophrenia symptom severity (Kalinowska et al., 2021). Therefore, it is important to highlight the importance of other therapies, with an emphasis on psychosocial rehabilitation, which values independence in performing occupations and roles important for the patients to live in their communities.

When services target and enact an active lifestyle for their patients, the existence of differentiated profiles is essential to enhance adherence to programs and behavioral changes (McCurdy et al., 2020). On one hand, several international organizations advocate for the integration of physical activity professionals into mental health settings such as exercise physiologists and physiotherapists, much needed for exercise prescription (Fibbins et al., 2019; Rosenbaum et al., 2018); on the other, mental health professionals

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