Basic reporting

Thank you for another opportunity to review the revised manuscript. The idea of this study, which is developing a new mental health model to detect the use of coping strategies under distress in social media, can significantly contribute to various fields of study. I appreciated that you revised the initial manuscript according to the reviewer's comments. Addressing the research questions directly was of great help to me (and future readers) in understanding what this study examined. However, you need to revise the manuscript further and improve the quality of your writing according to the following issues.

1. Construction of the manuscript

-Your manuscript should be described more concisely and reconstructed with appropriate subtitles. It was difficult for me to follow your points of discourse and main ideas due to the mislabeled or omitted subtitles. It is still a big chunk of text. Please refer to the index I suggest;

1. Background
    1.1. Frameworks and techniques for mental health
        1.1.1. Drive mental health model
        1.1.2. Text-based social media minding techniques
    1.2. Application to mental health
        1.2.1. DERIVE Model application for the evaluation of mental health status
        1.2.2. Text-based social media mining in MH-related applications
        1.2.3. Coping strategy analysis and detection in social media
    1.3. Drive-COPING observatory framework
2. Method
    2.1. Sample
    2.2. Analysis procedure
    2.3. Analysis contents
3. Result
    3.1. Coping strategies used in social media during COVID-19
    3.2. Bigrams related to coping
    3.3. Comparison of SA and the DRIVE model
4. Discussion
5. Conclusion

2. Clarification of your research questions

-Your newly developed model is driven by the DRIVE model (or theory), which consists of resources, demands, and coping strategies. However, your study only focused on coping strategies except for the other two components described in lines 238-239, page 5, and the review response. (Please check the sentences that are incomplete and broken.) Then, I am wondering if it is appropriate to name your model "DRIVE model-based mental coping."

You explained the DRIVE model well, including its subcomponents and definitions. It is good to know what this model refers to, but it is confusing that your model considers all three components. Then you can also delete "demands and resources" in research question 1 (Define a machine learning framework that can identify and classify individual demands, resources, and coping strategies from text posted on social media) because you defined and developed the new model considering coping strategies only.

-Figure 1 shows the holistic process of how your model is developed and can be implemented later. Please indicate visually which steps this study focused on (i.e., positive and negative coping strategies).

-Research question 3 (How are people expressing their coping strategies?) needs to be rephrased so that it directly asks what you are testing. The word 'How' encompasses various meanings. More directly, you could ask, "What kinds of words were used in social media as a way to cope with covid-related stress?"

Experimental design

You introduced various machine learning approaches that are relevant to your study, such as SA (Vander, TextBlob), EA (extension of SA), and toping modeling (LDA, STP). For readers not in this field of study but interested in mental health and management, it would be great to create a table or appendix that summarizes these machine-learning approaches so that they can easily follow your points.

Please check the use of terminology consistently throughout the text. (e.g., See page 15; TextBlob vs TextBlob SA, VANDER vs VANDER SA)

Validity of the findings

As mentioned earlier, please separate your findings according to your research questions so that you can highlight your valid findings.

Additional comments

You must be careful to mention the role of coping strategies in maintaining well-being. This study does not examine whether and how positive and negative coping strategies affect well-being. However, in conclusion, you mentioned that positive coping strategies play a crucial role in promoting well-being during times of stress. This is not the focus of your study, and your study developed a model to indicate and classify coping strategies used in social media. You do not know how it influences their well-being.

Abstract-Background

1. Line 18, MH -> Mental Health (MH)

2. **Line 150-148**

    Please reconsider if it is necessary to describe the limitations of the DRIVE model regarding moderation.

3. **Line 138, page 3**

    Is "DRIVE Mental Health Model" the title of the subsection? Then, it should be bold in the text.

4. **Line 187-204, page 4.**

    This paragraph explains the examples of coping strategies, but it seems you just listed several coping strategies without considering their subcategories. Some coping strategies were even described redundantly (e.g., problem-coping strategies and emotion-focused strategies).

5. **Line 573, page 22**

    Please add references for the 0.5 threshold.

6. Check typos/incomplete sentences thoroughly

Line 177 (i.e., research -> Research), line 238 (i.e., Previous research has consistently This paper is highlighting), line 632 (i.e., coping strategies -> Coping strategies)