

# GABA LP815®

for long-lasting dual-action stress and sleep support



## HEALTH INDICATION



Stress/Mood/Sleep

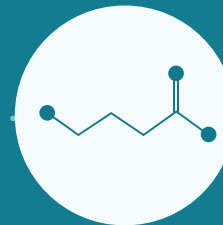
## MECHANISMS OF ACTION



Gamma-aminobutyric acid (GABA) is a neurotransmitter responsible for slowing the stimulation of certain nerve signals in the brain, resulting in a calming effect.

LP815 has been shown in human clinical trials to increase levels of GABA in the body, and these levels remain elevated during supplementation.

## STRAIN IDENTIFICATION/OPTIMIZATION



LP815 is a proprietary strain of *Lactiplantibacillus plantarum* isolated from over 250 million variants for its ability to produce high levels of GABA within the GI tract's neutral pH range. When given orally, LP815 acts as a GABA factory in the gut.

## Benefit Areas<sup>2,3</sup>

- ✓ Helps reduce feelings of irritability
- ✓ Promotes a calm mood
- ✓ Supports a healthy stress management
- ✓ Supports deep restorative sleep
- ✓ Helps relieve night sweats

**68%** of participants reduced stress<sup>1</sup>

**77%** of participants improved sleep<sup>1</sup>

### RELEASE PROFILE

Sustained

### FEEL THE EFFECT

Clinical findings show GABA levels rise within one week, with users reporting reduced stress and improved sleep by week four.

### HEALTH NEEDS

Dual-action stress and sleep support

### FORMATS

Add LP815 in capsules, powders, tablets, kombucha, yogurt

### RECOMMENDED DOSE

5 billion CFU per day // 50 mg of GABA Probiotic, LP815

GRAS | Allergen-free | Produced in the USA |



# Clinical trial summary — stress & irritability

## Clinical evidence – 2025

This study is the largest to date investigating the impacts of a gut GABA-producing probiotic. [Read the peer-reviewed publication in \*Beneficial Microbes\*](#)<sup>2</sup>.

### Goal

To investigate the impact of *Lactiplantibacillus plantarum* 815 (LP815) on stress.

### Endpoints

- Evaluate impact on stress through the General Anxiety Disorder-7 (GAD-7) questionnaire
- Monitor heart rate variability via a wearable (Fitbit)

### Design

Randomized, double-blind, placebo-controlled, decentralized, wearable-device clinical trial in the United States approved by the Advarra Institutional Review Board (IRB).

### Method

- Healthy American adults with mild to moderate symptoms of anxiety (n=83), age 39 ± 13 years, 63% female and 64% Caucasian
- 1 billion CFU or 5 billion CFU of LP815 or placebo consumed daily in a capsule format
- Conducted over a 7 week period with one week of baseline data followed by 6 weeks of product or placebo use

### Results

5 billion CFU of LP815 significantly reduced stress in a diverse cohort of adults at 4 and 6 weeks following daily consumption.

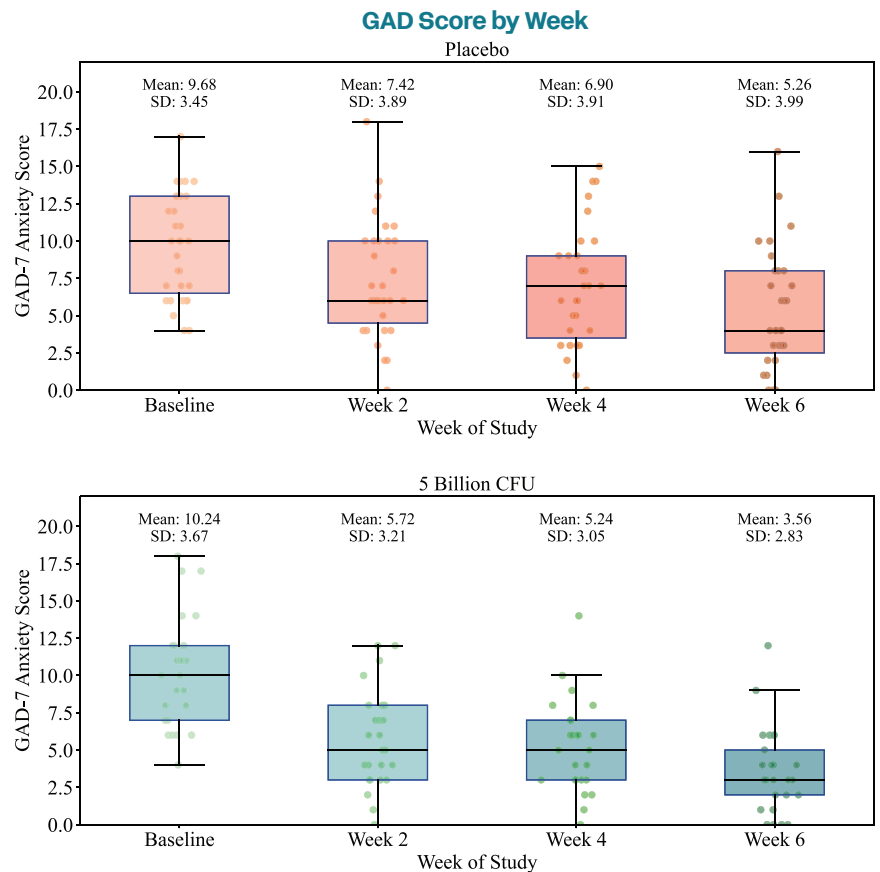
These results suggest GABA Probiotic, LP815 delivers a prolonged release of GABA for **stress, mood, and irritability** support.

