

Original ARTICLE

Assessment of the prevalence of anxiety and depression among chronic low back pain patients

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ABSTRACT:

Abstract

Background: Chronic low back pain (CLBP) patients often show a fear- and depression-related behavior with social retreat and less physical activity. Hence; the present study was undertaken for assessing the prevalence of anxiety and depression among chronic low back pain patients. **Materials & methods:** Study was conducted on 150 patients who were diagnosed to be suffering from CLBP that lasts longer than 12 weeks. Socio-demographic Performa were filled containing the basic information about the patient. Prevalence of anxiety and depression was assessed among CLBP patients. 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:** The overall prevalence of anxiety and depression was found to be 29.17 percent and 21.67 percent respectively. While assessing the age and gender wise distribution of patients with anxiety, non-significant results were obtained. While assessing the age and gender wise distribution of patients with depression, non-significant results were obtained. **Conclusion:** CLBP patients are significantly affected by anxiety and depression. Hence; adequate psychiatric treatment should be started as soon as possible for improving the quality of life.

Key words: Chronic low back pain, Anxiety, Depression

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This article may be cited as: Sharma P, Ahmed SK, Narang D. Assessment of the prevalence of anxiety and depression among chronic low back pain patients. HECS Int J Comm Health Med Res 2020; 6(1):56- 58.

INTRODUCTION

An association between chronic pain and depression has been recognized for a long time. A similar association has been recognized in terms of anxiety disorders. Studies of patients with anxiety neurosis have shown that a significant number of these patients have pain complaints. In fact, the incidence of pain complaints amongst patients with anxiety neurosis of generalized anxiety disorder is often greater than that seen amongst patients with major depression. Further, patients with depression who have pain complaints are reported to have a high incidence of both vegetative and psychic anxiety. Chronic low back pain (CLBP) patients often show a fear- and depression-related behavior with social retreat and less physical activity. Increasing pain is associated by decreasing muscular capacity of the spine stabilizing muscular system.¹⁻⁴

Reduced quality of life is common among patients suffering from chronic low back pain. Anxiety and depression are the two most

common forms of psychological disturbances seen in patients with chronic backache. This combination—depression, anxiety, and pain—is associated with worse clinical outcomes than each condition alone.⁴⁻⁶ Hence; the present study was undertaken for assessing the prevalence of anxiety and depression among chronic low back pain patients.

MATERIALS & METHODS

The present study was conducted in the department of psychiatry of the medical institute and it included assessment of psychiatric illness in chronic low back patients. Study was conducted on 150 patients who were diagnosed to be suffering from CLBP that lasts longer than 12 weeks. Written consent was obtained from all the patients after explaining in detail the entire research protocol.

Inclusion Criteria

- Patients with age group of between 18 to 60 years of age

- Patients who reported to the Department of Orthopaedics with CLBP

Exclusion Criteria

- Patients who were unable to undergo psychiatric evaluation and testing
- Patients with mental retardation
- Patients with history of any trauma or traumatic injury

Socio-demographic Performa were filled containing the basic information about the patient. Prevalence of anxiety and depression was assessed among CLBP patients. 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

In the present study, anxiety and depression was found to be present in 35 patients and 26 patients respectively. Therefore; the overall prevalence of anxiety and depression was found to be 29.17 percent and 21.67 percent respectively. While assessing the age and gender wise distribution of patients with anxiety, non-significant results were obtained. In the present study, while assessing the age and gender wise distribution of patients with depression, non-significant results were obtained.

Table 1: Prevalence of anxiety and depression among patients with chronic low back pain

Parameter	Number of patients	Percentage of patients
Anxiety	35	29.17
Depression	26	21.67

Table 2: Age and gender-wise distribution of patients with anxiety

Parameter		Anxiety		p- value
		Present	Absent	
Age group	Less than 40	18	46	0.75
	More than 40	17	39	
Gender	Males	21	41	0.29
	Females	14	44	

Table 3: Age and gender-wise distribution of patients with depression

Parameter		Anxiety		p- value
		Present	Absent	
Age group	Less than 40	14	50	0.51
	More than 40	12	44	
Gender	Males	15	47	0.34
	Females	11	47	

DISCUSSION

Low back pain is nearly ubiquitous in society. Many published guidelines for the diagnosis and management of chronic low back pain are available. Non-organic low back pain also occurs and can be divided into several categories, including psychosomatic spinal pain (tension syndrome fibrositis, or muscle tension generated physiologically by anxiety); psychogenic spinal pain (somatisation of anxiety into neck or back pain with no physiological changes, as in a conversion reaction); psychogenic modification of organic spinal pain (an emotional reaction that

modifies the appreciation of an organic pain); and situational spinal pain (litigation reaction, conscious over concern of exaggeration).⁵⁻⁷ Emotional stress has long been recognised as a contributor to pain and/or its perception. Anxiety and depression are two most common forms of psychological disturbances seen in patients. Back symptoms are frequently accompanied by depression or anxiety and psychological distress.^{8, 9} Hence; the present study was undertaken for assessing the prevalence of anxiety and depression among chronic low back pain patients.

