

GENDER DIFFERENCES IN THE RELATION TO SEASONAL PATTERNS TO MOOD CHANGES IN COLLEGE STUDENTS



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BACKGROUND INFORMATION

- Previous research has indicated that abrupt weather changes are stressors and negatively affect people's emotional state (Spasova, 2010)
 - Mood sensitivity emerges during winter months rather than spring months in individuals
 - Individuals felt more lethargic, lonely and moody during winter months
- Those who are severely impacted by seasons are clinically diagnosed with Seasonal Affective Disorder (SAD) in the DSM-V (APA, 2013)
 - Women have a significant higher prevalence rate of SAD than men and overall mood fluctuation throughout the seasons of the year (Chotai et al., 2003)
- Researchers found that mood and behavior patterns clearly depend on specific seasons of the year in college students (Rohan & Sigmon, 2000)
 - College-aged participants felt worst, gained more weight, sleeping patterns increased and socialized less during winter months
 - In the summer time, college-aged participants well-being increased, lost most weight, sleeping patterns decreased, slept less and socialized more

HYPOTHESES

- I hypothesize that women will have a higher Global Seasonality Score (GSS) than men.
- I hypothesize that college-aged women experience more seasonal fluctuations in mood, socialization, sleep, eating patterns and weight gain than men do.

HYPOTHESES

Participants:

- 46 college students from California (n = 41), New Jersey, Colorado and Massachusetts
- 54% Female & 45% Male, Mean age= 22
- 45% White, 20% Hispanic/ Latino, 15% Asian

Instruments:

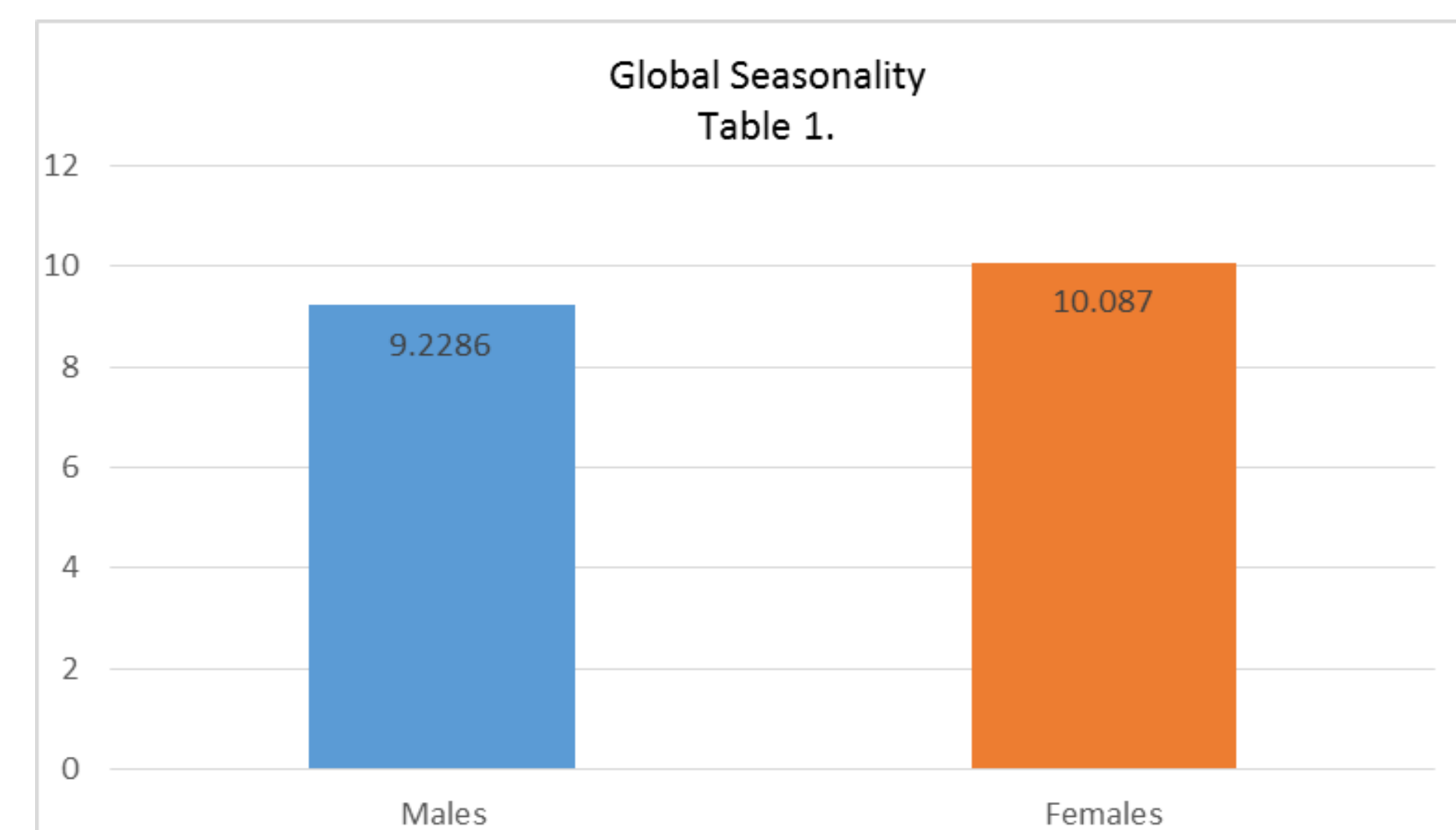
- Seasonal Pattern Assessment Questionnaire (SPAQ; Rosenthal, 1984)
- Rosenthal's Subscale Global Seasonality Score (GSS) Revised in (2015), scaled 0= not at all to 4= extremely marked change

