

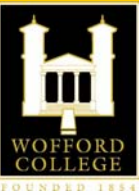
# Effects of Worry on the Perception of Pain

Laura Depko, Mary Kate  
Ferguson, Melanie Orr, Sally  
Roberts

# Introduction

---

- Pain
  - Common experience
  - Often related to punishment
- Descartes' theory
  - Mechanical system
  - Pain signal is an alarm
  - Injury = Pain



# Introduction

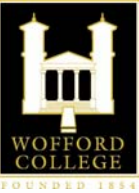
---

- The Gate-Control theory
  - Gating mechanism in the CNS
  - Pain is modified and not equivalent to injury
  - Pain can be affected by psychological factors
    - Negative affect increases pain
    - Positive affect decreases pain

# Introduction

---

- Catastrophic Worry
  - Definition of worry in general
  - Excessive worry directed into the future
  - Focused on personal inadequacies
  - Couched in “what-if” statements
  - Ruminative
    - Stop Rules



# Introduction

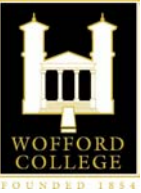
---

- Hypotheses:
  - Increasing catastrophic worry about pain, will lead to increased pain
  - Differential effect depending on the type of worry
    - General worry versus Pain specific worry

# Methods

---

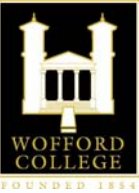
- Sample
  - 39 Participants (16 males, 23 females)
  - Minimum of 6 months of persistent pain
  - Mean age 25.7 years (SD = 12.4)
  - Majority were Caucasian
  - Recruited from Wofford faculty, staff, students
  - Compensated for participation
  - IRB approval



# Methods

---

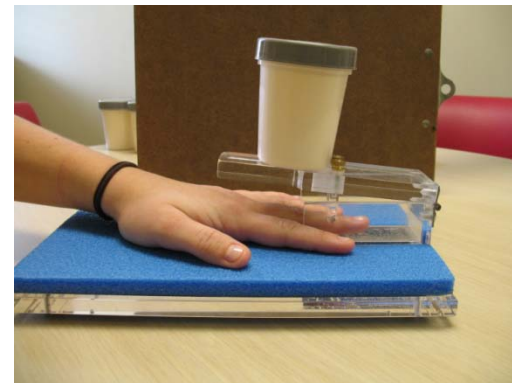
- Questionnaires
  - Completed on-line
  - Demographics
  - Pain
  - Worry
  - Coping
  - Affect



# Methods

---

- Forgionne-Barber
  - Pressure algometer
  - 4 weights (Light, Medium, Heavy, Extra Heavy)
  - Pre and Post interview