### 68% of participants reduced stress

Participants receiving 5 billion CFU of LP815 exhibited significantly lower GAD-7 scores at weeks 4 and 6 compared to placebo (p<0.05). **68%** of participants' GAD-7 total score improved at week 6 in the 5 billion CFU cohort, as compared to 26% of the placebo cohort.

Those taking LP815 reduced their stress by 6.68 points compared to 4.42 points in the placebo reflecting a 151% greater improvement.

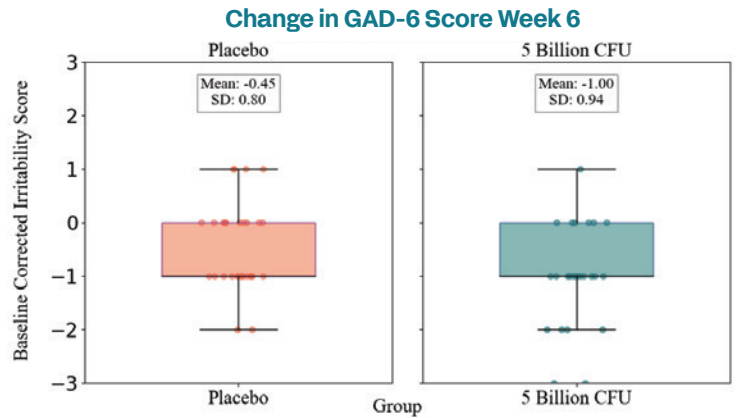
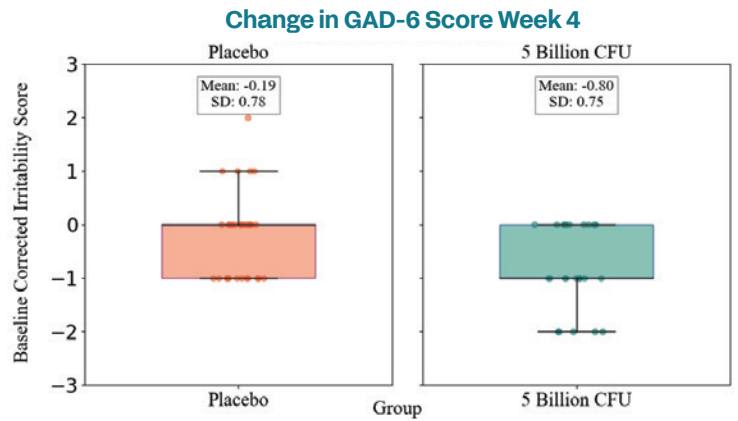
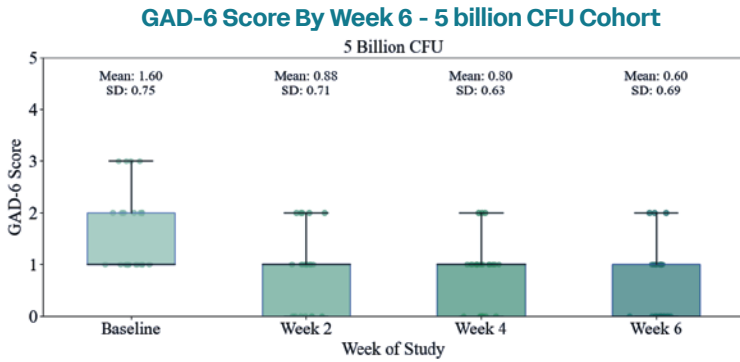
- Dots represent individual participants' data



## Reduced irritability & annoyance

Participants receiving 5 billion CFU of LP815 exhibited significantly fewer feelings of irritability and annoyance compared to the placebo;  $p=0.04$  at week 4.

