

December 22nd, 2023

Subject: Letter to Reviewer 2,

Dear reviewer,

We thank you for your comments and your reviews. We have made changes to the introduction, the method and the discussion that we hope will answer your concerns. Below we copied your comments in red and respond to them in detail in black.

This article investigated factors associated with excessive daytime sleepiness from interview transcripts of patients with sleep disorders who reported being sleepy. The analysis of the patients' conversations for the subjective measure of sleepiness was very interesting. However, the description of the methodology was vague, the introduction and discussion were redundant, and I did not understand the problem the authors were trying to solve and the answer to it.

The problem is that excessive daytime sleepiness is difficult to define because it manifests itself in a variety of ways, and previous EDS indices have not adequately assessed patients' excessive sleepiness. Therefore, the authors investigated excessive sleepiness based on patients' daily complaints. Is my understanding correct? The introduction is like a review article, and it is difficult to understand the previous studies, their problems, and what authors want to solve in this study.

In response to your first and second comment, we modified the introduction making the rationale more concise, removing redundancy with the discussion, and formulating the aims of our study clearer.

[... the description of the methodology was vague] (repeated from above)

Is the method used in this study a form of text mining? I am not sure what the authors are trying to claim since they only describe the content of the interviews

We performed a qualitative study using an eclectic coding method and a thematic analysis. As you requested in your first, third and fifth comments, we elaborated on this in the Analysis section of the manuscript (section 5.4.)

Rather than merely reporting back what participants said, the aim is to synthesize their responses. Unlike quantitative data, qualitative data cannot be easily synthesized or reduced into tables, so instead qualitative research often demands that through thematic analysis, one seeks patterns across observations, or as Bansal and Corley (2012) mention in their advice over the publishing of a qualitative study manuscript “a story”.

In our analysis, we followed the guidelines for qualitative analysis and coding as presented by Saldana (2021). Taking the transcribed content of the interviews, we iteratively created codes (according to the coding methods cited in the Analysis section). These codes are representative of the content of the interviews. Once the initial code structure was agreed upon, we refined the codes until we could assemble them into bigger categories that covered similarities and interesting differences between participants, and offered answers to our questions. These bigger categories were the bases of the themes. In this specific type of analysis, key findings are themes, meaning the concepts and constructs taken from the verbatim discourse of participants. We report the content of this qualitative study according to the Standards for Reporting Qualitative Research (SRQR, O'Brien et al., 2014).

References:

- Bansal, P. (Tima), & Corley, K. (2012). Publishing in *AMJ* —Part 7: What's Different about Qualitative Research? *Academy of Management Journal*, 55(3), 509–513.
<https://doi.org/10.5465/amj.2012.4003>
- O'Brien, B. C., Harris, I. B., Beckman, T. J., Reed, D. A., & Cook, D. A. (2014). Standards for Reporting Qualitative Research: A Synthesis of Recommendations. *Academic Medicine*, 89(9), 1245. <https://doi.org/10.1097/ACM.0000000000000388>
- Saldana, J. (2021). *The Coding Manual for Qualitative Researchers*. SAGE.

I understood the image of the language in the interview that was being analyzed. I did not understand at all what this analysis would reveal. Please explain it more clearly with examples.

The results section was descriptive, not cohesive, and I did not understand what the key findings were.

Indeed, the results of qualitative thematic analyses are descriptive in nature, focusing on the formulation of the themes and illustrating the content of the themes with direct quotes in an organized manner. In line with what one might expect in a quantitative article, the results section aims to provide a synthesis of the data and findings. Instead, in the discussion we aim to reflect on these findings and their implications in light of the existing literature, theory, and practice. The key findings are the themes, which represent the relevant content of the full corpus collected from all participants, while the interpretations of them and their relation to scales and theoretical conceptualizations of daytime sleepiness (or other daytime complaints), are reflected on in the discussion.

We have now tried to remove any unnecessary redundancy between results and discussion by removing reflective statements from the results and repetitions of results from the discussion. In the discussion we are currently more explicit about the insights gained from these results.

Authors stated “We did this with the aims to delineate the construct of sleepiness, to clarify symptoms, and to gain knowledge on possible fluctuations over time.” However, the results section does not provide any answer to this objective.

Thank you for your reflection which helped us realize we could formulate our results and insights more clearly. We have attempted to do this by (1) slightly rephrasing the research aims, making these more clear and explicit (2) by removing the redundancy between results and discussion (making the discussion more concise) and by reformulating our insights and the implications and advice based on them more explicitly in discussion and conclusion.

Why did you choose only OSA and narcolepsy? There are many other conditions that patients claim sleepiness.

We made the choice of these two clinical populations for two reasons: one on theoretical grounds and the other due to practicality. Ideally, we would have a large variety of sleep disorders represented in our sample, as daytime sleepiness is a common complaint between narcoleptic, sleep apnea, but also insomniac patients (and in other diagnosis). Along with other researchers and clinicians, we thought that the representation of the daytime sleepiness might differ between sleep disorder diagnoses. Meaning that while in narcolepsy, daytime sleepiness relates to sleep propensity, in other disorders it relates more to “perceived sleepiness” or the “feeling of sleepiness”. As such, we wanted at least two differing sleep diagnoses in our sample to obtain a wider representation of daytime sleepiness. The two groups also show quite different age ranges, which again benefits a broader scope. On the practical level, patients affected by narcolepsy or sleep apnea are more easily reached as they often belong to cohesive patient associations (as opposed to patients who suffer from the very prevalent insomnia). We have included a brief reflection on this in the discussion (Section 3.3).

Changes can be found highlighted in yellow (Deletions appear like so: [...]).

Yours sincerely,
On behalf of the authors,
Vaida Verhoef