

HIIT & Psychological Stress Among UCSD Student-Athletes



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Background

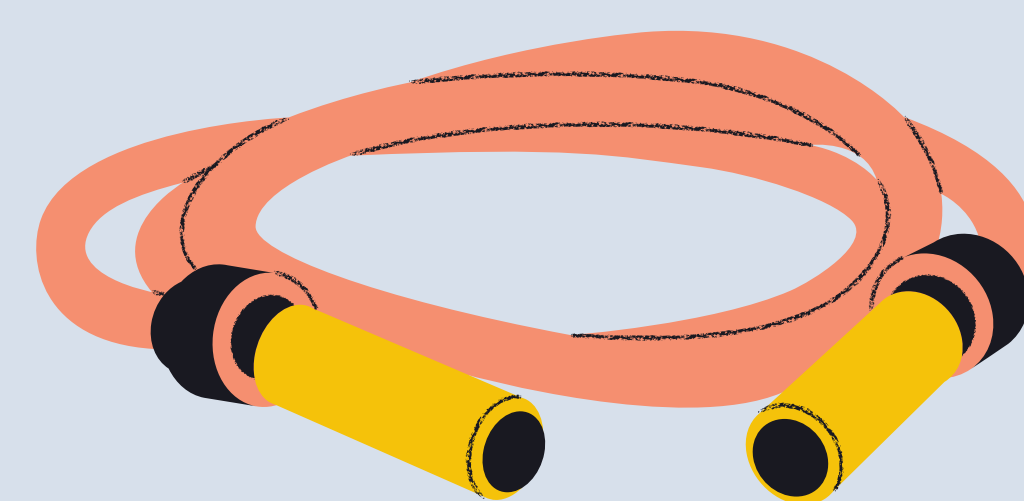
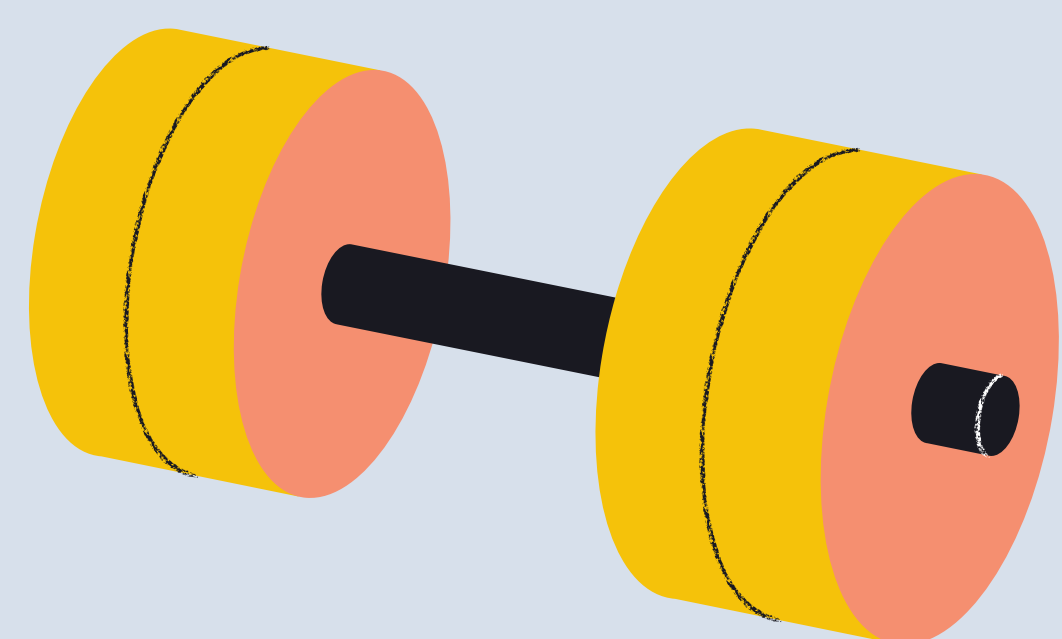
- High-intensity interval training (HIIT) involves short intervals of high-intensity exercises followed by a recovery period
- HIIT enhances resilience and reduces stress, anxiety, and depression || 8-30 minutes of HIIT can also improve cognitive performance

Objective

To examine if there is an association between higher engagement in high-intensity exercise and lower psychological stress among UC San Diego Division I student-athletes.

