

UNDERSTANDING COMORBIDITY IN SEVERE MENTAL ILLNESS

Dan Siskind and Toby Pillinger

Introduction

There is a growing recognition of the need to address the poor physical health of people with mental illness. Multimorbidity is associated with increased use of health services and presents a challenge for clinicians and other service providers. Epidemiological evidence consistently shows that people with mental illness have higher rates of physical comorbidity, particularly those of cardiovascular and respiratory diseases. The high rate of physical comorbidity significantly reduces the life expectancy among people with mental illness who die on average 10-15 years earlier than the general population. Consequently, people with combined mental and physical comorbidity have increased re-admission rates, higher hospital, and total health sector costs than people without mental illness.

As psychiatrists, we hold a unique role in being able to consider both the mental health needs and the physical health needs of the patients we serve. In this workshop, we will explore the risk factors for physical comorbidities, and examine the evidence for pharmacological, psychological, and lifestyle interventions that can improve the health trajectory for people living with severe mental illness. We will summarise the findings of systematic reviews and meta-analyses on the prevalence of physical comorbidities among people with mental illness. We will then look at an evidence synthesis of modifiable risk factors for physical diseases in mental illness. We will examine the impact of pharmacological interventions, particularly metformin and GLP-1RAs. We will also explore the physical health impact of adverse drug reactions associated with psychotropic medication and look at strategies to manage these. In doing so, we will discuss novel digital applications that facilitate comprehensive, evidence-based, and personalized psychotropic prescribing based on drug side-effects.

Schedule

Talk 1. 8.30am to 9.15am – Epidemiology and lifestyle interventions for comorbidity

Talk 2. 9.15am to 10am – pharmacological interventions for comorbidity

Break 10am to 10.30am

Talk 3 10.30am to 11.30am – managing antipsychotic adverse drug reactions to reduce comorbidity

Learning Objectives

At the end of this course, participants should:

- Understand the epidemiology of physical health comorbidity among people with SMI
- Know the risk factors for physical comorbidities
- Appreciate the evidence for psychological and lifestyle interventions
- Understand the role of pharmacological interventions for physical health comorbidities in SMI, particularly for metformin and GLP-1RAs
- Understand the impact of adverse drug reactions associated with psychotropics, notably clozapine, and strategies to combat these

Methods

Interactive talk, presentations by participants, case-based discussions in small groups and with all participants

Keywords

Psychopharmacology; comorbidity; severe mental illness; physical health; adverse drug reactions

Pillinger T, Osimo EF, de Marvao A, Howes OD. (2019) Cardiac structure and function in patients with schizophrenia taking antipsychotic drugs: an MRI study. *Translational psychiatry* 9 (1), 163

References

Firth J, Siddiqi N, Koyanagi AI, Siskind D, Rosenbaum S, Galletly C, Allan S, Canejo C, Carney R, Carvalho AF, et al. The Lancet Psychiatry Commission: a blueprint for protecting physical health in people with mental illness. *The Lancet Psychiatry*. 2019;6:675-712.

Correll CU, Solmi M, Croatto G, Schneider LK, Rohani-Montez SC, Fairley L, Smith N, Bitter I, Gorwood P, Taipale H. Mortality in people with schizophrenia: a systematic review and meta-analysis of relative risk and aggravating or attenuating factors. *World Psychiatry*. 2022;21:248-271.

Sutter-Dallay AL, Riecher-Rössler A: Psychotropic drugs and the perinatal period; in Sutter-Dallay AL, Glangeaud-Freudenthal NM-C, Riecher-Rössler A (eds): Joint care of parents and infants in perinatal psychiatry. Berlin Heidelberg, Springer, 2016, pp 79-92.

Pillinger T, McCutcheon RA, Vano L, Mizuno Y, Arumham A, Hindley G, Beck K, Natesan S, Efthimiou O, Cipriani A. Comparative effects of 18 antipsychotics on metabolic function in patients with schizophrenia, predictors of metabolic dysregulation, and association with

psychopathology: a systematic review and network meta-analysis. *The Lancet Psychiatry*. 2020;7:64-77.

Taipale H, Tanskanen A, Mehtälä J, Vattulainen P, Correll CU, Tiihonen J. 20-year follow-up study of physical morbidity and mortality in relationship to antipsychotic treatment in a nationwide cohort of 62,250 patients with schizophrenia (FIN20). *World psychiatry*. 2020;19:61-68.

Pillinger T, D'Ambrosio E, McCutcheon R, Howes OD. Is psychosis a multisystem disorder? A meta-review of central nervous system, immune, cardiometabolic, and endocrine alterations in first-episode psychosis and perspective on potential models. *Mol Psychiatry*. 2019;24:776-794.

Siskind D, Hahn M, Correll CU, Fink-Jensen A, Russell AW, Bak N, Broberg BV, Larsen J, Ishøy PL, Vilsbøll T, Knop FK, Kisely S, Ebdrup BH. Glucagon-like peptide-1 receptor agonists for antipsychotic-associated cardio-metabolic risk factors: A systematic review and individual participant data meta-analysis. *Diabetes Obes Metab*. 2019;21:293-302.

Correll CU, Solmi M, Veronese N, Bortolato B, Rosson S, Santonastaso P, Thapa-Chhetri N, Fornaro M, Gallicchio D, Collantoni E, Pigato G, Favaro A, Monaco F, Kohler C, Vancampfort D, Ward PB, Gaughran F, Carvalho AEF, Stubbs B. Prevalence, incidence and mortality from cardiovascular disease in patients with pooled and specific severe mental illness: a large-scale meta-analysis of 3,211,768 patients and 113,383,368 controls. *World Psychiatry*. 2017;16:163-180.

Siskind D, Wu BT, Wong TT, Firth J, Kisely S. Pharmacological interventions for smoking cessation among people with schizophrenia spectrum disorders: a systematic review, meta-analysis, and network meta-analysis. *The Lancet Psychiatry*. 2020;7:762-774.

Pillinger T, Beck K, Gobjila C, Donocik JG, Jauhar S, Howes OD. Impaired glucose homeostasis in first-episode schizophrenia: a systematic review and meta-analysis. *JAMA psychiatry*. 2017;74:261-269.

Pillinger T, Osimo EF, de Marvao A, Howes OD. (2019) Cardiac structure and function in patients with schizophrenia taking antipsychotic drugs: an MRI study. *Translational psychiatry* 9 (1), 163

Siskind D, Gallagher E, Winckel K, Hollingworth S, Kisely S, Firth J, Correll CU, Martene W. Does switching antipsychotics ameliorate weight gain in patients with severe mental illness? A systematic review and meta-analysis. *Schizophrenia Bulletin*. 2021;6 Feb 2021:1-11.

Taylor DM, Gaughran F, Pillinger T. *The Maudsley practice guidelines for physical health conditions in psychiatry*. John Wiley & Sons 2020