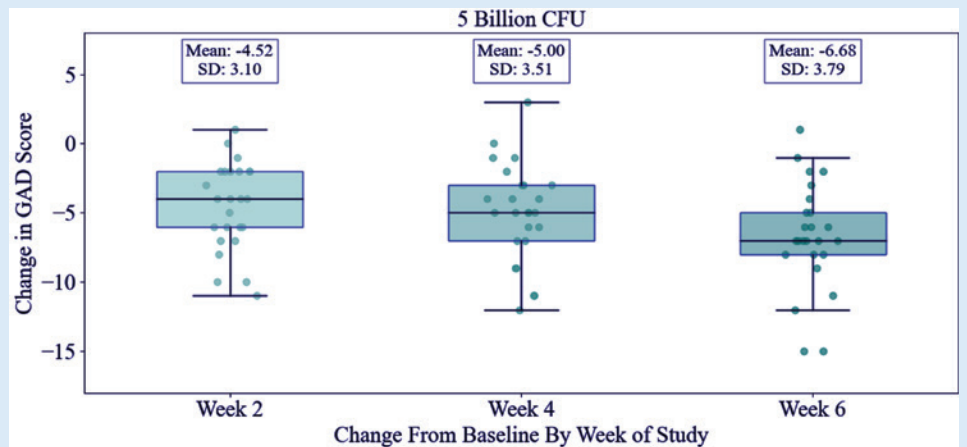
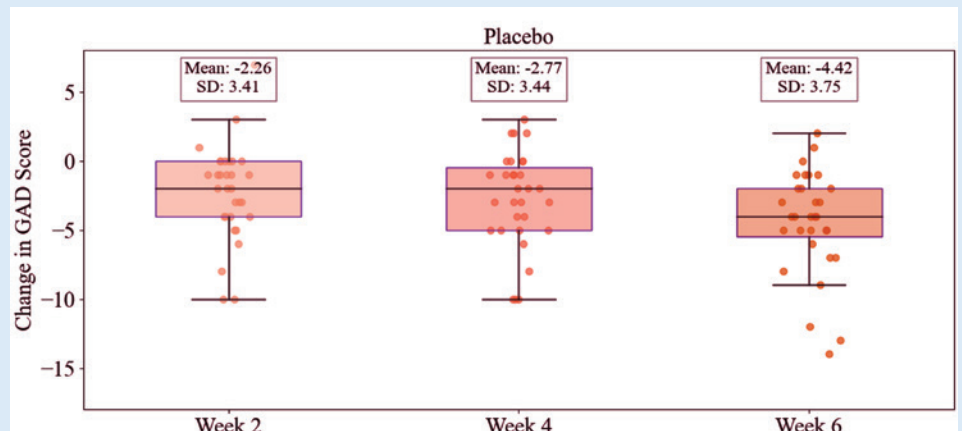
• Dots represent individual participants' data



## Change in GAD Score at Weeks 2, 4, and 6

### Benefits as early as 2 weeks, reach significance at 4 weeks

By week 2, participants receiving 5 billion CFU of LP815 reduced their stress by 4.52 points compared to the placebo at 2.26 points. At week 4, participants receiving 5 billion CFU of LP815 dropped their stress by 5 points compared to the placebo at 2.77 points.



# Clinical trial summary — sleep quality & urinary GABA

Clinical evidence - 2025: *MedRxiv*<sup>3</sup>

## Goal

To investigate the impact of *Lactiplantibacillus plantarum* 815 (LP815) on sleep quality and as a sub-study, determine if LP815 impacts systematic GABA levels.

## Endpoints

- Evaluate sleep through the Insomnia Severity Index (ISI) Score and Daily Sleep Quality log
- Monitor sleep via an Oura smart ring wearable for time in bed, total sleep, and deep and light sleep metrics
- Sub-study: Urinary GABA Neurotransmitter Levels

## Design

Randomized, double-blind, placebo-controlled trial, decentralized, wearable-device clinical trial in the United States approved by the Sterling Institutional Review Board.

