

## Infographic information sources

### Infographic 1: 'Physical therapy and mental health

#### **1 in 4 people will experience a mental health condition of some sort in their lifetime**

World Health Organization (WHO) [www.who.int/whr/2001/media\\_centre/press\\_release/en/](http://www.who.int/whr/2001/media_centre/press_release/en/)

#### **It is estimated that 1 in 6 in the past week experienced a common mental health problem**

Mental Health Foundation [www.mentalhealth.org.uk/statistics/mental-health-statistics-uk-and-worldwide](http://www.mentalhealth.org.uk/statistics/mental-health-statistics-uk-and-worldwide)

#### **Mental health problems are one of the main causes of the overall disease burden worldwide**

Mental Health Foundation [www.mentalhealth.org.uk/statistics/mental-health-statistics-uk-and-worldwide](http://www.mentalhealth.org.uk/statistics/mental-health-statistics-uk-and-worldwide)

#### **People with severe mental disorders die on average 10-20 years earlier, often of preventable non-communicable diseases such as heart disease, particularly in low- and middle-income settings**

[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.](#) 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 AF, Stubbs B.

World Psychiatry. 2017 Jun;16(2):163-180

#### **70% of premature deaths in mental health patients are due to poor physical health**

[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.](#) 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 AF, Stubbs B.

World Psychiatry. 2017 Jun;16(2):163-180

#### **20% of people living with osteoarthritis have depression or anxiety**

[Prevalence of depressive symptoms and anxiety in osteoarthritis: a systematic review and meta-analysis.](#) Stubbs B<sup>1</sup>, Aluko Y<sup>2</sup>, Myint PK<sup>3</sup>, Smith TO<sup>4</sup>

Age Ageing. 2016 Mar;45(2):228-35

#### **33% of stroke patients have depression**

[Prevalence and predictors of post-stroke mood disorders: A meta-analysis and meta-regression of depression, anxiety and adjustment disorder.](#) Mitchell AJ<sup>1</sup>, Sheth B<sup>2</sup>, Gill J<sup>3</sup>, Yadegarfar M<sup>4</sup>, Stubbs B<sup>5</sup>, Yadegarfar M<sup>6</sup>, Meader N

Gen Hosp Psychiatry. 2017 Jul;47:48-60.

#### **38% of people with frailty have depression**

[Relationship between depression and frailty in older adults: A systematic review and meta-analysis.](#) Soysal P<sup>1</sup>, Veronese N<sup>2</sup>, Thompson T<sup>3</sup>, Kahl KG<sup>4</sup>, Fernandes BS<sup>5</sup>, Prina AM<sup>6</sup>, Solmi M<sup>7</sup>, Schofield P<sup>8</sup>, Koyanagi A<sup>9</sup>, Tseng PT<sup>10</sup>, Lin PY<sup>11</sup>, Chu CS<sup>12</sup>, Cosco TD<sup>13</sup>, Cesari M<sup>14</sup>, Carvalho AF<sup>15</sup>, Stubbs B<sup>16</sup>.

Ageing Res Rev. 2017 Jul;36:78-87

### **Exercise is an evidence-based treatment for depression**

[Exercise as a treatment for depression: A meta-analysis adjusting for publication bias.](#)

Schuch FB, Vancampfort D, Richards J, Rosenbaum S, Ward PB, Stubbs B.

J Psychiatr Res. 2016 Jun;77:42-51.

### **Offers protection against the emergence of depression**

[Physical Activity and Incident Depression: A Meta-Analysis of Prospective Cohort Studies.](#)

Schuch FB, Vancampfort D, Firth J, Rosenbaum S, Ward PB, Silva ES, Hallgren M, Ponce De Leon A, Dunn AL, Deslandes AC, Fleck MP, Carvalho AF, Stubbs B.

