Review of: "Identifying Psychological Distress Patterns during the COVID-19 Pandemic using an Intersectional Lens"

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I would first like to congratulate the authors on completing research that is both timely and unique. The study used nationally representative data and applied conditional inference trees and random forests as analytical methods to evaluate how psychological distress presented for different intersecting social identities during the COVID-19 pandemic. Overall, the authors provide a clear argument for identifying how various social determinants of mental health (age, gender, race/ethnicity, income, and education) interact to influence psychological distress levels. However, I think some issues require clarification and elaboration to strengthen the impact of this research. It is my opinion that the following aspects need attention:

1. Specific study hypotheses. While this study is more exploratory in nature, the addition of specific hypothesized effects based on the provided arguments would help organize and clarify which intersecting identities might warrant further examination in the future. For example, the authors provide empirical evidence that the intersection of age, socio-economic status, and education may impact mental health, yet they do not specifically posit such an outcome in their results. Along the same lines, this paper would benefit from an elaboration of the specific expected effects of different interacting identities and corresponding hypotheses. As it is, the authors provide broad evidence that certain social identities are at risk for mental distress, but they do not specify which interactions they will analyze in their study. Consequently, the results and discussion section leave the reader unsure which intersecting identities might be worth further examination.

2. Concept clarification. When discussing intersectionality, the authors highlight the concepts of power, social inequality, and privilege are important in understanding the idea of intersectionality. However, the authors do not define these terms, nor do they provide examples of what these concepts look like through an intersectional lens. Given the current political and social landscape, I believe it is important to clarify these terms so that it is not assumed that the reader has the same understanding as the authors about such crucial concepts.

3. Conflation of sex and gender. When discussing intersectionality, the authors provide evidence of the differential effects of sex and gender on mental health. Then, identifies gender as a self-reported study variable. However, in the analysis and graphs, the authors use the term "sex" to represent the gender variable. I realize this is a bit of semantics but given the initial differentiation and the importance of the distinction, I believe it is important for the authors to maintain consistency in terms throughout the paper.

4. Justification for analysis used. The authors provide a good overview of the process involved in, and benefit of, analyzing data using conditional inference tress and random forests. However, it is not clear to the reader way these data needed to be analyzed using such methods rather than traditional methods of linear or quadratic regression.

5. More thorough discussion of study limitations, practical implications, and recommendations for future research. As noted in my first comment, I believe this paper would be strengthened by organizing findings based on hypothesized effects. Thus, enabling the authors (and the reader) to more easily identify areas ripe for further exploration. Along the same lines, to help mitigate the science-practitioner gap in research, I believe this paper would benefit from the inclusion of practical implications into discussion of research findings. Additionally, I believe this paper would benefit from a more in-depth discussion of the study limitations, such as the drawbacks of using archival data, self-report data, etc.

6. Minor points. The paper would benefit from a thorough revision consistently adhering to current APA (7th edition) formatting guidelines. Finally, this paper would benefit from thorough readthrough to ensure the text is free from grammatical errors and formatting inconsistencies, such as empty parentheses and missing preposition words.

I thank you for the opportunity to review this work and it is my belief that addressing the above aspects will strengthen this important research.