These results suggest GABA Probiotic, LP815 improves overall sleep duration as well as deep sleep duration, reduces night sweats, and increases urinary GABA.

## Method

- Healthy American adults with self-reported sleep disturbance (n=139) screened for at least moderate difficulty falling asleep, age  $44 \pm 13$  years, 51% female and 56% Caucasian
- 5 billion CFU of LP815 or placebo consumed daily in a capsule format
- Conducted over a 7 week period with one week of baseline data followed by 6 weeks of product or placebo use
- Sub-cohort n=17 submitted urinary samples

## Results

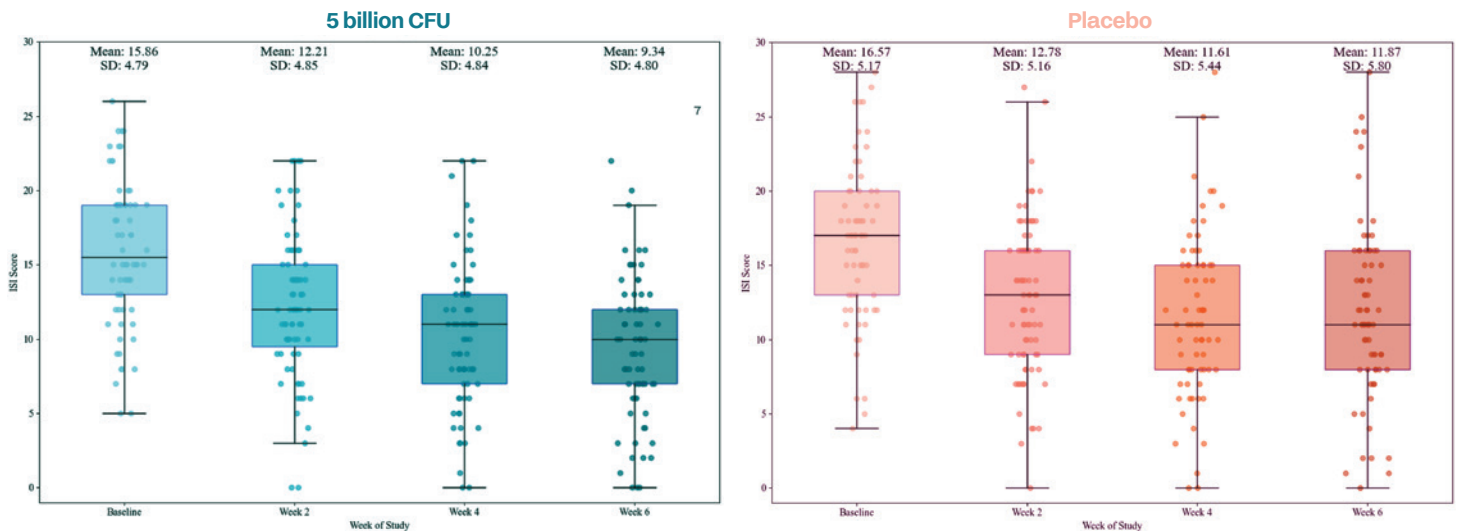
- 5 billion CFU of LP815 significantly improved sleep (falling asleep, staying asleep and waking up too early) compared to the placebo at week 6
- Night sweat intensity significantly decreased in those taking 5 billion CFU of LP815 over the study period
- Time asleep as well as deep sleep duration was significantly greater in subjects who received 5 billion CFU of LP815 compared to the placebo group from day 7 through 42
- A sub-study provides preliminary evidence that LP815 may increase systematic GABA levels within the first week of use

## 77% of participants improved sleep

Participants who received 5 billion CFU of LP815 exhibited significantly lower insomnia index scores at 6 weeks compared to the placebo ( $p=0.02$ ). 77.3% of participants in the LP815 cohort exhibited improvement by 4+ points at week 6 compared to 57.8% in the placebo group.