# Methods

---

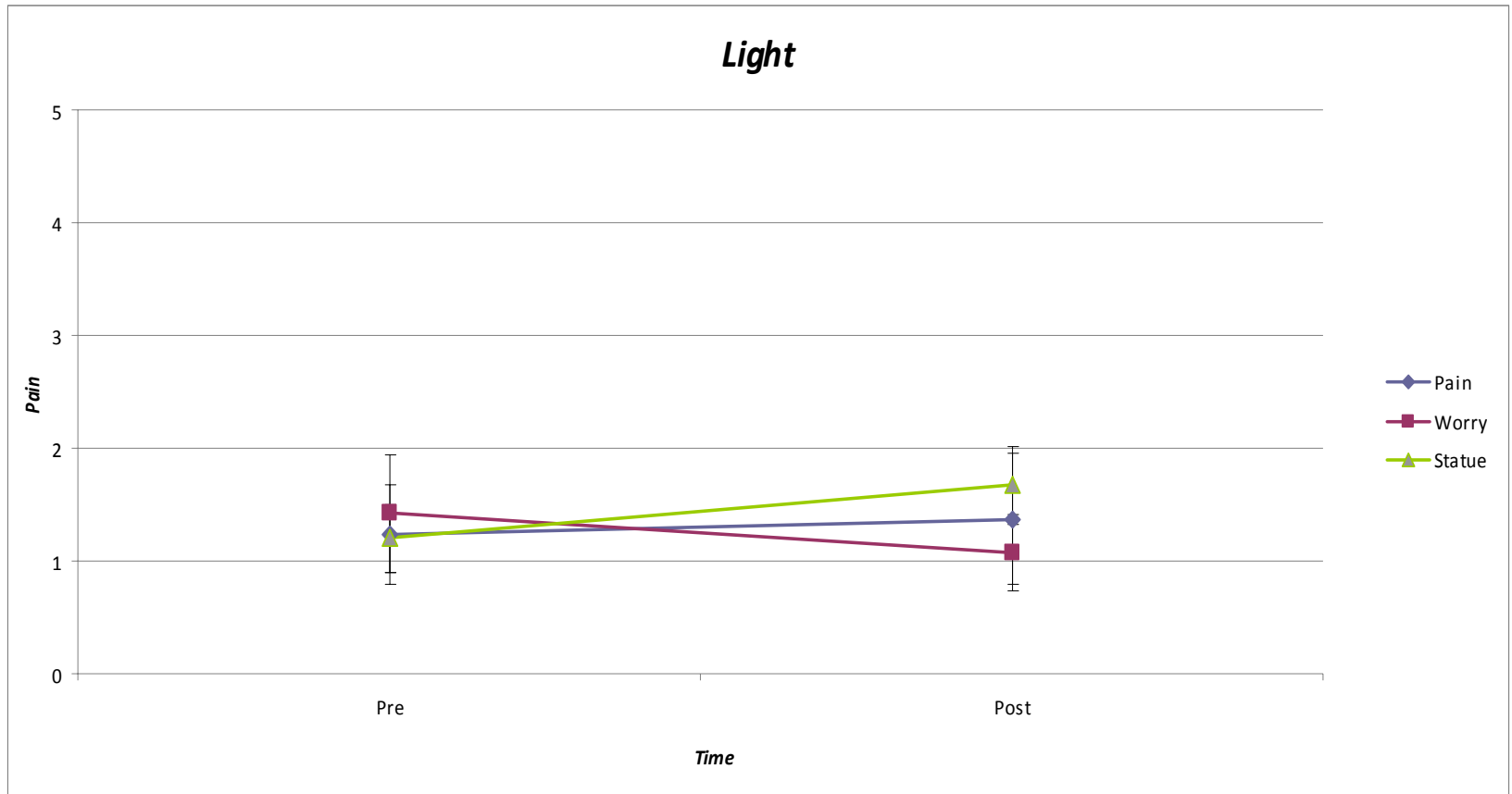
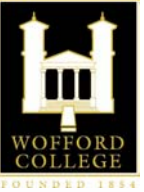
- Catastrophising Interview
  - Random assignment
  - Statue of Liberty
  - Current Worry
  - Pain
  - Measured steps and rumination

