

Apr 4th, 11:00 AM - 1:30 PM

## Mindfulness and Power Posing Interventions to Decrease Emotional Distress

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Carlson, Lydia; Bohnenblust, Cori; and Johnson, Jacklyn, "Mindfulness and Power Posing Interventions to Decrease Emotional Distress" (2017). *Annual Graduate Student Symposium*. 5.

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# Mindfulness and Power Posing Interventions to Decrease Emotional Distress

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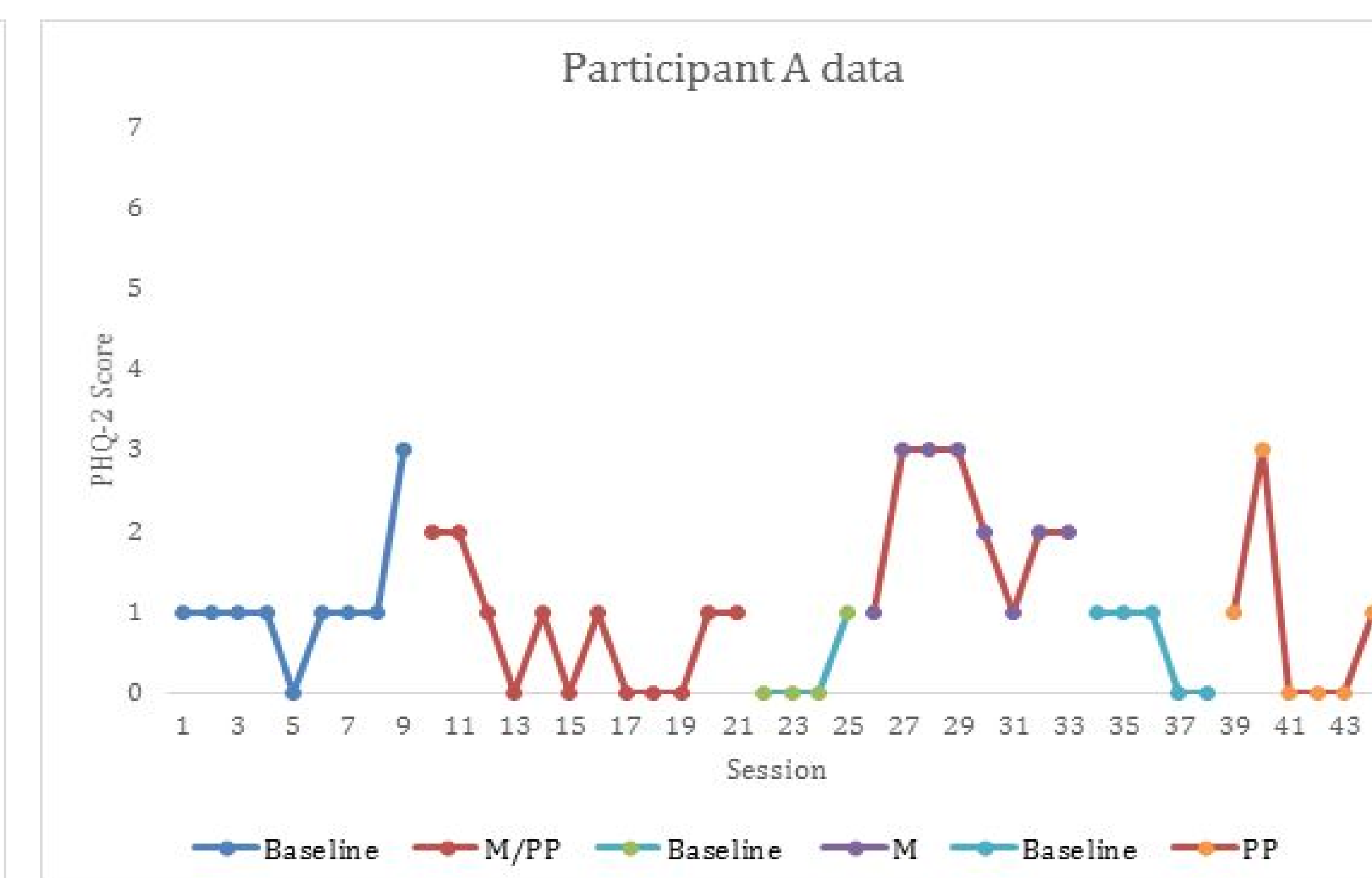
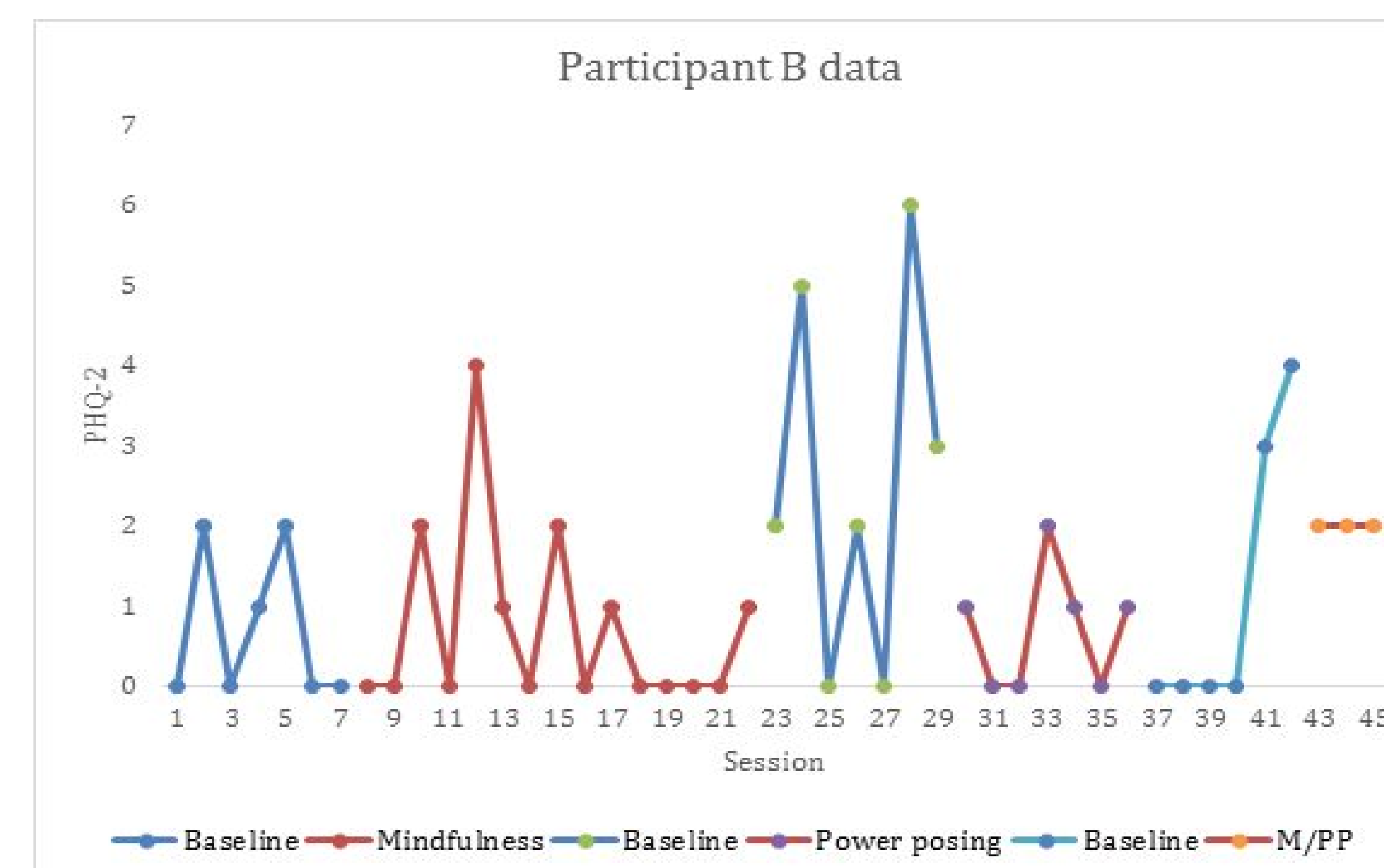
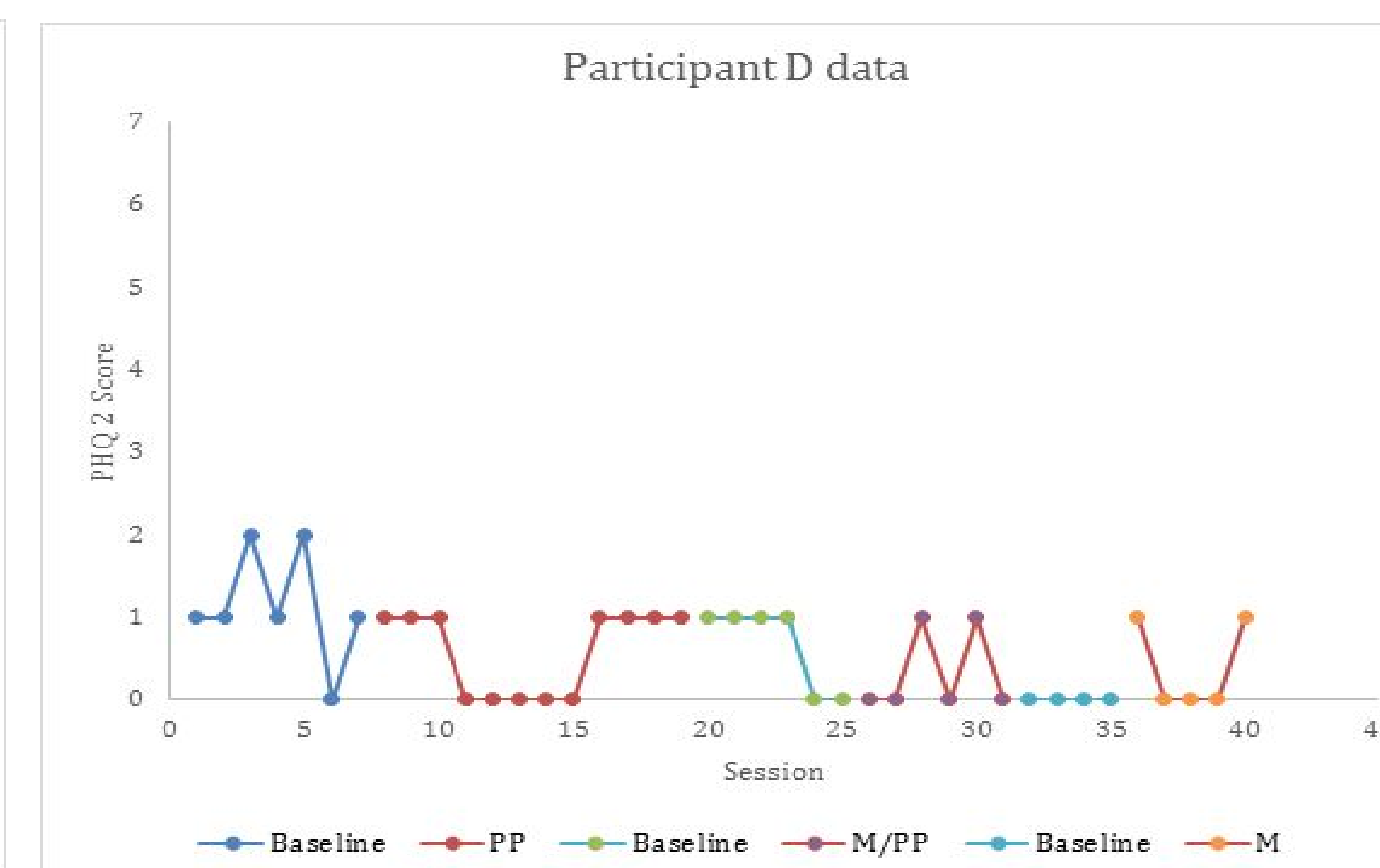
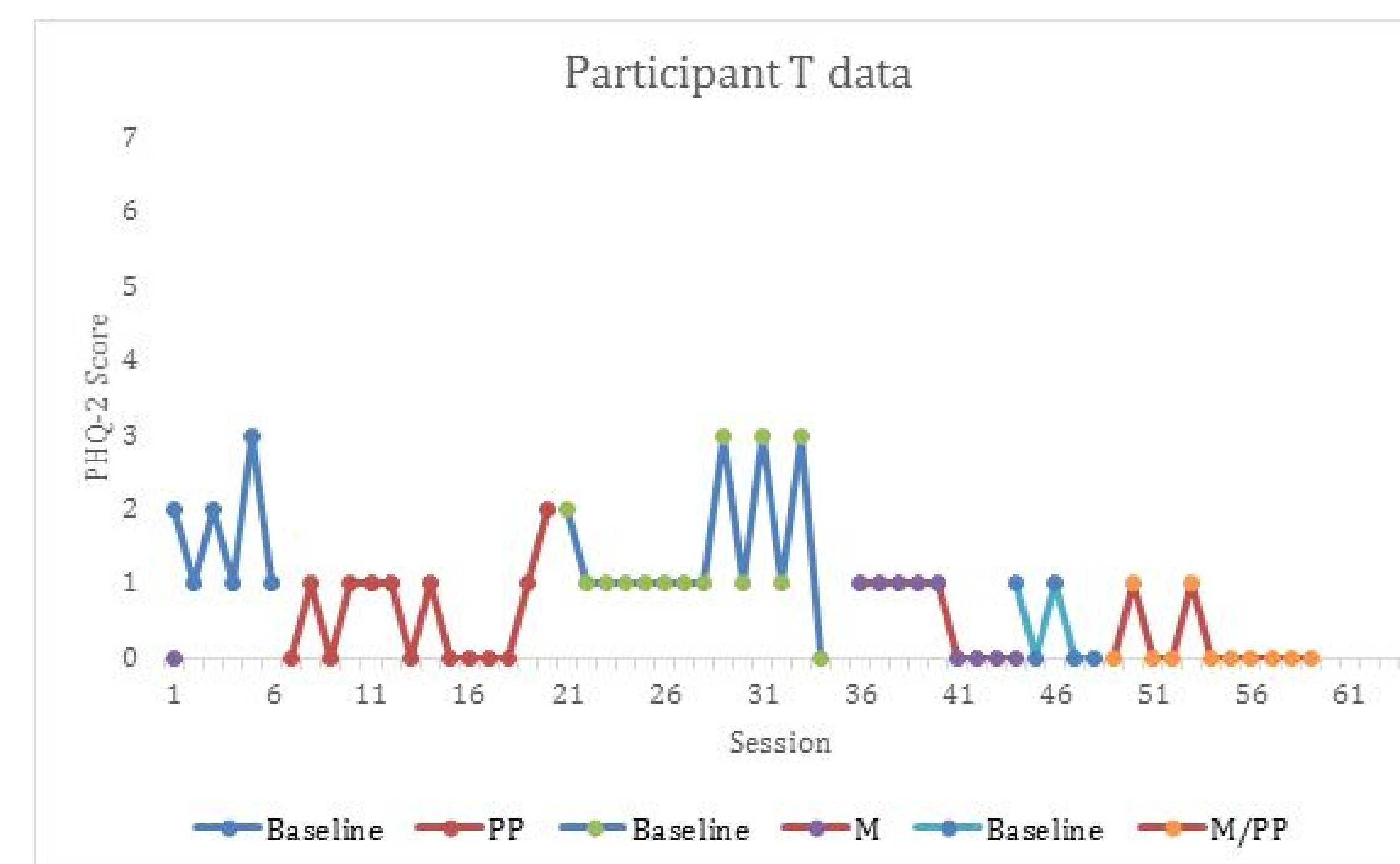
## Introduction

