Reviewer’s report

Title: Anxiety at Age 15 Predicts Psychiatric Diagnoses and Suicidal Ideation in Late Adolescence and Young Adulthood: Results From Two Longitudinal Studies

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Reviewer: Eric Lacourse

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BPSY-D-19-0014 Anxiety in Adolescence Predicts Negative Outcomes in Young Adulthood: Results from two longitudinal studies.

This study investigates the link between anxiety during adolescence and how it can predict negative outcomes in young adulthood (from age 15 to 21). Correlates of adolescent anxiety are 1) childhood ADHD, 2) autism spectrum disorder (ASP) and 3) developmental coordination disorder (DCD). Negative outcomes are: 1) suicide attempts, 2) anxiety, 3) bipolar-psychotic, 4) depressive and 5) alcohol and drug misuse disorders. The statistical analyses (survival analysis) were run on two large samples of adolescent twins from Sweden (14 106) and the Netherlands (9211). Although this study uses two large longitudinal samples of twins, it falls short on too many important aspects of scientific research to make it a potential innovative publication. The motivations behind many conceptual and research methods choices are not well detailed which make the manuscript feel quite incomplete. Adding three supplemental tables and three figures is just overwhelming and do not help to clarify the substantive and methodological issues. One simplified statistical would be warranted. I will provide my comments through bullet points with potential questions to answer.

1) The age range of young adulthood is between 15 and 21. What is the rationale for this age range? I think this age range is blending late adolescence and emerging adulthood.

2) This study uses a longitudinal twin design with two large samples. What is the rationale for not using an ACE model? The research design is only considered statistically without much methodological explanations.

3) The present study uses only three covariates as control variables. There are so many other individual covariates that could be included in the models such as: 1) depression, 2) opposition 3) conduct disorder or 4) prior substance use. What about social-relational covariates such as peer rejection and bullying?

4) Sex/gender or SES, which are central to this topic of research and potential moderators, are not considered at all in the analyses. Why?
5) For some negative outcomes the prevalence rates are very low, and I wonder if survival analysis is adequate for this kind of data. Missing data also appears to be problematic and it is not clear how it impacts the findings. More details are required on sample selection and attrition. How are they related to all of the variables in this study?

6) This study could greatly benefit from a person-oriented approach by adding categorical latent variables to take into account for the potential non-linear associations/comorbidities among the correlates of adolescent anxiety, but also between the correlated negative outcomes. As presented in this paper, there is an assumption of additivity and linearity among the variables that might not hold the empirical test. Why present six separate regressions when one would be enough? A propensity score approach could also be warranted.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

No

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

No

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

No

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If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

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