PREDICTING EXPRESSION OF EMOTION DURING PAIN: THE INFLUENCE OF PERSONALITY CHARACTERISTICS AND CATASTROPHIZING

M. Erin Browne, MSc
University of Regina
Student/Trainee

INTRODUCTION / AIM

This study investigated individual differences in emotional expression during experimental pain induction. Specifically, we examined the influence of pain catastrophizing, psychopathy, alexithymia, empathy, age, and sex on the expression of basic emotions (anger, sadness, fear, disgust, surprise and happiness) during pain.

METHODS

97 participants completed the Pain Catastrophizing Scale (PCS), Toronto Alexithymia Scale (TAS-20), Self-Report Psychopathy Scale (SRP-III), Toronto Empathy Questionnaire (TEQ) and a demographic questionnaire. They then participated in a covertly videotaped cold-pressor task. Analyses of 5-second clips containing each participant’s highest intensity facial expression were conducted using Noldus FaceReader, software that detects frequency and intensity of facial expressions of emotion.

RESULTS

Regression analyses were conducted using questionnaire scores as predictors and age and sex as covariates. The overall regression model predicted a significant portion of variance in sad and surprised facial expressions. After controlling for all other predictors, PCS scores predicted increases in sad and surprised facial expressions, and TAS-20 scores predicted a decrease in surprised facial expressions.

DISCUSSION / CONCLUSIONS

This evidence suggests that catastrophizing exerts a more powerful influence on the facial expression of emotion during pain than several empathy-based personality factors. Though catastrophizing has been linked to increased subjective experience and facial expression of pain, this is the first study to investigate whether it also predicts the expression of specific emotions during pain. It may be that, in order to communicate a heightened pain experience, individuals high in catastrophizing augment pain communication with facial expressions of emotion (i.e., sadness and surprise), in addition to typical pain cues.

OTHER AUTHORS

Kimberley Kaseweter
Kenneth M. Prkachin
Thomas Hadjistavropoulos