

Identifying and Ranking Determinants of Emotion–Physiology Synchrony in Stress-Related Health Outcomes

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R e v i e w e r s

Reviewer 1: Ali Khodaei
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1. Round 1

1.1. Reviewer 1

Reviewer:

In the sentence “Interpersonal synchrony is not restricted to early childhood...”, the manuscript transitions abruptly from developmental to adult synchrony without discussing the theoretical mechanism linking developmental and adult synchrony. A bridging explanation or theoretical model would strengthen conceptual continuity.

The statement “Group-level alignment has been observed in collaborative problem-solving tasks...” cites multiple studies but does not clarify how group synchrony conceptually aligns with dyadic synchrony. A short explanation distinguishing dyadic versus group synchrony processes would improve conceptual precision.

The sentence “Despite the breadth of research... studies rarely synthesize determinants into a unified framework” identifies the gap but does not explain why such a framework is practically or theoretically necessary. Please expand this to highlight real-world implications.

In “Peer-reviewed journal articles, meta-analyses, systematic reviews...” you do not specify inclusion/exclusion criteria (e.g., time range, language, keywords). This limits reproducibility and threatens rigor.

The manuscript reports using “mean ranking, Friedman tests, and post-hoc comparisons” but does not justify the choice of nonparametric tests or clarify whether data violated normality assumptions.

Several concepts listed under “Physiological Threshold Variability” (e.g., “genetic predispositions,” “individual stress set-point variability”) require more precise definitions or literature justification to ensure conceptual accuracy.

Response: Revised and uploaded the manuscript.

1.2. Reviewer 2

Reviewer:

The paragraph discussing multigenerational synchrony references “sleep–wake rhythm synchrony” but the manuscript never specifies operational definitions of synchrony (HRV, RSA, cortisol, etc.). Including a brief operational definition at first use would increase clarity.

The section stating “synchrony operates within nested relational, environmental, and biological systems” would benefit from referencing established systemic models (e.g., bioecological theory, dynamic systems theory) to situate the claim within recognized frameworks.

The paragraph beginning “The first major theme, Emotional Regulation Processes...” describes each theme independently but lacks a synthesizing paragraph explaining how themes conceptually interact. Adding this would strengthen interpretive coherence.

The ranking results report mean scores but lack any indication of effect size or statistical significance between ranks. Providing Friedman test statistics and post-hoc comparison results would strengthen scientific rigor.

The caption “Figure 1: Ranking of Determinants...” does not describe the visualization format (e.g., bar chart, line plot). A more detailed caption would follow journal guidelines.

The sentence “The high rank of emotional regulation processes further emphasizes the centrality of psychological mechanisms...” may overgeneralize, as rankings were based on perceived importance, not objective physiological synchrony measurements. Please clarify this methodological limitation.

Response: Revised and uploaded the manuscript.

2. Revised

Editor’s decision after revisions: Accepted.

Editor in Chief’s decision: Accepted.