The Effect of Worry on the Experience of Acute Pain

Emily Fort, Christie Wilkes, and Leah Gaylord

Wofford College
Introduction

- Worry
- Catastrophizing
- Previous Research
- Hypotheses
  - There would be a differential effect on pain depending on the topic used in the worry interview.
  - There would be a significant correlation between general worry and general pain ratings.
Methods

■ 51 undergraduate students
  ▲ 27 females and 24 males
  ▲ 47 Caucasians, 2 African Americans, 1 Asian, and 1 other
  ▲ Mean age= 20.51 (SD=1.14)

■ Compensated with $25 Terrier Bucks
Measures

- **Worry**
  - Catastrophic Worry about Pain (CATS)
  - Penn State Worry Questionnaire (PSWQ)

- **Pain**
  - General pain questions

- **Pain Catastrophizing**
  - Pain Catastrophizing Scale (PCS)

- **Affect**
  - Positive Affect Negative Affect Scale (PANAS)
Procedures

- Questionnaires completed online
- Pre-interview pain assessment
  - Forgione-Barber device
- Random Assignment
- Worry Interview
- Post-interview pain assessment
Forgione-Barber Device
Random Assignment

- Current source of worry
  - Example
  - Stop rule
- Acute pain experience
- Neutral topic
  - Statue of Liberty
What worries you about being a squirrel?
Table 1. Means and Standard Deviations of Baseline Measures.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSWQ</td>
<td>47.59</td>
<td>11.90</td>
</tr>
<tr>
<td>CATS</td>
<td>77.43</td>
<td>39.11</td>
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<tr>
<td>PCS</td>
<td>15.49</td>
<td>8.05</td>
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<tr>
<td>Pain Now</td>
<td>5.35</td>
<td>12.59</td>
</tr>
<tr>
<td>Pain Worst</td>
<td>47.27</td>
<td>26.49</td>
</tr>
<tr>
<td>Pain Mean</td>
<td>14.18</td>
<td>13.37</td>
</tr>
<tr>
<td>PA</td>
<td>24.90</td>
<td>6.25</td>
</tr>
<tr>
<td>NA</td>
<td>12.45</td>
<td>5.51</td>
</tr>
</tbody>
</table>
Correlations

- PSWQ and current pain rating \([r = .32, p < 0.01]\)
- PCS and current pain rating \([r = 0.30, p < 0.05]\)
- PCS and ratings of their worst pain over the past month \([r = 0.48, p < 0.001]\)
- Negative affect (NA) and ratings of their worst pain over the past month \([r = 0.29, p < 0.05]\)
- CATS and their ratings of their worst pain over the past month \([r = 0.29, p < 0.05]\)
Table 2. Means and Standard Deviations of Pain Sensitivity at Pre and Post Interview

<table>
<thead>
<tr>
<th></th>
<th>Pre</th>
<th></th>
<th>Post</th>
<th></th>
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<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>Light</td>
<td>1.80</td>
<td>1.55</td>
<td>2.29</td>
<td>1.75</td>
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<tr>
<td>Medium</td>
<td>2.97</td>
<td>1.90</td>
<td>3.18</td>
<td>2.13</td>
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<tr>
<td>Heavy</td>
<td>4.87</td>
<td>2.09</td>
<td>5.10</td>
<td>2.25</td>
</tr>
<tr>
<td>Extra Heavy</td>
<td>6.51</td>
<td>2.25</td>
<td>6.78</td>
<td>2.39</td>
</tr>
</tbody>
</table>
ANCOVA

Light Post-Interview

Pain Rating

0 1 2 3 4 5 6 7 8 9 10

Condition

Squirrel Pain Worry

Pain Rating
Medium Post-Interview

Pain Rating

Squirrel  Pain  Worry

Condition

ANCOVA
Heavy Post-Interview

Pain Rating

Condition

Squirrel

Pain

Worry

ANCOVA
ANCOVA

Extra Heavy Post-Interview

Pain Rating vs. Condition

- Squirrel
- Pain
- Worry
Discussion

- Worry topic increases pain rating
- More a person worries in general, the more pain they report in general
- Worry about pain seems to become more prominent with heavier weights
- To our knowledge no other studies have found these results
Future Studies

- Sample size
- Sample was undergraduate students
- One type of pain