- Dots represent individual participants' data  
\*Filtered for ISI scores of at least 1+

## Insomnia Severity Index Raw Scores

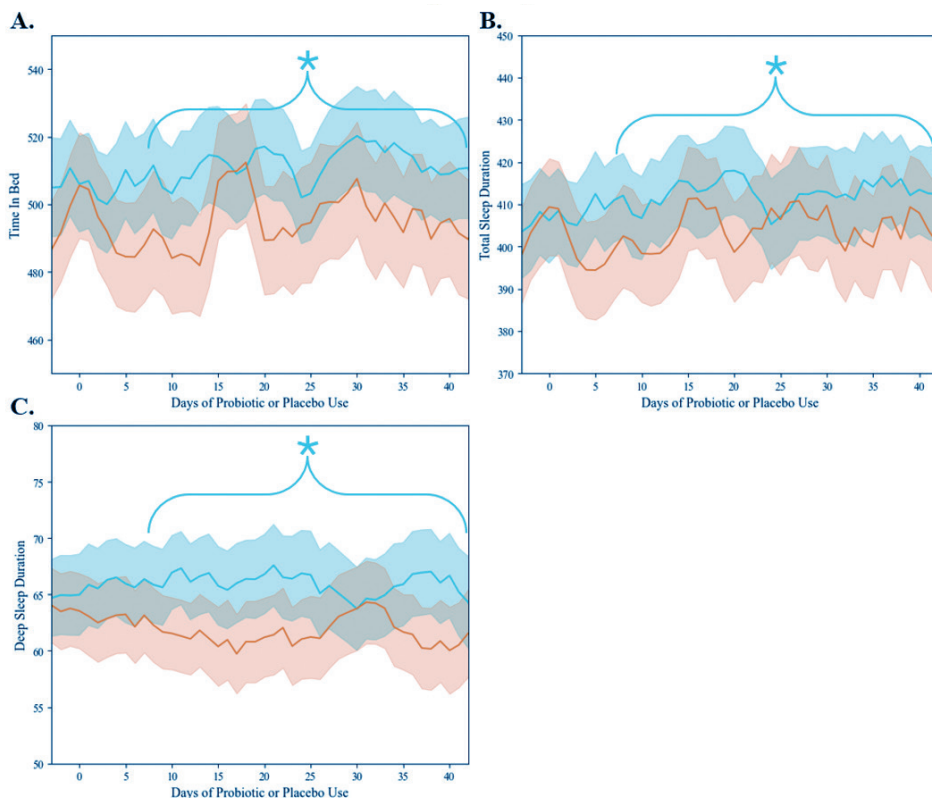


**5 Billion CFU** exhibits longer time in bed, total sleep duration, and deep sleep duration

## Longer total sleep and deep sleep duration

LP815 significantly increased sleep duration metrics measured through a wearable Oura Ring. Time in bed, total sleep duration, and deep sleep duration was significantly longer in the LP815 cohort compared to the placebo ( $p < 0.05$ ).

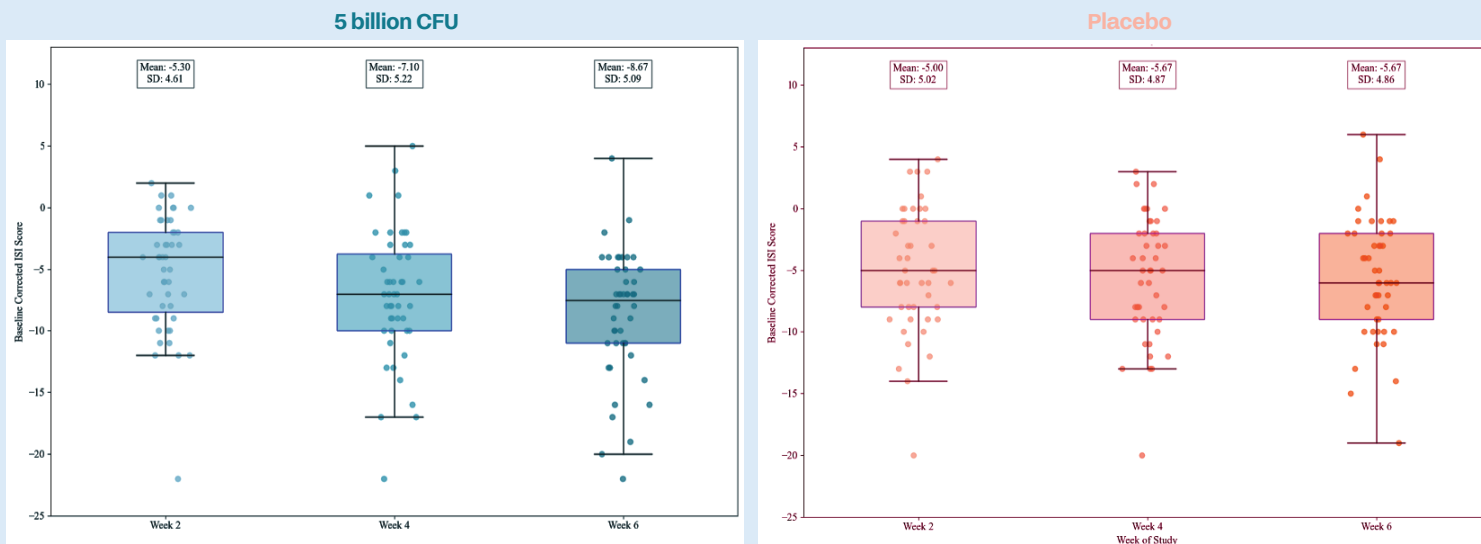
*\*5 billion CFU of LP815 = blue and Placebo = orange. Star indicates significant difference between groups over the bracketed time window, day 7-42 of intervention.*



