

# Effectiveness of physical activity interventions for improving depression and anxiety: a systematic umbrella review.

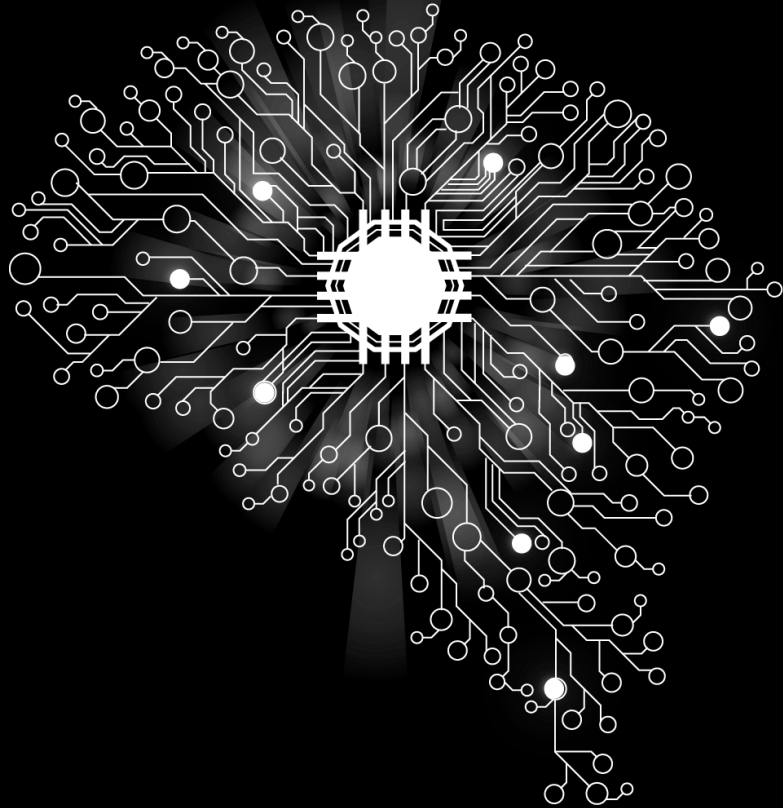
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**ARENA**  
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live with a mental disorder<sup>1</sup>



affected in their lifetime<sup>2</sup>

\$2.5 trillion annual global cost → \$6 trillion by 2030<sup>3</sup>

<sup>1</sup> WHO (2022). Mental disorders – key facts.

<sup>2</sup> Australian Bureau of Statistics (2022), Health Conditions Prevalence.

<sup>3</sup> Marquez et al. *Cerebrum*. 2016;10:16.

Reach or maintain a healthy weight

Strengthen muscles and bones

Improve heart and lung function

Prevent or manage chronic health conditions (e.g., diabetes, heart disease)





Review

Article Text

## Effectiveness of physical activity interventions for improving depression, anxiety and distress: an overview of systematic reviews

 Ben Singh <sup>1</sup>, Timothy Olds <sup>1</sup>, Rachel Curtis <sup>1</sup>,  Dorothea Dumuid <sup>1</sup>, Rosa Virgara <sup>1</sup>, Amanda Watson <sup>1</sup>, Kimberley Szeto <sup>1</sup>, Edward O'Connor <sup>1</sup>, Ty Ferguson <sup>1</sup>, Emily Eglitis <sup>1</sup>, Aaron Miatke <sup>1</sup>, Catherine EM Simpson <sup>1</sup>, Carol Maher <sup>2</sup>

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PDF 

PDF+ Supplementary Material 

### Abstract

**Objective** To synthesise the evidence on the effects of physical activity on symptoms of depression, anxiety and psychological distress in adult populations.

