Ref: PSY\_2016\_35

Title: Physical activity as a vital sign in patients with bipolar disorder

Journal: Psychiatry Research

Abstract:

The most significant contributor to premature mortality in patients with bipolar disorder is preventable cardiovascular diseases. This study investigated if the Physical Activity Vital Sign (PAVS) assessment (two questions which clarify if a person meets the recommended 150 minutes of physical activity per week) can identify patients with bipolar disorder at higher risk of cardio-metabolic abnormalities. Sixty-five in- and outpatients with bipolar disorder completed the PAVS-questions, underwent full-fasting metabolic screening, and performed a six-minute walk test (6MWT).Those patients not meeting the physical activity recommendations had a higher body mass index, performed worse on the 6MWT and were at a significantly higher risk for cardio-metabolic diseases. Relative risks ranged from 1.33 for having dyslipidemia to 5.33 for hyperglycemia. The PAVS assessment should be included as a vital sign in the routine assessment of in- and outpatients with bipolar disorder.

1. Comment: I commend the authors for having chosen to study the role of lifestyle in mortality in bipolar disorder as it is a novel and relevant topic in this field. I think that the authors could improve their manuscript by 1.providing additional insight into the importance of this topic in psychiatry, 2.adding a proper discussion of the clinical relevance of the findings, and 3. expanding their discussion of the strengths and weaknesses of their design/research findings. I would therefore recommend that the authors perform major revisions of this paper before resubmitting it.
2. Abstract: please provide a basic description of the population. For instance, number of patients with bipolar disorder, mean age, and N females. Please also briefly state what kind of analyses you performed.
3. Introduction: I would mention the effects of psychotropic medication on cardiovascular health, prevalence of obesity & diabetes & metabolic disorders in bipolar disorder, and effects of lifestyle on cognitive performance and global functioning in bipolar disorder. This would give the paper a stronger rationale and clarify why it is important to study this topic.
4. Methods: please provide basic demographics such as age, gender, education, duration of illness, severity of the illness (e.g. number of mood episodes, hospitalizations), number of participants for each BD subtype (if any). Please list psychiatric comorbidities and medication status for all participants. Also were participants in remission, euthymic etc.? if so, how were these terms defined? Please refere to table 1 in the text. Please consider providing an additional table including the abovementioned demographic variables (e.g. age/gender/ethnicity, measures of illness severity, education, professional status, IQ, and global functioning.
5. Table 2. Please provide means and SDs or SE for the 6-minute walk test, PAVS, waist circumference, and QIDS-SR.
6. Why didn’t the authors include a comparison group, either healthy controls and/or other mood disorders? Please address and discuss this in the discussion.
7. The authors mention that the participants should be able to concentrate for at least half an hour. Could the authors describe how this was defined (reference) and what kind of test they used to measure it. Why did they include this inclusion criteria? Please include this explanation in the methods section.
8. Were participants medicated? Or did they receive any kind of psychoeducational support? Please provide this information and address this in the discussion too.
9. Were all substances excluded or only alcohol? Were tobacco and caffeine consumption or was this an exclusion criteria?
10. How were outpatients recruited?
11. PAVS: Please define “moderate to vigorous physical activity”? How were these terms defined? Could the authors provide the psychometric properties of the PAVS? Do the authors consider that 2 questions, based on self-rating, are enough to gather enough information on lifestyle? Please provide this information and address this in the discussion too.
12. Although I agree with using brief and concise measures I wonder whether the brevity of the vital sign method undermines the quality and reliability of information. Are two measures really enough to measure vital sign? Did the authors think of collecting information closely associated with physical activity such as nutrition and social activities. Please address this potential weakness in the discussion.
13. Did the authors consider using regression analyses to determine the contribution of each variable of interest to the PAVS score? Please address this in the discussion.
14. Did the authors control for multiple comparisons? And did they estimate the effect size and statistical power of this study?