Am J Psychiatry. 2018

### **Better outcomes are achieved when exercise is delivered by a physical therapist**

[Exercise as a treatment for depression: A meta-analysis adjusting for publication bias.](#)

Schuch FB, Vancampfort D, Richards J, Rosenbaum S, Ward PB, Stubbs B.

J Psychiatr Res. 2016 Jun;77:42-51

### **Prevents the development of mental health issues**

Zschucke, E., Gaudlitz, K. & Strohle, A. (2013). Exercise and Physical Activity in Mental Disorders: Clinical and Experimental Evidence. J Prev Med Public Health, 46 (1), 512–521

### **People with depression and schizophrenia are LESS likely to stop exercising when supported by a physical therapist**

[Dropout from exercise randomized controlled trials among people with depression: A meta-analysis and meta regression.](#)

Stubbs B, Vancampfort D, Rosenbaum S, Ward PB, Richards J, Soundy A, Veronese N, Solmi M, Schuch FB.

J Affect Disord. 2016 Jan 15;190:457-466

[Prevalence and predictors of treatment dropout from physical activity interventions in schizophrenia: a meta-analysis.](#)

Vancampfort D, Rosenbaum S, Schuch FB, Ward PB, Probst M, Stubbs B.

Gen Hosp Psychiatry. 2016 Mar-Apr;39:15-23

### **Improves the quality of life and self-esteem of people experiencing mental health issues**

Mental Health Foundation [www.mentalhealth.org.uk/publications/how-to-using-exercise](http://www.mentalhealth.org.uk/publications/how-to-using-exercise)

Alfermann, D. & Stoll, O. (2000). Effects of Physical Exercise on Self-Concept and Wellbeing.

International Journal of Sport Psychology, 31, 47–65

Alexandratos, K., Barnett, F. & Thomas, Y. (2012). The impact of exercise on the mental health and quality of life of people with severe mental illness: a critical review.

British Journal of Occupational Therapy, 75 (2), 48–60

### **Has a large and significant antidepressant effect in people with depression**

[Exercise as a treatment for depression: A meta-analysis adjusting for publication bias.](#)

Schuch FB<sup>1</sup>, Vancampfort D<sup>2</sup>, Richards J<sup>3</sup>, Rosenbaum S<sup>4</sup>, Ward PB<sup>4</sup>, Stubbs B<sup>5</sup>.

## Infographic 2: Improving mental health with exercise

**Long-lasting musculoskeletal disorders and mental health problems are leading causes of sick leave worldwide (WHO 2015). To meet the needs of the patient, physiotherapists offer a wide range of approaches with a focus on human movement and function**

Basic body awareness therapy (BBAT): a movement awareness learning modality in physiotherapy, promoting movement quality

Helvik Skjaerven L, Mattsson M

Elsevier 2018; Physiotherapy in mental health and psychiatry a scientific and clinical base approach

**People with mental health issues are more at risk of having poor physical health**

[Physical multimorbidity and psychosis: comprehensive cross sectional analysis including 242,952 people across 48 low- and middle-income countries.](#)

**Stubbs** B, Koyanagi A, Veronese N, **Vancampfort** D, Solmi M, Gaughran F, Carvalho AF, Lally J, Mitchell AJ, Mugisha J, **Correll** CU.

BMC Med. 2016 Nov 22;14(1):189.

[Diabetes mellitus in people with schizophrenia, bipolar disorder and major depressive disorder: a systematic review and large scale meta-analysis.](#)

Vancampfort D, Correll CU, Galling B, Probst M, De Hert M, Ward PB, Rosenbaum S, Gaughran F, Lally J, Stubbs B.

World Psychiatry. 2016 Jun;15(2):166-74

[Risk of metabolic syndrome and its components in people with schizophrenia and related psychotic disorders, bipolar disorder and major depressive disorder: a systematic review and meta-analysis.](#)

Vancampfort D, Stubbs B, Mitchell AJ, De Hert M, Wampers M, Ward PB, Rosenbaum S, Correll CU.

World Psychiatry. 2015 Oct;14(3):339-47.