
The paper by Kunz et al. addresses the relation between catastrophic thinking and facial pain displays in response to experimentally induced thermal pain. As noted by the investigators, previous research reveals a significant relation between catastrophic thinking and expressive pain behaviors. The Communal Coping Model of pain catastrophizing suggests that high catastrophizers might engage in expressive pain behaviors as a means of maximizing proximity or soliciting assistance from others in their social environment.

Kunz et al. (2008) claim that previous research has neglected to address individual differences in pain sensitivity as a possible explanation of the relation between catastrophizing and expressive pain behaviors. They suggest that high catastrophizers might express more frequent or pronounced facial displays of pain simply because they are more sensitive to pain. Indeed, they find a relation between catastrophizing and pain sensitivity where the threshold of heat considered ‘painful’ was lower for catastrophizers than non-catastrophizers. In their study, the relation between catastrophizing and facial pain displays is examined while controlling for individual differences in pain sensitivity. The authors report that when individual differences in pain sensitivity are accounted for, there is no significant relation between catastrophizing and facial pain displays. On the basis of these findings, the authors conclude that the predictions of the Communal Coping Model of pain catastrophizing were not supported.

The conclusions of the authors are tenable only if self-reported ratings of pain threshold are considered a measure of ‘pain experience’ as opposed to a measure of ‘communication of pain experience’. However, it cannot be assumed that a self-report of pain threshold is a measure of pain experience that is independent of communication goals; a self-report of pain threshold represents an act of communication. As an act of communication, a self-report of pain threshold (or pain intensity) will be influenced by the same forces that operate on any form of human communication. The Communal Coping Model of pain catastrophizing holds that catastrophizers will tend to be more communicative about their distress as a means of soliciting proximity or assistance. Such communication might take the form of pain behaviour or might just as easily be expressed in participants’ verbal (or numerical) communication of the intensity of their pain experience. By experimentally controlling for a central dimension of pain communication (i.e., self-report of pain threshold), it is not surprising that the relation between catastrophizing and other dimensions of pain communication (i.e., facial pain displays) is no longer significant. However, this would hardly be considered a test of any prediction of the Communal Coping Model of pain catastrophizing.

Response to the “Letter to the Editor of Pain” by Prof. Mick Sullivan

We thank Dr. Sullivan for his interest in our recent paper, as Dr. Sullivan is one of the pioneers in the field of pain catastrophizing. We also thank the editors for the opportunity to reply to his comments. We feel that research on the Communal Coping Model of pain catastrophizing faces a difficult challenge of determining whether and how differences in pain indicators might reflect differences in pain experience or simply differences in pain communication. However, we absolutely agree with Dr. Sullivan that self-report of pain is not a measure of pain experience that is independent of communication goals. Both self-report of pain and facial expressions are acts of communication. However, in designing this experiment, we tried to reduce the (social) communicative importance of self-report, by using a computerized assessment of self-report ratings that did not require any interactions.