Procedure:

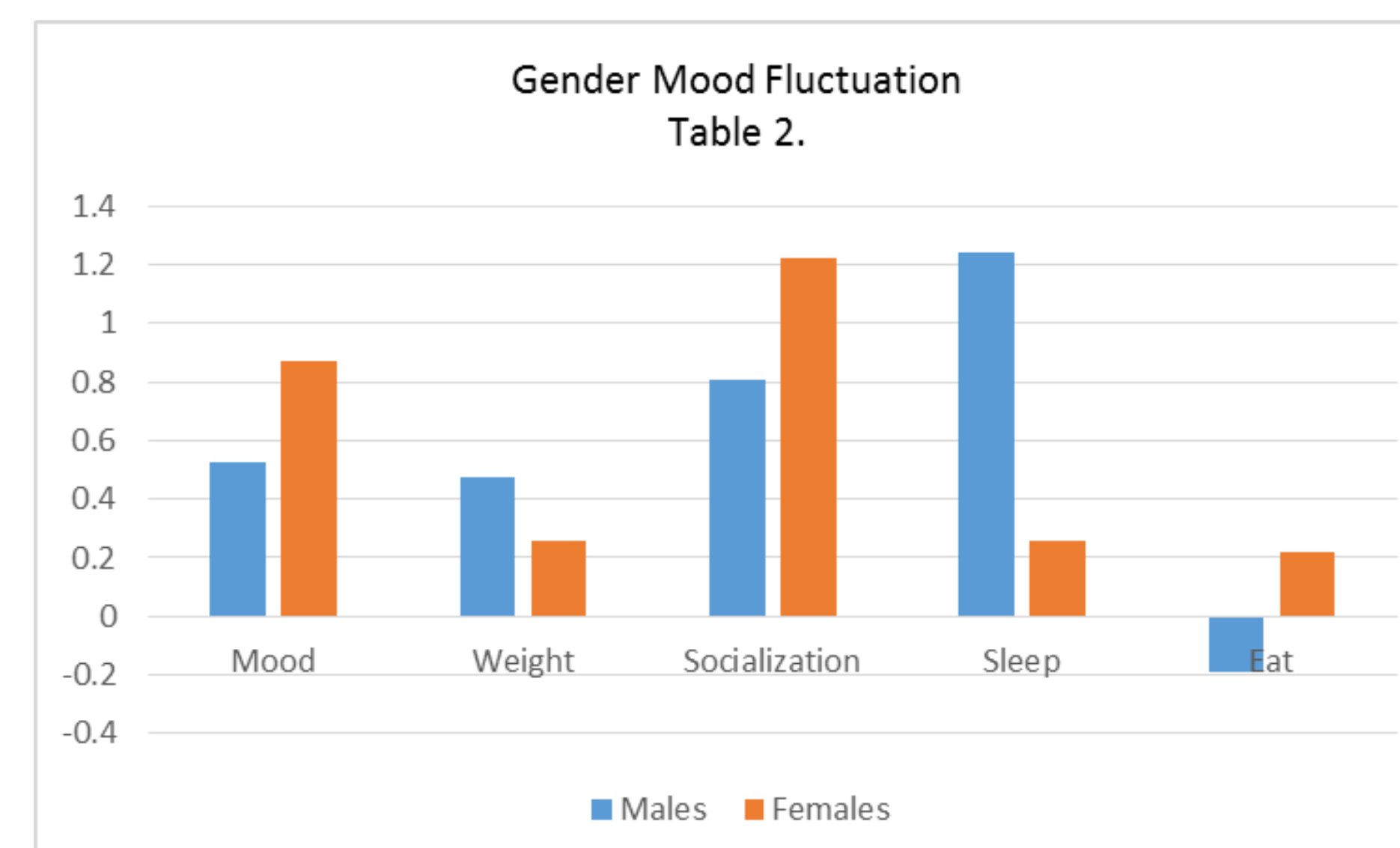
- 10 minute online questionnaire
- 10 questions assessing sleep, socialization, mood, weight, appetite and energy