# Results

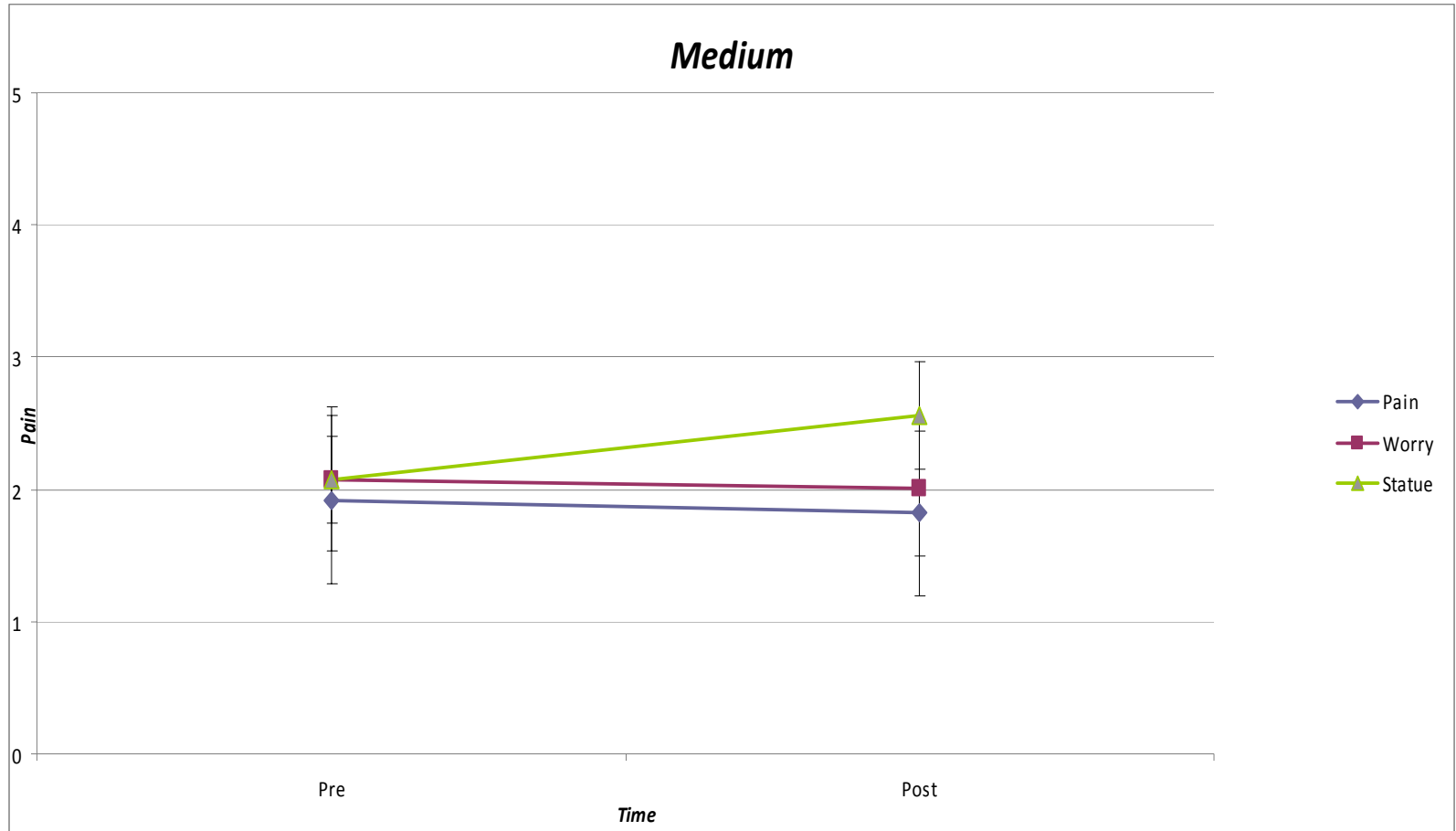
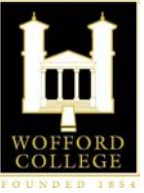
---

- Analysis was a series of Repeated Measures ANCOVA
- Observation was that some individuals produced more steps than others.
- Used Number of Steps as a covariate to control for individual differences in worry