**Design** Umbrella review.

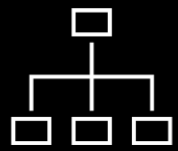
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Citation Tools

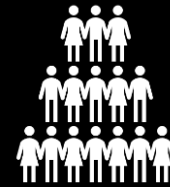
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Rapid Responses

Umbrella review to summarise all existing systematic reviews on the effects of physical activity on depression and anxiety



- 97 systematic reviews
- 1,039 RCTs
- 128,119 participants



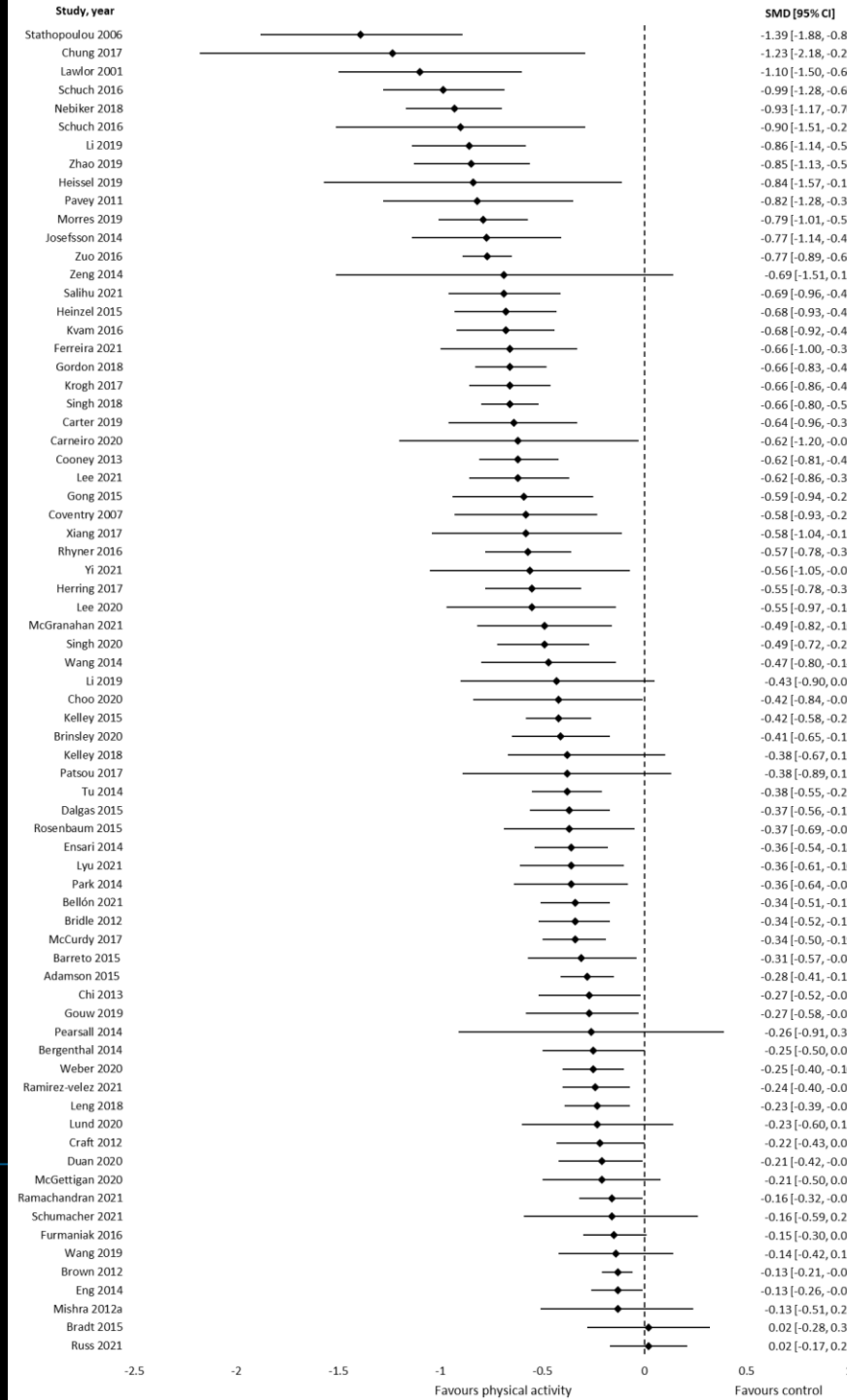
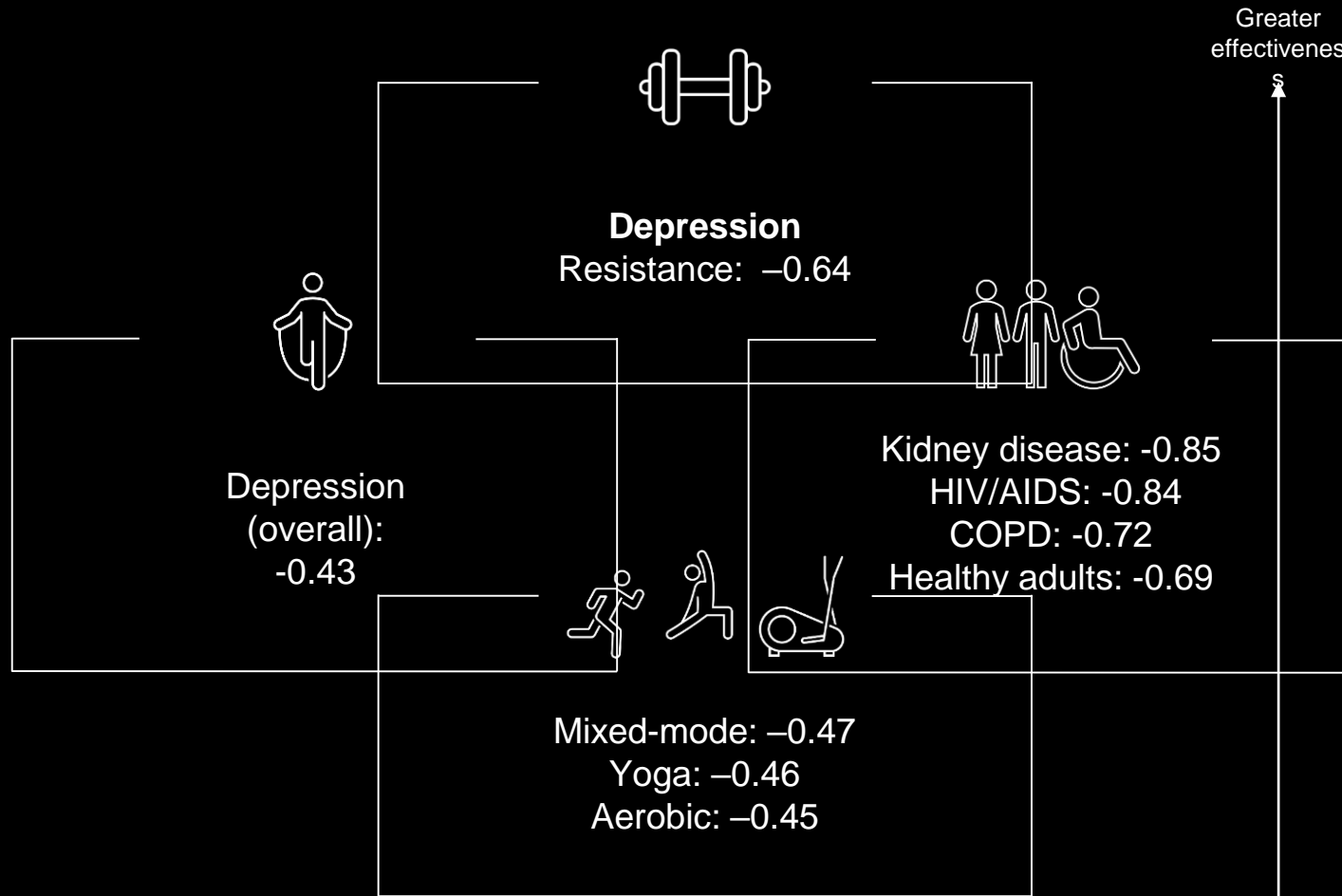
- Cancer n=27 (28%)
- Depression n=11 (11%)
- Dementia n=5 (5%)
- Older adults n=5 (5%)



