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**EVALUATION OF BACK EDUCATION PROGRAMME
AT THE MEDICAL REHABILITATION UNIT,
PALMERSTON NORTH HOSPITAL**

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Mei Wah Williams

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ABSTRACT

Chronic low back pain is a significant health care problem and is frequently one of the most difficult conditions to treat. For the individual, chronic low back pain evolves into a constellation of problems involving psychological and behavioural symptoms as a result of the recurrent pain. Numerous pain clinics have been established providing a multidisciplinary approach to the treatment of chronic pain. A considerable amount of evidence has attested to the efficacy of a comprehensive treatment approach for the management of chronic pain. Despite the support for pain clinics, many outcome studies have been plagued by methodological difficulties. The present study was designed to improve on previous methodological shortcomings and evaluate the efficacy of a multidisciplinary treatment for chronic back pain. The programme, carried out over four mornings per week for three weeks, was conducted in an outpatient clinic of a public hospital. Twenty-four patients consecutively referred to the pain clinic were randomly assigned to treatment and waitlist control conditions. The treatment group was assessed four times and the waitlist control group assessed six times throughout the study. The two groups were compared for differences on a variety of outcome measures on three separate occasions; at pretreatment, immediately after treatment and at follow-up. Outcome measures included self-reported pain intensity, mood, coping skills and physical disability; and objective measures of physical impairments. Multivariate analyses of variance (MANOVA) for outcome measures were carried out. Results suggested significant improvements were achieved after treatment in depression levels and muscle strength. No significant gains were reported in physical functioning such as everyday activities, flexibility, spinal functioning, or pain intensity. When assessed at follow-up six months later, the original gains in mood were maintained but a significant decline in muscle strength was reported. The goals of the programme to improve physical functioning and return to work were not achieved, thus predictions for the efficacy of the chronic back pain programme were not supported. Implications of these findings are discussed together with recommendations for improving outcomes, especially the importance of physical reactivation.

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I wish to dedicate this thesis to Aimee and Adam.

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CHAPTER 1

INTRODUCTION

Pain hurts. It is an almost universal human experience. The normal response to this noxious perception is to seek relief from the pain. Pain, as a physiological mechanism, alerts the body of potential harm thus ensuring the individual does not endure greater tissue damage than necessary.

One of the most frequently reported pain problems is low back pain. Four out of five people suffer from low back pain some time during their lives. It is one of the major health problems for society and leads an individual to seek medical care (Keefe, Gil & Rose, 1986). There is evidence that 80-95% of low back pain sufferers will achieve amelioration of pain and return to normal functioning within days or even weeks (Fordyce, 1988; Hazard et al., 1989). Full recovery, with little or no deleterious effect, is often realised.

For about one percent of low-back pain sufferers this optimistic prognosis does not eventuate (Mayer et al., 1987). Despite the repeated attempts at conservative management and/or surgical procedures, attenuation of pain is not achieved. Nonetheless, in many cases, no discernable cause for the pain can be located. As each successive 'treatment' fails to provide relief from the pain, frustration is apparent and the individual's despair deepens. The treatment of chronic low back pain is one of the most difficult problems for physicians to manage (Deardorff, Rubin & Scott, 1991).

For these individuals, pain evolves from being simply a physiological event to become a multifaceted problem. Long-term chronic benign pain can have a profound impact on the individual's overall functioning; their affect, behaviour and social environment. Experiences of depression, difficulty coping with everyday activities, avoidance of interpersonal relationships with family members, withdrawal from socialising with friends, and often attendant loss of employment due to pain-related disabilities reduce the pain sufferer to dependency and inactivity. Compounding this sense of suffering is the inability of others to comprehend why the patient is not getting better. Derogatory labels such as "whinger", "malingerer", or "bludger", are applied to the pain sufferer,

with the implication that the pain is not 'real'. For some, in desperation, the reason to continue living may be questioned.

Melzack and Wall's (1965) "gate control" model was significant in acknowledging that perception of pain was a multifaceted phenomena, and this was instrumental in inspiring a renewed impetus to the study and development of an effective 'treatment' for this most intractable of problems.

The burgeoning literature on the treatment of chronic benign pain provides empirical evidence of the efficacy of a multidimensional approach to the treatment of chronic non-malignant pain (for example Deardorff et al., 1991; Guck, Skultety, Meilman & Dowd, 1985; Peters, Large & Elkind, 1992). The conclusions from these studies acknowledge that a multifaceted approach, reflecting the complexity of chronic pain problems, is intrinsic to treatment.

This brief overview provides a context for this present study. Conceptual issues concerned with defining pain are discussed in Chapter 2. The historical perspective and the more contemporary views of pain are presented in this chapter. Chapter 3 examines the various psychological theories proposed for the transition of pain from an acute condition to a chronic state. Whilst the literature on multidisciplinary treatment for chronic non-malignant pain is relatively recent, the application of psychological interventions as part of the treatment package has been of increasing interest. The discussion of various treatments for pain is contained in Chapter 4. Chapter 5 reviews the literature of outcome studies on multidisciplinary pain clinics. Although they are the treatment of choice for intractable pain problems, the methodological shortcomings of these studies are discussed and the attempts to surmount these difficulties are presented. Chapter 6, introduces the scope and the research hypotheses of this study, and completes the introduction section.

The methodology adopted in the present study is discussed in Chapter 7, followed by a presentation of the results in Chapter 8. Chapter 9 discusses the results, together with the methodological shortcomings of the study and suggestions for future research. The final chapter, Chapter 10, presents the conclusion to the discussion, with recommendations for the pain programme evaluated for this research.