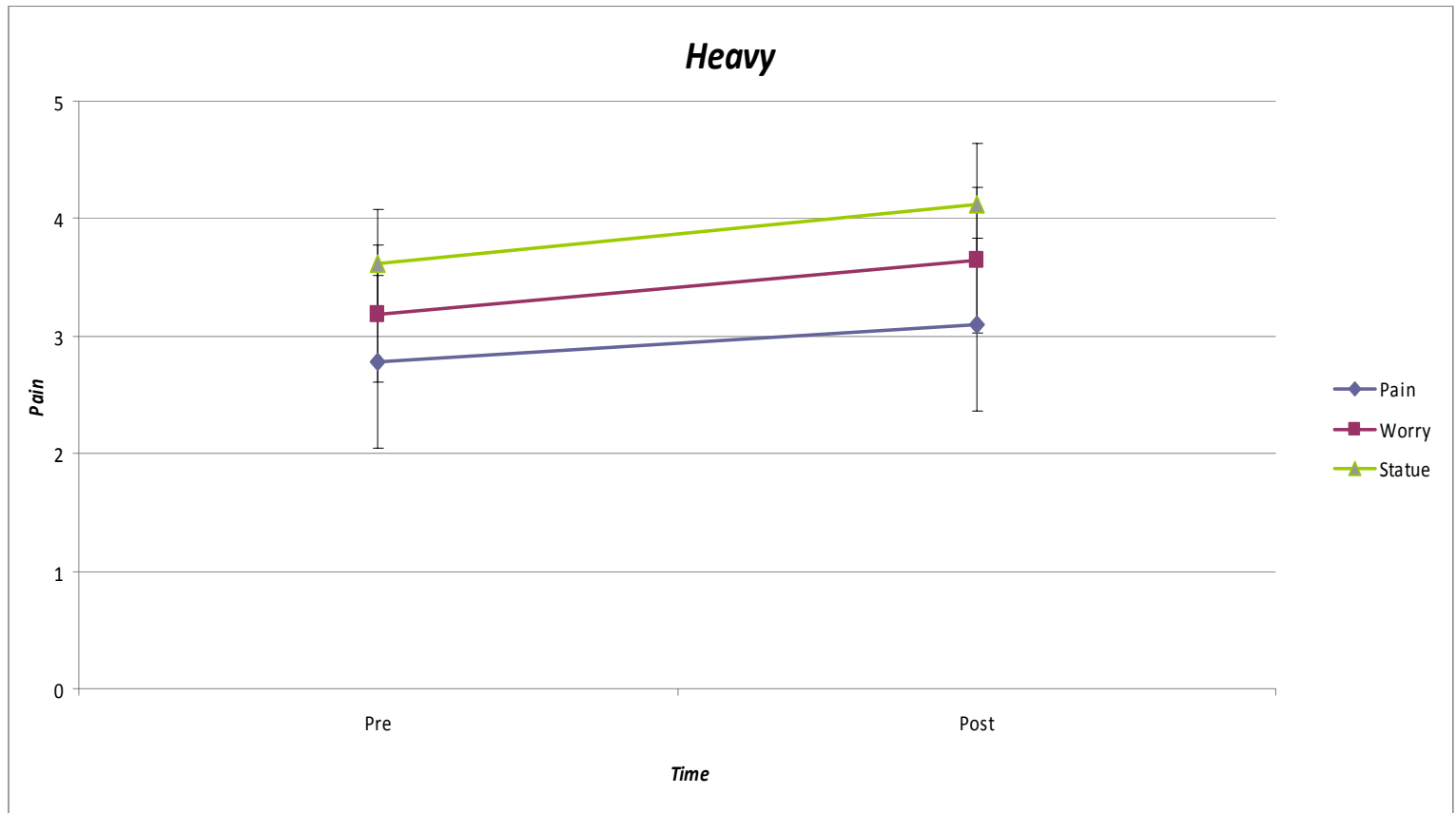
# Results



