Traditional (trait-like) catastrophizing does not predict who will respond to a brief intervention that reduces situation-specific catastrophizing

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Introduction

Pain catastrophizing is a cognitive-emotional process associated with negative pain-related outcomes. Research has suggested there are two types of catastrophizing: traditional (trait-like) catastrophizing (T-Catastrophizing) assessed by asking participants how they respond "in general" to pain, and situation-specific catastrophizing (SS-Catastrophizing) assessed by asking participants how they responded to a recent painful event. Though both types of catastrophizing are often assessed from the same questionnaire (e.g., Pain Catastrophizing Scale, PCS) using different instructions, the correlation between them is often low (e.g., r = .50). The present study examined whether T-Catastrophizing predicts who responds to a brief (30-min) cognitive-behavioral treatment (CBT) to reduce SS-Catastrophizing evoked by a threat paradigm. Participants were randomly assigned to receive CBT or a control condition that received pain education. T-Catastrophizing was assessed from the PCS prior to any testing/Interventions. Before and after each intervention, participants were exposed to four 30-s threat periods and four 30-s safe trials (order randomized). After all 8 trials, participants filled out the PCS to assess SS-Catastrophizing.

Objective

to determine if T-Catastrophizing predicts who responds to a brief cognitive-behavioral treatment to reduce SS-Catastrophizing evoked by a threat paradigm.

Participants

• Healthy Pain Free Participants: N = 101
  • Participant Characteristics: Male (57.4%), White, non-Hispanic (79.2%), employed (54.4%), average age = 28.48 years (SD = 11.62), average years of education = 14.9 (SD = 2.61). Control = 49.5%, Intervention = 50.5%.

• Exclusion Criteria:
  • < 18 yrs of age.
  • Body mass index greater than 35
  • High blood pressure and/or blood pressure medication
  • Cardiovascular, neurological, circulatory problems
  • Chronic pain condition (e.g., back pain)
  • Recent use of anxiolytic, antidepressant, and/or antihypertensive medication
  
Procedure

• Stimulating electrodes applied over the sural nerve and on the lower left abdomen
• Pain Catastrophizing Scale presented to assess T-Catastrophizing
• Suprathreshold stimulus intensity was assessed and abdominal stimulus was set at pain threshold (point at which the participant perceives pain)
• Participants underwent the threat paradigm (described later)
• Pain Education: Coping Strategies presented
• Participants underwent the threat paradigm and Pain Catastrophizing Scale presented after each threat paradigm to assess SS-Catastrophizing

Methods

• Questionnaires: Visual Analog Scale (VAS), Pain Catastrophizing Scale (PCS), Behavioral Coping, Threat Paradigm:
  • Pain Catastrophizing in either group was unrelated to the change in SS-Catastrophizing (p > .05)

Results

• Hierarchical regression for variables: Pretest SS-Catastrophizing, Group, T-Catastrophizing, and Group by Time interaction
• Pretest SS-Catastrophizing was controlled for in model 1
• Group (Control vs. Treatment) was entered into model 2

Conclusions

• SS-Catastrophizing was significantly reduced only in the CBT group
• T-Catastrophizing was unrelated to the change in SS-Catastrophizing in either group
• These results suggest T-Catastrophizing is not an indicator of who will have reduction in SS-Catastrophizing
• This supports T-Catastrophizing and SS-Catastrophizing as separate constructs

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