RESULTS

- Two independent samples t-tests demonstrated no significant differences between the two groups
- Positive scores indicate better mood fluctuations and negative scores indicate worse mood fluctuations

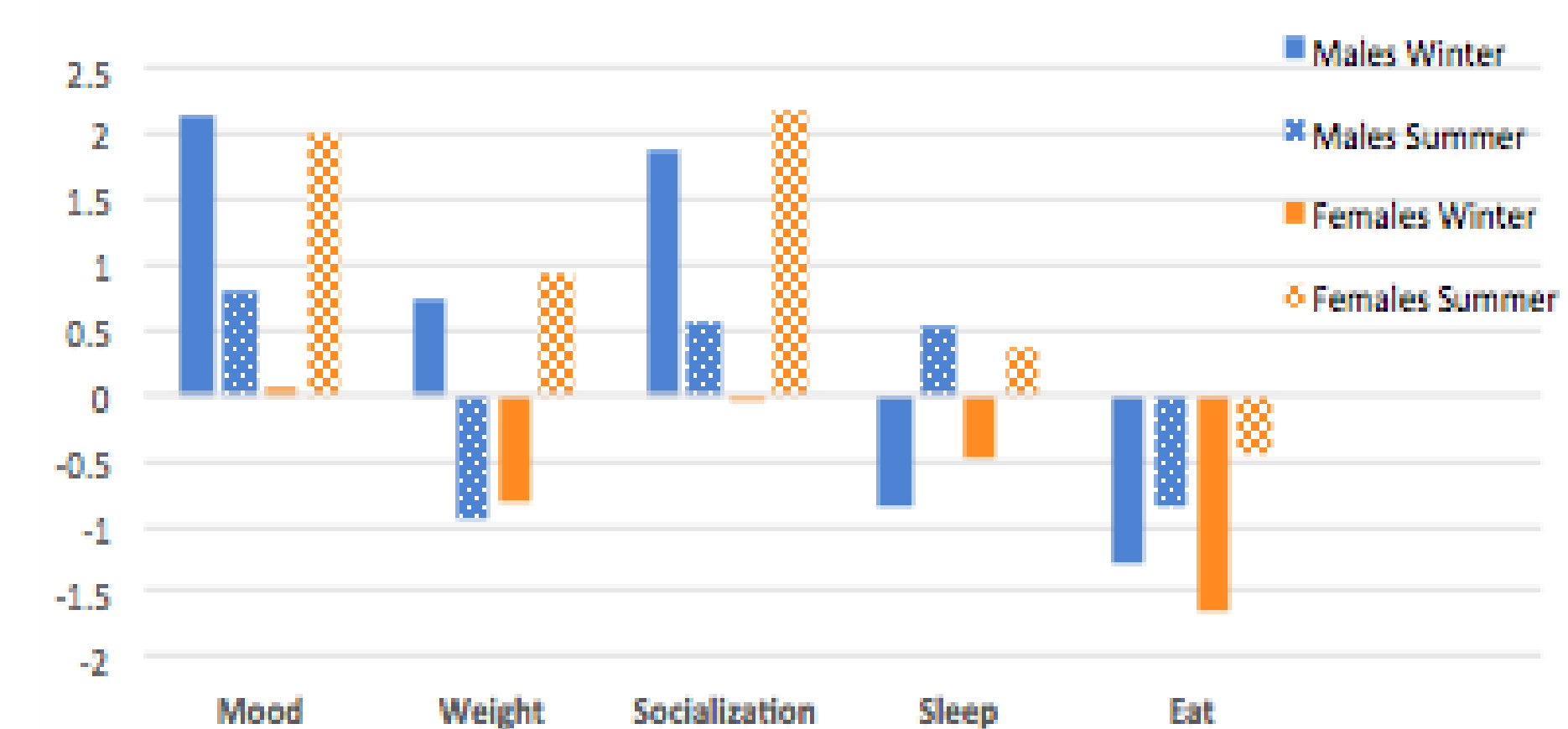


- Table 1. No gender difference in Global Seasonality Scale (GSS) ($t(42) = -.541, p < .05$)



- Table 2. No gender difference in mood fluctuations between Summer and Winter

Supplementary Analysis



- Table 3. Paired-Samples t test; Significant findings in individuals mood fluctuations between Summer and Winter

DISCUSSION

- There is a body of work dedicated to the study of how weather impacts our overall moods and how it is associated to gender differences
- However, most recent studies have not closely examined college-aged students in the U.S. as their population
- The results of the current study do not support a gender difference in seasonality
- This outcome was the result of *limitation* in this specific experiment and not a confirmation that the hypotheses are false:
 - Lack of participation of college students from other more "seasonal states" with more adverse seasonal patterns
 - Californians may not categorize December as part of the traditional fall season, unlike other states
 - Statistically, women are more prone to have diagnoses of SAD and depression (Young et al., 2008)
 - Sunlight and darkness impact the levels of neurotransmitters and hormones in our brain (ex: melatonin and serotonin levels) (Roeklein & Rohan, 2005)
 - Individuals may have over- reported or underreported their symptoms

OTHER DISCOVERIES

Supplementary Analyses were ran with the intent to draw more conclusions about the data collected:

- 50% Sleep the most in the month January
- 62% Feel their best in June
- 60% Feel their best in July
- 54% Eat the most in December
- 54% Socialize the most in July
- 47% Gain the most weight in December
- 45% Eat the most in November

FUTURE RESEARCH

- A 12-month longitudinal study that analyzes participants' reported feelings during each month of the year (Mollin, Mellerup, Scheike, Dam, 1996)
- Future research on gender differences in relation to seasonality who attend college with more severe seasons other than just CA
- Future research might help understand why onset mood disorders are developed in college-age students (Henriques, 2014)