Dear Editor,

Below is a point-by-point answer to reviewer´s question regarding comments from the paper: *“Increase in perceived stress correlates to lower heart rate variability in healthy young subjects”*

Sincerely,

The Authors

Answer to reviewer A

Avaliador A:

General Comment:

The paper “Increase in perceived stress correlates to lower heart rate
variability in healthy young subjects” presents an interesting
relationship between perceived stress of young volunteers and HRV. However,
it needs some clarifications, which are the specific comments in the
attached version.

Authors: Dear reviewer

We gratefully appreciate your comments and the positive feedback regarding the relevance and originality of our paper. We regret that the version provided to you contained so many typographical errors. We have verified the versions uploaded and probably due to software incompatibility the final version uploaded did not look like the text we have on file. Nevertheless, we fixed the mistakes, improved the text and hopefully answered all raised question. Thank you.

Specific comments:
 The article presents editorial errors throughout the text. Some citations
and references are not cited in accordance with the standards of the
journal.

Authors: We apologize for the typos. We reviewed the text and formatted the references following journal standards.

1. O assunto tratado no artigo é relevante para ser veiculado pela
revista?

The topic is relevant and can be linked to the journal.
Authors: We appreciate your opinion.

 2. O artigo é original?

Yes, it is.
Authors: We appreciate your opinion.

 3. O título reflete clara e suficientemente o conteúdo do artigo?

The title is adequate for the article. However, the short title contains
errors “andheart”
Authors: The short title was corrected.

4. A apresentação, a organização e o tamanho do artigo são
satisfatórios?

Yes.
Authors: We appreciate your opinion.

 5. A introdução faz uma revisão sobre o tema abordado e deixa claro o
objetivo do trabalho?

The article presents writing errors in the introduction (see highlights in
Annex), and throughout the text (possibly by the use of endNote).

Authors: We have reviewed the text and corrected typos and references in all sections. We appreciate for highlighting the typos along the text.

Example:

“intervals.Short”

“method(Task Force ESC/NASPE, 1996)”

Revise throughout the entire document. These words are connected to the
last.

Correct throughout the text: sympathovagal or sympatho-vagal

 Authors: Sympathovagal was adopted along the text

6. O item material e métodos está suficientemente claro, permitindo que o
artigo possa ser reproduzido?

The article presents writing errors in the materials and methods (see
highlights in Annex):

wereinformed

“intervalswithin”

(Kuopio, Finland).HRV

“recordings(containing”

 Authors: Typographical errors were corrected also in this section.

Page 4, line 82: ….Data was collected in 40 individuals. A total of 35
healthy young subjects (19 to 29 years old, 6 men) met inclusion
criteria….

What were the exclusion criteria for the five volunteers? Elucidate it.

 Authors: Exclusion was based on quality of signal acquisition and signal conditioning. Comments were made on the sections describing HRV analysis but, we agree with the reviewer that this information should be better described. We also took care to describe in details all inclusions and exclusion in this paper because we consider this a very important information that sometimes is omitted in other publications. Therefore, exclusions were better described in the subsection in lines 79 to 81. We hope this additional information can clarify the reasons for exclusion.

7. A discussão é pertinente e suficiente?

There was a significant correlation between PSS-14 scores and LF (ms2)
(r=-0.343; p= 0.044). However, when the data were normalized, the LF (n.u.
r=-0.005; p= 0.976) did not correlate with the index PSS-14. Elucidate it
and discuss.

Authors: We further discuss the situation in the text. In brief, absolute power spectral density in the Low Frequency range is a reflex both of sympathetic and parasympathetic activity with predominance of the first as reported by several investigators. Therefore, variations in LF could represent either absolute changes in sympathetic drive or changes in global HRV. Normalized units such as LF (n.u.) or LF(%) (and also HF (n.u) for parasympathetic drive) are used to determine the sympathovagal balance and in this case, variations in normalized LF following interventions (or when correlated to health events) are a better representation of sympathetic drive changes. In the case of our work, there were no correlation of sympathovagal balance and PSS-14 (represented by no correlation of PSS-14 and normalized units of LF or LF(%) and also HF (n.u.)); however, there is correlation of LF (ms2) and PSS-14. Therefore, this correlation could not be explained by alterations in sympathovagal balance but by alteration in global HRV, in this case, a lower HRV correlated to increased perceived stress. (lines 161 to 169)

8. Os dados justificam as interpretações?

This is related to the previous question.

 9. Há necessidade de acréscimo de algum item que possa enriquecer o
artigo?

No, there is not.
Authors: We appreciate your opinion.

 10. É necessário redução ou a retirada de alguma parte do artigo?

No, there is not.
Authors: We appreciate your opinion.

 11. As ilustrações e tabelas são necessárias e pertinentes?

CI = Confidence interval. Specify the confidence interval value (90%? or
95%?)
Authors: Thank you for the observation. CI value is 95% and is reported in the tables.

 12. As figuras são ilustrativas e apresentam boa qualidade para
reprodução?
 No, there is not.
Authors: We considered graphs exploring the significant correlations; however, they are already described in the tables and we thought it would be redundant. Therefore, we keep the paper without figures.

13. As palavras-chave são adequadas ao artigo?

The key words are appropriate.
Authors: We appreciate your opinion.

 14. O resumo dá uma boa informação sobre o trabalho?

The summary needs writing revision, once it presents words together without
spaces (versions in Portuguese and English). Review the spacing between
words.
Authors: Typographical errors were also corrected in this section.

15. As referências são adequadas e necessárias?

The references are appropriate. However, throughout the text, some are
improperly cited.

Example:

“Rozanski, Blumenthal, & Kaplan, 1999”

“(Ruha, Sallinen, & Nissila, 1997)”

(Cohen, Janicki-Deverts, & Miller, 2007).

Authors: We have corrected the improper citations along the text.

 16. As referências estão redigidas de acordo com as normas da revista?

The references should be reviewed, once they are not fitted to the journal
norms. Example: The names of journals should be written without
abbreviations.

 Authors: We carefully reviewed all reference to adequate to the journal guidelines.

17. Os autores referenciados no texto estão citados nas referências?

This issue is correct.

 18. Foi feita alguma anotação no manuscrito?

Yes, the considerations are in the attached article, VER SISTEMA ONLINE