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**THERAPEUTIC EFFECTS OF MASSAGE ON COPING WITH
STRESS AND MIGRAINE:
A SELF-REGULATORY PERSPECTIVE**

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A thesis in partial fulfilment of the requirements for the degree of Doctor of Philosophy,
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ABSTRACT

Massage therapy, now considered a complementary therapy has seen growing interest and popularity in both research and use by the general population. Firstly, this thesis aimed to extend the research investigating the beneficial effects of massage therapy by developing and assessing an integrative model of massage effects on stress, coping, and physiological processes by using Leventhal's Common Sense Model (CSM) of the self-regulation of behaviour. Secondly, this thesis aimed to investigate the duration of massage effects by including assessment periods past the last day of intervention and measures of coping efficacy and perceived stress. The first study investigated the effects of massage therapy (compared to a television activity) on perceived stress, coping efficacy, sleep, and health variables in students leading up to final examinations. Results revealed that massage was more effective than the television activity in reducing perceived stress and improving coping efficacy. The second study extended the first study by investigating the effects of massage (compared to a daily diary control group) for migraine sufferers, as migraine is exacerbated by stress and a stressful condition to manage. Results revealed that the massage group exhibited a reduction in migraine frequency, fatigue, and improved sleep quality, compared to the daily diary control group. The integrated CSM was further extended in the second study to investigate how the physiological processes of migraine may interact with migraine mechanisms. In both studies, the massage group revealed a significant decrease in immediate measures of heart rate and state anxiety from pre- to post-massage. The migraine massage group also exhibited decreases in salivary cortisol from pre-to post-massage. The findings are consistent with the integrated CSM of massage and self-regulation of behaviour, highlighting that massage can be a useful emotional regulation strategy through its influence on perceived stress, coping efficacy, and physiological processes. Immediate massage effects revealed reductions in state anxiety, and other physiological stress processes (heart rate and cortisol), and these changes may lead to alterations in cognitive appraisals of stressors, thus impacting on coping efficacy. Given the potential benefits identified in these two studies as well as previous massage research, an anonymous survey was conducted with general practitioners (GPs) and patients in the Auckland area to explore their attitudes, beliefs, and use of massage therapy and other complementary therapies. Results revealed that GPs regularly recommend patients see a massage therapist, and the majority of patients reported using massage in the previous year, most commonly for stress and musculoskeletal problems. The majority of GPs would like to see regulatory standards implemented for complementary medicine.

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