## Increased sleep severity corresponds to a greater improvement

Participants with moderate sleep disturbance ( $n=48$ ) and severe sleep disturbance ( $n=10$ ) taking LP815 experienced statistically significant improvements by week 6 ( $p=0.01$  for both groups) and  $p=0.06$  by week 4.

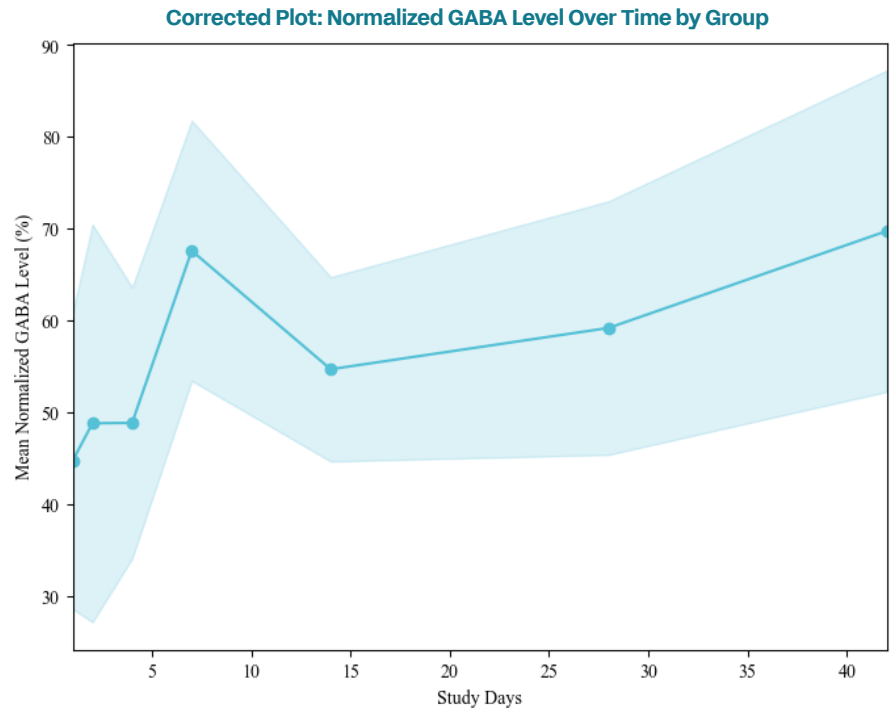
### Insomnia Severity Index Baseline Corrected With At Least Moderate Starting Insomnia



