
THE EFFECT OF AVERSIVE VISUAL STIMULI ON PAIN PERCEPTION: THE IMPORTANCE OF ANXIETY

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Literature shows a relationship between pain, personal as well as emotional factors. Subjects high in trait anxiety experience more pain than low anxiety subjects (Graffenried, 1977). Furthermore expectations and emotions about aversive events can change the perception of objective identical stimuli. Distinct emotions e.g. fear and anxiety differ in their neuronal and physiological patterns as well as in their behavioral consequences. For this reason they also vary in the direction they modulate pain. Anxiety leads to increased pain whereby fear decreases it (Ploghaus et al. 2003). Thereby one important factor is the subjective estimation of aversive upcoming events. Laux's research (1981) indicates that people low or high in trait anxiety assess situations differently. People high in trait anxiety are threatened by situations more often. This study examines the impact of trait anxiety on individual pain perception and whether there are differences in pain perception after aversive visual information (AVI) exposition in subjects with high and low anxiety values. 29 subjects divided in two anxiety groups, participated in the study. Measures were the STAI state ratings and pain thresholds before and after experimental manipulation. To determine maximal tolerable pain threshold, subjects received electrical stimuli with increasing intensity. After assessment of initial pain thresholds subjects were exposed to AVI. People high in trait anxiety showed a significant increase of pain thresholds after experimental manipulation, $Z = -3.185$, $p < .001$. A Wilcoxon-Test for people's thresholds low in trait anxiety showed no significant effect. Results are discussed regarding possible interventions for people with chronic pain.