

Journal Watch

Effects of emotion on pain reports, tolerance and physiology.

Carter LE, McNeil DW, Vowles KE, et al. *Pain Research & Management* 2002; 7(1):21-30

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Abstract:

The effects of specific emotional states on a laboratory pain task were tested by examining the behavioural, verbal and psychophysiological responses of 80 student volunteers (50% female). Participants were assigned to one of four Velten-style emotion-induction conditions (i.e., anxiety, depression, elation or neutral). The sexes of experimenters were counterbalanced. Overt escape behaviour (i.e. pain tolerance), pain threshold and severity ratings, verbal reports of emotion and physiological measures (i.e., electrocardiogram, corrugator and trapezium electromyogram) were recorded. A pressure pain task was given before and after the emotion induction. As predicted, those who participated in the anxiety or depression condition showed reduced pain tolerance after induction of these negative emotions; pain severity ratings became most pronounced in the depression condition. A pattern of participant and experimenter sex effects, as well as trials effects, was seen in the physiological data. The influence of negative affective states (i.e., anxiety and depression) on acute pain are discussed along with the unique contributions of behavioural, verbal and physiological response systems in understanding the interactions of pain and emotions.

Comments:

Strengths/uniqueness:

This is a detailed, well-described report of reproducible laboratory research on healthy volunteers subjected to a controlled pain experience and emotional manipulation.

Weaknesses:

The generalizability of findings to the chronic pain and emotions of palliative care patients has to be viewed with caution. Consideration of cultural differences is a further limiting factor.

Relevance to Palliative Care:

This is further evidence to demand consideration of how psychosocial issues and coping mechanisms of palliative patients affects pain tolerance and expression. Carefully designed trials of psychological assessment and counseling in palliative patients could provide important information to suggest ways to supplement the limitations of pain control with pharmacological management alone.