

**Weekend warrior physical activity engagement and the risk of mental health conditions: A systematic review and narrative synthesis**

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### Supplementary Material 3: PICO and detailed search strategy

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| <b>Main Research question:</b> Can the weekend warrior physical activity pattern have a comparable association with a lower risk of mental health conditions compared to regular physical activity?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>P:</b> Individuals with the measurements of physical activity levels and mental health status<br><br><b>I:</b> Weekend warrior physical activity pattern<br><br><b>C:</b> Inactive, Insufficiently active, regularly active physical activity patterns<br><br><b>O:</b> Lower risk of mental health conditions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Database:</b> PubMed<br><br><b>Timeline:</b> Inception to October 30, 2025<br><br><b>Search Strategy:</b><br><br>("weekend warrior"[Title/Abstract]) AND (("Mental Disorders"[Mesh] OR "Psychological Well-Being"[Mesh] OR "Depression"[Mesh] OR "Mood Disorders"[Mesh] OR "Psychotic Disorders"[Mesh] OR "Depressive Disorder, Major"[Mesh] OR "Affective Disorders, Psychotic"[Mesh] OR "Schizophrenia"[Mesh] OR "Bipolar Disorder"[Mesh] OR "Anxiety"[Mesh]) OR "mental health"[Title/Abstract] OR "emotional health"[Title/Abstract] OR "psychological health"[Title/Abstract] OR "mental well-being"[Title/Abstract] OR "mental illness"[Title/Abstract] OR "mental health condition"[Title/Abstract] OR "psychiatric disorder"[Title/Abstract] OR "psychological disorder"[Title/Abstract] OR "mental disorder"[Title/Abstract] OR "behavioral disorder"[Title/Abstract] OR "cognitive disorder"[Title/Abstract] OR "personality disorder"[Title/Abstract] OR "psychiatric illness"[Title/Abstract] OR "psychiatric condition"[Title/Abstract] OR "mental health issue"[Title/Abstract] OR "mental disease"[Title/Abstract] OR "anxiety disorder"[Title/Abstract] OR stress[Title/Abstract] OR nervousness[Title/Abstract] OR "major depressive disorder"[Title/Abstract] OR "clinical depression"[Title/Abstract] OR "psychological well-being"[Title/Abstract] OR "mental wellness"[Title/Abstract] OR "emotional well-being"[Title/Abstract] OR "psychological resilience"[Title/Abstract] OR distress[Title/Abstract] OR "emotional distress"[Title/Abstract] OR "psychological distress"[Title/Abstract] OR "mental anguish"[Title/Abstract] OR "bipolar disorder"[Title/Abstract] OR "Depressive Symptom*"[Title/Abstract] OR "Symptom, Depressive" [Title/Abstract]) |
| <b>Database:</b> Embase<br><br><b>Timeline:</b> Inception to October 30, 2025<br><br><b>Search Strategy:</b><br><br>('weekend warrior':ab,ti) AND ( ('Mental Disease'/exp OR 'Psychological Well-Being'/exp OR 'Depression'/exp OR 'Mood Disorder'/exp OR 'Psychosis'/exp OR 'Major Depression'/exp OR 'schizoaffective psychosis'/exp OR 'Bipolar Disorder'/exp OR 'Anxiety'/exp OR 'Anxiety Disorder'/exp) OR ('mental health':ab,ti OR 'emotional health':ab,ti OR 'psychological health':ab,ti OR 'mental well-being':ab,ti OR 'mental illness':ab,ti OR 'mental health condition':ab,ti OR 'psychiatric disorder':ab,ti OR 'psychological disorder':ab,ti OR 'mental disorder':ab,ti OR 'behavioral disorder':ab,ti OR 'cognitive disorder':ab,ti OR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

'personality disorder':ab,ti OR 'psychiatric illness':ab,ti OR 'psychiatric condition':ab,ti OR 'mental health issue':ab,ti OR 'mental disease':ab,ti OR 'anxiety disorder':ab,ti OR 'stress':ab,ti OR 'nervousness':ab,ti OR 'clinical depression':ab,ti OR 'psychological well-being':ab,ti OR 'mental wellness':ab,ti OR 'emotional well-being':ab,ti OR 'psychological resilience':ab,ti OR 'distress':ab,ti OR 'emotional distress':ab,ti OR 'psychological distress':ab,ti OR 'mental anguish':ab,ti OR 'bipolar disorder':ab,ti OR 'depressive symptom\*':ab,ti ) )