Methods

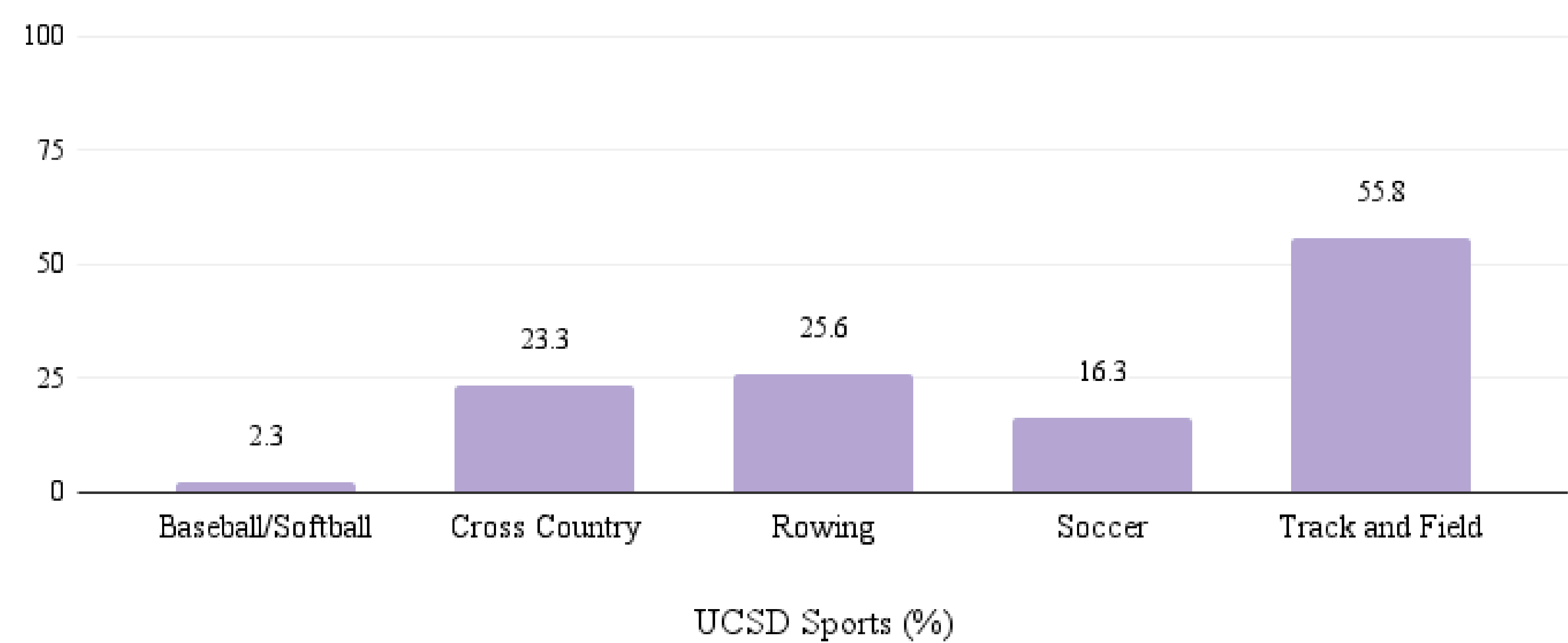
- **Cross-sectional study** || 14-item anonymous online survey distributed to the UCSD sports department
- **Exposure:** frequency of HIIT measured in days per week || adapted from the International Physical Activity Questionnaire (IPAQ-SF)
- **Outcome:** psychological stress measured on a 5-point Likert-type scale || adapted from the Perceived Stress Scale (PSS)