- Various modes n=70 (72%)
- Specific modes (e.g., aerobic only, yoga only) n=27 (28%)



Critically low-quality rating n=77 (79%)



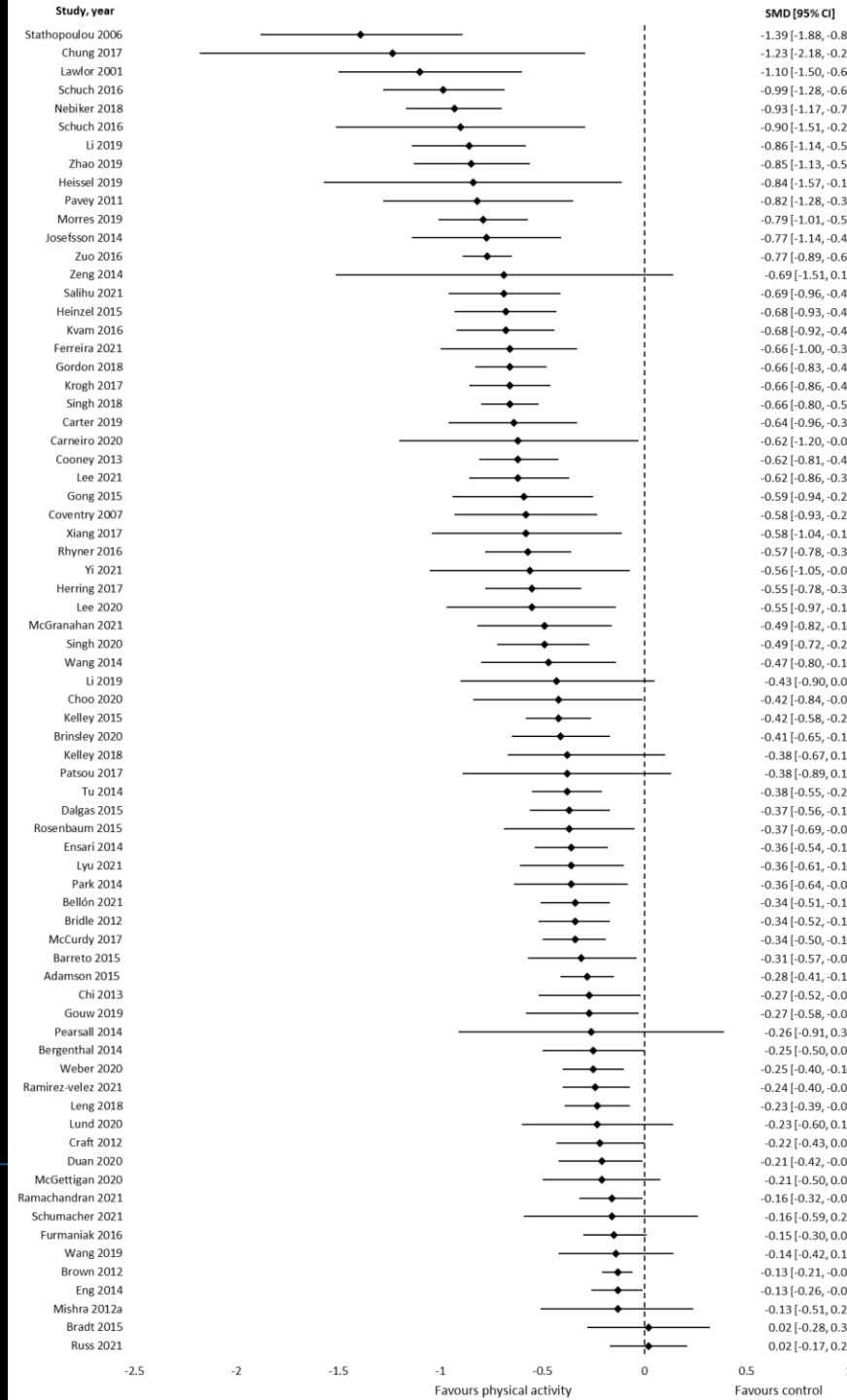
All values represent median standardized mean differences.  
 COPD: Chronic obstructive pulmonary disease.