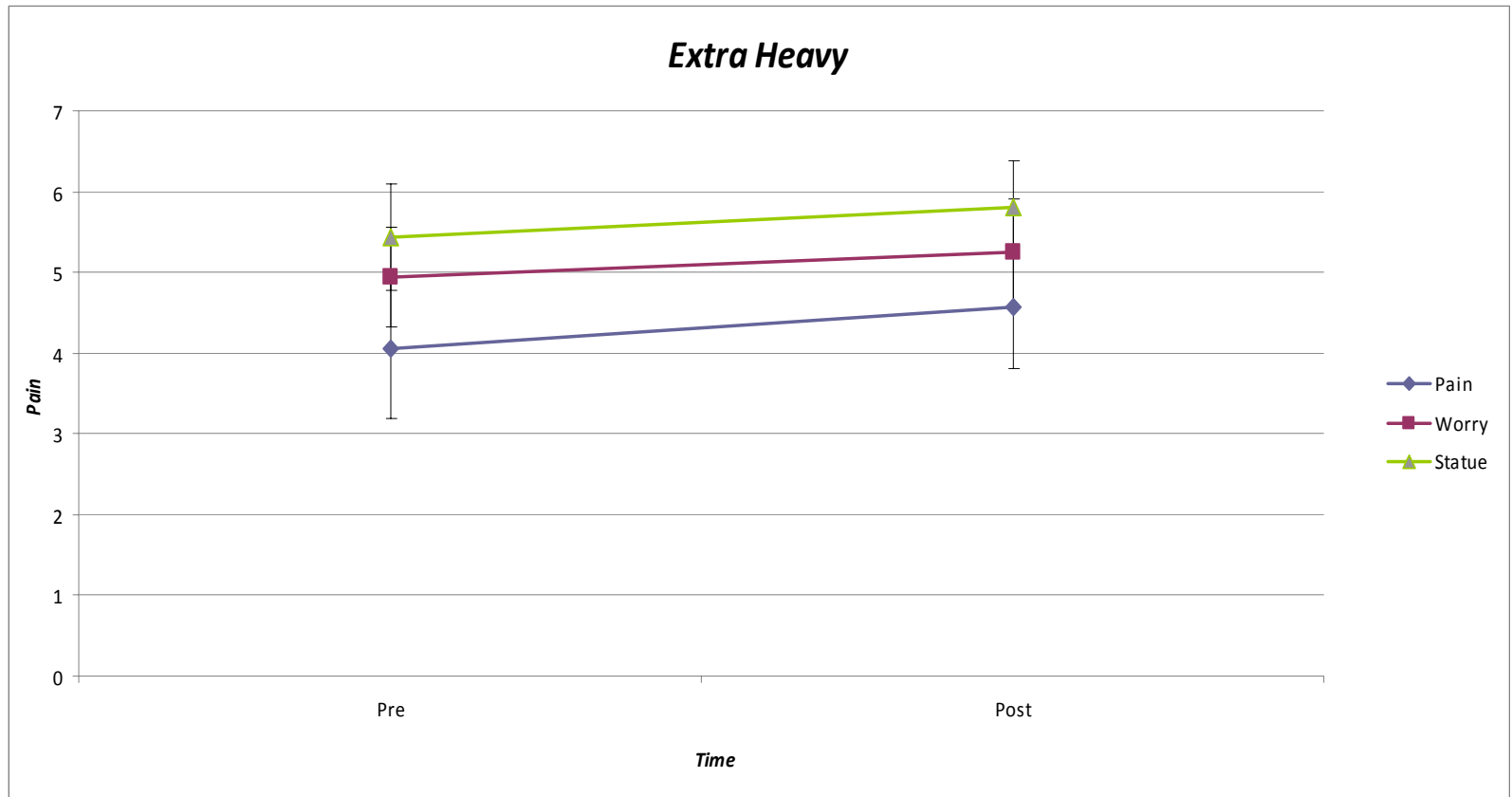
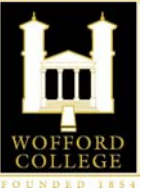
# Results



