THE MANIPULATION OF WORRY AND ITS EFFECT ON THE EXPERIENCE OF ACUTE PAIN

Presented by: Amber Bundrick, Warren Ritter, & Meg Wilson
Advised by: Dr. John Lefebvre

INTRODUCTION

Worry
- An important feature of all anxiety that consists of negative and uncontrollable thoughts (Wells, 1994)
- Series of "What if...?" statements and personal inadequacies (Davey & Levy, 1998)
- Zelman, Howland, Nichols, and Cleeland (1991)
  - Effects of induced mood on pain
  - Results: Depressive mood condition negatively affected pain tolerance
- Hill, Kornetsky, Flanary, and Wikler (1952)
  - Effect of anxiety and morphine on pain intensity estimation
  - Results: Promotion of anxiety caused an overestimation of intensity of pain

PURPOSE & HYPOTHESIS

Purpose:
Manipulate worry to see if it has an effect on pain

Hypothesis:
Artificially creating worry will cause an increase in pain

METHODS

Participants
- 29 undergraduates at Wofford
- 6 males, 23 females
- 90% White, 7% Black, 3% Asian
- Between the ages of 17 and 22

Materials
- Forgione-Barber
- Weights (light, medium, heavy, extra heavy)
- eVAS program
- List of adjectives
  - 10 positive words
  - 10 negative words
  - 10 pain-related words

Procedure
- Finger Pressure Pain - Pre
  - Weights applied for 20 seconds
  - 24 trials (4 weights x 6 trials, random)
  - Subject rates level of pain and level of worry on eVAS
- Interview
  - Think of a time in your life: happy, worry, pain (based on randomly assigned condition)
  - Describe event
  - Highlight 5 adjectives from list of 30
  - Describe why they chose each word
- Finger Pressure Pain - Post
  - Repeat finger pressure test
  - 5 adjectives remained visible

RESULTS

Highlighted Adjectives

- Pain Words
- Negative Words
- Positive Words

Chart showing the number of highlighted adjectives per category.
RESULTS

[F (2, 25) = 1.15, p = 0.33, Partial Eta = 0.08]  
No group differences

[F (2, 25) = 3.04, p = 0.07, Partial Eta = 0.20]  
No group differences, but strong effect

[F (2, 25) = 5.45, p < 0.01, Partial Eta = 0.30]  
Significant group effect

[F (2, 25) = 5.03, p < 0.01, Partial Eta = 0.29]  
Significant group effect

RESULTS

DISCUSSION

- Results show:
  - Increased pain in worry and pain conditions
  - Decreased pain in happy condition

- Future studies:
  - Hypervigilance
  - Attention
  - Anxiety disorders
DISCUSSION

- Opportunities for improving this study:
  - Participants
    - 6 males - oversample males
  - Racial diversity
  - Older subjects
  - Mood induction
    - Increase salience by eliminating distractors
  - Reminders
  - Pain
    - Increase intensity
    - Increase duration

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