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Katie Witkiewitz, Ph.D.

Editor, *Psychology of Addictive Behaviors*

Dear Dr. Witkiewitz:

I am pleased to submit our manuscript, **Common and Unique Latent Transition Analysis (CULTA) as a Way to Examine the Trait-State Dynamics of Alcohol Intoxication**, for consideration for publication in *Psychology of Addictive Behaviors*. This study introduces CULTA—a novel statistical framework that integrates the strengths of the Common and Unique Trait-State (CUTS) model with Latent Transition Analysis (LTA)—to capture both the stable (trait-like) and transient (state-like) components of alcohol intoxication dynamics among young adults engaged in heavy episodic drinking.

Using continuous data from transdermal alcohol concentration (TAC) sensors collected over a six-day period, our research identifies two distinct latent intoxication profiles. One profile reflects consistently high intoxication levels (high trait HED), while the other captures more moderate, episodic patterns (state HED). Notably, our findings indicate that while most individuals exhibit transient intoxication dynamics, a subset demonstrates persistent heavy drinking behaviors, with transitions between profiles significantly influenced by baseline alcohol use risk as measured by the AUDIT. These insights have important implications for tailoring interventions and screening strategies to mitigate the risks associated with sustained heavy drinking.

We believe that our work will be of great interest to your readership, as it not only advances methodological approaches in modeling alcohol consumption but also offers actionable insights for both clinical practice and public health policy. The innovative use of wearable TAC sensors to obtain near-real-time data further underscores the potential of our approach to improve understanding and intervention in addictive behaviors.

This manuscript has not been published elsewhere and is not under consideration by any other journal. All authors have approved the final version and agree with its submission to *Psychology of Addictive Behaviors*.

Thank you for your time and consideration. I look forward to your feedback.

Sincerely,

Ivan Jacob Agaloos Pesigan, Ph.D.

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