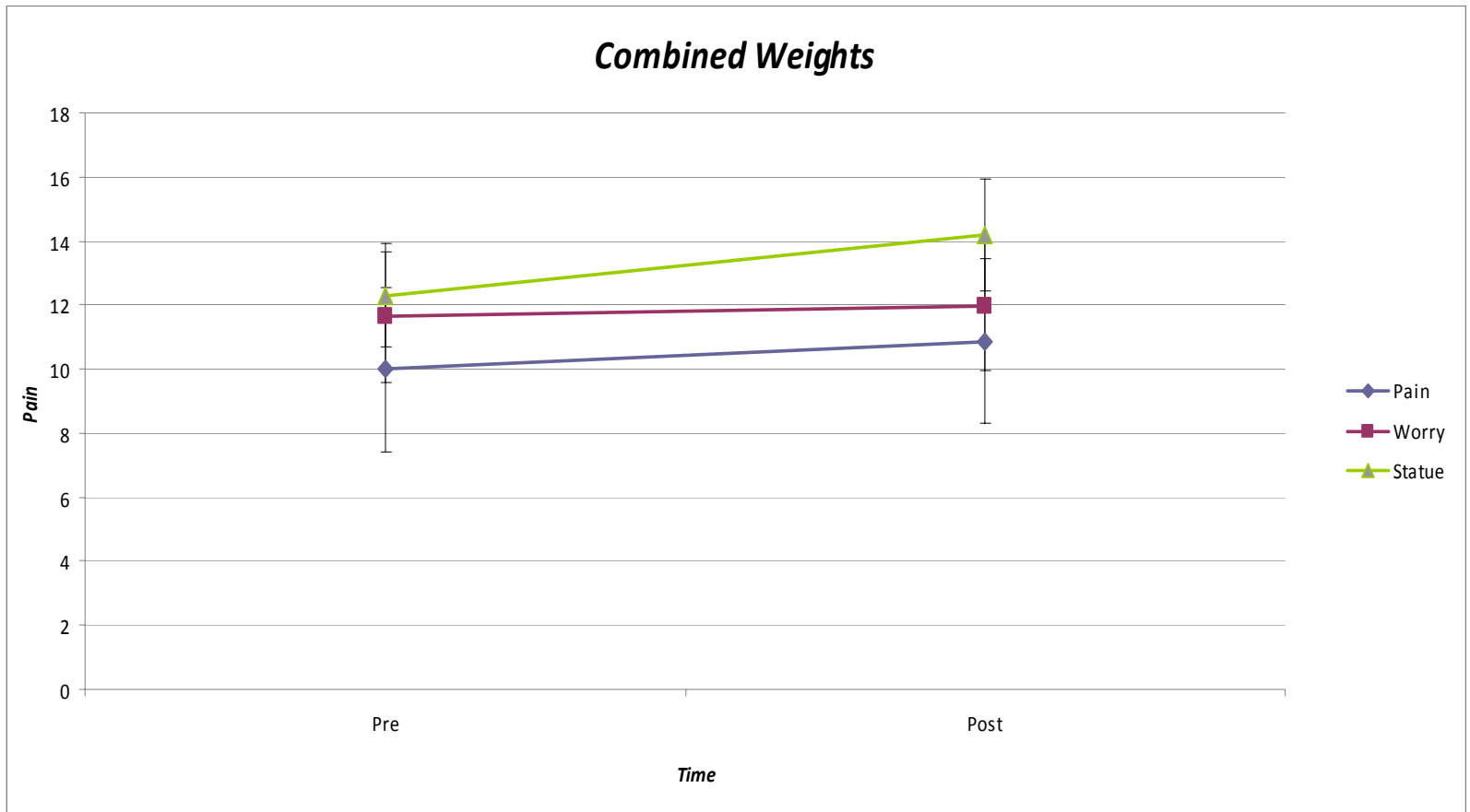
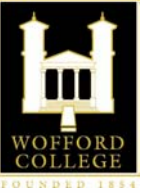
# Results



# Results



# Results



# Discussion

---

- Hypotheses
  - Increasing catastrophic worry will lead to increased pain
    - Results show some significant results
  - Differential effect depending on the type of worry
    - No significant effect for interview topic



# Discussion

---

- Interesting results
  - Statue of Liberty showed greatest increase in pain
  - Why?
    - Novel worry topic
    - Other two were not novel
    - Effect of the interview on worry

# Discussion

---

- Future research
  - More subjects
  - Localized pain such as cancer patients
  - Make the topic more salient
  - Make the topic novel

# Acknowledgements

---

- Thank you to all of the faculty, staff, and students that participated in the experiment
- Special thanks to Dr. Lefebvre for helping us this semester and significantly increasing our worry and pain by not being here today