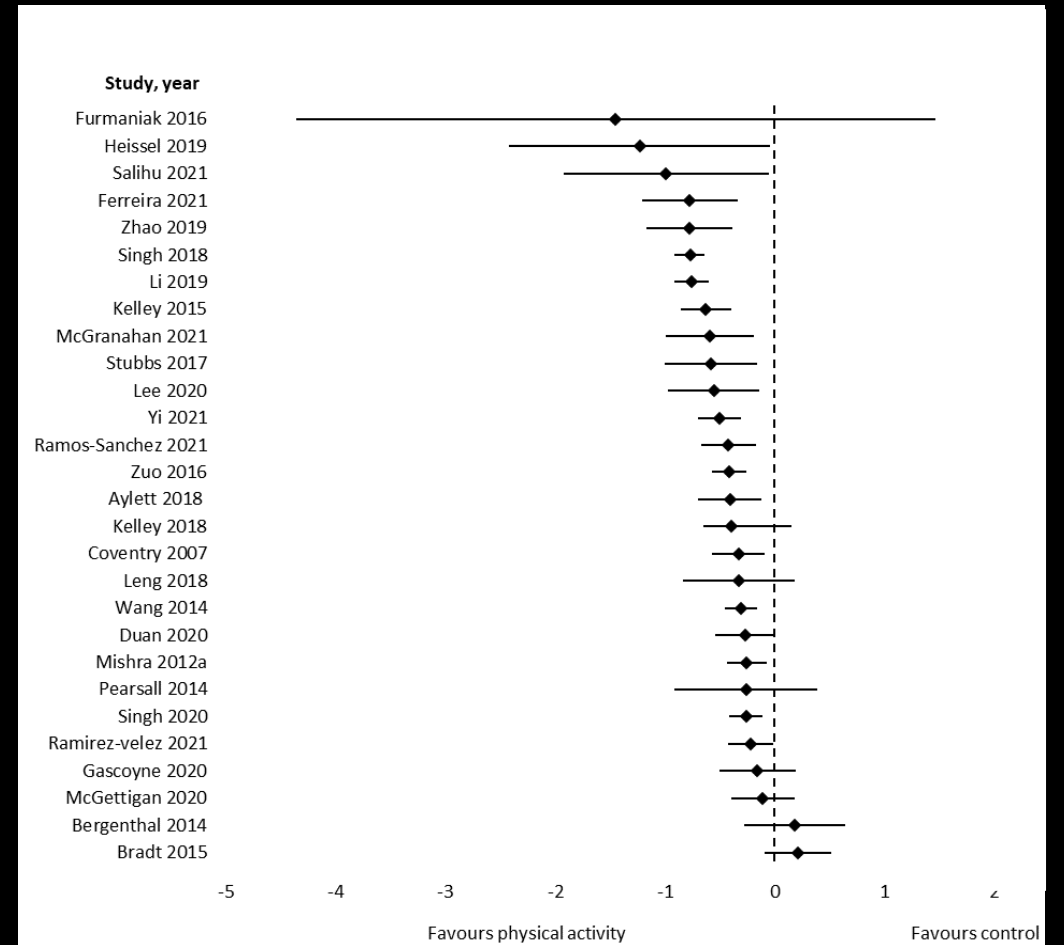
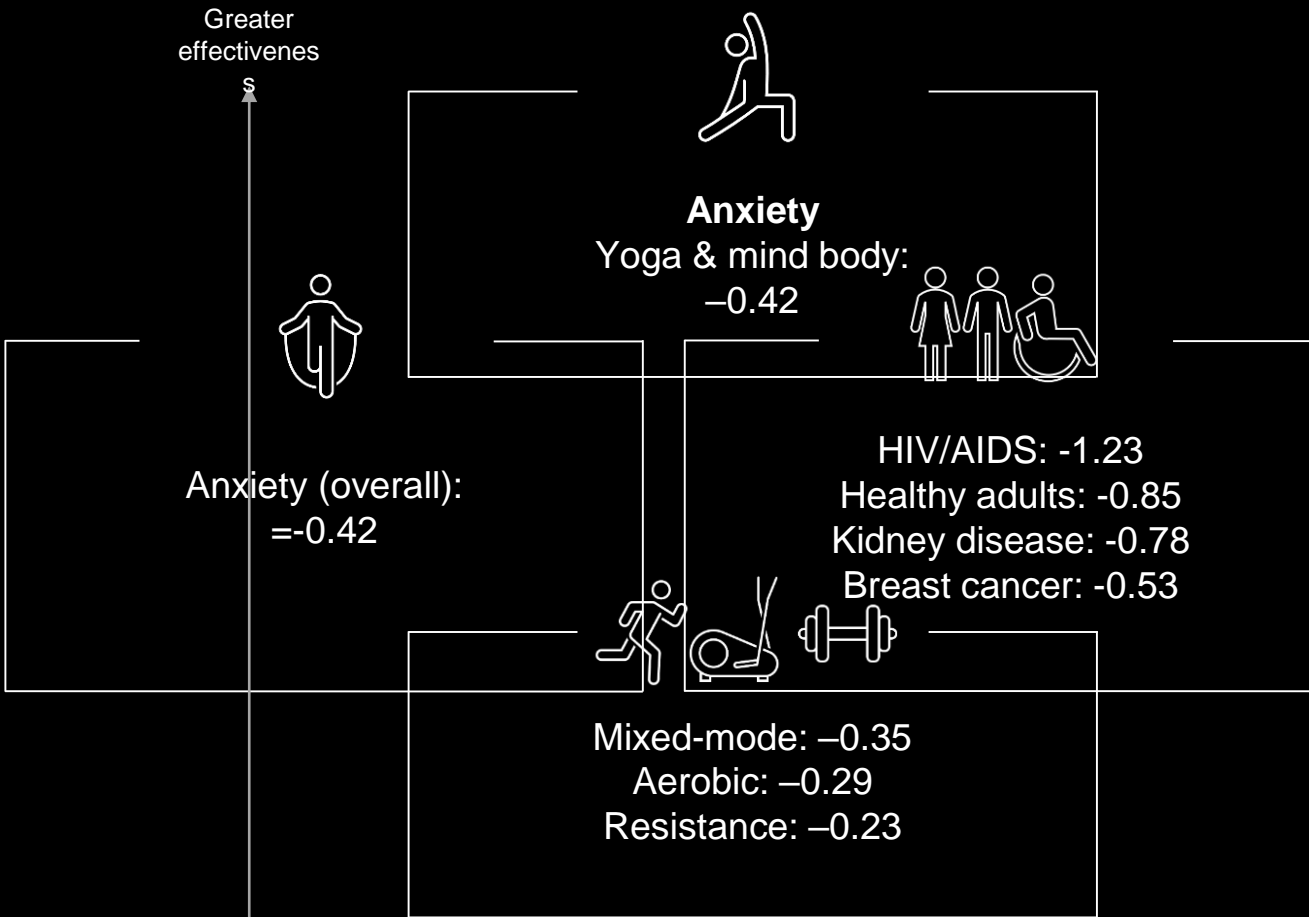
Greater effectiveness

S

All values represent median standardised mean differences.



Greater effectiveness



All values represent median standardized mean differences.



- All types of PA are beneficial.
- Greatest benefits in depression, pregnant/postpartum women, healthy individuals, HIV and kidney disease.
- Higher intensity is more beneficial.
- Effects reduce over time.



- Aim for at least 150 minutes of moderate-intensity or 75 minutes of vigorous-intensity activity each week.
- Even a small amount of physical activity is better than none.
- Any type of physical activity is better than none.
- Find an activity that you enjoy and that fits into your lifestyle.



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