

An Exploration of the Utility of ACT to Increase Tolerance to Induced Pain

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Introduction

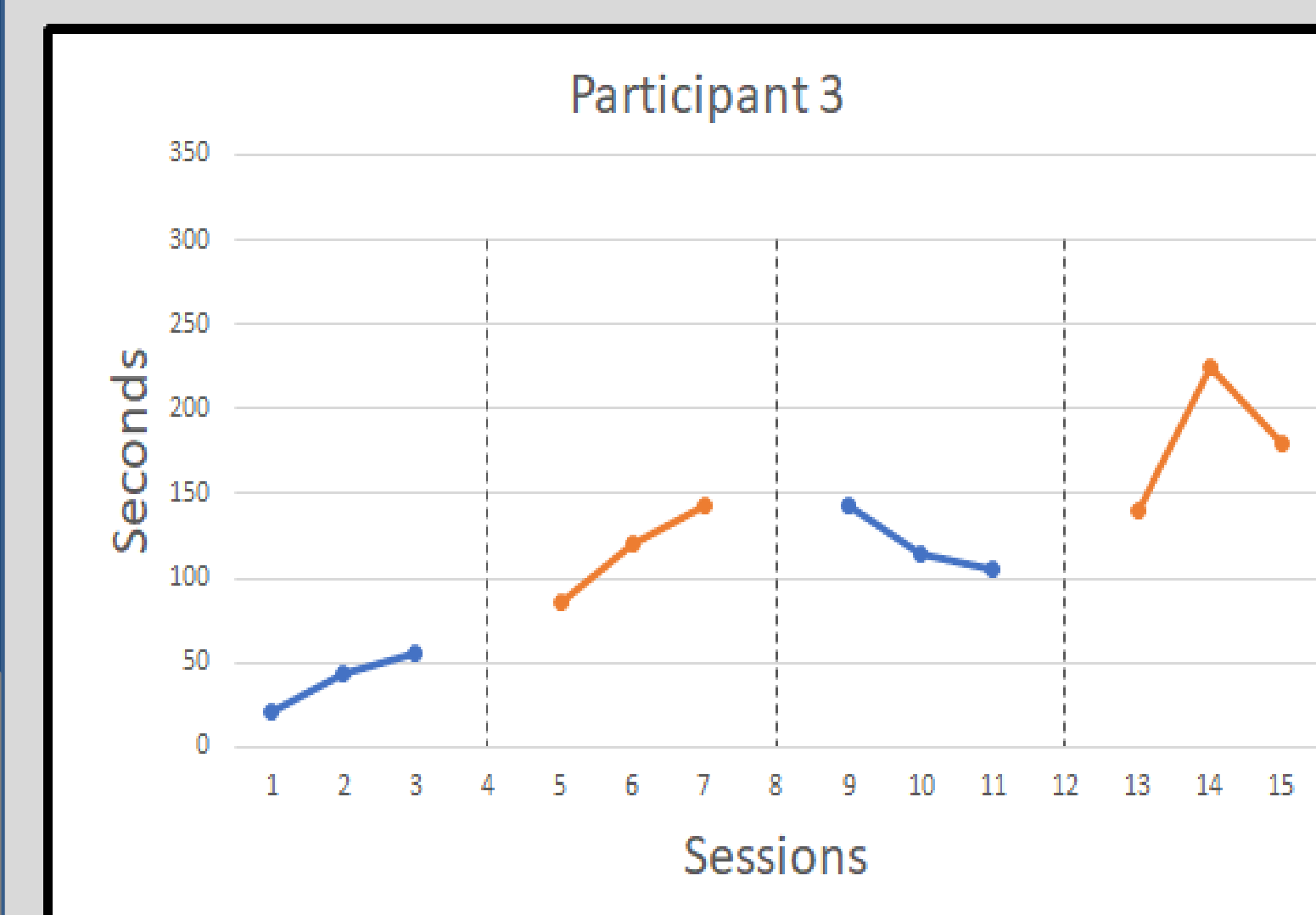
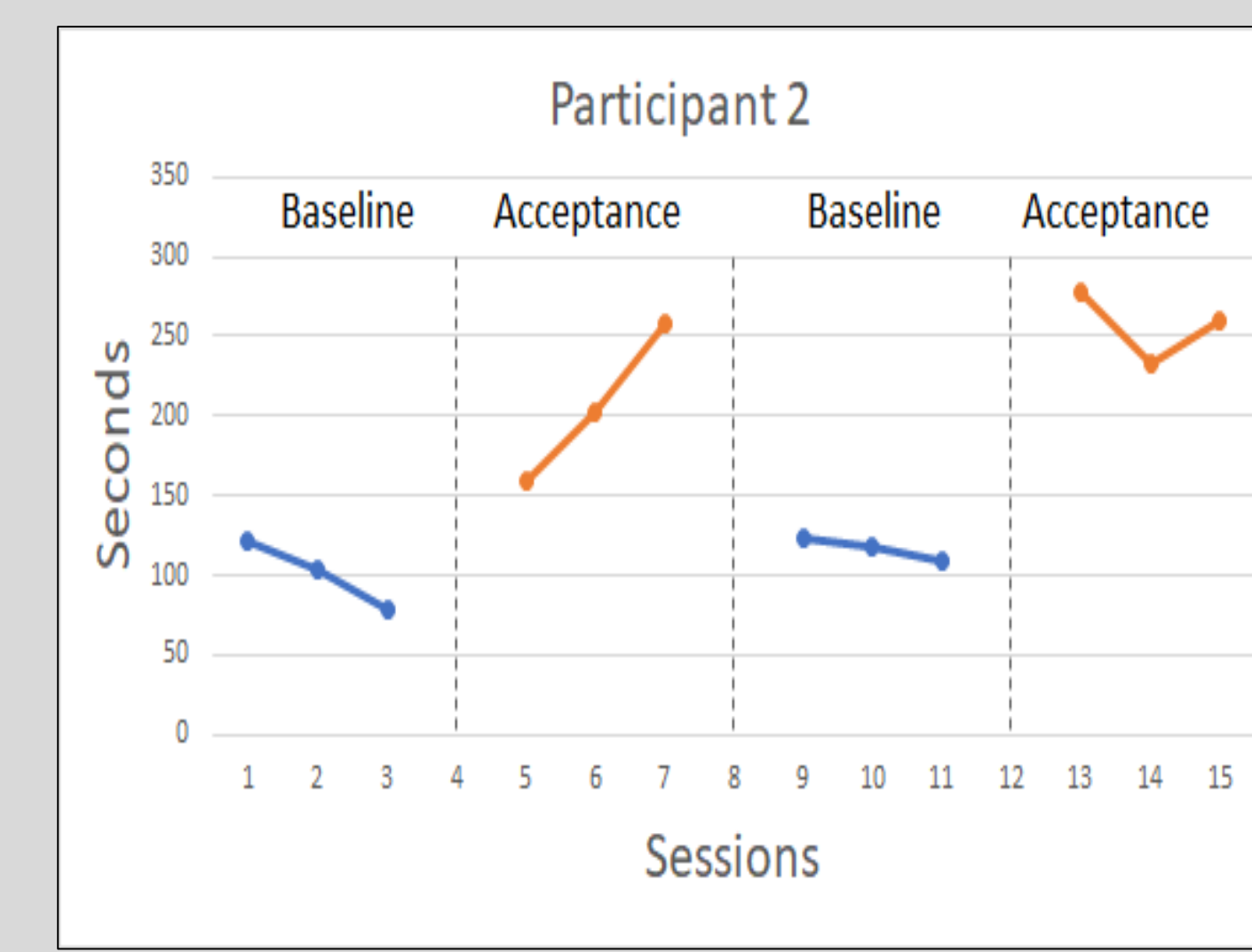
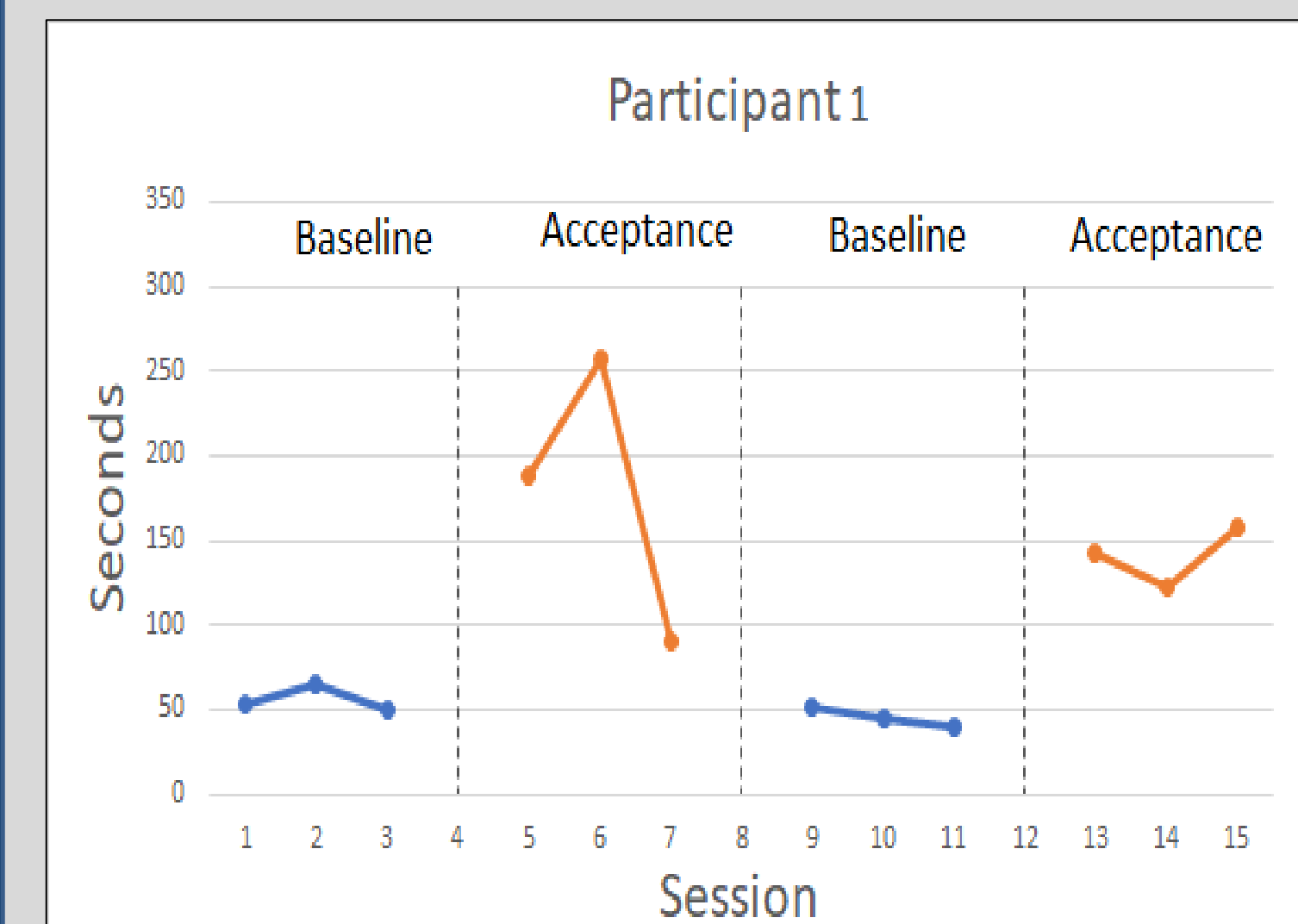
- Acceptance and Commitment Therapy (ACT) is a third-wave form of Cognitive Behavioral Therapy.
- The goal of ACT is to decrease avoidance of internal discomfort while promoting behavioral changes congruent with one's values (Hayes et al., 2006).
- Leeming (2016) explored the utility of ACT to increase mental toughness among high performance athletes
- ACT has been effective for increasing tolerance to chronic pain (Vowles & McCracken, 2008).
- However, few studies have explored the potential efficacy of ACT when pain is systematically induced.