Results/Findings

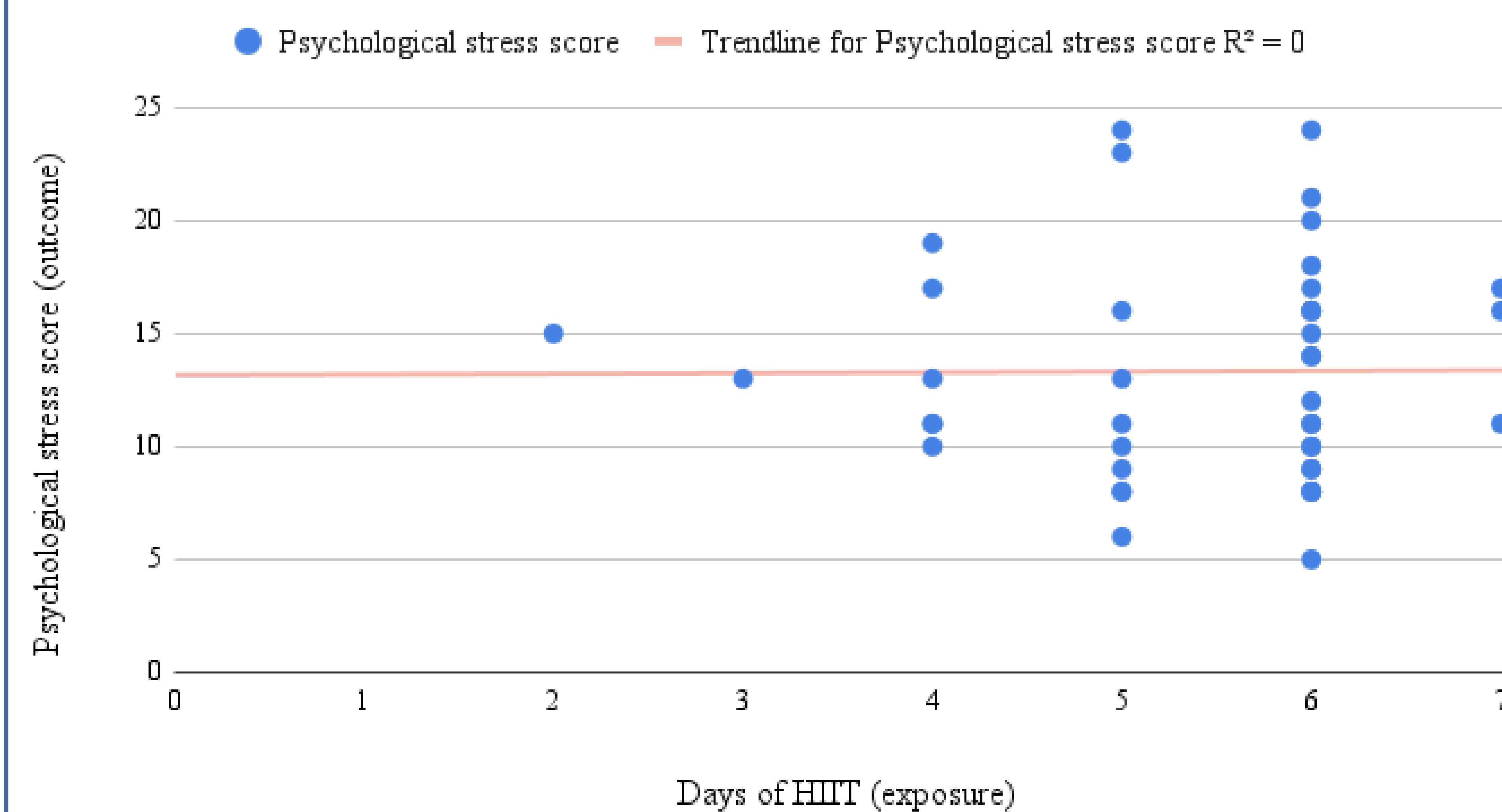
- Our study consisted of 43 participants
 - 60.5% were male and 39.5% were female

Figure 1. What UCSD sport(s) do you play?



- 55.8% of the responses were from the track and field team
 - 10 respondents participated in both cross country and track and field

Figure 2. Correlation between HIIT and psychological stress



- Psychological stress scores ranged from 5 to 24 || average score of 13, indicating moderate stress
- Our study yielded a **p-value of 0.55**

Conclusion

- A **weak positive relationship** exists between HIIT and psychological stress scores, which is consistent with previous literature, however the results suggested no significant difference
- Based on the obtained p-value, the study **failed to support the hypothesis** that higher engagement in HIIT is associated with lower psychological stress in UCSD student-athletes

Implications

- Develop interventions that promote engagement in high-intensity physical activities and stress-coping mechanisms
- Promote HIIT and on-campus counseling and psychological services among student-athletes