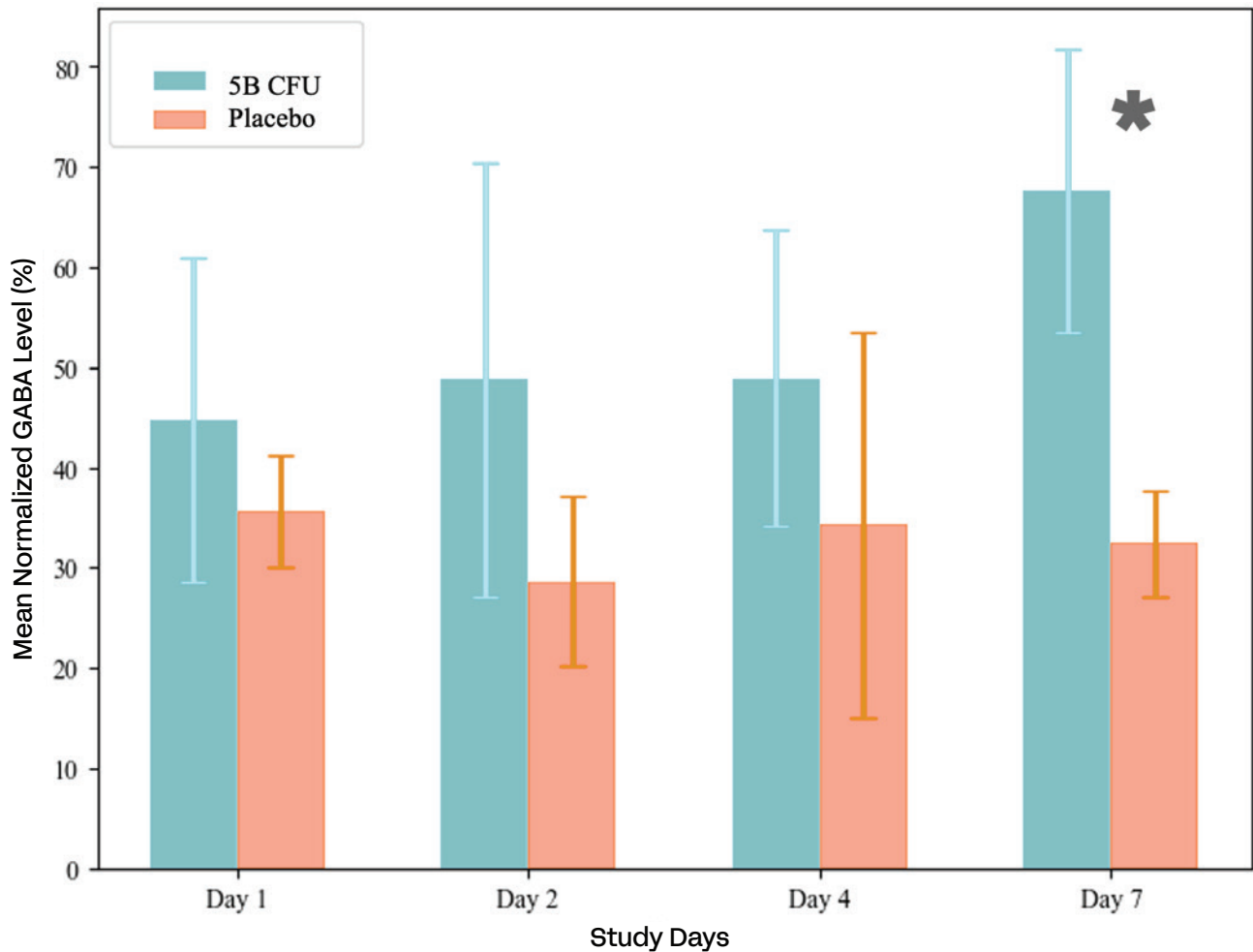
*\*5 billion CFU reduced within-individual insomnia severity index to a greater degree, ( $p=0.005$  for week 6)*

## Urinary GABA Levels Increased

Subjects who received LP815 exhibited an increase in urinary GABA compared to the placebo during the first week of use ( $p < 0.05$ ) which was associated with improved sleep and reduced stress at week 2. GABA levels increased rapidly in the first week and were relatively stable through week 6 ( $p = 0.04$ ).

