The Effect of the Manipulation of Worry on Acute Pain in Self-described Worriers

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Purpose & Background
• Test effect of manipulation of worry on acute pain
• Worry – A stream of negative thoughts
  – Negative Affect
  – Uncontrollable
• Catastrophising – A component of worry
  – Imagined outcome becomes worse

Gate Control Theory
• Pain is more than a physiological response
• Gating mechanism in spinal cord
  – Transmission cells
  – Descending pathways
• Influences on the gate
  – Affective states
  – Brain cognitions

Fear-Avoidance Model
• Fear-avoidance behavior remains without tissue damage
• Two reactions to injury
  – Adaptive
  – Maladaptive
• Catastrophizing about Pain
  – Pain-related fear
  – Avoidance
  – Depression
  – Disability

Hypotheses
• Pain and worry conditions would result in more catastrophizing steps than the happy condition
• Worry would cause participants to report higher pain values

Methods
• Participants
  – 36 self-described worriers (21 women, 15 men)
• Questionnaires
• Finger pressure device
  – Four different weights:
    • Light, medium, heavy, extra heavy
• Catastrophizing interview
  – “What about ... makes you worry?”
• Finger pressure device
• Post-questionnaires
• Debriefed
Results

* indicates a significance of p<0.05

Discussion

• Hypothesis 1: Catastrophic worrying would increase reported perception of pain
  – Partly supported
• No significant main effect but large effect size for light and medium weights
• Threshold of pain and catastrophic worry
• Ceiling effects

• Hypothesis 2: The pain and worry conditions would result in more catastrophizing steps than the happy condition
  – Supported

• Limitations
• Future Research