

Original Research

Incidence of anxiety and depression in patients with chronic low back pain

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ABSTRACT:

Background: The present study was undertaken to assess the incidence of anxiety and depression in patients with chronic low back pain. **Materials & methods:** A total of 50 patients with the chief complaint of CLBP were included. Socio-demographic Performa were filled containing the basic information about the patient. Full psychiatric assessment was done in these patients to assess the presence of anxiety and depression. Disability was assessed using Oswestry low back pain scale. The Oswestry Disability Index (ODI) is calculated by dividing the summed score by the total possible score, which is then multiplied by 100 and expressed as a percentage. All the data were recorded and analysed by SPSS software Version 17. **Results:** Anxiety was found to be present in 18 percent of the patients while the depression was present in 44 percent of the patients. According to ODI, minimum disability was seen in 4 patients while moderate and severe disability was seen in 50 percent and 40 percent of the patients respectively. While correlating anxiety and depression with ODI in patients with CLBP, significant results were obtained. **Conclusion:** A significant proportion of subjects with CLBP are affected with anxiety and depression.

Key words: Anxiety, Depression

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INTRODUCTION

Chronic Low Back Pain (CLBP) is one of the well-known encountered health hazard affecting worldwide population. For a long time, infact since the beginning of the century, the frequency of Chronic Back Pain (CBP) is known to be high in Indian sub-continent. Approximately 80% of all people have back pain at some time in life. Lower Back pain (LBP) is usually defined as pain, muscle tension, or stiffness localised below the costal margin and above the inferior gluteal folds, with or without leg pain (sciatica).¹⁻³

A psychiatric disorder is a diagnosis made by a mental health professional of a behavioral or mental pattern that may cause suffering or a poor ability to function in life. Such features may be persistent, relapsing and remitting, or occur as a single episode. Many disorders have been described, with signs and symptoms that vary widely between specific disorders.⁴⁻⁶

Despite its clinical importance, psychiatric disorders are often overlooked in busy pain clinics. Most previous studies on psychiatric morbidity in CPPs are based on older versions of psychiatric diagnostic

classifications. Many of them didn't use reliable structured instruments in making diagnoses, resulting in highly variable prevalence rates.⁷⁻⁹ CLBP is a common pain condition; it results in significant personal, social and occupational impairment, role of disability and health care utilization. Epidemiologic studies have found that CLBP is co-morbid with psychiatric disorders, other Chronic Pain (CP) conditions (migraine, arthritis and headache) and with chronic physical conditions.¹⁰⁻¹² Hence, the present study was undertaken to assess the incidence of anxiety and depression in patients with chronic low back pain.

MATERIALS & METHODS

The present study was undertaken to assess the incidence of anxiety and depression in patients with chronic low back pain. The study was carried out on the patients with CLBP. Patients diagnosed to be of CLBP, were included. A total of 50 patients with the chief complaint of CLBP were included. Socio-demographic Performa were filled containing the basic information about the patient. Full psychiatric

assessment was done in these patients to assess the presence of anxiety and depression. Disability was assessed using Oswestry low back pain scale. The Oswestry Disability Index (ODI) is calculated by dividing the summed score by the total possible score,

which is then multiplied by 100 and expressed as a percentage. All the data were recorded and analyzed by SPSS software Version 17. Chi-square test was used for the assessment of level of significance. P-value of less than 0.05 was taken as significant.

RESULTS

Out of the group of 50 subjects, majority of them i.e. 52 % were in the age group of 35 to 49 years. Majority of the subjects were females' i.e. 70% while the remaining were males i.e. 30%. Anxiety was found to be present in 18 percent of the patients while the depression was present in 44 percent of the patients. According to ODI, minimum disability was seen in 4 patients while moderate and severe disability was seen in 50 percent and 40 percent of the patients respectively. While correlating anxiety and depression with ODI in patients with CLBP, significant results were obtained.

Table 1: Distribution of patients with chronic low back pain according to their presence of anxiety and depression

Psychiatric Disorder	No. of Patients	Percentage
Depression	22	44
Anxiety	9	18
None	19	38
Total	50	100

Table 2: Distribution of patients with chronic low back pain according to the disability index

Disability Index	No. of Patients	Percentage
Minimum Disability	4	8
Moderate Disability	25	50
Severe Disability	20	40
Crippled	1	2
Total	50	100

Table 3: Correlation of anxiety and depression with ODI

Correlation	95% CI	p- value
Anxiety	-1.23 to 2.51	0.00 (Significant)
Depression	-2.16 to 1.84	0.01 (Significant)

DISCUSSION

CP is a complex phenomenon, involving sensory, cognitive, affective, and behavioral components. Activity intolerance is a problem which is often reported by patients with CLBP. As a result of their back pain, they perceive a disabling reduction of their level of physical activity. Fear of movement/(re)injury has been reported to be strongly associated with activity limitations, often stronger than pain severity. Depression is the main parameter addressed in majority of the studies associated with assessment of psychiatric morbidity in CP populations. Recent epidemiological data have shown a strong association between generalized anxiety disorder and pain conditions, while only a few studies have shown higher odds of alcohol use disorders among individuals suffering from pain disorders. Hence, the present study was undertaken to assess the incidence of anxiety and depression in patients with chronic low back pain.

In the present study, out of the group of 50 subjects, majority of them i.e. 52 % were in the age group of 35 to 49 years. Majority of the subjects were females' i.e. 70% while the remaining were males i.e. 30%.

Anxiety was found to be present in 18 percent of the patients while the depression was present in 44 percent of the patients.

Von Korff et al (2005) suggested that CBP is also significantly associated with mood, anxiety (except agoraphobia without panic) and alcohol abuse and dependence disorders. As observed by Tsang et al (2008), various CP conditions (headache, back or neck pain, arthritis or joint pain) are associated with depression-anxiety spectrum disorders both in developed and developing countries.^{8, 9} Although an association between CLBP and psychiatric disorders has been repeatedly demonstrated, little is known about the temporal relationship between the two, as most studies are based on clinical samples and cross-sectional data. Fishbain et al analysed 40 studies addressing the temporal relationship between generic pain and major depression. However, no firm conclusions could be drawn as most of these studies differed in study design, methods and definition to identify depression. Fishbain et al stated that more support was found for the hypothesis that pain precedes depression, although some of the selected

studies found depression to be a predictor of first onset pain.^{10, 11}

In the present study, according to ODI, minimum disability was seen in 4 patients while moderate and severe disability was seen in 50 percent and 40 percent of the patients respectively. While correlating anxiety and depression with ODI in patients with CLBP, significant results were obtained. Farajirad E et al evaluated a broad range of psychiatric disorders in patients with CLBP and compared them with those of the control group. Symptom Checklist 90-R was applied to compare 50 CLBP patients in the case group with 100 participants without it in the control group. The questionnaire measured somatization, obsessive-compulsive disorder, depression, anxiety, phobic anxiety, hostility, interpersonal sensitivity, paranoid ideation, and psychoticism. Average scores for all test dimensions were significantly different between the two groups ($P = 0.00$). All dimensions were significantly more common in CLBP patients. They concluded that early diagnosis and treatment of these disorders may improve the outcome of CLBP.¹²

CONCLUSION

A significant proportion of subjects with CLPB are affected with anxiety and depression.

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