

ASSOCIATION BETWEEN PAIN COPING STRATEGIES AND DEPRESSION, ANXIETY, STRESS AMONG ADULTS WITH CHRONIC MECHANICAL LOW BACK PAIN IN GAMPAHA DISTRICT

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Chronic Mechanical Low Back Pain (CMLBP) is one of the most common chronic conditions that affect adults at some stage in their lives. Even though biomedical treatment methods for chronic back pain are very well established and documented, the psychosocial aspects of chronic pain are not addressed in the existing treatment protocols and pain management clinics in Sri Lanka. The main objective of the present study was to explore the associations between pain coping strategies, depression, anxiety and stress among adults with CMLBP in the Gampaha District while the translation and validation of the Coping Strategies Questionnaire (CSQ-Original Version) was conducted. The correlation study was conducted on a clinical sample of 150 adults (92 women and 58 men) experiencing CMLBP attending rheumatology clinics in the Gampaha District. The purposive sampling method was used. The Visual Analogue Scale (VAS) was used as screening material. The patients who met the inclusion criteria were given the self-administered questionnaire booklet. The questionnaire booklet consisted of a demographic questionnaire, the CSQ-SIN (translated CSQ Sinhala Version) and the Depression Anxiety Stress Scale-21 (DASS-21) Sinhala version. The Spearman correlation coefficient and Multiple-linear regression analysis was carried out using the Statistical Package for Social Sciences – version 24 (SPSS - 24). The translated CSQ (CSQ-SIN) revealed eight subscales accounting for 70.6% of the cumulative variance. The translation of CSQ was conducted through a *Delphi process* in which the subject experts' agreement was considered. Based on the data from the pre-tests, reliability analysis and factor analysis, the CSQ-SIN showed satisfactory levels of reliability to measure pain coping strategies among Sinhala speaking adults (45 to 65-year-old) with CMLBP in Sri Lanka. Overall results from this study implied that greater use of diverting attention, reinterpreting pain sensations, coping self-statements, ignoring sensations, praying/ hoping and increased behavioral activities as coping strategies related to lowering the level of depression while catastrophizing as a strategy was related to an increase in the level of depression, anxiety and stress. The coping strategy 'catastrophizing' was found to be the prominent predictor of higher levels of depression, anxiety and stress. The results from the current study implied that it is important to identify coping strategies which lead to low levels of depression, anxiety and stress in CMLBP patients. Thus, catastrophizing was found to be the prominent predictor of higher levels of depression, anxiety and stress while using coping self-statements was effective in reducing these

symptoms reported in patients with CMLBP. Therefore, with more research evidence from further studies, future interventions should identify catastrophizing thinking and coping self-statements as two important thought patterns. When catastrophizing is identified, interventions should help patients to develop methods to manage these negative thought patterns which have the potential to decrease emotional distress and symptoms of depression, anxiety and stress. In identification of coping self-statements, practitioners should encourage the development of these types of self-statements to achieve better pain management in CMLBP. Thus, the importance of understanding the type of coping strategy and assisting accordingly may help to alleviate symptoms of depression, anxiety and stress and manage CMLBP more effectively. In conclusion, treatment plans for CMLBP should consider adopting a holistic approach where physical, emotional and psycho-social aspects are addressed. The findings of this cross-sectional study may not be generalized to the total CMLBP patient population in Sri Lanka until further research from longitudinal and larger scale studies are available.

Keywords: Chronic mechanical low back pain, Pain coping strategies, Depression anxiety stress

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