Author’s response to reviews

Title: The relation of alexithymia and attachment with type 1 diabetes management in adolescents: A gender-specific analysis

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Author’s response to reviews:

Dear Editors

BMC Psychology

Thank you for the opportunity to revise our manuscript entitled “The relation of alexithymia and attachment with type 1 diabetes management in adolescents: A gender-specific analysis”. Please see our response to the reviewer’s. Thank you for your consideration.

Reviewer’s Comments of our manuscript "The relation of alexithymia and attachment with type 1 diabetes management in adolescents: A gender-specific analysis" (PSYO-D-19-00091R1) was carefully assessed by the authors. We want to appreciate their interest to our article and make contributions.

Reviewer reports:

Gwénolé Loas (Reviewer 1): Interesting article.

The main limitation is the used of the TAS-20 that is very problematic in adolescents. Two studies must be discussed (1) Loas et al, PLOS one, 2017, the measurement of alexithymia and adolescents..." and El Abiddine &amp; Loas, International Journal of Culture and mental health,2018, "Psychometric properties of the Arabic version of the AQC". The two studies suggest strongly two used in adolescents the TAS-20 without the 8 EOT items. Thus I
suggest that the authors follow this recommendation. There is a consensus among the authors that EOT subscale in adolescents (notably 13-14 years) has low reliability; see Parker et al, 2010, psychological assessment, 2010, 22, 4, 798 for original version; see Meganck et al, psychological reports, 2012, 111, 2, 393-404 for Dutch version; Bolat et al, Anatolian journal of psychiatry, 2017, 18, 4, 362-368 for the turkish version....

RESPONSE

Thank you so much for your valuable suggestion. According to your comment, EOT was removed from the scale and all calculations have been conducted accordingly and the new results have been replaced in the text. Further details were also added to the method section (Page 7 line 5-7)

Reviewer 2 (Reviewer 2): PEER REVIEWER ASSESSMENTS:

OBJECTIVE - Full research articles: is there a clear objective that addresses a testable research question(s) (brief or other article types: is there a clear objective)?

Yes - there is a clear objective

DESIGN - Is the current approach (including controls and analysis protocols) appropriate for the objective?

No - there are minor issues

EXECUTION - Are the experiments and analyses performed with technical rigor to allow confidence in the results?

No - there are minor issues

STATISTICS – Is the use of statistics in the manuscript appropriate?

No – there are issues with the statistics in the study

INTERPRETATION - Is the current interpretation/discussion of the results reasonable and not overstated?

No - there are minor issues
OVERALL MANUSCRIPT POTENTIAL - Is the current version of this work technically sound? If not, can revisions be made to make the work technically sound?
Maybe - with major revisions

PEER REVIEWER COMMENTS:

GENERAL COMMENTS:

My overall impression is that this study provides potentially useful data on psychological factors which predict the level of control and self-care activities in adolescents with type 1 diabetes and looks at how gender affects these relationships. What was done well is the large number of validated scales which were employed. However, readers without background on some of the scales employed may have a hard time following their reasoning.

RESPONSE

Agreed. Based on the reviewer’s suggestion, related explanations regarding all measures which have been used in the current study have been more clarified. (pages 7-9 Highlighted). Also, sections were added to the introduction for explaining the relationship between variables (Highlighted in introduction).

A more important concern is that since a very large number of comparisons were made and none appeared to have a p <0.01 (and several had a p of 0.03 or 0.04), some of these "significant" differences may have occurred by chance. The authors should consider using the Bonferroni correction to highlight those findings which truly reach statistical significance.

Also there should be more detail in the methods as to how HbA1c levels were used in the analysis. For Table 2, were the A1cs based on a single value at the visit closest to when the questionnaires were administered or was there an attempt to average A1cs over the previous year to eliminate some of the visit-to-visit variability

RESPONSE

1. In the current study, the effects of mother’s, father’s and peer’s alexithymia and attachment were evaluated on adolescent’s self-care and HbA1C levels in the separate sex-specific regression models (both crude and adjusted effects). The impact of the alexithymia and attachment subscales on HbA1C and self-care was also assessed. Since the subscales of alexithymia and subscales of attachment, as independent variables, were highly correlated lead to a collinearity problem, separate regression analyzes were performed for each subscale and each dependent variable.

The assumptions of normality of residual distribution and error variance consistency were also evaluated in all regression models and if there were appropriate results, logarithmic or square root conversion was applied considering HbA1C and self-care as dependent variables. P-values have been reported based on the new data.
In multiple-group comparisons and simultaneous pairwise comparisons between groups, the P-value is adjusted based on Bonferroni correction. The Bonferroni correction are applied to reduce the type-I error and to obtain a more accurate P-value and this criterion is adjusted based on the number of comparisons. In the current analysis, we did not make any comparisons between groups and only βs (as the intensity/direction of the effects) and the P-values (for the significant level) were reported in each gender and statistical comparisons were not conducted on βs at all. It seems that it does not necessary to calculate and report the Bonferroni corrected P-values in such cases.

2. In the current study the A1cs levels were determined based on a single value at the visit closest to when the questionnaires were administered (Page 7)

REQUESTED REVISIONS:

Use the Bonferroni correction for multiple comparisons. If possible use A1cs averaged over multiple visits over the past 1-2 years.

RESPONSE

This issue has been clarified in previous section.

If possible use A1cs averaged over multiple visits over the past 1-2 years.

Despite we agree with you regarding the importance of considering A1cs averaged over multiple visits over the past 1-2 years, unfortunately it was not possible for us due to unavailability of related data. However, we considered this issue as a limitation of the current study and added to the text.

ADDITIONAL REQUESTS/SUGGESTIONS:

It would help the reader if the authors described what is meant by interceptive impairment (P 5 line 7). Also this sentence was confusing "this construct has been defined in three levels: difficulty of identifying feelings (DIF), difficulty describing feelings (DDF), and externally oriented thinking (EOT); together these dimensions facilitate the management of diabetes". I don't see how DIF and DDF would facilitate as opposed to impair diabetes management and I do not understand what EOT means.

RESPONSE

More explanations were added about impaired interoception (Page 5 line 7 & 8). Also, Lines 4- 10 in page 5 were corrected (Highlighted).

Page 8 line 18: Should make clear that medication usage refers to meds other than insulin
It was corrected (Page 9 line 16)

Page 8 line 20: The self care scores and activities are in Table 1, not Table 2.

It was corrected (Page 9 line 18)

Tables 2 and 3. In the footnote there is mention of * and ** for p < 0.05 and p < 0.01 but there are no asterisks in the tables themselves. Were any of the p values < 0.01? If so they should be given to 3 decimals.

The stars below Tables 2 and 3 of the manuscript were deleted. Because the exact p-values were reported in the tables, we do not need * P < 0.05 and ** P < 0.01 notations.

The discussion and conclusions would be improved by further thoughts on the implications of their findings for managing diabetes in adolescents, i.e. novel strategies for working with difficult patients in poor control.

Some sections of the discussion and conclusions was rewritten (Pages 11-14 highlighted).

In accordance with BioMed Central editorial policies and formatting guidelines, all manuscript submissions to BMC Psychology must contain a Declarations section which includes the mandatory sub-sections listed below. Please refer to the journal's Submission Guidelines web page for information regarding the criteria for each sub-section (https://bmcpsychology.biomedcentral.com/)

All the above changes have been reflected in the manuscript in highlight text.

We hope you find the revised manuscript acceptable for publication. Thank you once again for your consideration.

Yours Sincerely,

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