Review of: "Emotional Dysregulation And Quality of Life In Young Adults With ADHD- A Cross Sectional Study"

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Emotional Dysregulation And Quality of Life In Young Adults With ADHD- A Cross Sectional Study

This cross-sectional study of young adults included 62 with ADHD and 69 controls. It explores the impact that traditional ADHD symptoms and emotional dysregulation have upon a young adult's quality of life.

The Adult ADHD Quality-of-Life scale (AAQoL) was used to measure quality of life; The Adult ADHD Self-Report Scale (ASRS) was used to measure ADHD symptoms. The Self-Report Wender-Reimherr Adult Attention Deficit Disorder Scale (SR-WRAADDS) and the Difficulties in Emotion Regulation Scale (DERS) were used to measure ED.

Both QoL and ED were significantly worse for the ADHD group compared to the control group. The medication status (no meds, consistent meds or inconsistent use of meds) of the ADHD group participants had no significant effect on the level of ADHD symptoms, ED or QoL. ED moderated the effect of ADHD symptoms on QoL for the ADHD group.

The authors note that ED has been alternately described as: 1) an additional core symptom specific to ADHD or at least to a subtype of ADHD and 2) ED is not specific to ADHD; instead, it has transdiagnostic mechanisms and etiology which are shared with other clinical conditions. The authors take no position on this question but instead incorporated two alternate measures of ED (SR-WRAADDS and DERS) to capture both perspectives.

The paper is well written with useful tables and figures.

COMMENTS:

Abstract:

In the Methods section, the nature of the samples should be disclosed more carefully. For instance, was

this a sample collected in a university? This same problem occurs in the paper's Methods Section in the subsection dealing with Participants. The nature of the sample is partially addressed in the subsection dealing with Study Design, but it should be in the Participants subsection.

Table 1 – Does the paper address the lack of differences on the symptom rating scales between the treated, intermittently treated, and untreated ADHD subjects?

On page 6, it is stated:

"The current study is a part of a larger cross-sectional study which included ecological momentary assessments for 5 days in addition to baseline assessments."
I do not understand what this means.

On age 8, it is stated:

"As expected, the ASRS scores and the ED scores were significantly worse for the ADHD group, and participants in the ADHD group were less educated."
Since the score on the ASRS was part of the inclusion criteria, this is a circular conclusion that should be removed.

On page 10, the data on the Moderation Model is presented. The same result is presented in the Abstract. It appears you Aqil have detected a moderation effect for Emotional Dysregulation as measured by the SR-WRAADDS.   You have not presented moderation data for Emotional Dysregulation as measured by the DERS. The Abstract is also not clear on this point.
The writers are inconsistent in their abbreviations regarding the SR-WRAADDS. They often write "SR-WRAADS" deleting a "D" from the abbreviation.

The authors fluctuate between using "AAQoL" and "QoL". They need to be consistent in using AAQoL in reference to the instrument.

The writers describe SR-WRAADDS ED on page 7:
 "…ED severity was assessed using 3 sub-scales from the Self-Report Wender-Reimherr Adult Attention Deficit Disorder Scale (SR-WRAADS; (32)): temper, affective lability, and emotional overreactivity. Collectively, the 11 items within the 3 subscales assess emotional symptoms in adult ADHD. Each item is measured on a 5-point scale (0 = None or slightly, 4 = very much), yielding scores that may range from 0 to 44. The scale calculation is based on Wender's theoretical definition (1995), resulting ED cutoff achieved with a sum ≥ 11 (50). The SR-WRAADDS is based on the interviewer-administered Wender Reimberr Adult Attention Deficit Disorder Scale (WRAADDS; (51))."
Wender did not generate a cut-off ED score of 11 or even conceptualize an ED scale as a separate

dimension within ADHD patients. This cutpoint was generated first in Reimherr et al (2005) analysis of ratings on the WRAADDS using data from an atomoxetine study in adult ADHD.

The following odd reference is found in the first paragraph of "Measures". It requires clarification. "(*Zohar, Gonedin, & Yemini, 2007 in stern 2017)" Also* on page 8 *"PROCESS analysis by Hayes (2017;58)"*. Also, on page 10 *"PROCESS analysis by Hayes (2013)"*.

I don't understand one of the column headings in table 3. Why does the 4th column include "(df, df error)"?
The word "percentile" is misspelled in Figure 1. Also, I think the figure could share more information. Especially that these 3 linear regression lines result from the Process analysis.

Table 4 and figure #1 - The interaction effect between SR-WRAADDS ED and ASRS can be summarized as: QoL is primarily influenced by ADHD symptoms when subjects have extremely low levels of ED. In contrast QoL is unaffected by ADHD symptoms for subjects with high levels of ED. The first part of this summary makes sense, ED symptoms cannot impact QoL when they are at very low levels. The second part is more problematic. Why would ADHD symptoms have no impact on QoL for patients with high levels of ED? I think the authors should make a greater attempt to address this finding. Possible explanations are: 1) Does the fact that subjects with high ED all have AAQoL scores in the mid-40s reflect a ceiling/basement effect in AAQoL scores? College students simply never score lower than 40 on the AAQol. 2) Very few ADHD patients with high levels of ED have low symptoms levels of the DSM symptoms. The regression line for the 84th percentile of ED patients was built using primarily subjects with ADHD symptoms greater than 60.

The writers use Eta-squared as their measure of effect size. Eta-squared describes the ratio of variance explained in the dependent variable by a predictor while controlling for other predictors, making it analogous to the r^2. Eta-squared is a biased estimator of the variance explained by the model in the population (it estimates only the effect size in the sample). This estimate shares the weakness with r2 that each additional variable will automatically increase the value of η2. In addition, it measures the variance explained of the sample, not the population, meaning that it will always overestimate the effect size, although the bias grows smaller as the sample grows larger. - I think the use of Eta-squared comes from the fact that their analysis of the interaction between ED and ADHD symptoms was a regression, not ANOVA. Initially I did not recognize it, but after reading about it, I think it is acceptable in place of Cohens' D. This should be explained in the Methods section.

The authors state that the age differences identified between the ADHD and Controls are significant. They also state in the limitations section that university students in Israel are typically older than students

elsewhere. I think both observations are irrelevant and very unlikely to limit the generalizability of the trial.