**Database:** Scopus

**Timeline:** Inception to October 30, 2025

**Search Strategy:**

(TITLE-ABS-KEY ("weekend warrior")) AND (TITLE-ABS-KEY ("Mental Disorders") OR TITLE-ABS-KEY ("Psychological Well-Being") OR TITLE-ABS-KEY ("Depression") OR TITLE-ABS-KEY ("Mood Disorders") OR TITLE-ABS-KEY ("Psychotic Disorders") OR TITLE-ABS-KEY ("Depressive Disorder, Major") OR TITLE-ABS-KEY ("Affective Disorders, Psychotic") OR TITLE-ABS-KEY ("Schizophrenia") OR TITLE-ABS-KEY ("Bipolar Disorder") OR TITLE-ABS-KEY ("Anxiety") OR TITLE-ABS-KEY ("mental health") OR TITLE-ABS-KEY ("emotional health") OR TITLE-ABS-KEY ("psychological health") OR TITLE-ABS-KEY ("mental well-being") OR TITLE-ABS-KEY ("mental illness") OR TITLE-ABS-KEY ("mental health condition") OR TITLE-ABS-KEY ("psychiatric disorder") OR TITLE-ABS-KEY ("psychological disorder") OR TITLE-ABS-KEY ("mental disorder") OR TITLE-ABS-KEY ("behavioral disorder") OR TITLE-ABS-KEY ("cognitive disorder") OR TITLE-ABS-KEY ("personality disorder") OR TITLE-ABS-KEY ("psychiatric illness") OR TITLE-ABS-KEY ("psychiatric condition") OR TITLE-ABS-KEY ("mental health issue") OR TITLE-ABS-KEY ("mental disease") OR TITLE-ABS-KEY ("anxiety disorder") OR TITLE-ABS-KEY (stress) OR TITLE-ABS-KEY (nervousness) OR TITLE-ABS-KEY ("major depressive disorder") OR TITLE-ABS-KEY ("clinical depression") OR TITLE-ABS-KEY ("psychological well-being") OR TITLE-ABS-KEY ("mental wellness") OR TITLE-ABS-KEY ("emotional well-being") OR TITLE-ABS-KEY ("psychological resilience") OR TITLE-ABS-KEY (distress) OR TITLE-ABS-KEY ("emotional distress") OR TITLE-ABS-KEY ("psychological distress") OR TITLE-ABS-KEY ("mental anguish") OR TITLE-ABS-KEY ("bipolar disorder" OR TITLE-ABS-KEY ("depressive symptom\*"))

**Database:** Web of Science

**Timeline:** Inception to October 30, 2025

**Search Strategy:**

TS= ("weekend warrior") AND (TS=("Mental Disorders" OR "Psychological Well-Being" OR "Depression" OR "Mood Disorders" OR "Psychotic Disorders" OR "Depressive Disorder, Major" OR "Affective Disorders, Psychotic" OR "Schizophrenia" OR "Bipolar Disorder" OR "Anxiety") OR TS=("mental health" OR "emotional health" OR "psychological health" OR "mental well-being" OR "mental illness" OR "mental health condition" OR "psychiatric disorder" OR "psychological disorder" OR "mental disorder" OR "behavioral disorder" OR "cognitive disorder" OR "personality disorder" OR "psychiatric illness" OR "psychiatric condition" OR "mental health issue" OR "mental disease" OR "anxiety disorder" OR "stress" OR "nervousness" OR "major depressive disorder" OR "clinical depression" OR "psychological well-being" OR "mental wellness" OR "emotional well-being" OR "psychological resilience" OR "distress" OR "emotional distress" OR "psychological distress" OR "mental anguish" OR "bipolar disorder" OR "depressive symptom\*"))

**Database:** PsycINFO

**Timeline:** Inception to October 30, 2025

**Search Strategy:**

"weekend warrior" AND ( "mental health" OR "emotional health" OR "psychological health" OR "mental well-being" OR "mental illness" OR "mental health condition" OR "psychiatric disorder" OR "psychological disorder" OR "mental disorder" OR "behavioral disorder" OR "cognitive disorder" OR "personality disorder" OR "psychiatric illness" OR "psychiatric condition" OR "mental health issue" OR "mental disease" OR anxiety OR "anxiety disorder" OR stress OR nervousness OR depression OR "major depressive disorder" OR "clinical depression" OR "mood disorder" OR "psychological well-being" OR "mental wellness" OR "emotional well-being" OR "psychological resilience" OR distress OR "emotional distress" OR "psychological distress" OR "mental anguish" OR "mood disorders" OR "affective disorders" OR "bipolar disorder" OR "major depressive disorder" OR "psychotic disorders" OR schizophrenia OR "psychotic disorder" OR "schizophreniform disorder" OR "paranoid schizophrenia" OR "bipolar" OR "manic-depressive illness" OR "Depressive Symptom\*")

**Database:** EBSCOhost (MEDLINE, SPORTDiscus, CINAHL)

**Timeline:** Inception to October 30, 2025

**Filters:** All time, English language, All document types

**Search Strategy:**

"weekend warrior" AND ( "mental health" OR "emotional health" OR "psychological health" OR "mental well-being" OR "mental illness" OR "mental health condition" OR "psychiatric disorder" OR "psychological disorder" OR "mental disorder" OR "behavioral disorder" OR "cognitive disorder" OR "personality disorder" OR "psychiatric illness" OR "psychiatric condition" OR "mental health issue" OR "mental disease" OR anxiety OR "anxiety disorder" OR stress OR nervousness OR depression OR "major depressive disorder" OR "clinical depression" OR "mood disorder" OR "psychological well-being" OR "mental wellness" OR "emotional well-being" OR "psychological resilience" OR distress OR "emotional distress" OR "psychological distress" OR "mental anguish" OR "mood disorders" OR "affective disorders" OR "bipolar disorder" OR "major depressive disorder" OR "psychotic disorders" OR "schizophrenia" OR "psychotic disorder" OR "schizophreniform disorder" OR "paranoid schizophrenia" OR "bipolar" OR "manic-depressive illness" OR "Depressive Symptom\*")

**Database:** Grey literature sources (medRxiv, bioRxiv, Preprints with The Lancet, ProQuest, EBSCO Open Dissertations, open-access theses and dissertations (OATD), ClinicalTrials.gov, Manual search in Google Search and Google Scholar.

**Timeline:** Inception to October 30, 2025

**Search Strategy:**

In all grey literature sources, the exact phrase 'weekend warrior' was used as the search keyword to ensure that no studies were missed.