- Increased mindfulness has been correlated with decreases in negative physiological and psychological processes and increases in desired physiological and psychological processes (Bostic et al., 2015; Kabat-Zinn, 2005)
  - E.g., anxiety, chronic pain
  - E.g., Response to medication treatments
- Researchers suggested that power posing increased testosterone and decrease cortisol (Carney, Cuddy, & Yap, 2010)
  - Leading to increase in feelings of power and self-confidence
  - Not replicated (Ranehill et al., 2015)

## Methods and Materials

- Participants: 4 college freshman from a Midwestern university
- Students were asked to complete a measure of emotional distress, CESD-R; those who reported a moderate level of emotional distress were invited to participate in the interventions
- Single case design: ABACAD
- Students randomly assigned to order of intervention implementation
- Participants taught mindfulness, power posing and a combination intervention - mindful power posing (practicing mindfulness while in a power pose)
- Participants implemented intervention once per day and rated their emotional distress using the Patient Health Questionnaire – 2
- Daily practice and emotional distress recorded daily on a Google form
- Return to baseline conducted for one week between each two week intervention phase, continued to monitor emotional distress daily
- Repeated CESD-R screener at end of intervention

## Results



Pre and Post differences in CESD-R scores (no post intervention data was gathered for Participant A):

- Participants D and T had reductions on the total score of over 25 points from initial CESD-R.
- Participant D had a 83% reduction in score on the appetite subscale of the CESD-R suggesting an increased appetite after intervention.
- Participants B, D, and T all had slight reductions in scores on the guilt subscale suggesting improved view of self.
- Participant B had small increases in scores on the fatigue and agitation subscales suggesting decreased alertness and increased restlessness. While this participant reported an overall decrease in emotional distress, her score remained in the moderately distressed range after participating in the interventions.

Implementation Integrity:

- Participants were trained by PI prior to beginning each intervention phase, but were responsible for daily independent intervention adherence and monitoring of emotional distress
- Participants did not fully adhere to daily practice of the intervention and progress monitoring
- No integrity checks on the quality of the interventions
- Integrity of intervention completion was varied from 45%-100%

## Conclusions

- Interventions have a slight effect on emotional distress; one not more effective than another.
  - Participant A showed lower emotional distress during mindful-power posing combination compared to other intervention phases, but no different than baseline levels
  - Participant B showed lower emotional distress during power posing
  - Participants T and D seemed to benefit from intervention, but not one intervention over another. Possible that first intervention lowered emotional distress.
- Conclusions tentative due to:
  - Implementation integrity issues
  - Partial return to baseline, inconsistent baseline
- Limitations
  - Students participation level
  - Small number of PHQ-2 daily questions
  - Studies have arisen suggesting power posing is not an effective way of changing state of mind
- For future studies
  - Increase participation
  - More representative sample

## References

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