Research Question: Does acceptance have a meaningful impact on the duration one can withstand induced pain?

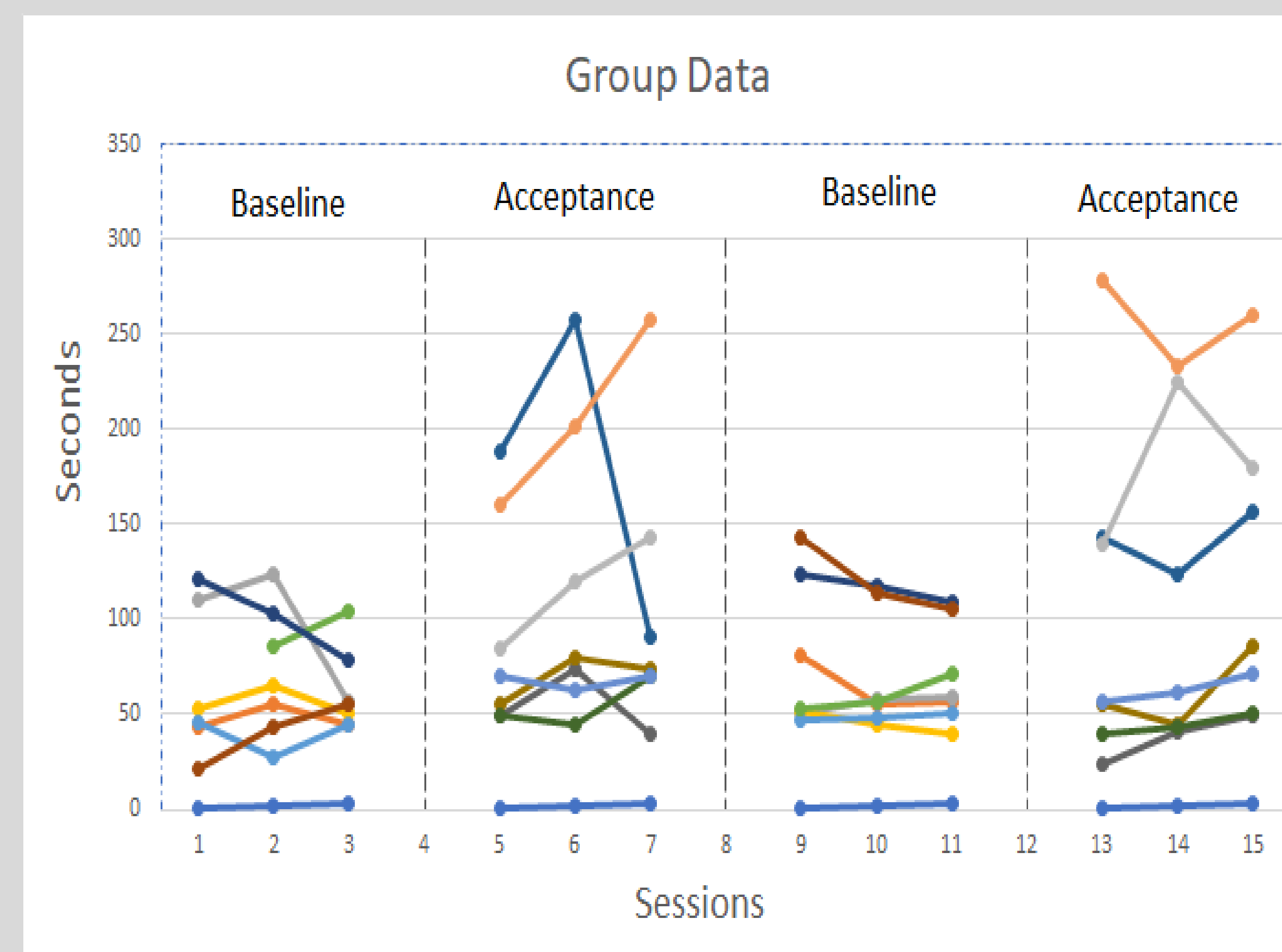
Methodology

- Participants (n=7) completed an ABAB reversal design
- A=Baseline, B=Acceptance
- Participants completed 4 sessions, via Zoom
- Frostbite Safety Information Obtained from the Mayo Clinic
- In each session:
 - Modified Cold Pressor Test: Participants required to hold a 1.5 inch ice cube against their tongue and soft palate
 - 3 Trials
 - 2 Breaks
 - Variable Time Schedule of Questions
- Baseline: "Are you continuing to hold the ice in place?"
- Acceptance: "Are you willing to continue while experiencing what shows up?"

Results



- $F=(1,18) 7.53, p < 0.013$
- Participants 1 and 2 demonstrated a reversal
- Participant 3 had an effect, but no reversal
- 2 participants demonstrated reversal
- 1 participant demonstrated an effect, but did not show a reversal
- All other participants showed little to no effect



Discussion

- **Summary of Results: We found a significant difference between acceptance and baseline conditions.**
- Potential Applicability:
 - Acceptance-based interventions for soldiers training for interrogation
 - Could inform acceptance-based interventions for first responders
- Limitations:
 - Numbness
 - Distractions from the natural environment
 - Low motivation to attend to experimental demands and lack of attention
 - Procedural fidelity failure- one participant exceeded the maximum time
- Future Research Directions:
 - Add attention checks
 - Run similar procedures in real-world settings (e.g. with soldiers in training, pregnant mothers giving birth etc.)
 - Look into generalization and maintenance of ACT skills in participants

References (APA format)

- Hayes et al. (2006). Acceptance and Commitment Therapy: Model, processes and outcomes, Elsevier 2006
- Stoddard, J. A., & Afari, N. (2014). The Big Book of ACT Metaphors: a practitioner's guide to experiential exercises and metaphors in Acceptance and Commitment Therapy. New Harbinger Publications.
- Vowles, K. E., & McCracken, L. M. (2008). Acceptance and values-based action in chronic pain: a study of treatment effectiveness and process. *Journal of consulting and clinical psychology, 76*(3), 397.