

# ABSTRACT

Pain is a commonly reported symptom of cancer, especially during the advanced stages of the disease. Most research on cancer pain focuses on the classification of pain and the efficacy of various pharmacological treatments. This thesis focuses on psychological factors that influence adjustment to pain in patients with advanced cancer. The thesis comprises five studies. Study 1 involved a variable-focused analysis of a large archival database from the USA. It found that pain characteristics and psychological factors both predicted patient adjustment (level of coping and quality of life) and that one psychological factor, negative emotion, moderated the relationship between pain intensity and adjustment. Subsequent studies narrowed the focus to breakthrough pain, which presents a special challenge to adjustment due to its unpredictability, and focused on the role of two psychological factors. Study 2 was an intensive study of a smaller sample of cancer patients receiving palliative care. It examined the relationships between breakthrough pain, two psychological factors (patients' perception of the meaning of pain and the effectiveness of their pain management strategies) and adjustment (level of coping). It found that adjustment was negatively correlated to the intensity of breakthrough pain. However, adjustment was also associated with the extent to which patients ascribed one meaning (weakness) to pain, and to perceived pain management effectiveness. Study 3 replicated and extended Study 2 in a second palliative care service, using different measures of meaning of pain, breakthrough pain intensity and adjustment, and included an additional measure of adjustment (symptoms of depression). Results confirmed that one breakthrough pain characteristic (intensity) was negatively associated with both measures of adjustment. Relationships between psychological

factors (patients' perception of the meaning of pain and their pain management strategies) and adjustment were also strong, however it was not possible to determine if these factors contributed to adjustment because of the intercorrelations between them. Although relationships between specific meanings of pain and adjustment were found in Studies 2 and 3, these were different meanings to those reported in previous research. Therefore, Study 4 adopted a person-focused qualitative approach to explore meaning of pain. An intensive examination of the meanings of pain ascribed by 38 patients identified 13 different meanings of pain and showed that most patients attributed multiple meanings to their pain. Surprisingly, only half these meanings were aversive. Meaning of pain was observed to be a complex and diverse phenomena which is difficult to capture using quantitative measures. In the final study, qualitative data for meaning of pain and quantitative data concerning breakthrough pain and adjustment, obtained from daily diaries were used for in depth examination of a series of case studies. Results showed that patient adjustment to pain was consistent over days despite high variability in breakthrough pain. The findings confirmed that factors other than pain characteristics are important in determining adjustment. This thesis extended previous research about cancer pain and adjustment by incorporating a wide range of research designs and measures to explore the relative contribution of pain characteristics and psychological factors to adjustment in the same study. It confirmed that pain characteristics influence adjustment and demonstrated that a variety of psychological factors also contribute. Meaning of pain was one of the psychological factors. The meanings patients ascribed to pain were found to be much more diverse and complex than previously reported. Further research that builds on these insights will be needed to determine

the ways in which pain characteristics, multiple meanings of pain and other factors interact to influence adjustment in cancer patients with advanced disease.