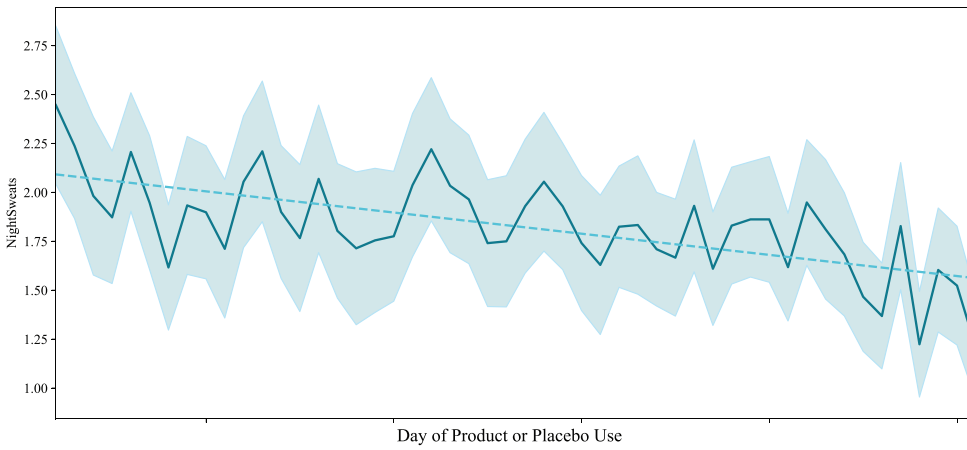


## Comparison of GABA levels on Days 1, 2, 4, 7



## Night Sweats Significantly Decrease Over Time in 5 Billion CFU

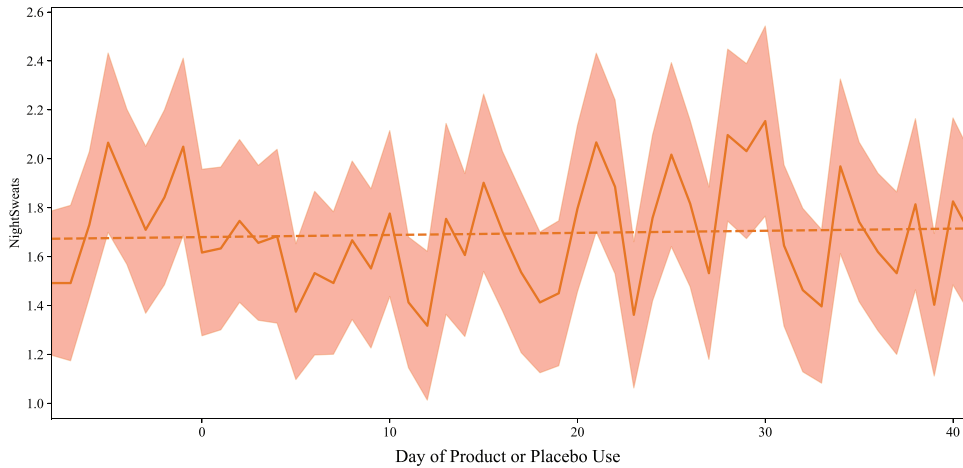
5 Billion CFU



### Night sweats decreased

Night sweats significantly decreased over time in the LP815 cohort ( $p < 0.05$ ). Mixed effects model showed no difference in night sweats by sex, age, or ethnicity.

Placebo



## Clinical takeaways

**68%** of participants receiving 5 Billion CFU of LP815 reduced their stress, reflecting a 151% improvement in stress compared to the placebo cohort.

Those taking LP815 felt **reduced stress** starting at week 2 and significance was reached by week 4.

**77%** of the LP815 cohort exhibited better sleep by week 6.

Urinary GABA levels for the LP815 cohort **increased rapidly** in the first week and **remained stable** through week 6.



## Let's talk!

Partner with us to innovate and disrupt with differentiated, targeted biotic ingredients.

Scan the code or email us at [sales@verbbiotics.com](mailto:sales@verbbiotics.com) to talk to our sales team.



[VERBBIOTICS.COM](https://www.verbbiotics.com)

## Sources

1. Verb Biotics Consumer Health Survey, July 2024, N=2,018
2. Grant, A.D., Erfe, M.C.B., Delebecque, C.J., Keller, D., Zimmerman, N.P., Oliver, P.L., Youssef, B., Moos, J., Luna, V., & Craft, N. (2025). *Lactiplantibacillus plantarum* LP815 decreases anxiety in people with mild to moderate anxiety: a direct-to-consumer, randomised, double-blind, placebo-controlled study. *Beneficial Microbes*. <https://doi.org/10.1163/18762891-bja00073>
3. Azure D. Grant, Marie Crisel B. Erfe, Camille J. Delebecque, David Keller, Noah P. Zimmerman, Amy Kazaryan, Paige L. Oliver, Jordan Moos, Veronica Luna, Noah Craft. GABA Probiotic *Lactiplantibacillus plantarum* Lp815 improves sleep, anxiety and increases urinary GABA: a randomized, double-blind, placebo-controlled study. *medRxiv* 2025; <https://doi.org/10.1101/2025.04.14.25325830>

  
Improving health through microbiome innovation

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