

P55 A stress reduction supplement improves acute PROMIS depression and stress scores in a clinical study

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Objective: The objective of this study was to evaluate the effects of a proprietary branded L-theanine ingredient on perceived stress and overall mental health outcomes in a healthy adult population.

Methods: A six-week, randomized, double-blind, placebo-controlled clinical trial was conducted virtually with 600 participants recruited based on interest in improving perceived stress levels. Participants were assigned to receive either L-theanine or placebo, taken daily with breakfast. Validated instruments were used to assess outcomes, including PROMIS Anxiety 4A, PROMIS Depression 4A, PROMIS Cognitive 4A, and the NIH Toolbox Perceived Stress Survey. Analyses were performed on an intent-to-treat (ITT) population, defined as participants who completed baseline assessments and at least one week of the study. Minimal Clinically Important Difference (MCID) analysis was applied to determine meaningful participant-centered improvements.

Results: Significant improvements in perceived stress scores were observed as early as week 1 in the L-theanine group compared to placebo among participants aged 40 and above. Additionally, PROMIS Depression 4A scores showed statistically and clinically meaningful improvements at week 1 in the overall population, with more pronounced effects in subgroups reporting prolonged stress, females, and individuals aged 40+. These early improvements suggest acute effects of L-theanine on mood and stress regulation. However, by the end of the six-week period, differences between groups diminished, as the placebo group showed catch-up effects over time.

Conclusions: L-theanine demonstrated a rapid, clinically meaningful reduction in perceived stress and depressive symptoms in specific populations, particularly within the first week of supplementation. These findings highlight its potential as a fast-acting, natural solution for acute stress support. While benefits were not sustained beyond week 1 relative to placebo, the early response suggests L-theanine may be particularly valuable in situations requiring short-term stress relief.