In the present study, anxiety and depression was found to be present in 35 patients and 26 patients respectively. Therefore; the overall prevalence of anxiety and depression was found to be 29.17 percent and 21.67 percent respectively. Oliveira DS et al assessed the effectiveness of the usual multidisciplinary approach provided to CLBP patients and to explore the impact of anxiety and depression symptoms and their interaction on clinical outcomes. Anxiety and depression symptoms were assessed with the Hospital Anxiety and Depression Scale (HADS). The Brief Pain Inventory (BPI) and the Shortened Treatment Outcomes in Pain Survey (S-TOPS) were used to assess outcomes. Linear mixed effects models were used to assess the impact of anxiety, depression, and their interaction on treatment outcomes. A total of 284 patients (age 60.4 ± 13.7 years, 74.6% female) with CLBP were included at baseline. The majority of patients had both anxiety and depression and experienced higher pain severity (P < 0.001) and higher pain-related disability (P < 0.001). Anxiety and depression mainly predicted changes in pain interference over time. Their interaction significantly predicted changes in pain interference. Anxiety, depression, and their interaction are associated with changes in pain disability at one-year follow-up. These findings encourage the pretreatment screening of anxiety and depression as independent symptoms in patients with CLBP in order to design more tailored and effective multidisciplinary treatments.¹⁰

In the present study, while assessing the age and gender wise distribution of patients with anxiety, non-significant results were obtained. While assessing the age and gender wise distribution of patients with depression, non-significant results were obtained. Sagheer MA et al assessed the prevalence of anxiety and depression in chronic low back pain population at a tertiary care centre. The prevalence of anxiety and depression in chronic low back pain patients was studied according to specified age and gender groups using Hospital Anxiety and Depression Scale. Of the 140 patients in the study, 66 (47.14%) were females and 74 (52.85%) were males. The average age of the patients was 43.02 ± 13.34 years. The average duration of symptoms was 4.29 ± 3.3 years. Abnormal level of anxiety and depression were found in 77 (55%) and 68 (48.57%) patients respectively. Out of them 54 (38.5%) and 51 (36.4%) were borderline abnormal for anxiety and depression respectively, while 23 (16.4%) and 17 (12.1%) were abnormal for anxiety and depression respectively. Among the males, there were 20 (14.28%) and 23 (16.42%) patients with abnormal levels of the corresponding numbers among the females were 57 (40.71%) and 45 (32.14%). There was a significant association in anxiety (p < 0.01) and depression (p < 0.01) levels with respect to gender and no significant association with respect to age (p > 0.05). Individuals with chronic low back pain were at high risk to experience anxiety and depression. This risk was higher for females.¹¹

CONCLUSION

From the above results, the authors concluded that CLBP patients are significantly affected by anxiety and depression. Hence; adequate psychiatric treatment should be started as soon as possible for improving the quality of life.

REFERENCES

1. Clarke J, van Tulder M, Blomberg S, de Vet H, van der Heijden G, Bronfort G. Traction for low back pain with or without sciatica: an updated systematic review within the framework of the Cochrane collaboration. *Spine (Phila Pa 1976)* 2006;31:1591–1599.
2. Kayhan F, Gezer IA, Kayhan A, Kitiş S, Gölen M. Mood and anxiety disorders in patients with chronic low back and neck pain caused by disc herniation. *Int J Psychiatry Clin Pract.* 20(1):19–23.
3. Huskisson EC. Measurement of pain. *Lancet.* 1974;2:1127–1131.
4. Delitto A, George SZ, Van Dillen LR, Whitman JM, Sowa G, Shekelle P, et al. Orthopaedic section of the American Physical Therapy Association Low back pain. *J Orthop Sports Phys Ther.* 2012;42(4):A1–57.
5. Sagheer MA, Khan MF, Sharif S. Association between chronic low back pain, anxiety and depression in patients at a tertiary care centre. *J Pak Med Assoc.* 2013;63(6):688–690.
6. Castro MCC, Quarantini LC, Daltro C, Pires-Caldas M, Koenen KC, Kraychete DC, et al. Co-morbid depression and anxiety symptoms in patients with chronic pain. *Arquivos de Neuro-Psiquiatria.* 67(4):982–5.
7. Coons S, Al Abdulmohsin SA, Draugalis JR, Hays RD. Reliability of an Arabic version of the RAND-36 health survey and its equivalence to the US-English version. *Published Med Care.* 1998;36(3):428–432.
8. Beattie PF, Nelson RM, Michener LA, Cammarata J, Donley J. Outcomes after a prone lumbar traction protocol for patients with activity-limiting low back pain: a prospective case series study. *Arch Phys Med Rehabil.* 2008;89:269–274.
9. El-Rufaie OE, Absood G. Validity study of the hospital anxiety and depression scale among a group of Saudi patients. *Br J Psychiatry.* 1987;151:687–688.
10. Oliveira DS, Vélia Ferreira Mendonça L, Sofia Monteiro Sampaio R, Manuel Pereira Dias de Castro-Lopes J, Ribeiro de Azevedo LF. The Impact of Anxiety and Depression on the Outcomes of Chronic Low Back Pain Multidisciplinary Pain Management-A Multicenter Prospective Cohort Study in Pain Clinics with One-Year Follow-up. *Pain Med.* 2019 Apr 1;20(4):736-746.
11. Sagheer MA1, Khan MF, Sharif S. Association between chronic low back pain, anxiety and depression in patients at a tertiary care centre. *J Pak Med Assoc.* 2013 Jun;63(6):688-90.