

## original article

# Post injury chronic low back pain and depression: Comparative study between early and late post-injury sufferers shows significant difference

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## ABSTRACT

### Aim

Depression caused by physical dysfunction due to a physical injury is common undiagnosed and untreated. In this original paper, based on our clinical evaluation, we have described a relation between depression and low back (spinal cord) injury.

### Method

The participants were diagnosed with low back spinal cord injury prior to be referred to our clinic. They were selected into two groups: (a) those whose injury occurred less than 12 months before research; and (b) those whose injury occurred more than 12 months before the research. All of them completed *Beck Depression Inventory* (BDI), *Montgomery-Asberg Depression Rating Scale* (MADRS), and *General Health Questionnaire-28* (GHQ-28) to evaluate their level of depression.

### Results and Conclusions

The results show significant differences between two assessed groups in regard to depression and social dysfunction. Using BDI and MADRS we found significantly higher level of depression in those patients who have a longer history of low back injury. They also scored higher results on GHQ-28 scales: A (somatic symptoms) and C (social dysfunction). The chronicity of pain and depression were evidenced by high scores on scale D (severe depression) with severe hopelessness and worthlessness.

**Keywords:** Low back pain, depression, comorbidity, Back Depression Inventory, Montgomery-Asberg Depression Rating Scale, General Health Questionnaire-28

## INTRODUCTION

Depression in spinal cord injured patients is frequently undiagnosed and untreated despite its frequency and negative effect on mental health. However, it is clear that apathy, fatigue, sleep disturbance, and an adverse effect on life are common outcomes. The experience of sadness is a normal, expectable response to the spinal cord injury due to changes in bodily

appearance and functioning, pain and physical distress, limitations in the capacity to work and to engage in pleasurable activities, a perceived alteration in the anticipated life trajectory, fears of disability and dependency, alterations in intimate relationship, family life, social relationships and activities.

Chronic low back pain is usually defined as a complex state in which the pain symptoms have persisted long after the original injury or trauma onset (often described as longer than 6 months). The symptoms are viewed as exceeding the typical expected time course for healing of the acute injury, and the symptoms intensity and duration are also viewed as in excess of what would be predicted by the medical condition alone. Patients with chronic low back pain suffer dramatic reductions in physical, social, and psychological well-being with lowered health-related quality of life.

Some researchers have noted that the patient's pain symptoms move beyond the initial acute injury to a point where the pain symptoms themselves become the disease. Chronic pain is usually associated with a broad array of functional impairments, psychological symptoms, disability, and a high rate of medical service utilization. Patients with this type of chronic pain are often referred for psychological or psychiatric services and compose significant subgroup. Pincus<sup>1</sup> stated that psychological factors such as depressed mood, distress, and somatisation are highly correlated with low back pain, which predict the transition from acute into the chronic condition of depression.

Patients with chronic low back pain exemplify the complexity of treatment. However, it is common that a multidisciplinary treatment plan for chronic low back pain is not implemented, and is based only on unidimensional biomedical models with emphasis on the correct diagnosis and treatment using procedures such as nerve blocks, massage, pharmacological approaches, and surgery, without consideration of coexisting psychosocial factors. Furthermore, physical symptoms alone are often poorly associated with predictive value in return to work or functional outcomes. There is no doubt that severe low back injury is a stressful experience, which impacts as a psychological condition.

Stressful events have subjective meanings such as loss and fear, which are important in the etiology of depression, anxiety, specific phobias, substance abuse, and personality disorders. Trauma with physical injuries is largely focused on focused on Post-Traumatic Stress Disorder (PTSD). However, the other

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