

## ABSTRACT

Pain is the most important problem that leading the patient to the health service system. Musculoskeletal system is the one of common source of pain. Although it has been widely recognized the relationship between chronic pain and depression, little attention has been paid to the relationship between chronic musculoskeletal pain and depression. The aims of this study are 1) determination on the association of potential risk factors and depression in chronic musculoskeletal pain, 2) comparison of the depression occurrence between no pain group (NP group) and chronic musculoskeletal pain group (CMSP group), and 3) determination on the efficacy of self-help technique as treatment of depression and chronic musculoskeletal pain.

There were 3 phases in this study. Phase 1 was the survey study to select no-pain and CMSP cases and determine the association of potential risk factors (demographic factors, family, social, economic and pain factors) and depression in CMSP group. Phase 2 was the follow-up study of the depression occurrence in the NP group and the CMSP group. Phase 3 was the determination on the efficacy of self-help technique as treatment of chronic musculoskeletal pain and depression

In phase 1, 3,000 samples were selected by proportional allocation from total 6,995 populations under Tachang community health center network, Nakornluang district, Ayutthaya province. The samples were male and female subjects with age 15-59 years, able to read and write document, no history of psychiatry treatment and drug addict. Thai graded chronic pain questionnaire, Thai pain dysfunction questionnaire and health-related self report scale (HRSR) were used for evaluates chronic musculoskeletal pain and depression. Multivariate analysis by logistic regression showed the significant association of gender and pain intensity to probable depression in CMSP subjects. Females had a risk about 10.72 times as high as males. While the subject with a high score of pain intensity had the risk about 8.15 times to the one with low score of pain intensity.

Phase 2, 150 no-pain and 160 CMSP subjects were follow-up for 6 months. Cochran's Q test shows significant trend of incidence rate among 3 periods of times. Relative risks of high risk depression at the 3<sup>rd</sup> and 6<sup>th</sup> month are 1.06 (95% CI 0.38-2.94) and 2.39 (95% CI 0.50-11.52) respectively.

Phase 3, 34 CMSP subjects were follow-up for 3 months treatment in period 1. The result showed the significant improvement of pain score and depression score. Only 31 CMSP subjects were left to allow into 2 groups in period 2. The result showed the median of the pain score in group B decreases significantly.

Although this study cannot exactly conclude that chronic musculoskeletal pain or depression which one is consequence, it suggests that the subsided pain can reduce the risk of depression severity. The treatment focusing on self-management techniques or active modalities, which is non-pharmacological treatment is effective for the patients with musculoskeletal pain and high risk depression. And it can also protect against the consequence of depression.